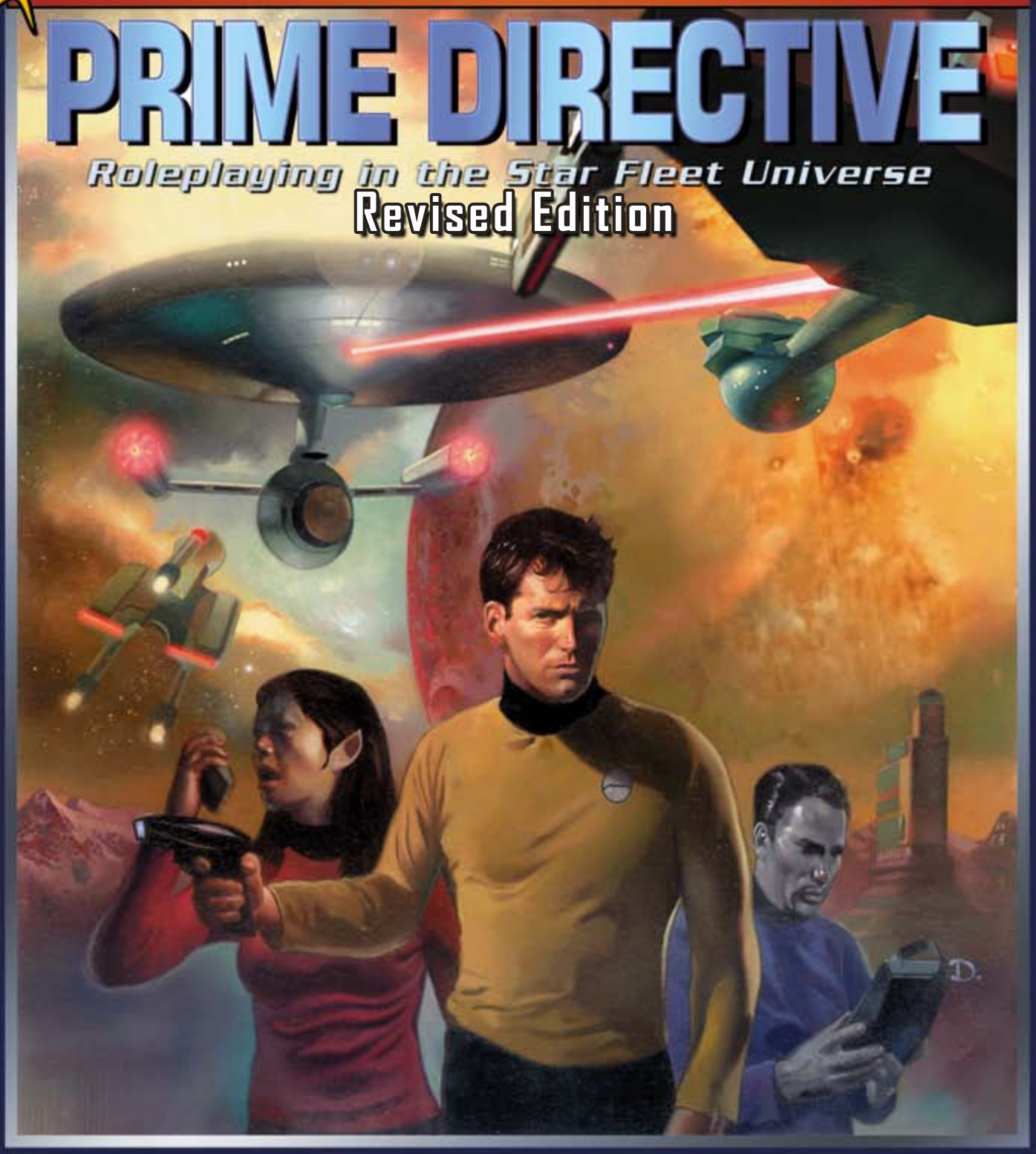
GURPS Fourth Edition

PRIME DIRECTIVE

Roleplaying in the Star Fleet Universe

Revised Edition



CORE RULEBOOK

Volume 1 and Volume 2



Roleplaying in the Star Fleet Universe

Revised Edition – For GURPS 4th Edition

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Other *GURPS* Books

The following **GURPS** rulebooks and manuals published by Steve Jackson Games will be found useful by players of ***GURPS Prime Directive (GPD).*** They can provide additional skills, rules, actions, and tactics. Some will provide non-player characters and equipment that, while not specifically related to the *Star Fleet Universe,* could be adapted by GMs (perhaps to populate a new planet for exploration). The ***GURPS*** system is vast and continually expanding, and you can often find an existing ***GURPS*** book that covers the setting you want to use for your campaign.

GURPS BASIC SET

The basic framework for the entire ***GURPS*** family of roleplaying games. The ***GPD 4e Rev Core Rulebook*** includes only some of the ***GURPS*** rules (those that specifically apply to the characters in this book). If you want to do more things, then the ***GURPS Basic Set*** is the place to look. Essential for GMs, it is the single most-recommended book for ***GPD*** players. These rules cover everything in more detail and depth and provide additional insight into the game structure. Many of the other ***GURPS*** books that would be useful to ***GPD*** players won't work very well without the ***GURPS Basic Set*** rules. Also available is a campaign manual and a ***GURPS GM's Screen.***

OTHER *GURPS* MANUALS from SJ Games

GURPS Fantasy and ***GURPS Magic*** include everything a Game Master could want to send his Star Fleet adventure team into really strange new worlds with really bizarre new civilizations. Remember that if alien technology is sufficiently advanced or different, *it might as well be magic*, so you'd be all set with these interesting manuals.

More ***G4e*** books that will surely be useful to Game Masters are ***GURPS Space, GURPS Ultra-Tech,*** and ***GURPS Spaceships***, as these will allow you to build starships and fight space battles. Also of considerable interest might be the ***GURPS Traveller*** (in both Classic and 4e), the ***GURPS Vorkosigan Saga Sourcebook and Roleplaying Game,*** and ***GURPS Transhuman Space Classic.*** Check the ***GURPS*** website: http://www.sjgames.com/gurps/ for continually updated information on new releases.

GURPS THIRD EDITION

The third edition of ***GURPS*** included over 100 books on a wide variety of subjects, from dinosaurs to steam punk, from robots to dungeons, from the wild west to World War II. Key elements included several science-fiction realms. Many of these manuals can still be found in game stores and online stores, and from Steve Jackson Games. Using conversion data (available on-line) and some effort, Game Masters can harvest these manuals for equipment, backgrounds, settings, planets, starships, and other things to populate and illustrate their campaigns. Order your manuals either through your local game store or through Warehouse 23: http://www.warehouse23.com/

More *Prime Directive*

The following ***GURPS*** manuals have been published by ADB, Inc., specifically as part of the ***Prime Directive*** series and the ***Star Fleet Universe.***

GURPS KLINGONS

Everything you ever wanted to know about the Empire of Steel. Government, how the emperor is selected, the military nobility, military academies, the difference between warriors and civilians, the warrior colonies, military ranks and promotion, military awards and decorations, the Knights Paladins (the emperor's personal inspectors and auditors), Klingon religions, the intelligence services that spend most of their time spying on each other, data on dozens of Klingon ships, and much more.

SKU 8403, $24.95, Released 2006.

GURPS ROMULANS

Everything you ever wanted to know about those distant cousins of the Vulcans. The royal family, the role of the praetor, the great houses and how they wheel and deal in the back hallways of the palace, the role of the Intendance Department, intelligence services and praetorian teams, colony planets, the previously unknown suppressed races along the galactic rim, the development of the cloaking device, starships, and much more.

SKU 8404, $24.95, Released 2005.

GURPS FEDERATION

Everything you ever wanted to know about the United Federation of Planets. Government, political parties, the intelligence agencies, Star Fleet Academy, surveys of a dozen member planets, Star Fleet, the Marshal's service, corporations and the dominant role of business, the Prime Directive, the Non-Interference Doctrine, and much more.

SKU 8402, $24.95, Released 2011.

KLINGON G1 GUNBOAT DECK PLANS

Detailed plans in Traveller-scale (with both hexes and squares) for the G1 gunboat (including its larger command variant), showing engines, crew positions, power systems, weapons, sensors, repair systems, and color "cardstock characters" for all 27 members of the crew.

SKU 8201, $16.95, Released 2004.

Glossary

GURPS is a roleplaying game (RPG), a game in which a referee (the Game Master) guides several players through an "adventure" in which they play the parts of fictional characters. Like any hobby, gaming has its own unique language. To help you understand the concepts and terms used in this game (and other RPGs), we'll start with a few definitions:

Adventure or Scenario: The basic unit of play in an RPG. An RPG is never over until the players want to end it, but a single adventure will have a beginning and an end. It may last through several sessions of play or be done in a single evening.

Attribute: Part of a character's mental, emotional, or physical makeup (e.g., strength, intelligence).

Campaign: A continuing series of adventures by a group, it will usually have a continuing cast of player characters and the same Game Master (or team of GMs). A campaign may move from one game world to another, with a logical reason. The overall goal is for characters to learn from each adventure so that they can handle tougher challenges in future adventures.

Character: Any being (person, animal, whatever) played by the GM or a player in an RPG.

Encounter: One part of an adventure; a meeting between the player characters and one or more NPCs.

Game Master (GM): The referee, who selects or writes the adventure, talks the players through it, and judges the results. He is, simultaneously, the enemy, commanding officer, and umpire.

Game World: A background for play; the setting for an adventure, it can be a GM's own fantasy creation or a published setting created specifically for gaming.

Non-Player Character (NPC): Any character played by the GM. The GM may control many characters, major and minor. In some campaigns, the party might borrow an NPC who is a technical expert needed for a mission; the GM supervises such use to prevent the party from misusing or sacrificing the NPC. Sometimes a guest player thinking of joining the group might use a borrowed NPC so that he doesn't have to create a character before starting.

Party: A group of PCs taking part in an adventure.

Player Character (PC): Any character played by one of the players. Typically, each player controls a single character, but some groups prefer to have each player control two or more, or to have two or more characters and pick one for each adventure.

Roleplaying Game (RPG): A game in which the players take on the personalities of imaginary individuals, or characters, in a fictional or historical game world, and try to act as those characters would.

Skill: Something a character knows how to do.

Species (sometimes called "Race"): The species to which you belong. Nonhuman characters (elves, dwarves, Klingons, and Martians, for example) are common in RPGs.

Stats or Statistics: Numbers rating a character's abilities, used to determine what each one can and cannot do.

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Rescue on Roon

0200 Hours, The Swaggering Dragon,
North Roon City, Planet Roon

"Let me get you another round," the waitress said, whisking away the empty glasses. Christopher Plemmons nodded vaguely and returned his attention to the girl across the table. She was sweet and pretty and seemed genuinely interested in his plight.

"I can't blame Father too much for bringing me here," Christopher said, "at least not since I met you."

"I feel the same way," Kaelyn replied. "I was happy in the country where I could walk and ride my renoth across the fields, but Daddy got a big promotion and dragged me here to Roon City where I don't know anyone. The locals are such snobs. They won't hardly talk to me since I am just a 'country girl' and don't know anything about the city. I haven't had a single friend until I met you."

"Lost souls clinging together," Christopher replied, taking the refilled glasses from the waitress. His father's credit chit would stand a few more rounds, and for dragging Christopher to this backwater planet that wasn't even a member of the Federation yet, Father owed him more than just drinks. Christopher had been bored, lonely, and angry for the three months he had been here, but since meeting Kaelyn two nights ago, things had definitely improved. Not that his father had noticed.

His conversation with Kaelyn wandered from light to deep, from which restaurant they might try tomorrow to what they really wanted to do with their lives. Christopher mentioned that he would be going to a university in another year, and Kaelyn mentioned that she had applied for the off-world exchange student program that was part of the Federation's provisional trade mission. Maybe there was hope that something serious could come of their chance meeting?

"Have you seen the winter lights yet?" Kaelyn asked.

"No, what are they?" Christopher replied, intrigued.

"I can't believe you don't know!" Kaelyn exclaimed. "They're like fire in the sky, like shimmers of color. It's got something to do with electrons and high altitude water vapor and … well, it doesn't matter. They're … just pretty, and I want to show them to you."

"So … do we find a monitor? … or go outside?"

"No, silly, you cannot see them in the city. All of the lights here make them too hard to see. We'd have to drive a few kilometers out into the country. I know a place with trees and grass, quiet and romantic …" she let her voice trail off.

"OK, how do we get there? Is there a local shuttle?"

"No, silly …" Kaelyn laughed, throwing back her hair in a way that mesmerized him. "I have a ground car. Let's go."

"Now?" Christopher sputtered as he took another drink.

"Now is always the best time!" Kaelyn said. "I don't have to work tomorrow, and you said your father would still be tied up in the trade talks. We can watch the winter lights, and then later, watch the dawn." Her sparkling eyes promised more than just a view of the night sky, and Christopher scrambled to grab his jacket and catch up to her.

1400 Hours, Captain's Office, Light Cruiser
***USS Tasmania,* En Route to Roon**

"Come in, Grissom, and sit down."

"Yes, Sir," Lieutenant Commander Grissom replied, taking the chair the captain had indicated.

"You know that we have just changed course?" the captain asked.

"I noticed," Grissom replied, waiting for the captain to explain the rest. It did not pay to hurry one's commanding officer.

"You've read the file on Roon, I trust," the captain asked.

"Class-M planet inside Fed space. We've been watching it for some time. Their technology reached warp capability last year, so the Federation sent an envoy to welcome them to the galactic community. By all accounts, the population took it rather well. Some indication that Orion traders have been doing clandestine business there for a decade or more. I do believe there is a Federation trade delegation on the planet right now and that we are scheduled to 'stop by' sometime next month and give the local big shots a joyride around their solar system. *That* Roon?"

"The very one," the captain replied. "Seems that someone kidnapped the son of the delegation leader, and is pressuring him to walk out of the talks."

"I smell Orions," Grissom responded. The captain frowned at the interruption and resumed his briefing.

"Rather than following instructions and keeping it quiet, Envoy Plemmons told the Federation ambassador and together they called me. The ambassador called the local government and asked them to send their special police unit to get the kid back."

"Sensible enough," Grissom replied. "Any civilized planet has a hostage rescue capability of some kind. What's in this for us?"

"Apparently, a hostage rescue job," the captain replied. "The local police don't want to go in there and take a chance on getting the hostage killed. Seems that in some recent matter, one with no interplanetary implications, the Roon hostage rescue team blew it and some hostages were executed. All the police will do is negotiate, and the envoy told them he would do that himself."

"Please let me know how the negotiations turn out," Grissom replied as the sinking feeling settled into the pit of his stomach.

"Not an option, apparently," the captain sighed. "The kidnappers set a deadline, and the ambassador has asked us to do the rescue, tonight."

"The Roon government isn't going to like that," Grissom said. "I can see the local trivideo coverage of the 'Federation Invasion' of their sacred soil. The opposition party will have a field day."

"You only hope," the captain responded. "No, the Roon government is more than willing for us to

intervene. They actually *want* us to go in and rescue the kid. They just don't want to get blamed if the rescue goes wrong, or if no rescue is tried at all."

"As Hindenburg said, 'send the police to arrest them.' Come on, Captain, we're military. This is a police matter. Nobody on this ship is trained for a hostage rescue job. The Federation has police for this. They have their own patrol ships, and they are trained for jobs like this one. Hell, the local police flagship probably has a prime team on board *just* for things like this."

"Strangely enough," the captain explained "the two Federation police ships in this sector have both been called away due to increased Orion pirate activity in the Delaram system. Convenient, isn't it?"

"OK, we all swore the oath to defend the Federation Charter," Grissom sighed. "I presume that you'll send Lieutenant Yahnke and his Marines? What support can my weapons department provide for them?"

"Actually, Commander, you will be leading the mission. You can pick your team, and you probably want Lieutenant Yahnke and one or two of his troops. Talk to him about who else you want to take, but keep the team small, no more than five or six in total. If things go wrong, I will want to get you out of there in a single transporter lift."

"Why me?" Grissom asked.

The captain steepled his fingers. "Mister Grissom, this mission needs a senior officer who can think on his feet and improvise when things go wrong, who can deal with things I cannot anticipate in my orders. While Lieutenant Yahnke is quite capable, he'll expect, and we'll supply, direction for him. You're a command-qualified officer of the unrestricted line. Star Fleet doesn't hand out gold tunics for nothing. And of my command grade officers, you're in the best physical condition *and* you shot Expert with a phaser pistol two months ago." The captain managed a faint smile. "No good deed goes unpunished, Commander."

The intercom chimed.

"Captain, sorry to intrude," came a voice over the comm, "but you asked to be told when Lieutenant Yahnke got to the bridge."

"Excellent," the captain replied. "Send him in." The door whooshed open, and the burly Marine lieutenant stepped into the room and snapped to attention.

"First Lieutenant Yahnke reporting as ordered, Sir!"

"Belay that, Lieutenant, and sit down." The captain quickly briefed the Marine on the situation.

"Need intel," Yahnke frowned. "Where is the hostage? What kind of guards are holding him? How many?"

"Everything is in this file," the captain explained, handing both officers datapads. "The younger Mister Plemmons was seen leaving a nightclub with a young lady he had met recently. Police found out that the waitress had helped set up the kidnapping. She gave them a lead on a local businessman; police confirmed it. The young lady's car was found parked near one of his warehouses."



"And what a warehouse it is," Grissom whistled. "None of the locals noticed that it's sitting on an outcropping of trithallium ore?" That material would block transporters and most sensors, making any underground facilities impossible to probe from outside.

"Warehouse wasn't built until … hmm, two local years ago, three standard," Yahnke jotted down a note. "Roon doesn't *have* our advanced sensors, the ones that *cannot* probe through trithallium, not that theirs can either, so the locals don't realize the significance. The company paid through the nose for the property, and relocated the former tenants into new houses 20 kilometers away."

"I smell Orions," Grissom said. The others nodded.

"They've probably got him underground," Yahnke sent data to the other pads. "I've annotated the blueprints they filed with the planning office; probably been changes since the walls went up. Excavation permit says warehouse number eight is … here." He paused to think it through.

"Here's what we do. Transport to a storeroom of this warehouse, stun a few guards, crack the locks into that elevator, search the underground complex, deal with more guards, find the hostage, pick up any evidence, and get back up the elevator shaft to a point that transporters can pick us up … Sounds doable."

"Sounds sneaky," Grissom said. "I would have expected blazing phasers and the red glare of rockets."

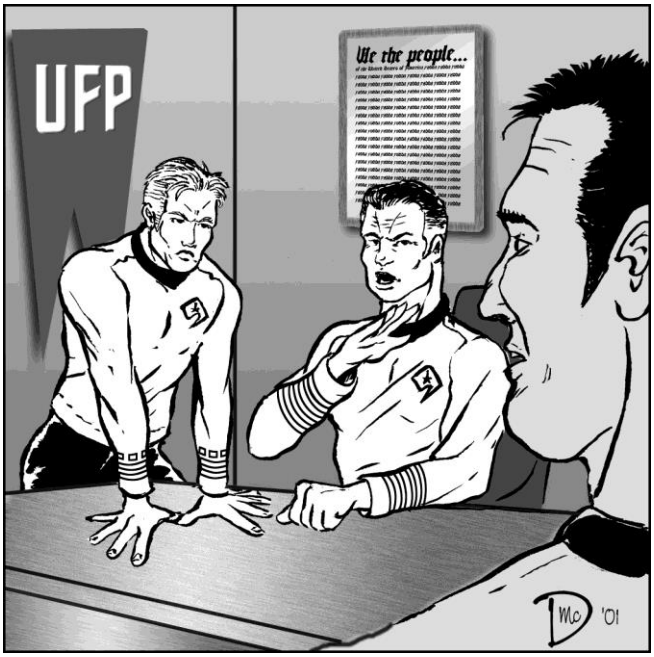
"A main force rescue would be too noisy," Yahnke explained. "They'll kill the kid if they hear us coming. This takes stealth. We have to sneak in, not blast our way in."

"Then I want Daneric-Tren," Grissom said. "He's an engineering technician who spent two years working on a self-contained colony world. He can figure out their elevators and ventilation shafts. And I want Stulak."

"He's the junior science officer … *and a botanist!"* the captain objected.

"He's *Vulcan,* which will make interrogations a lot faster if we need the passcodes for a locked door or have to find out anything else is a hurry."

"And Corporal Kilrathie," Yahnke said. "Nobody is better at silent take-downs, if we have to go that route. And I want Private Dellik out of the brig immediately."



"No chance!" the captain snapped. "She's a thief, and I won't have her running loose on my ship. I'm holding her until we can investigate who accepted her enlistment. She can sweet-talk any man out of his money while stealing his phaser at the same time."

"You said it, Captain," the Marine replied, "I rest my case. I'll need your authorization to get her out of the brig. If she helps us and gives a full statement, we ought to consider a general discharge and leave her on some planet. Call it an incentive."

"And, Captain," Grissom reminded, "she did put back everything she stole before we caught her. It's just a game to her. We can't have that on a starship, of course, but she's not a criminal, just a really good thief."

"Preposterous!" he spluttered. "Ok, but I'm holding you two personally responsible for her conduct."

"Deal," Yahnke responded. "I need some flash-bangs."

"We don't have any on board," Grissom advised.

"Make them," Yahnke ordered, "…Sir."

"No time, they're too complex," the captain advised.

Yahnke growled. "I'll need cargo bay two until planetfall with no interruptions. Commander, if you'll gather up the Navy half of our team, and ask engineering to send a crew of repair technicians to the cargo bay with damage control kits, I will get my people and see you there."

"What?" Grissom asked. "Why?"

"Simulations. The engineers will bash together a mockup of the target, and we'll run rehearsals all the way to planetfall."

"That's six hours," Grissom objected. "Everybody picked for the mission is on the day shift. We need to feed them and bed them down."

"Nice theory," the Marine explained, "Don't have time. If we hit the ground after local dark, we'll be back in an hour, and that won't be too much past everybody's bedtime. Buck up, Mister Grissom, you're going to get tired. Did you think that every mission was going to be scheduled for just after breakfast? You're in the Marines now."

2300 Hours, Basement of Warehouse #8, Celotex Import Export, Planet Roon

"Is the brat still whining?" Melika asked.

"Yes," her sister Annitha responded. "If that's an example of Federation manhood, I'll stick to the locals."

"Not me," Besslith answered. "Lieutenant Kahl is going to take me with him on his next run, and I'll knock the dust of this planet off my feet for the last time."

"You and your Orion lover," Melika sneered. "You can't really think he's serious. He's probably got a girlfriend on every planet. Father told you not to get involved with him. They're just business associates. They buy, they sell, and they leave."

"Did I say anything about marrying him?" Besslith answered. "I want space, not a husband, and he'll get me to the nearest Orion base where I can get a working passage on a ship and start learning how starships work. By the time I'm 40, I *will* be the captain of my own raider."

"The Orions aren't going to like this kidnapping business," Annitha said. "Draws attention. Why do you think they didn't try to stop the Federation from giving Roon a trade deal? They can smuggle in more stuff if legal products are arriving as well. The only one who profits from blocking the trade deal is our father, who wants to keep the off-world trade illegal, and under his exclusive control. Once the Orions figure out what he did, he's going to lose his franchise, if not a lot more."

"The Orions won't care one way or the other," a male voice interrupted. Their brother, Michalik, had walked into the underground office as his sisters argued. "Sure, with open trade they can smuggle in more, but they won't make as much profit on each shipment. Same coin, either way."

"How are the negotiations going?" Melika asked him.

"Very well. Father is working through a series of intermediaries, but the Federation representative is being very agreeable. Seems he didn't really want a trade deal anyway; it was just a Federation ploy to get more concessions out of our enlightened government over a period of years. He's going to give the President a laundry list of conditions for any trade deal, everything from changing the minimum wage to restricting the age of workers. The idea seems to be some kind of 'level playing field' that the Feds want to establish so that prices will be fair. Our government is concerned about high-tech imports making entire business sectors obsolete, while the Federation trade rep

seems terrified of the idea that we might charge two centos less a ton for grain than some other planet is charging."

"Sounds promising," Melika said. "Maybe we didn't have to kidnap the brat after all."

"Maybe not," Michalik admitted. "The trade rep has asked for another day, but Father is sticking to his deadline of noon tomorrow. He wants the Federation rep to make impossible demands of the government and then withdraw for consultations and go back to wherever he came from."

"He'll do it," Melika said. "The brat is the kind of kid who got everything he ever wanted, which means that his daddy is going to be very willing to do anything to get him back. Obviously a very closely knit family."

"Speaking of family," Michalik changed the subject, "where is Kaelyn?"

"Down the hall having a party," Besslith replied.

"She's not with the prisoner, is she?" Michalik asked. "It was all just an act?"

"Hell no," Annitha sneered, "she brought Dahler down here to keep her company."

"To keep you company, too, Annitha," Besslith teased. "Want to explain where you were an hour ago?"

"WHAT?" Michalik roared, "you brought that dimwitted stable boy down here? Can't you girls keep focus for one single night? We need to be alert. I left Chucst guarding the gate upstairs, but we can't rely on him alone. One of you needs to get a pistol and a radio and get back to the elevator and stand guard."

"Why?" Annitha asked. "The police are hardly going to send in their hostage unit when nobody has told them there is a hostage to rescue. And the trade rep is hardly going to risk his precious boy, or the trade deal he doesn't want, by sending Federation troops in here. The door is locked, the brat is tied up, there's bouza in the cooler, and all we have to do is wait for father to call. Then we throw the brat in the groundcar and leave him tied to a tree somewhere."

"Cool your drives, brother," Besslith advised. "We just have to wait a few more hours. But I'll go play guard if it pleases you."

2300 Hours, Cargo Bay #2, Light Cruiser *USS Tasmania,* In Orbit above Roon

"Excuse me, Commander," First Sergeant Bourne said, "allow me to adjust this strap for you. It will ride much easier this way."

"Thank you, Top," Grissom replied. While First Sergeant Bourne was not going on the mission, he was the senior Marine sergeant on board, and he insisted on inspecting everyone's gear to make sure it was properly fastened and riding securely … and silently … on their back, shoulders, and waist. Grissom hadn't had a sergeant fussing over his gear since survival school a decade before, and found himself alternately annoyed and grateful at being shown that he had worn the gear wrong the last few times he had gone on a tactical landing (and had put it back wrong after Bourne had corrected it earlier). Bourne moved



on, repeating his apology to Dellik that she was not being issued a phaser.

The rehearsals had started off poorly, a real comedy of errors, as everybody did everything wrong, got into each other's way, dropped equipment without realizing it, or took up a position facing the wrong way. First Sergeant Bourne, without being told to, had rounded up a few Marines to stand in as security guards and a puffy-faced ensign to pretend to be the hostage.

Once they had the hang of the equipment and the mission, the Marines began throwing curve balls. The hostage wasn't here. The hostage was already dead. The hostage was unconscious. There were two hostages. The guards were alert. The guards were asleep. Once a maintenance technician wandered into the exercise without anyone knowing it, and Grissom was proud that his team had stunned the man and bundled him out to the evacuation point without missing a beat. They weren't a real hostage rescue team, but they were a lot better than they had been a few hours ago.

"Grissom, are you ready?" the captain asked as he walked into the compartment.

"Yes, Sir," Grissom replied.

"Good." The captain motioned for the team to break ranks and gather around. "We're in a parking orbit over the facility, and I've got the sensor crew scanning it. No reaction, no alarms. They report that almost no one is there. It's hard to get readings against the trithallium background, but they can only find a few guards on the gates and in two of the buildings, plus what looks like a night cleaning crew in the offices."

"I'll want to review the scans myself," Lieutenant Yahnke interjected. "Is our planned beamdown point clear?"

"Nothing there that we can see," the captain replied. "We've scanned every spectrum we can think of, but there could be physical alarms, motion detectors, heat sensors, and the like."

"Not likely in that area," Dellik said. "They'll have the outer walls wired, and the area around the elevator, but you can't afford to put sensors in *every* room of a warehouse complex that big. If the burglars get past the outer walls and rooms and into the interior, it's too late to catch them. That's why I picked that room to land in."

"I don't know," Grissom said, rubbing his neck, "if the Orions are involved in this, they know what we can

do and they'll have alarms on every square meter of the whole building."

"If they do, we abort," the captain said. "We won't accomplish anything by getting caught, or by getting a bunch of people killed. We'll send down a sensor probe first to see if it triggers a reaction."

"Mind if I look at the scans, Captain?" Dellik asked. "I might see something."

"I have set up auxiliary control for your use," the captain advised. "You can access and control the ship's sensors from there."

"Fine. Dellik, come with me," Grissom said. "The rest of you stand by in Transporter Room Two."

"Begging your pardon, Commander," Lieutenant Yahnke said, "but we all need to go to Aux Con. Everybody needs to know the lay of the land, and anybody might see a solution to a problem."

2310 Hours, Auxiliary Control, Light Cruiser *USS Tasmania,* In Orbit above Roon

"I suspected that much," Dellik said, peering into the sensor scope at dancing lines of electromagnetic energy. "They're using a Brinks-Braxton 435. That's a fairly common alarm system, commercial grade, sold all over the Federation. But when we install one, we use substrate chips and crystal transdiodes; the Orions downgraded this one to use the local technology, basically transconductors and fiber optics and other stuff. Must not have wanted to give them higher tech."

"I don't even want to ask how you know that," the captain muttered.

"Study, study, study," Dellik grinned.

"All of which means…?" Commander Grissom asked.

"That we can use a tachyon burst to fuse this control node here," Dellik explained, "and the whole system 'fails negative' and won't report anything it detects."

"Fails negative?" Yahnke asked.

"It fails and they don't know it failed," Grissom explained. "The system will report that everything is working if they run a diagnostic."

"Won't work," the sensor technician said. "The bypass loop will detect the short."

"They didn't install one," Dellik said. The sensor technician gave her a surprised look. "Check the scan. See? There's where it should be, and it's not there."



"Lowest bidder," the technician smiled, shaking his head. "There is a lowest bidder on every planet."

"That's not your problem," Dellik said, pointing out something else. "They have old-fashioned cameras watching the front of the elevator, the inside of the elevator, the inside of the maintenance shaft, and, I can't tell but I'll bet, watching the door of the lower elevator lobby. Presuming someone is watching the security monitors, they'll see us as we move in."

"Solution?" Grissom asked.

"I've detected their signal relays and have already started copying the transmissions from the cameras. Give me 15 minutes and we'll have enough of their signal that I can broadcast a recorded picture back into their system, and they'll never know."

"Won't they recognize it's a loop?" Grissom asked. "I mean, an empty room is one thing, but this camera is showing the guard pacing back and forth in the upper elevator lobby. They'll figure out they're watching a loop."

"Only if we're amateurs," the sensor technician chuckled, winking at Dellik. "We'll just run the data stream we record through the computer and have it generate minor variations in a random pattern. He'll stop here, then there, turn around and go back, and so forth. Should fool them for half an hour, maybe more."

"What if they call him for something?"

"That's a chance we will have to take."

"I can't tap into the monitors in the lower level," the sensor technician said.

"We'll use a tricorder to blank them," Grissom said, "and we'll just have to move fast."

"These guards concern me," Corporal Kilrathie said. "If they get wind of us, they can bring two dozen armed men on top of us in a minute."

"Just have the captain stun them with the ship's phasers," Dellik shrugged. "What's the problem?"

"You watch too much trivideo," Grissom laughed. "Ship phasers cannot be used to stun humanoids at 200 kilometers. The power settings don't go that low, and a beam that weak couldn't punch through the atmosphere anyway."

"Tractor beam?" Dellik tried again.

"Controls are not that accurate," Grissom noted. "We can use tractor fields in the ship's crawl spaces because the distance is short and you do not need much power. But from orbit, we would uproot entire buildings. And we don't want to kill a lot of people if we don't have to."

"So, what's the plan?"

"We could just lock onto the guards and transport them a few miles away," Daneric-Tren suggested.

"We don't want to do that if they haven't noticed us," Yahnke warned, "and once they do notice, it would be difficult. Locking onto a running man isn't that easy. But we might keep that idea on standby for any of them reacting slowly enough or staying at their posts."

"Transporter spoilers?" Kilrathie asked. Star Fleet personnel carried small scramblers that made it hard, but not impossible, for an enemy to transport them.

This worked better inside a Federation ship where the scramblers were tied to the ship's integrity field.

"None in evidence," the sensor technician replied.

"Can we trip an alarm on purpose?" Daneric asked. "In one of the other buildings, to get half of them running to the wrong threat?" The sensor technician nodded and began picking sensors to set off with Dellik.

"Here's a thought," Grissom said. "We can pick up a cubic meter of water from some lake with a transporter and drop it on them … transport it a few meters over their heads, spread out over a three meter square. Should knock a man down, maybe out, without hurting him too much, and water doesn't leave a Federation signature."

"I'll have that set up," the captain said. "We'll even filter the fish out of the water. By the time you've walked down to Transporter Room Two, we'll have the node fused and the video channels spoofed. Good luck, all of you."

2328 Hours, Storage Bay Four,
Celotex Warehouse #8, East of Roon City, Roon

"Down and safe, no reaction," Grissom said quietly into his communicator. His team had transported down already in a crouch, and after materializing had frozen solid for 30 seconds waiting to see if alarms went off or guards burst in. The small sensor probe that had gone before them through the transporter was sitting on top of a crate. Daneric moved to flip the switch that would send it back to the ship.

"Nothing moving, no electronic response," came the voice from one of the ship's sensor technicians.

"Let's move," Grissom ordered. The team moved to the door, Grissom in the lead with Stulak scanning with his tricorder. Daneric-Tren and Dellik followed while Kilrathie and Yahnke scanned the flanks and rear. They were in a room of about 30 by 50 meters, and anything, from a sleeping guard to a sleeping dog, could be in the room with them and missed against the trithallium background.

Stulak scanned through the door with his tricorder. "The guard is present. He walks a path about five meters long, first facing toward us, then away."

"How far?" Kilrathie asked.

"At his closest approach, 5.62 meters," Stulak answered.

"Can you take him?" Yahnke asked. If Kilrathie could not take out the guard silently, they'd have to use a phaser on stun, and discharging an energy weapon might trigger other alarms they hadn't been able to fool. Even the fire alarm would bring more reaction than the team could handle.

Kilrathie nodded. Grissom made to open the door, but Stulak clamped his hand on the commander's wrist, motioning with his eyes to the right, where Daneric-Tren was busily applying lubricant to the door hinges. When Daneric nodded his OK, Grissom looked back to Stulak, who signaled when the guard had turned away from the team and the door they hid behind. Kilrathie exploded out of the barely open door and was on the guard in a split second, wrapping a strangle cord around his neck. The guard struggled for a few seconds, his screams silenced by the cord, until he slumped to the ground.

Yahnke ran forward, past Kilrathie, to scan around the corner. Grissom dove forward, leveling his phaser down the cross corridor. Nothing.

"No alarms," Stulak said, observing his tricorder.

"No reaction," came the voice of the sensor technician in Grissom's ear.

"Standard keypad security lock on the elevator," Dellik observed. "I can be through this in a flash." She started to unsling her tricorder, but Grissom signaled her to stop.

"Passive only, Private," he warned. "I don't want to trigger anything if we don't have to. It was enough risk having Stulak use an active scan through the door." Grissom motioned to Stulak, who let his tricorder swing back to his side and approached the felled guard. Dellik and Daneric watched spellbound as Stulak initiated a mind meld, but the others kept their watch in different directions for anyone approaching. A moment later, Stulak sat up.



"The hostage is indeed below," he reported, "along with several members of the guard's family. They are all the children of the owner of this establishment, a man who has had dealings with the Orions. I have the code for the door, but there is a hidden trap. The guard must press his thumb against a certain spot on the metal plate or an alarm will sound."

"Let's do it," Dellik said, but Grissom's glance reminded her that she was getting ahead of the plan. In their many rehearsals, they had opened the hatches into the ventilating shaft and sent Daneric-Tren down on a rope to observe the lower elevator lobby for any guards. They didn't want to open the elevator until Daneric had reached the bottom and checked out the scene.

With Grissom to help him, Daneric-Tren quickly pulled the bolts securing the panel. Daneric noted that

most of the bolts were missing, as they were in most industrial facilities around the galaxy. Everybody got tired of having to remove and replace that many bolts on a non-pressurized hatch they accessed every few days, and only military discipline kept all of the bolts installed in every hatch on the *Tasmania.* Daneric-Tren used quickset glue to attach a hook to the shaft's inside wall over the hatch, hitched his rope to the hook and to the rappelling harness he already wore, and dropped as silently as he could down the shaft. The drawings on file with the government said the shaft was 15 meters deep, but sensors couldn't probe it due to the trithallium radiation. Grissom and Dellik put the plate back with two bolts to hold it.



"Bottom," came the murmur into Grissom's earpiece. "Scanning … humanoid lifesign, about 10 meters away from me, not moving. Doesn't seem to have an elevated heart rate. Probably sitting in a chair. Nothing between the guard and the elevator door."

They had studied six variations of this situation in their rehearsals. By the time Daneric could get the lower hatch open, everyone in the basement would be lined up with weapons drawn. By the time Daneric could phaser a hole in the hatch cover to stun the guard, the guard would have moved out of the way *and* sounded the alarm. Grissom thought quickly, as they had set up two choices for this problem. One was to simply go down the elevator and hope to stun the guard before the alarm could sound; the other was to ride down on the elevator roof and try to lure the guard into it and stun him from above. But Grissom had never liked that idea, as the guard was too likely to radio in an alarm before entering the car.

Signaling his selected plan, Grissom motioned to Stulak to start entering the code for the lock while he moved the guard into position where his unconscious thumb could be pressed to the metal plate. The code was good and Stulak had the doors open in just a few seconds; there was no alarm. The team silently filed into the car and took up the positions they had practiced. Grissom and Yahnke were at either side of the door, their phasers ready to sweep the lower lobby in both directions. Kilrathie was on the floor, his knees bent because there was not room for him to lie full length, his phaser at the ready and his elbows braced on the floor. Stulak and Dellik were at the back corners of the car, trying to keep out of the way.

2345 Hours, Basement Elevator Lobby,
Celotex Warehouse #8, East of Roon City, Roon

Besslith looked up from the novel-pad she had been reading as she heard the elevator. *What was Chucst doing, coming down unannounced?* Michalik would be quite angry when he heard this, which was a perfect reason for her to report in.

"Michalik," she began as she pressed the transmit button on the small radio, "Chucst is on his way down without explanation."

She waited for a reply but there was none. She knew that Michalik must be furious and had expected an explosive reply, but none came. In her next second, she assumed that Michalik was on his way and that she would be hearing a door open, but no sound came from down the corridor. And in the next second, she realized that strangers were in the opening elevator. As she bent down to retrieve the pistol that was on the floor at her feet, Kilrathie's phaser burst struck and her motion continued until she was sprawled on the floor. Yahnke and Grissom, in a much practiced move, exited the elevator and took station facing in each direction. Dellik leapt forward to pick up her pistol, but Stulak deftly took it from her hand and pocketed it. She shrugged and moved to follow Grissom, while Stulak moved to mind-meld with the fallen guard. This was, again, a rehearsed part of the plan, and his mission was to get a complete list of who was in the subterranean complex and, if possible, just how big it was.

2346 Hours, Basement Lounge,
Celotex Warehouse #8, East of Roon City, Roon

"Did you hear that?" Michalik asked, putting down the radio. Besslith had spoken his name but then the transmission stopped, which could have been simple radio failure, or more likely she had not paid attention to which button she was pressing or had thought better of calling him. But then he heard a clatter from down the hallway. The hair on the backs of his hands had sprung erect; his senses were fully alert. He headed for the door.

"Go with him, Annitha," Melika ordered, turning to check the security scanners. Nothing was seen on the upper ones except Chucst pacing back and forth, but the one on the lower elevator lobby had gone black. "Someone is down here. I'll see to the hostage." She slammed her palm on an alarm button, grabbed a pistol, and headed for the door to the adjoining bedroom as Michalik and Annitha headed out the door.

2347 Hours, Basement Corridor,
Celotex Warehouse #8, East of Roon City, Roon

Michalik burst out of the lounge into the corridor, and into the sights of Yahnke's phaser. He went down with the stun charge so fast that Annitha, close on his heels, assumed he had tripped. She fired her pistol, sending its ceramic projectile screaming over Yahnke's head as his second shot dropped her as well. Michalik, only partially stunned, tried to lift his pistol into firing position and sent another bullet screaming past the Marine lieutenant, but collapsed when Yahnke's third stun shot hit him.

This part of the mission had been rehearsed, but now there were too many options, too many variables, and even if they had rehearsed them, nobody could sort through the options fast enough to grasp the right one. From this point, the team went into a drilled routine. Yahnke worked with Stulak, opening each door in turn, one covering the corridor while the other scanned the just-revealed room. Working the other way from the elevator lobby, Grissom and Kilrathie also worked as a team. Dellik did her assigned job, tying up the guard at the elevator while waiting for something that would need her talents. Without a phaser, she was a liability in a firefight. She could hear Daneric-Tren, no longer trying to be quiet, scrambling his way back up the ventilation shaft. This was wrong. In rehearsals, he had cut his way through the hatch cover and joined the team on the search.

"Dan, where ya' going?" she asked over her communicator. He grunted something about a problem to solve and ignored her second question.

Grissom and Kilrathie had opened one door to find a storeroom, 10 meters to the back wall, stacked with boxes. A quick scan with a tricorder showed nothing sentient. Yahnke and Stulak pulled open a door to find another storage room, this one quite large and filled with stacks of large bags. The room had a pungent aroma, and Stulak holstered his phaser and began adjusting his tricorder.

"Anything alive?" Yahnke asked.

"Negative," Stulak replied, "but these bags appear to contain a substance …"

"Later," Yahnke ordered. "Next door. Once the area is secure, you can come back and scan that stuff."

"Of course, forgive me," Stulak replied, shifting his tricorder back to his side and drawing his phaser.

They moved to the next door and took up positions, Yahnke covering the door and Stulak the corridor and the two slumped bodies near the far door. Yahnke pulled the door open and felt a pistol bullet smash into his body armor and a second one roar over his shoulder. Stunned, he forced himself to fire his phaser into the room, hoping it would startle his opponent, but it was Stulak's shot that took down Kaelyn. Yahnke noted that she was naked, but this only made it easier to see she was not concealing another weapon. Forcing his eyes to focus through the pain of the pistol shot (which, he now knew, had not penetrated his armor), Yahnke noted a cowering naked figure behind the bed.

"We've got the hostage," Yahnke reported, "returning to the elevator." Grissom acknowledged the transmission, and both teams met at the elevator a few seconds later. The hostage was shaking with fear and unable to speak, but Grissom was back to a part of the plan they had rehearsed.

"Get a positive ID," he snapped at Dellik, who had readied her tricorder when she heard the call that the hostage had been found.

"It ain't him," she snapped before even bringing the tricorder to bear. When Grissom glared at her she said "I studied his photo. Right height, age, and hair, but not young Mister Plemmons." Grissom started to argue, but she pointed to the tricorder readings. "He's native to Roon, not to Mars. He's *not* Plemmons." Grissom swore as Stulak did a superficial mind scan.

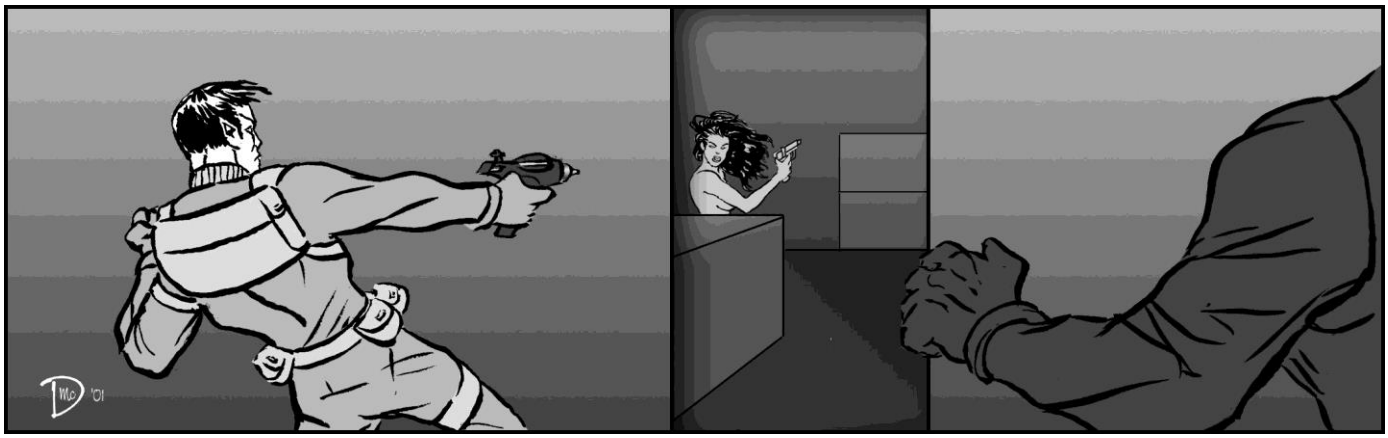
"Confirm," Stulak said, "this man is not our hostage. His purpose here is not criminal, but recreational." Without even a shrug, Stulak gripped the youth's shoulder and sent him to the floor in a swoon.

"Back to work," Grissom ordered, heading back the way he had come with Kilrathie. Yahnke, clearly laboring to breathe, waved his phaser for Stulak to follow him.

"We're going to skip the next rooms and go to the door those two came out of," Yahnke said.

"This is not according to the plan for this part of the operation," Stulak pointed out.

"We're improvising. It's taking too long and that must be some kind of control room. That should give us intel."



Stulak followed without arguing as Yahnke moved to the door, scanning what he could see. With Stulak covering, he slid into the room, noting the tables loaded with food, and a control console with screens showing the various cameras, assorted furniture, and an open door to another room. A quick scan showed nothing in this room, which meant that the door to the next room was the key target. Yahnke began moving to the side, watching the door and the room beyond. As he had been drilled since boot camp, everywhere Yahnke's eyes looked, his phaser was already pointed, and everywhere his phaser pointed, his eyes were already focused. When his eyes locked on those of Melika, they both fired at the same instant.

His phaser stun blast was partially blocked by the cabinet she was crouched behind, but enough of it struck her in the face to put her down. Yahnke was not so lucky. The bullet hit between his skull and the protective helmet, driving a red-hot ceramic projectile along his scalp to explode out the back of the helmet. The pain was incredible, although strangely the thought came to him that the ceramic bullet had probably cauterized the wound that it made. Which was lucky, he noted about the time he hit the floor and passed out, since scalp wounds on humans tended to bleed a lot.

2353 Hours, Basement Room,
Celotex Warehouse #8, East of Roon City, Roon

Grissom scanned the storage room while Kilrathie covered his back. "Something alive is in here," he advised the corporal, "something humanoid." The room was a large one, filled with storage lockers, file cabinets with racks of datapads, and the drawers that held datachips.

There were several desks, some accompanied by well-upholstered chairs. This was a working office, and someone was working.

Moving slowly down the aisleway, scanning from side to side with his eyes but not his phaser, Grissom searched the room. Behind the second row of filing cabinets he found a man cowering with his hands over his bald head.

"Don't shoot me!" the man cried, not looking at his captor. "Please, don't shoot me!"

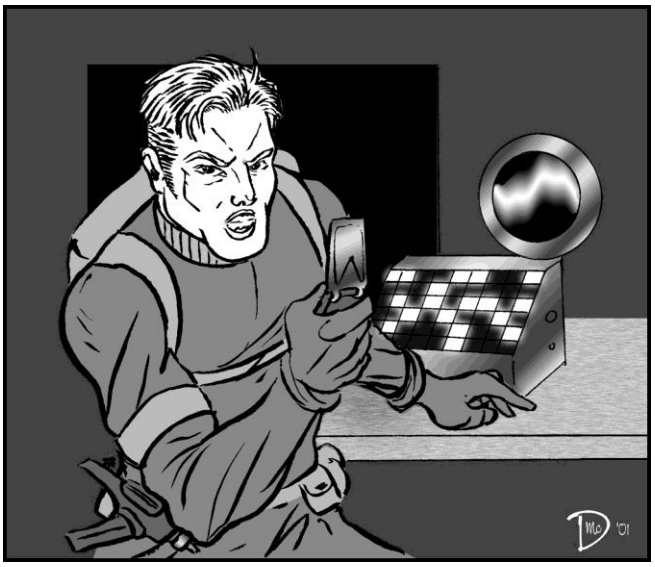
"It's on stun," Grissom apologized as he fired. He moved on to check the rest of the room, but the tricorder confirmed what his eyes told him. No one else was there.

"Hostage secure," came the clipped words of Stulak in his earpiece. "Identification confirmed; this is young Mister Plemmons. Lieutenant Yahnke is down. Shot in the head. His condition is serious."

"Stand by," Grissom replied. "Daneric, go help Stulak," he ordered.

"Dan isn't here," came the words of Dellik. "I heard him going back up the service shaft. Maybe he couldn't get the panel open from the inside. I don't know."

"Go help Stulak," Grissom ordered. He left the stunned man on the floor and went back with Kilrathie to check the other rooms. At this point, enough had happened that he would leave no door unopened. The last rooms included an elaborate but empty bedroom and storage rooms filled with boxes.



2359 Hours, Basement Lounge,
Celotex Warehouse #8, East of Roon City, Roon

"The area is secure," Grissom announced on his communicator. "Go back and do a quick search and grab anything interesting." Grissom headed for the office area. He checked on the bald man, who was breathing normally, and began going through his desk. The computer terminal was still on line, and Grissom was able to tell that it was accounting records, but not much more. His tricorder wasn't set up to handle translations, so he couldn't tell what he was looking at.

"Can I assist you, Commander?"

Grissom jumped at the sound of the Vulcan, who had arrived silently.

"My task in this phase is to interrogate the prisoners," he explained. "The others are members of the owning family. They were involved in the kidnapping, and their family is indeed involved in illegal trading with the Orions. Most of them, however, are simply passengers on the family business, taking a share of the profits but doing little work. One female knew a great deal about the Orions, and I have marked her for possible evacuation as a material witness. There are also considerable stocks of illegal materials in this complex, including some narcotics and some electronics that are beyond what this planet can make for itself. Do you know who this man is?"

"No," Grissom said, "maybe some kind of accountant. See what you can find out."

Stulak gently repositioned the small man so that he could conduct a mind meld. The process took a couple of minutes.

"This man is Ted N'Korl. He is, by training, an attorney specializing in taxes, but he is employed by this company to do all of the accounting for their illegal off-world trade. He is very unhappy in his job, feeling such trade to be immoral. He is virtually a prisoner in

this complex; a device attached to his ankle will cause him great pain if triggered by an alarm field which he knows is within the elevator. This is to prevent him from leaving. He would be grateful for rescue and would be happy to testify against the family."

"I'll get the collar off of his ankle," Grissom said. "You see if you can wake him up. He'll be easier to move if he can do it for himself, and he can help us find the right records to take with us."

"Very well," Stulak answered, "I shall use the medical kit provided by Doctor Kildaire to revive him." Grissom had decided against including a doctor or medic in his team, expecting to complete the mission fast enough he would not need one.

"You might want to give him something to keep him calm," Grissom advised. "He was terrified when I found him. We need him functioning."

"Very well." The Vulcan moved to treat his patient.

"We got trouble, Commander," came the voice of Dellik in his earpiece. "I can hear a lot of pounding and some shooting going on upstairs. Somebody up there is trying to cut their way in here. I blocked the elevator door open, but the warning buzzer is going off and some recording is demanding that the door be closed."

"Is Yahnke still out?"

"Yes, Sir."

"Where's Daneric-Tren?"

"My tricorder found him halfway up the air shaft. He's conscious and working on something, but he doesn't answer his radio. I was working on getting the panel removed from the hatch; it's got all the bolts in it. Kilrathie is moving some stuff that Stulak told him needs to go with us."

"Carry on," Grissom ordered. "I will be right there."

0005 Hours, Bridge, Light Cruiser
***USS Tasmania,* In Orbit above Roon**

"Situation?" the captain demanded.

"I've transported three guards to other locations, knocked a couple out with water bombs, and several have responded to the false alarms I triggered," the sensor technician reported. "But there are at least six at the upper elevator lobby, using some pretty serious tools to try to get in — cutting torches, power saws, and firearms."

"Options?"

"I can kill the main power to the complex," the technician suggested. "That would at least shut down their heavy tools. Should buy a few minutes before they can get into the elevator shaft with the fire axes. That should also let me transport a few more of them somewhere else."

"Have you re-established contact with the team?"

"Negative. When that alarm went off 20 minutes ago, some kind of field fired up, blocking my view down the elevator shaft, and some kind of heavy metal plate slammed shut over the ventilation shaft."

"Transporter Room One, this is the Captain."

"Sergeant Bourne here, Sir."

"Stand up the landing force. The team is trapped, and I may have to have you get them out of there."

"We are ready, Captain," the sergeant reported, "twenty-four loaded up and ready to drop in two lifts."

"Stand by, Bourne," the captain said, "and stun only. This is going to be bad enough as it is."

"Aye, aye, Sir," the sergeant responded, "we won't leave any of our people behind."

"Technician," the captain ordered, "buy Grissom as much time as you can, but let me know when the guards have broken into the elevator shaft."

"Power is off, and I broke the emergency fire hose valves, spraying water all over the place. And I just transported two more guards out of there."

0009 Hours, Basement Elevator Lobby,
Celotex Warehouse #8, East of Roon City, Roon

Grissom arrived at the lobby just as Dellik got the metal plate off of the ventilation shaft hatch. Yahnke was starting to sit up, Plemmons was standing nearby shaking, and Kilrathie had just arrived with a crate to place next to the large bag already on the floor. The naked local had been pulled out of the way.

"Dan!" Dellik called up the shaft. "What are you doing?"

"Minute! Busy!" was all he replied.

"Can we go now?" Plemmons asked.

"Shortly, Sir," Grissom answered. "Kilrathie, do you know which of the kidnappers Stulak wanted as a prisoner?"

"Yes, Sir," the corporal gestured, "that one, the first one we took out when we got down here."

"Excellent," the commander replied. "What are these?" he gestured at the bag and crate.

"Contraband that Stulak said we needed as evidence," Kilrathie replied. "That bag is full of some kind of weeds, and this box is full of trans-stators." Grissom whistled. Trans-stators could be used in any number of advanced devices, and were about 50 years ahead of Roon's current technology. Judging from the stacks of boxes he had seen, Grissom knew there must be thousands of these devices in this basement.

Grissom's reflection was ended when Daneric-Tren climbed out of the air shaft.

"On the way down, I saw something odd," he said, "and went back to check. It's a jamming field generator, designed to block the elevator shaft and ventilation shaft and prevent anyone from using a transporter."

"Did you disarm it?"

"No," Daneric-Tren said, "when I was starting to, a metal plate slammed down on my head, knocking my communicator off." He held up the device, which was obviously broken. "That was just about the time those alarms went off topside. Apparently, it's some backup device to lock down the ventilation shaft. I guess the elevator locks itself."

"Explosives?" Kilrathie asked.

"Not going to work," Daneric answered, "the field is above the metal plate, and we don't have enough explosives to blast through the bulkheads without collapsing the whole shaft."

"So we're trapped?" Plemmons wailed. "Good lord, what kind of idiot rescue team are you people? You

mean you didn't leave a whole company of Marines guarding the way out of this place? What morons!"

"Shut up," Grissom barked. "We're not done yet."

"How far up?" Kilrathie asked Daneric-Tren.

"About 10 meters."

"Give me a boost up through the hatch of that elevator car," Kilrathie said, pulling a grenade from his vest, "I'll open the door for us." With Daneric-Tren's help, Kilrathie got his torso up through the hatch. Standing on the engineer's shoulders, he steadied himself and pulled the pin on the grenade, dialing the fuze as he did so. Placing his left hand on the hatch itself, he lofted the grenade straight up and, in the same motion, stepped off of the engineer's shoulders, allowing himself to fall. His weight pulled the hatch shut just as the grenade went off.

"Tasmania, this is Grissom, can you hear me?"

"Loud and clear, Commander," the technician answered. "What's your situation?"

"We're going to get everybody into the elevator car. There will be the six of us and three others, plus some cargo. Wide field on the transporter."

"Ready when you are, Commander."

"Stand by," Grissom advised. "Where is Stulak?"

"Here, Sir," the Vulcan said as he rounded the corner, a waste bin full of computer disks in one hand and the collar of N'Korl's jacket in the other. The accountant was alternately sobbing and screaming.

"Everybody into the car, now!" Grissom ordered. This part had been covered in the rehearsals, but there were too many options, and having three passengers and a load of baggage wasn't one of them. It took some doing to make everything fit, and with both Plemmons's complaining and N'Korl's wailing, it took longer than it should have. An explosion erupted far above them, and pieces of metal and concrete began to pound the roof of the elevator car.



"Energize!" Grissom ordered.

"Negative," the ship's technician replied. "I can't get a good lock on your signal. Too much radiation."

Kilrathie had to shove Plemmons aside to reach the still dazed Lieutenant Yahnke, but he thrust his hands into the Lieutenant's backpack and was obviously trying to work something. "Beacon on!" Kilrathie announced.

"Good lock," the ship's technician said from the earpieces, "energizing." The thud of a grenade landing on the roof of the elevator car was the last sound the team heard on Roon.

Two Days Later, Conference Room, Light Cruiser *USS Tasmania,* In Orbit above Roon

"The local police are quite pleased with the evidence you collected," the ambassador said. "By the time they got into the underground complex, everything had been destroyed, but with samples of the original material, and Federation technology, they were able to prove conclusively what had been there."

"Excellent," the captain said. "The entire family is under arrest, I take it?"

"Most of them," the ambassador said. "The Roon government is quite distressed to hear that their electronics industry almost became obsolete overnight. And they were almost as upset to hear that common weeds on their planet are a powerful narcotic for Rigellians. We had been wondering where that new drug came from. Now we know."

"And we can stop it," the captain responded.

"Are your personnel recovering?" the ambassador asked, "I know that doing a mission without causing casualties can mean taking heavier losses."

"Lieutenant Yahnke will be fine," the captain explained. "Everything else was just strains and bruises."

"Then we were lucky," the ambassador said. "They will be rewarded?"

"Commendations for everyone," the captain said, "a Bronze Star and a wound badge for the lieutenant, a command medal for Grissom. The commendations will be written up as a rescue, not combat, as you requested."

The ambassador nodded his thanks.

"And the trade deal?" the captain asked.

"Will proceed in all good time," the ambassador said. "There are issues to be resolved, and diplomacy demands patience. My staff is working through the problems.

"By the way, one of my staff has asked if he could speak with Private Dellik."

"I don't need to ask which member of your staff that was, do I?" the captain replied with a strained smile.

"It's better if you don't," the ambassador said, "but I think I can get her off of your ship. It seems that my Marine detachment can use another guard."

"I would be grateful," the captain said, "to your staff member."

"I think he will consider it an even trade."



WHAT IS *GURPS?*

GURPS stands for "Generic Universal RolePlaying System," and is the RPG that these rules are condensed from. Why is it called that? Well…

"Generic." ***GURPS*** starts with simple rules, and builds up to as much optional detail as you like. This abridged version presents the "core rules" that most GMs start with.

"Universal." The basic rule system is designed to emphasize realism. Therefore, it can fit any situation -- fantasy or historical, past, present, or future.

"Roleplaying." This is not just a "run-and-gun" game. The rules are written to make true roleplaying possible – and to encourage it. ***GURPS*** is a game in which you take on the persona of another character -- and pretend, for a little while, to be that character.

"System." ***GURPS 4e*** is a unified system of rules. ***GURPS*** is one of the recognized worldwide standards for roleplaying games.

WHAT IS *PRIME DIRECTIVE?*

Prime Directive is a roleplaying game set in the ***Star Fleet Universe.*** Available for several RPG systems, it is based on the history and background seen in the classic board game ***Star Fleet Battles*** from the same publisher. ***SFB*** is a ship-to-ship combat board game, based on elements of the original *Star Trek* television series.

The *Star Fleet Universe*

The ***Star Fleet Universe*** is the history and background material generated over the last 34+ years for ***SFB.*** All of the species, empires, and other background material found in ***GURPS Prime Directive*** are taken from the ***Star Fleet Universe****.* It is important for science fiction fans to understand the differences between the ***Star Fleet Universe*** and the original source material. ***SFB*** (the original ***SFU*** product) was done when "The Original Series" was a syndicated program popular on college campuses, and no new material had been done in years. ***SFB*** quickly created hundreds of pages of new material and grew in its own directions. Later, when *Star Trek* began to generate new material, they went in their own direction and the ***Star Fleet Universe*** continued to grow along a different path. Thus, the backgrounds are not 100% compatible, and true *Star Trek* fans will find numerous differences between the later source material and the ***SFU.*** See p. 364.

The ***SFU,*** being a "game universe" where the readers can make their own history, has been forced to be considerably more consistent (within itself) than the purely literary universe of true *Star Trek.*

Prime Directive, The First Edition

Roleplaying in the ***Star Fleet Universe*** is not new. Two decades ago, when ***Star Fleet Battles*** was still in its earliest editions, gamers were adapting various roleplaying systems to construct their own RPGs set in the ***Star Fleet Universe.*** None of these reached official status or were actually published, but many of them were played at conventions and at least one, based on a Chaosium game engine, was played by several groups for nearly a decade.

When the fourth set of owners of Task Force Games (the previous publisher for ***Star Fleet Universe*** products) took over in 1991, they indicated a strong desire to produce a roleplaying game that would exploit this important market segment. While ADB suggested that we should simply license ***GURPS,*** Task Force Games felt that it would be better to create their own unique game engine that could be used for other non-Star Fleet products. They hired the team of Mark Costello and Tim Olsen to create a new system for ***Prime Directive.***

Tim and Mark created an interesting game engine, published as ***Prime Directive*** (now known as ***PD1***) in 1993. While it had loyal players and deserved to find a market, it did not gain enough of a following to remain in development, and other factors in the industry and within Task Force Games brought the release of new products for this game to a halt far too soon. Even so, ***PD1*** (a core rulebook and four expansions of various types) remains a milestone in the ***Star Fleet Universe.*** [ADB, Inc. plans to publish update and conversion information for PD1 products in a future product in order to honor those who played (and wrote) these "lost chapters" of Star Fleet history.]

While their game engine didn't find the success it truly deserved, Tim and Mark were prolific and creative writers, adding a hundred pages of background to the ***Star Fleet Universe,*** including many items of equipment, several hand weapons, and a plethora of

Federation Associate Members. Many of the pages of ***GPD*** reprise their earlier work, including the backgrounds for many of the minor Federation species.

Mark and Tim also created the concept of prime teams (multi-mission teams capable of conducting exploration, combat, diplomatic, scientific, or even espionage missions), truly their greatest contribution to the ***Star Fleet Universe.*** ADB endorsed this concept wholeheartedly, even adding prime teams to their board games (***Star Fleet Battles*** and ***Federation & Empire***) as special units with many unique modifiers and bonuses. In 2001, ADB, Inc. even added a prime team card to their ***Star Fleet Battle Force*** card game. But prime teams may have been one source of the problem with marketing ***PD1;*** not everyone wanted to be a commando/diplomat/scientist. Plans to expand ***PD1*** into other areas never came to fruition, but the need to do so remained a given for ***GPD.***

Prime Directive, The New Edition

When Amarillo Design Bureau was incorporated in 1999 and became the new publisher of the ***Star Fleet Universe,*** we had a plan. Phase 1 (get our existing products back into print) went well, and we moved into Phase 2 (launching entirely new product lines). A major part of this was to be a new RPG. From the first day, we wanted this to be ***GURPS,*** and found a receptive ear in our old friend Steve Jackson. It was a marriage made in Texas (which *must* be heaven) as SJ Games wanted to license ***GURPS*** and we wanted the best RPG system around.

We published ***GURPS Prime Directive*** in July 2002 to critical acclaim, followed by ***GURPS Klingons*** in November of 2003.

When ***GURPS*** moved into its fourth edition during 2004, we faced a major decision as to what direction we would take. After much debate, it was decided to do a new 4th Edition version of ***GURPS Prime Directive*** and ***GURPS Klingons*** in order to serve the needs of the gamers, who had made it clear that they wanted to move forward into the new 4th Edition. We are proud to have been invited by Steve Jackson Games to join the trip.

In 2017, our RPG department head finally got her wish to issue a corrected and updated version – this one you now are reading.

THE *STAR FLEET UNIVERSE:* AN INTRODUCTION

Many players of ***GURPS Prime Directive*** will be new to the ***Star Fleet Universe,*** and will come to the game with different expectations of what it is like based on their different experiences with *Star Trek* in any of its various forms. The ***Star Fleet Universe*** is somewhat different from what has been seen on film and television, in part due to its being better and more logically organized and considerably more consistent internally. This chapter will help to orient new players to the shape and history of the ***Star Fleet Universe.*** It is written from the point of view of the United Federation of Planets, but, of course, all manner of campaigns involving other empires and species are possible.

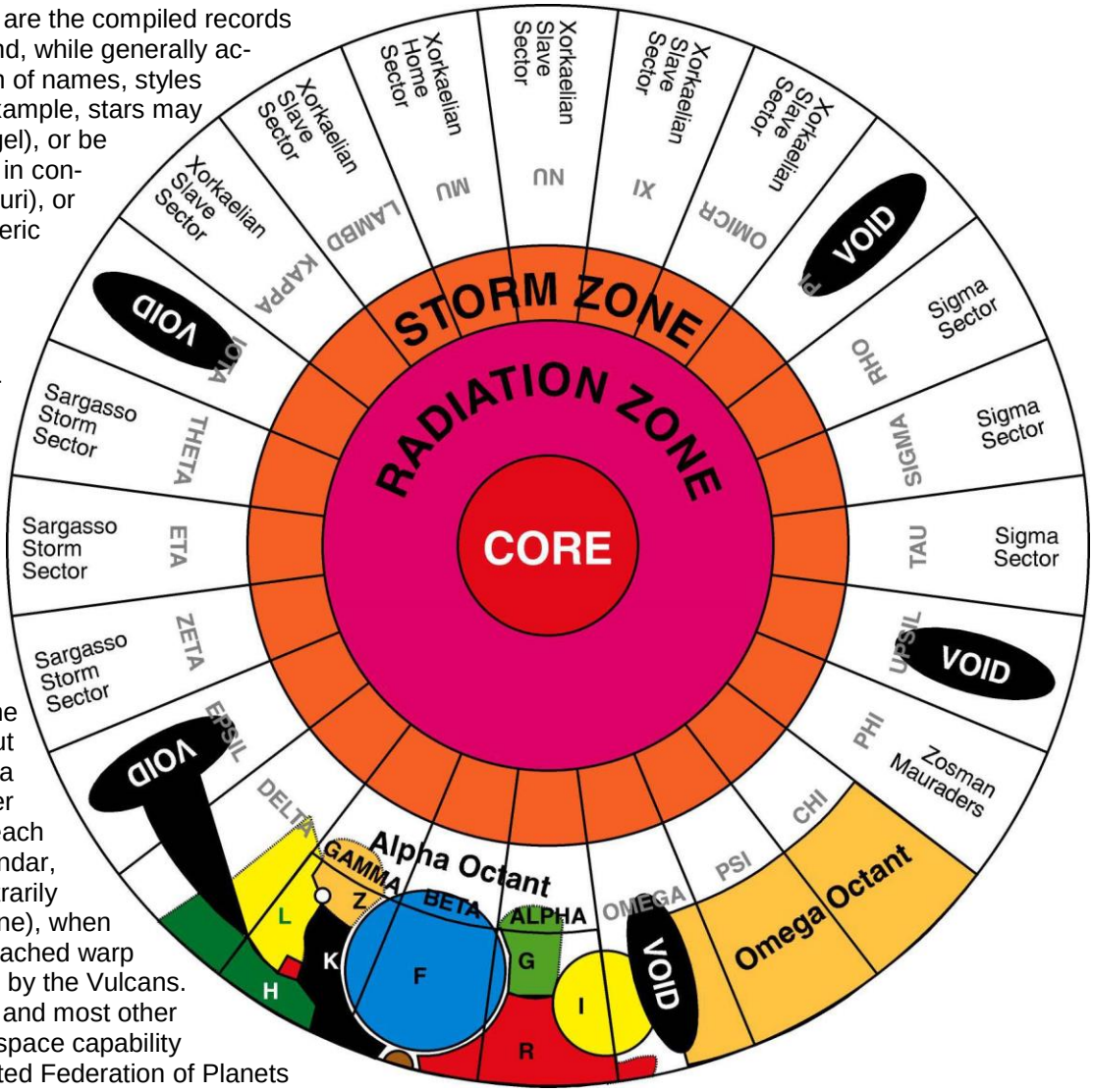
Nearly all of the adventures set in ***GURPS Prime Directive*** will take place in the Alpha Octant (consisting of the Alpha, Beta, and Gamma sectors) of the Milky Way Galaxy. During later periods of the ***SFU,*** there is an invasion from the Andromedan Galaxy by way of the Lesser Magellanic Cloud. The final battles that defeated this invasion took place in that island galaxy.

The map is a slightly abstract tactical one from the start of the General War (Y168) showing the relative positions of the various empires. A more detailed map of the Alpha Octant is in Chapter 8. The gray area of the Alpha Octant is that shown on the maps in Chapter 8. For quick reference, the map on the facing page shows the Federation (F), Klingon Empire (K), Romulan Empire (R), Kzinti Hegemony (Z), Lyran Empire (L), Hydran Kingdom (H), Gorn Confederation (G), and the Inter-Stellar Concordium (I). The small area on the rim near the Federation is the Tholian Holdfast, the small area at the Lyran-Klingon-Hydran border is the independent Lyran Democratic Republic, while the small area near the Lyran-Klingon-Kzinti border is the WYN Star Cluster.

The center of the Milky Way Galaxy is basically a huge black hole surrounded by a zone of intense and deadly radiation (which is impassable). Surrounding this zone is the "Storm Zone" in which starships and outposts can survive only briefly. There are few planets there, none of them habitable. Virtually all civilizations and life exists in the area between the Storm Zone and the edge of the galaxy, and this is where the Federation, the Klingon Empire, the Romulan Empire, and the other political entities of the ***SFU*** exist.

Paradoxically, the Milky Way Galaxy in the ***Star Fleet Universe*** is both a small and a large place. It is small in that some starships, traveling at fast speeds through a network of bases able to refuel them frequently, can travel great distances in fairly short periods of time. A warship going at fast dash speeds can cross the entire Federation in about 20 days – a distance of some 9500 parsecs! However, it is a large place in that even known space is still substantially unexplored. The boundaries of the major powers (seen on the map here and those in Chapter 8) were set by treaty and war about Y120 and locked into place by a series of bases. The various empires pushed their borders as far as they could and placed their bases far beyond star systems actually explored, colonized, and developed. Any given 500-parsec hex on the map in Chapter 8 includes upwards of 50 inhabited colony planets, and thousands of other systems, including at least a hundred habitable planets (a few have small colonies or outposts). Producing a detailed map of each hex is impossible, and Game Masters need only create maps required by their adventures. Nor should a GM worry overly about consistent nomenclature:

Federation stellar maps are the compiled records of dozens of species, and, while generally accurate, are a mish-mash of names, styles and conventions. For example, stars may have proper names (Rigel), or be named for their position in constellations (Alpha Centauri), or may simply have a numeric designation. Similarly, planets may have a proper name (Pacifica, Strongport), be named for their position in a solar system (Pollux IX), be named for their discoverer (Sherman's Planet), or simply have a catalog number (PX 123).



A Brief History of the Star Fleet Universe

This is given in much greater detail in the timeline in Chapter 8, but a brief overview will set a context for the remainder of this introduction. As each empire has its own calendar, Federation records arbitrarily begin in Y1 (the Year One), when Humans of Earth first reached warp speed and were noticed by the Vulcans. The Klingons, Humans, and most other species achieved warp space capability during Y1-Y10. The United Federation of Planets (UFP or simply "the Federation") was formed in Y4.

In the Alpha Sector, the Gorns destroyed the Romulan ability to build tactical warp starships in Y67, exterminated the Paravians (by accident) in Y94, were contacted by the Federation (at Cestus III) during Y157, and became Federation allies against the Romulans in Y174.

In the Beta Sector, the Federation expanded steadily, contacting the Romulans in Y40, the Tholians in Y84, and the Klingons in Y85. The Kzintis attacked the Federation in Y88 and again in Y136. The key moment was the Federation border declaration of Y102, which claimed territory that had been controlled by the Kzintis and Klingons. Several wars established this as the formal border.

The Gamma Sector is home to the Four Powers, those being the Klingons, Kzintis, Lyrans, and Hydrans. The Klingons and Lyrans met first (in war), and both encountered the Hydrans in Y40 and the Kzintis in Y48. The feline Lyrans and Kzintis (despite being deadly enemies of each other) simultaneously annihilated the canine Carnivons in Y110. The Klingons and Lyrans eventually became allies against the Kzintis and Hydrans. Several wars led to the major Four Powers War in Y158-162.

The defining period of the ***Star Fleet Universe*** is the General War, which began as yet another Kzinti-Lyran conflict in Y168 and eventually included all of the major empires by Y174. Facing economic collapse, the empires ended the war in Y185 when the Inter-Stellar Concordium established the "peacekeeper line" between them. This peace lasted only two scant years before the Andromedan Invasion brought the entire ***Star Fleet Universe*** to the very edge of annihilation.



Federation New Heavy Cruiser

INTELLIGENT LIFE IN THE *STAR FLEET UNIVERSE*

There are several orders of intelligent life in the ***Star Fleet Universe.*** The United Federation of Planets classifies intelligent species along the following rough scale:

Godlike Species

These beings exist in remote areas with Tech Levels above 16, effectively off the scale. These beings are usually omnipotent and immortal. Fortunately for the ***SFU,*** most of these have little interest in the affairs of lesser species. Two exceptions are the Masters and the Organians. A Game Master can feel free to create others.

The Masters, who "kidnap" entire starships, and sometimes individuals or small groups, to play in their "games," are seen only as disembodied voices. The Masters arrange not only starship duels and hand-to-hand battles, but puzzle-solving competitions. Every group of adventurers deserves the chance to be kidnapped by the Masters, who (for purposes of their games) can provide any equipment or technology. A trip to the Masters realm can provide adventurers with the opportunity to meet species from far-flung empires they might never meet otherwise. The GM could easily add any alien species or monster from any source, as the Masters are known to collect "game pieces" from all over the galaxy and even from the Magellanic Clouds. The Masters are known to allow those of their victims who show skill, bravery, cunning, or cleverness to return to their lives.

The Organians live a pastoral life on a planet in the Federation-Klingon Neutral Zone (hex 1913), or so it seems. They are in fact non-corporeal beings who take humanoid form to deal with other species. They brokered, rather than enforced, the Federation-Klingon Treaty. When the Organians disappeared in Y171, the treaty collapsed and the Klingons invaded the Federation.

Precursors

These beings existed in the time before the current era. Just how many there were and what time periods they existed, and what they did, is not clearly understood.

The best known of these are the "Old Kings", who ruled Federation and Klingon space until about two centuries before the General War. These beings used the Klingons (as well as the Dunkars, Hilidarians, and other species) as starship crews. When the "Old Kings" left, leaving abandoned starships in orbit over Klinshai, the Klingons built chemical-energy rockets to regain access to space.

The "Spirit Kings" took the Hydrans into space in much the same way, but when they departed (at the same time as the "Old Kings"), they left the Hydrans in possession of primitive starships.

The Gorns refer to the "Lizard Kings" as the beings that transported them to their three homeworlds (and to the doomed planet of Paravia) at least 13,000 years before the General War.

The Lyrans and Kzintis are known to be genetically related to each other (and to the Jwarundils and the doglike Carnivons) and may have been seeded on their planets by the beings known only as the "Leopard Kings" at some time perhaps 100,000 years before the General War.

Whether any of these beings still exist is a matter of conjecture, and great interest to the powers of the ***SFU.***

Starfaring Species

These species or empires include the Federation (with its Humans, Vulcans, etc.), the Klingon Empire (including their subject races, who arguably did not reach space flight on their own), the Romulans, Kzintis, Gorns, Orions, Hydrans, Lyrans, WYN, ISC, LDR, Jindarians, and Vudar.

The birdlike Paravians and wolf-like Carnivons became extinct early in the history of the ***Star Fleet Universe,*** although reports of lost colonies of both continue to appear.

A subcategory of starfaring species includes the extragalactic beings who have appeared in the Alpha Octant from various other locations. The Tholians arrived as refugees from their galaxy, with the Seltorians (their former slaves) in hot pursuit (only a century behind them). The Andromedans are invaders from the M31 Galaxy, and their true nature is unknown. (Their robots are commonly seen but only one man, a Federation Marine, has ever seen a living Andromedan and survived, and he could never bring himself to speak of what he saw.) The Xorkaelians are from the Milky Way, and are masters of a huge empire on the opposite edge. They invaded the Alpha Octant much later in history. Dozens of species occupy the Omega Sector.

Non-Starfaring Species

Non-starfaring species are those which, for whatever reason, have never left their homeworld. Almost all are of Tech Level 9 or lower, with most being TL 6 or lower. The many empires have different practices when it comes to their encounters with non-starfaring species which range from exploitation (Klingons), to enslavement (Kzintis), to patronage (the ISC). The UFP is unusual in that it quarantines non-starfaring species under the famous Prime Directive to allow them to develop on their own.

Astrofauna

This is a catch-all heading for interstellar lifeforms, not necessarily intelligent, that can travel through the enormously hostile environment of space under their own power. Some observed types of astrofauna include large clouds known as energy beings, massive protoplasmic beings that resemble single-celled lifeforms, and more complex organisms that have been nicknamed "eels," "snakes," or "dragons." Organisms which are powerful enough to qualify as

astrofauna are usually powerful enough to pose a threat even to the ships of starfaring civilizations.

A subcategory of astrofauna includes nonliving starcraft which appear from time to time. There are many of these (the GM is welcome to borrow them from any source) including the death probe and various ships of the Juggernauts.

THE ERAS OF THE *STAR FLEET UNIVERSE*

Although the ***Star Fleet Universe*** covers some two hundred-odd years of history, those years are not monolithic, and scholars have divided history into seven distinct eras. The default assumption is that players of ***GURPS Prime Directive*** will be members of the UFP adventuring during the Main Era years. Most of the maps and equipment descriptions are created with this phase of history in mind. However, the ***SFU*** is a big universe, and campaigns in other eras, or as other species, are certainly possible.

Precontact Era (ends Y4, Tech Level 8)

The Precontact era is the earliest phase of UFP history. Most of the planets that would reach the stars during the next era managed to resolve their problems (usually after new energy sources made competition for resources less intense), form world governments of various types, and reach warp-capable star flight. The Vulcans had been in space for centuries (but as explorers uninterested in economic development), and the Klingons and Hydrans had been in space as the crews of alien starships.

Adventures in the Precontact Era are possible, but would be limited by the available means of travel to the single star system of the adventurers. The first crude power cells made energy weapons practical for the first time during this period. Space ships are slow, limited in range, and rely on spin chambers for artificial gravity.

Non-Tactical Warp Era (Y6-Y61, Tech Level 9)

The Non-Tactical Warp Era represents two trends, inward and outward. In this era, the UFP grew from an alliance into a government. The term "non-tactical warp" refers to the primitive first starships which could move at trans-light speeds but could only fight at sublight speeds.

Two very significant events mark the Non-Tactical Warp Era: the first contact with the Orions (Y21) which brought about the first major interstellar trade agreements, and the contact with the Romulans (Y40) which resulted in the Federation's first interstellar war. Orion support was needed for the survival of the Federation, but then, the Orions had provoked the war by trying to colonize planets in space claimed by the Romulans.

Adventures (for UFP members) in this era are best centered around contacts with the Orions and the Romulans. (Using other sourcebooks, adventures among "the Four Powers" are equally plausible.) Game Masters interested in a military campaign have the exciting backdrop of the First Federation-Romulan War, while those interested in exploration can have players interact with the Byzantine machinations of the Orions, who will doubtless in time have players saying, "With allies like these...."

The first primitive starships can make about nine parsecs per day, enough to reach hundreds of new worlds, but can only fight at sublight speeds. Gravity compensation allows high-G maneuvers. While military and government starships will have crews from a single world, the first of the free traders may have crewmen from many planets. An adventurer during this period would hang his beam pistol in a holster from his fabric body armor, have a rather simple PADD, and carry a communicator good for 25 miles.

Tactical Warp Era (Y62-Y78, Tech Level 10)

The Tactical Warp Era was marked by few political developments, but many technological ones. The chief development was, of course, the invention of the tactical warp engine, which allowed combat at warp speeds, though only up to Warp 3.2. While the Federation was the first to develop this technology, other empires developed it on their own or copied it quickly, and the Federation (even had it wanted to) could not have conquered anyone else before they matched the technology. This development drove the Federation into full power as a government, since only ships of the Federation fleet (not individual planets) initially had the technology. Star Fleet assumed the official duty of defending all member planets, but those planets eventually built their own tactical warp ships for local defense and to train recruits for Star Fleet.

Adventures in this era can center around the developments of tactical warp drive and Star Fleet. A good campaign could center around the crews of the first Star Fleet ships, with true artificial gravity, tractor beams, low-tech replicators, and the first finicky transporters. These ships will have to contend with disunity among multi-species crews concerned over the erosion of planetary sovereignty.

An adventurer in this period would holster his phaser pistol next to the earliest "scanner" (or "monocorder") and would have a limited translator next to his communicator.

The Early Years Era (Y79-Y119, Tech Level 11)

The Early Years Era marked the beginnings of the UFP's interactions with the wider galaxy. This was the era in which the Federation encountered powers which could not be absorbed (as had the Orions) or defeated and ignored (as had the Romulans). These included the reclusive Tholians, and the militaristic Klingons (who were involved in other wars and became tacit allies of the Federation, providing advisors to those Star Fleet ships fighting the Kzintis).

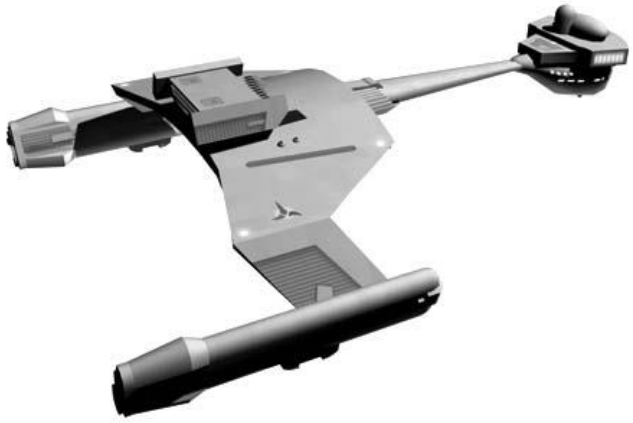
Unfortunately, good relations between the Klingons and the Federation did not last due to competition over colony worlds between expanding out-

posts. UFP efforts to define a border in Y102 succeeded a decade later at a cost in blood. The Romulans nearly invaded the Federation in Y110 but called off the offensive at the last minute when Emperor Ramillius died without an heir. The Federation did not learn of this event until decades later. During this period, Orion starships began to disappear from their enclave and take up piracy as a vocation.

The wars with the Kzintis and Klingons led to several important changes within the Federation. Star Fleet formed its own Marine Corps, prime teams (a trouble-shooting unit of commandoes, scientists, and diplomats), and the National Guard (a formal command structure for the nearly forgotten vestiges of member planet military forces).

Adventures in this era could focus on the first interactions with the Tholians, Kzintis, and Klingons. Much could be made of a UFP-Klingon campaign, with mutual cooperation marred by growing competition and mistrust. Hunting (or roleplaying) Orion pirates becomes a favorite activity for adventurers. During this period, the high technology planet Cygnus changed from being a Kzinti slave world to a Federation member (due to the border declaration).

The adventurer in this era will find his equipment lighter and more efficient, and his monocorder has become a bicorder able to collect and interpret two different types of data at the same time. Starships are fully capable of tactical warp combat, with improved tractor beams and reliable transporters. The first mature replicator designs are able to transmute elements, rather than simply reprocess feedstocks. Powerful subspace transmitters allow admirals to interfere in the daily lives of starship captains, and allow adventurers to gather news of opportunities on distant planets.



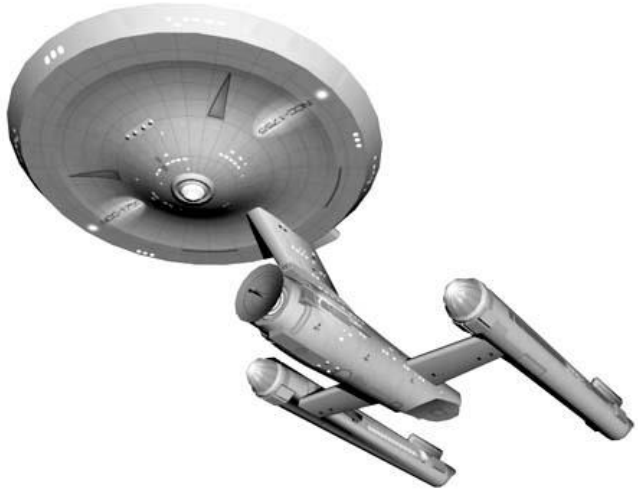
Klingon D5

The Main Era (Y120-Y179, Tech Level 12)

The Main Era is the default setting for ***GURPS Prime Directive,*** and most equipment descriptions in this book are set to it. This is also the time that will be most familiar to players familiar with the earliest television series (Y156-Y159). The Main Era is a time of Federation expansion, exploration, and conflict, and ends during the gigantic General War (Y168-Y185) that affected nearly every political entity in known space. In some sources, the period from Y120-Y150 is known as ”The Middle Years.”

The Main Era was a time, paradoxically, of both territorial solidification and expansion for the Federation. Like its neighbors, it began building a network of huge starbases and smaller border stations. As the UFP had no hostile neighbors in the coreward direction, it began a massive program of exploration in that region in Y125. Furthermore, although most of the millions of stars within the territorial borders of the UFP had been surveyed, only a handful had received detailed exploration and study. Thus the UFP also began more intense efforts to map out its own “internal” territories. Inconclusive wars were fought with the Kzintis (Y136-Y142), Romulans (Y154-Y155), and Klingons (Y156). The war with the Klingons ended when the godlike Organians stopped a major fleet battle near their planet and brokered a treaty covering the entire Neutral Zone. This was followed by a Klingon-Romulan alliance, which brought the Romulans at a stroke from TL9 (where Gorn commandoes had left them) to the TL12 enjoyed by the rest of the galaxy. Faced with this situation, the Federation formed alliances with the Gorns and their previous rivals, the Kzintis. These interlocking alliances ensured that the next Lyran-Kzinti border skirmish would explode into the General War, covering the entire Alpha Octant. This war lasted beyond the Main Era, ending in stalemate, exhaustion, and ruin in Y185.

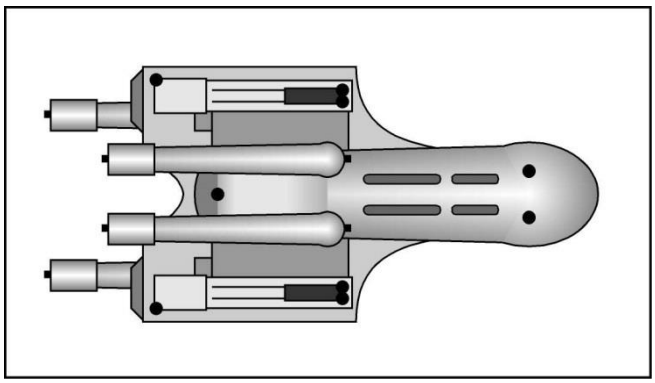
Almost unnoticed during the General War were two events of future import, the first scouts from the Andromedan invasion, and the first efforts by the Inter-Stellar Concordium to build a fleet that could enforce neutrality and later peace.



Federation Heavy Battlecruiser

Adventures in the Main Era can be of any type imaginable to anyone familiar with any form of Trek. There is room for exploration and first contacts, merchant adventure, espionage, and warfare. Prime teams come into their own at this time, and are used in a variety of functions. Adventurers have access to any kind of technology described in this book (including

tricorders able to read and interpret multiple spectra at once) and their starships have reached the pinnacle of the television and movie presentations.



Romulan X-Ship, the FireHawk-X

The X-Technology Era (Y180+, Tech Level 13)

Much as nuclear weapons were developed in Earth's Second World War but properly belong to its Third, advanced "X-technology" appeared in the last years of the General War, but properly belongs to the subsequent Andromedan War. While there were relatively few X-ships during these years, they were always present in the most decisive battles. The final years of the General War were more bloody and destructive than ever before; even full-sized starships could be destroyed by one volley from the massive fleets deployed in those years. The idealistic and somewhat idiosyncratic ISC became peacekeepers under an Organian-brokered treaty.

The ISC's high-handedness and alien standards of justice would doubtless have provoked a serious reaction against them, had not the Milky Way Galaxy suffered an invasion from the more technologically advanced Andromedans, which began in Y188. All of the empires scrambled for survival until a chance event exposed the secret of Andromedan technology, the Rapid Transport Network. Andromedan ships were slower in strategic speed than Galactic ships, but by using their RTN could move several times as fast, allowing them to redeploy their relatively small forces to strike targets of opportunity. Once the RTN was discovered and the empires learned to detect it, they were able to destroy the Andromedan bases and with it, the RTN.

The Federation, once more united with the Klingons (and other empires), became an extragalactic power during Operation Unity, sending ships to the Lesser Magellanic Cloud to destroy the terminus of the Andromedan link to their home galaxy. With that victory (which shut down the Andromedan invasion route), the Federation and other empires became aware of (and able to reach) much larger areas of the galaxy, including the Omega Sector, Sigma Sector, Sargasso Sector, Magellanic Clouds, and the fearsome Xorkaelian Empire.

Adventurers in this period can explore the wreckage of worlds devastated by war, and no end of floating hulks that were once proud ships of the line. Trade links resume, as does the need (and opportunity) to explore new worlds and find new resources. All of the equipment of prior eras has now reached its technological peak (for example, the quadricorder). No end of leftover General War gunboats (now converted into small starships able to carry a crew of 10 comfortably on long journeys) are available cheap to those who are willing to find the resources demanded by the hungry markets of the post-war galaxy.

SOME MYSTERIES OF THE *SFU*

There are many mysteries of the ***Star Fleet Universe*** that have been left undefined. There are no "official" answers to the following questions, but enterprising Game Masters might want to take a stab at handling them in their own campaigns. Indeed, solving one of these mysteries might be the focus of an entire campaign.

Why Is Everybody Always Fighting All the Time?

If there is any constant in the ***Star Fleet Universe,*** it is that of war. At any given point in the 200+ years of ***SFU*** history, there is usually a border skirmish or outright war going on between at least two powers. This may be because all of the starfaring species (including humans) are descended from predators, but it is more likely a contest over control of potential resources (the cause of most wars on Earth). It should also be noted that any given border is quiet at least three or four times as often as there is a war in progress, and before the General War there was a booming industry of Federation tourists visiting Klingon worlds.

Why Are Psychic Abilities So Rare?

Of all the member species of the UFP, only the Vulcans display psychic abilities as a species trait. Individual psychics are found among most species with varying degrees of frequency. Certainly, the inhabitants of the ***Star Fleet Universe*** regard this as "the way it is" and do not find it any great mystery at all. But perhaps you do? Is there some force, some entity, or some genetic quirk that is restricting the latent psychic abilities of all species? Or did some long-forgotten beings give the Vulcans a unique gift?

Why Is Romulan and Gorn Space So Empty?

The Romulan Star Empire occupies an area of space that stretches for thousands of parsecs to the galactic rim, and the Gorns occupy a somewhat smaller area toward the galactic center. While there are many Class-M planets in that area, there are no known intelligent species there, despite the fact that the neighboring Federation and ISC are populous powers with many sentient species who became starfaring species independently. Could the claims of crackpot of conspiracy theorists that the Romulans

(and Gorns) engage in systematic genocide have any truth to them? (***GURPS Romulans*** has surprising new information on this mystery.)

Who Built the Planet Killers?

At several times in history, the empires have encountered cone-shaped planet destroyers and huge starships known as Juggernauts. Who constructed these monstrosities, and why? Was it the same empire, or two different empires? If it were two empires, did they fight each other, or did they never even meet? Are the planet killers advance probes from an invasion, or hellish leftovers from some now-extinct species that fought a now-forgotten war? And why would any empire create such a destructive weapon? What threat did they fear that was worse than these weapons?

Where Did the Disappearing Planets Go?

There are numerous cases of lost colonies. Some examples include Aberdeen III (a Federation colony that disappeared in Y105), Aurora (an entire Federation star system that disappeared in Y130), Stuplich's Ark (a chain of colonies planned by an explorer named Stuplich, the last of which were never located), the ISC mining colony of PX13, and the Klingon penal colony at Kraknora. Where did they go? Are any other colonies missing?

Did the Tholians, the only species known to have moved a planet, have anything to do with it?

For that matter, the Carnivons are thought to be extinct, but did any of their colonies survive in the far-flung reaches of space? While the Paravians were known to have never planted colonies and to have become extinct when their homeworld was destroyed, did any of their raiders avoid the Gorn blockade and found new colonies in distant realms?

Some of these answers will be in a future book but GMs need not wait for those answers and can develop their own.

Where's the Transhumanist Future?

The ***Star Fleet Universe*** appears somewhat "retro" given current trends in science fiction. Where is the largescale genetic manipulation? Where are the nano-machines? How about the sapient computers and robots? They simply do not exist to any extent beyond artificial limbs and organs. The inhabitants of the ***Star Fleet Universe*** do not find this to be a mystery, but just the way things turned out. Genetic manipulation was found to cause more problems than advantages, nano-machines never really worked out, and "intelligent computers", contrary to expectations, simply didn't work very well. But is there some force at work? Or is there some distant planet where these things *did* work?

Where Are the Precursors?

The Leopard Kings, Spirit Kings, Old Kings, and Lizard Kings are just the best-known of the beings that ran the Milky Way before the rise of the Federation. They all left, to parts unknown, for reasons unknown. Where are they now, and are they likely to return? Is there any way to contact them? Would anybody really want to?

Why the Convergent Technological Evolution?

Most of the powers of the ***Star Fleet Universe*** attained similar levels of technological development at roughly the same time. No empire made any significant advance without other empires copying it within a few years. This seems very convenient to conspiracy buffs, although industrial and intelligence analysts find it unremarkable. They note that spies, combat reports, and good old-fashioned research can ensure that one empire copies any new technology before the originally discovering empire can deploy enough of it to gain a decisive advantage in war or trade. This creates no end of opportunities for adventurers to steal alien technology, or discover the secret conspiracies behind the overall question.



Federation Plasma Dreadnought

2 CREATING A CHARACTER

Creating a character is the first part of the game, and one of the most important. The whole idea of roleplaying is to take the part of another person – a "character" that you create. ***GURPS*** lets you decide exactly what kind of hero you will become.

The usual way to create a character is to design him or her, just as though he were a character in a story you were writing. Start by deciding what type of person you want to be. You can take your inspiration from a fictional hero or heroine – or create your new "self" from the ground up. Once you have some idea what sort of person you want to play, it's time to bring him to life!

A "character story" is the history of a game character, written by the person who plays that character. This is a great aid to roleplaying. You may even want to write the story first (or at least some of it), and then work out your character's actual stats. A story can really help bring your character to life. You don't have to do it – but it's recommended. If you write the story down, you should show it to the Game Master, but not necessarily to the other players. After all, your character probably has some secrets, even from his friends.

The following sections describe things you can spend your character points on. Positive traits (e.g., great strength, wealth, better than average appearance, skills) cost points in proportion to their value. Negative traits (e.g., weakness, bad sight, poverty, fear of heights) give you extra points that can be used to buy more positive traits.

In a standard ***GURPS Prime Directive*** campaign, each player receives 125 character points to be spent on designing and building the character. GMs may set the tone of the campaign differently by selecting a different number of starting character points, but this should be approached with caution.

Campaign Tone	**Points**
Cadet	75
Green	100
Standard	125
Veteran	150
Elite	175
Heroic	200+

Normally, all player characters in a given campaign are given the same number of points to spend. There could be exceptions to this in some cases (if the GM agrees), to preserve logical consistency. A starship captain would, probably, have more points than most of his officers.

To get into the game quickly, you could use the sample characters found on pp. 357-359 of this book.

ADVENTURE PARTY FORMATS

You have gotten together a group of players and are ready to begin adventuring in the ***Star Fleet Universe.*** You dream of rescuing attractive people, fighting the Klingons, finding ancient civilizations, and maybe grabbing some loot (or at least a good time) along the way. Just how do you organize your team (group, party, or whatever)? Just who are you?

Well, in case it hasn't been mentioned, you can be anyone or anything you want to be. Here are a few suggestions; feel free to ignore or modify them. It should be noted that in rare cases one or more characters might have more points than the baseline for your campaign. While these are written for Federation characters, they can be easily adapted to any species or empire. Future books will include more suggestions for party creation and campaign frames to fit a variety of backgrounds and power levels.



The Bridge Crew: Officers on Call

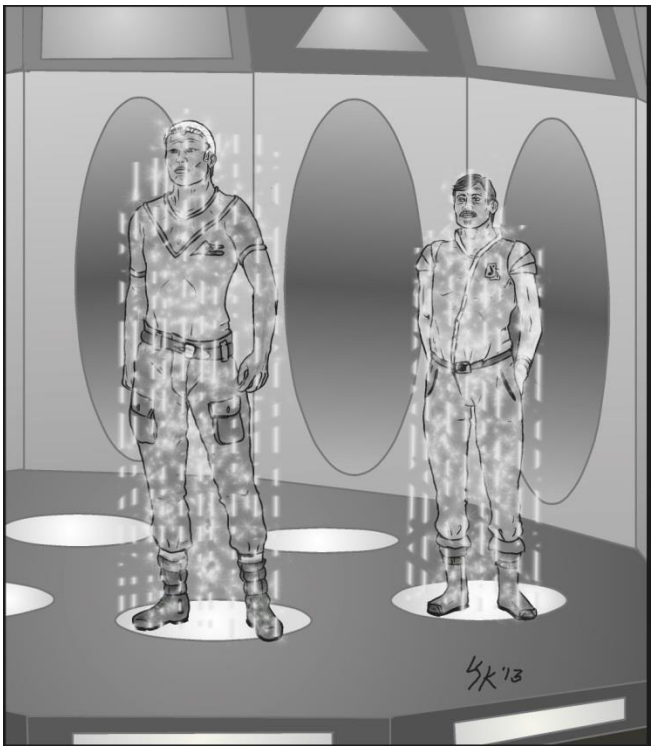
You are the officers of a starship, including the captain, the first officer, the department heads (engineering, science, medical, marines, navigation), and perhaps a visiting civilian expert. Your missions include space combat, scientific exploration, a little diplomacy and bar hopping, and so forth. Fussy realists will complain that the bridge crew of a starship just doesn't do a lot of planetside adventuring, but they are only angry that *you* are hogging all the fun for yourselves. Your ship has a few hundred people on board, so you can usually borrow an NPC expert for any mission, and there are tons of equipment so you can load up with whatever today's adventure requires. In this case, somebody will need to be the captain (perhaps with an extra 25 points of skills related to space combat and command) and the first officer (perhaps an extra 15 points), while everyone else will have to buy at least some skills related to their real job (e.g., medical, engineering, etc.). Having to pay for these shipboard skills may make your characters harder to play in a planetside adventure, but then you have a starship load of help not far away. You are all military personnel, and you won't have to pay for fuel and upkeep for your ship (although your GM may limit how much of either you can have).

A variation of this is that you are a group of junior officers or senior petty officers on a starship whom the captain often calls upon to go run errands or attend to special missions. And while on a mission, things might turn up that you need (or want) to look into. The group in the story "Rescue on Roon" fits this category. The players and GM might or might not agree that one character will get a few extra points and be one rank higher than the others.

Special Assignment: Ready for Anything

You are a group of Star Fleet officers and senior petty officers on a continuing special assignment doing "odd jobs" for the Federation. (One or more characters might be Federation marshals – civilian law enforcement officers empowered to investigate crimes. One or more could be a civilian specialist.) You have a small ship; you might be the entire crew, or there might be a small number of NPCs who handle things like cooking and laundry and actually driving the spaceship around. While you are your own boss, you do keep getting assignments from Fleet HQ. Your group could focus on missions of its liking (science, diplomacy, commando, espionage, etc.) or seek a wider variety of possible missions.

A variant of this concept is that you are all "retired" or "reserve" military personnel who own the ship and make a living out of odd jobs (transportation, profit-making adventures). You do receive occasional contracts from Star Fleet HQ or a Federation planet to do special jobs for them, and they will pay to get the jobs done right and on time. You need to avoid actually committing a felony on a Federation planet or your contracts won't be renewed. (At least, don't get caught.)



Prime Team: The Best of the Best

You are the elite of Star Fleet, a prime team, a small band of multi-tasking experts who are the best that the Federation can send on various special missions. A prime team [see p. 301] is a combination of a commando team, gang of spies, diplomatic negotiating group, scientific exploration party, hostage rescue squad, and special missions force. Members of a prime team are 175-point characters with a wide variety of skills; they draw the toughest jobs. As you are military personnel, you don't pay for transportation (and prime teams don't have to *ask* for high speed travel) and you are issued all of the equipment you need. Some prime teams are assigned to key starships (which often leave them on one planet to solve one problem while the ship goes to another planet to solve another problem), others have their own (small) ship to carry them from job to job, and others hitch a ride with whatever starship is going in the general direction of their next assignment. Some prime teams specialize in certain areas, but all are expected to be ready for *any* kind of mission.

Fighter Pilots: Wild Dogfights, Wild Parties

In the ***Star Fleet Universe,*** the key starships of a fleet are the carriers, loaded with specially built shuttlecraft that function as fighters. Your group is as rowdy a bunch of fighter jockeys as you have ever seen, as likely to get into a bar fight as a dogfight, and as likely to sneak off and try to find a little fun (or a few souvenirs) as they are to fly off and attack a Klingon dreadnought. You can easily use ***Star Fleet Battles*** to

portray your fighter combat missions. (See Chapter 8.) As pilot characters are still limited to the standard number of points for your campaign, the points spent for pilot skills won't be available for planetside skills (or just don't count these points). Otherwise you function as a group of officers on a starship. Just remember the three things every pilot needs when entering a dive: mirrored sunglasses, an expensive watch, and lots of cash.

Freelancers: Have Phaser, Will Travel

You are civilians, perhaps with a military background but probably not currently members of the military; others might have a scientific, criminal, business, or other background. Your group might own a ship or buy passage on other ships. You are looking for profit, adventure, and high-risk work. You might be described as mercenaries or freebooters. The government, the military, or even the Galactic Intelligence Agency might hire you now and then for something, but mostly you are on your own. (The less attention you pay to the law, the less likely you will get government contracts. You can always turn down an offered contract, unless the government "has something on you" and can force you to agree.)

In this kind of group, you might want to buy disadvantages like "warrant for your arrest" on some Federation planet. This would be handled as the disadvantage "Enemy (UFP law enforcement, 6 or less)" worth -10 points. A minor "wanted for questioning" type of Enemy might be worth -5 points. Your past can then come back to haunt you during any adventure, perhaps requiring you to spend time in jail while some distant government decides whether or not they want to extradite you (probably not) or a shorter time in police custody giving yet another version of the statement you have given on two or three other planets. Your friends might even have to break, bribe, or bail you out of the hoosegow, or perhaps the government will offer you a dangerous contract that will clear your record.

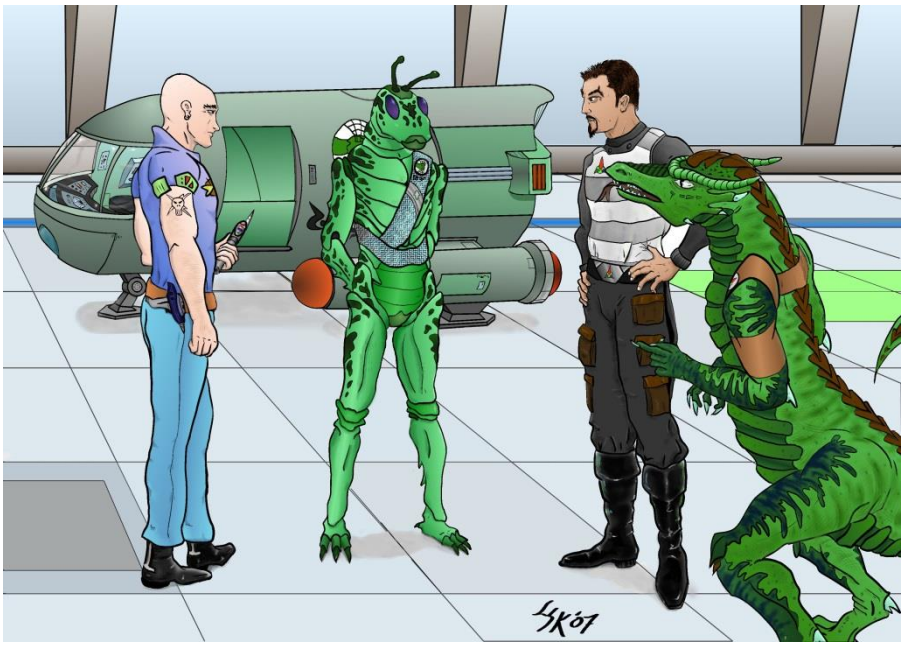
One or more characters could have been cashiered (i.e., thrown out of the military for some offense). This is handled as "Reputation -2 (Dishonorably discharged; only to the military, 10 or less) [-2]." A civilian scientist might have a similar disadvantage, having once had his tenure revoked, or having been fired from a job, for faking research data, making other scientists less likely to listen when you discover something new.

This type of group could focus on exploration, larceny, missionary or humanitarian work, archaeology, investigative journalism, smuggling, or anything else that suits your fancy. And of course, that might be just a cover story for your real mission (which even the GM might not know).

Other Parties and Times

The above is obviously not a complete list. A campaign can be anything that keeps the players interested. If you think of something not on this list, tell us and, if we like the idea, we will print it in a future product.

The ***Star Fleet Universe*** includes a Timeline (p. 313). You are free to set your campaign at any point in the Timeline (or to ignore the Timeline entirely and write your own history to suit your campaign). This book assumes the period just before the General War for most cases.



CHARACTER CREATION

BASIC ATTRIBUTES

Four numbers called “attributes” define your basic abilities: Strength (ST), Dexterity (DX), Intelligence (IQ), and Health (HT).

A score of 10 in any attribute is free, and represents the human average. Higher scores cost points: 10 points to raise ST or HT by one level, 20 points to raise DX or IQ by one level. Similarly, scores lower than 10 have a negative cost: -10 points per level for ST or HT, -20 points for DX or IQ. (Remember – negative point values mean you get those points back to spend on something else.)

Strength (ST)

±10 points/level

Strength measures physical power and bulk. High ST lets you dish out *and absorb* more damage in hand-to-hand combat. Any adventurer will find ST useful for lifting and throwing things, moving quickly with a load, etc. ST directly determines Basic Lift, basic damage, and Hit Points, and affects your character’s Build.

Lifting capacity is proportional to the *square* of ST.

Dexterity (DX)

±20 points/level

Dexterity measures a combination of agility, coordination, and fine motor ability. It controls your basic ability at most athletic, fighting, and vehicle-operation skills, and at craft skills that call for a delicate touch. DX also helps determine Basic Speed (a measure of reaction time) and Basic Move (how fast you run).

Intelligence (IQ)

±20 points/level

Intelligence broadly measures brainpower, including creativity, intuition, memory, perception, reason, sanity, and willpower. It rules your basic ability with all “mental” skills – sciences, social interaction, etc. Any scientist needs a high IQ first of all. The secondary characteristics of Will and Perception are based on IQ.

Health (HT)

±10 points/level

Health measures energy and vitality. It represents stamina, resistance (to poison, disease, radiation, etc.), and basic “grit.” HT determines Fatigue Points, and helps determine Basic Speed and Basic Move.

SECONDARY CHARACTERISTICS

“Secondary characteristics” are quantities that depend directly on your attributes. You can raise or lower these scores by adjusting your attributes. You can modify some of them directly: start with the value calculated from your attributes and spend the required points to adjust it away from that base level. This does not affect the related attribute scores.

Damage (Dmg)

Your ST determines how much damage you do in unarmed combat or with a melee weapon. Two types of damage derive from ST:

Thrusting damage (abbreviated “thrust” or “thr”) is your basic damage with a punch, kick, or bite, or an attack with a thrusting weapon such as a spear or a rapier.

Swinging damage (abbreviated “swing” or “sw”) is your basic damage with a swung weapon, such as an axe, club, or sword – anything that acts as a lever to multiply your ST.

Consult the *Damage Table* for your basic damage. This is given in dice+adds format. Note that specific attack forms and weapons can modify this!

Damage is often abbreviated “Dmg.” On your character sheet, list thrust followed by swing, separated by a slash; e.g., if you had ST 13, you would list “Dmg 1d/2d-1.”

Damage Table

ST	Thrust	Swing
1	1d-6	1d-5
2	1d-6	1d-5
3	1d-5	1d-4
4	1d-5	1d-4
5	1d-4	1d-3
6	1d-4	1d-3
7	1d-3	1d-2
8	1d-3	1d-2
9	1d-2	1d-1
10	1d-2	1d
11	1d-1	1d+1
12	1d-1	1d+2
13	1d	2d-1
14	1d	2d
15	1d+1	2d+1
16	1d+1	2d+2
17	1d+2	3d-1
18	1d+2	3d
19	2d-1	3d+1
20	2d-1	3d+2

Handedness

Decide whether you are right-handed or left-handed. Whenever you try to do anything significant with the other hand, you are at -4 to skill. This does not apply to things you normally do with your "off" hand, like using a shield.

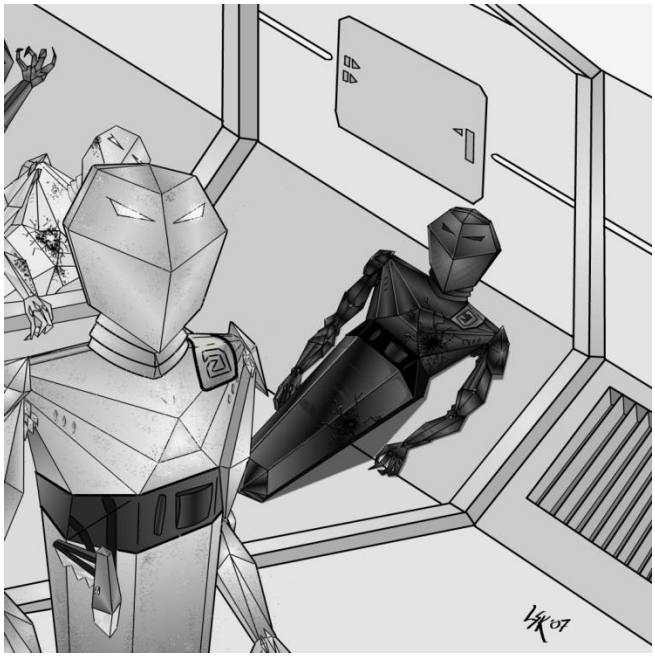
GURPS assumes you are right-handed unless you decide otherwise or buy Ambidexterity. If you choose to be left-handed, any combat result that would damage your right hand affects your left instead, and vice versa. Left-handedness is a feature worth 0 points.

Basic Lift (BL)

Basic Lift is the maximum weight you can lift over your head with *one* hand in *one* second. It is equal to (ST×ST)/5 lbs. If BL is 10 lbs. or more, round to the nearest whole number; e.g., 16.2 lbs. becomes 16 lbs.

Doubling the time lets you lift 2×BL overhead in one hand. Quadrupling the time, and using *two* hands, you can lift 8×BL overhead.

The amount of equipment you can carry – armor, backpacks, weapons, etc. – is derived from BL. For more on this, as well as a ST-to-BL table, see *Encumbrance and Move.*



Hit Points (HP)

±2 points per ±1 HP

Hit Points represent your body's ability to sustain injury. By default, you have HP equal to your ST. For instance, ST10 gives 10 HP.

You can increase HP at the cost of 2 points per HP, or reduce HP for -2 points per HP. The GM should not allow HP to vary by more than ±30% of ST; e.g. a ST 10 character could have between 7 and 13 HP. Certain species may not be subject to this limit.

You can temporarily lose HP to physical attacks, energy attacks, disease, poison, hazards, and anything else that can injure or kill. You can also "burn" HP to power certain abilities. If you lose enough HP, you will eventually fall unconscious; if you lose too many HP, you will *die.* Lost HP do *not* reduce ST, despite being based on ST.

Injury is often compared to a multiple of your HP; e.g., "2×HP" or "HP/2." Where this is the case, use your *basic* HP score in the formula, not your *current* HP total.

For information on the effects of injury and on recovering lost HP, see p. 223.

Those with nonhuman physiologies may, with the GM's permission, buy additional HP with the following limitation.

Special Limitations

Size: Large creatures may purchase HP more cheaply. -10% × Size Modifier, to a maximum limitation of -80% (for Size Modifier +8 or higher).

Will

±5 points per ±1 Will

Will measures your ability to withstand psychological stress (brainwashing, fear, hypnotism, interrogation, seduction, torture, etc.) and your resistance to psionic attacks. By default, Will is equal to IQ. You can increase it at the cost of 5 points per +1, or reduce it for -5 points per -1. You cannot raise Will past 20, or lower it by more than 4, without GM permission.

Note that Will does not represent *physical* resistance – buy HT for that!

Perception (Per)

±5 points per ±1 Per

Perception represents your general alertness. The GM makes a "Sense roll" against your Per to determine whether you notice something (see *Sense Rolls,* p. 195). By default, Per equals IQ, but you can increase it for 5 points per +1, or reduce it for -5 points per -1. You cannot raise Per past 20, or lower it by more than 4, without GM permission.

Fatigue Points (FP)

±3 points per ±1 FP

Fatigue Points represent your body's "energy supply." By default, you have FP equal to your HT. For instance, HT10 give 10 FP.

You can increase FP at the cost of 3 points per FP, or reduce FP for -3 points per FP. The GM should not allow FP to vary by more than ±30% of HT; e.g., a HT 10 character could have between 7 and 13 FP. Certain species may not be subject to this limit. Also,

while HT is usually limited to 20, there is no such limit on FP.

You burn FP gradually during strenuous activity. Disease, heat, hunger, missed sleep, and the like can also sap FP. You can deliberately "spend" FP to fuel extra effort and psionic powers. As well, some attacks cause FP damage instead of or in addition to HP damage. If you lose enough FP, you will slow down or fall unconscious – and if you lose too many, you risk death from overexertion! Lost FP do *not* reduce HT, despite being based on HT.

Fatigue is often compared to some multiple of your FP; e.g., "2×FP" or "FP/2." Where this is the case, use your *basic* FP score in the formula, not your *current* FP total.

Basic Speed

±5 points per ±0.25 Speed

Your Basic Speed is a measure of your reflexes and general physical quickness. It helps determine your running speed (see *Basic Move,* below), your chance of dodging an attack, and the order in which you act in combat (a high Basic Speed will let you "outreact" your foes).

To calculate Basic Speed, add your HT and DX together, and then divide the total by 4. *Do not round it off.* A 5.25 is better than a 5!

You can increase Basic Speed for 5 points per +0.25, or reduce it for -5 points per -0.25. The GM should not allow characters to alter Basic Speed by more than 2.00 either way. Certain species may not be subject to this limit.

Dodge: Your Dodge defense (see *Dodging,* p. 212) equals Basic Speed +3, dropping all fractions. For instance, if your Basic Speed is 5.25, your Dodge is 8. Encumbrance reduces Dodge; see *Encumbrance and Move*. You must roll under your Dodge on 3d to duck or sidestep an attack.

Basic Move

±5 points per ±1 yard/second

Your Basic Move is your ground speed in yards per second. This is how fast you can run – or roll, slither, etc. – *without encumbrance* (although you can go a little faster if you "sprint" in a straight line; see p. 192).

Basic Move starts out equal to Basic Speed, less any fractions; e.g., Basic Speed 5.75 gives Basic Move 5. An average person has Basic Move 5; therefore, he can run about 5 yards per second if unencumbered.

You can increase Basic Move for 5 points per yard/second. For normal humans, training or a sleek build can justify up to 3 yars/second of increased Basic Move, while disability or poor fitness can explain up to 3 yards/second of reduced Basic Move. Certain species may not be subject to this limit. Species who can move *very* fast should see *Enhanced Move* (p. 89).

Your Move score in combat is your Basic Move modified for your encumbrance level; see *Encumbrance and Move* (following).

Encumbrance and Move

"Encumbrance" is a measure of the total weight you are carrying, *relative to your ST.* The effects of encumbrance are divided into five "encumbrance levels." All but the lowest level will reduce your actual Move to a fraction of your Basic Move and give a penalty to Dodge, as follows:

No Encumbrance (0): Weight up to Basic Lift. Move = Basic Move. Full Dodge.

Light Encumbrance (1): Weight up to 2×BL. Move = Basic Move × 0.8. Dodge -1.

Medium Encumbrance (2): Weight up to 3×BL. Move = Basic Move × 0.6. Dodge -2.

Heavy Encumbrance (3): Weight up to 6×BL. Move = Basic Move × 0.4. Dodge -3.

Extra-Heavy Encumbrance (4): Weight up to 10×BL. Move = Basic Move × 0.2. Dodge -4.

Drop all fractions. Encumbrance can never reduce Move or Dodge below 1.

Note that these levels are numbered from 0 to 4. When a rule tells you to add or subtract your encumbrance level from a die roll, this is the number to use. For instance, encumbrance gives a penalty to Climbing, Stealth, and Swimming skills.

Home Gravity

Gravity is measured in "Gs." The gravity of your homeworld is specified in the Species Profile for all species. Note the gravity of your homeworld if it differs from 1G; e.g., "1.2G" for a world with 1.2 times Earth's gravity. All weights are multiplied by local gravity, so to function like someone with a given BL on Earth, multiply the desired BL by your home gravity and buy the ST corresponding to the adjusted BL. For instance, to operate in 1.2G as if you were a ST 10 person in 1G, start with BL for ST 10, which is 20 lbs., and multiply by 1.2 for gravity to get a BL of 24 lbs. This BL corresponds to ST 11, so you'd need ST 11 in 1.2G to function as well as a ST 10 person in 1G.

Move in Other Environments

Water: Move is normally Basic Move/5, rounded down. You can increase water Move directly for 5 points per yard/second, or reduce it for -5 points per yard/second. Members of land-dwelling species must have Swimming skill to increase water Move, and cannot buy more than +2 yards/second. If you're Amphibious (p. 84), both water and ground Move equal Basic Move, and changes to Basic Move adjust *both* scores. If you're Aquatic (p. 133), water move equals Basic Move and ground Move is 0.

Air: Move is 0 without special advantages. If you have Flight (p. 91), air Move equals Basic Speed × 2 (*not* Basic Move × 2). You can increase air Move

directly for 2 points per yard/second, or reduce it for -2 points per yard/second.

Basic Lift and Encumbrance Table

This table summarizes Basic Lift and Encumbrance levels for ST 1-20.

ST	BL	------- Encumbrance Levels (lbs.) -------				
(lbs.)		None (0)	Light (1)	Medium (2)	Heavy (3)	Extra-Heavy (4)
1	0.2	0.2	0.4	0.6	1.2	2
2	0.8	0.8	1.6	2.4	4.8	8
3	1.8	1.8	3.6	5.4	10.8	18
4	3.2	3.2	6.4	9.6	19.2	32
5	5	5	10	15	30	50
6	7.2	7.2	14.4	21.6	43.2	72
7	9.8	9.8	19.6	29.4	58.8	98
8	13	13	26	39	78	130
9	16	16	32	48	96	160
10	20	20	40	60	120	200
11	24	24	48	72	144	240
12	29	29	58	87	174	290
13	34	34	68	102	204	340
14	39	39	78	117	234	390
15	45	45	90	135	270	450
16	51	51	102	153	306	510
17	58	58	116	174	348	580
18	65	65	130	195	390	650
19	72	72	144	216	432	720
20	80	80	160	240	480	800

BUILD

You are free to select any height and weight the GM deems reasonable for a member of your species. These choices *do* occasionally matter in play – for instance, when you attempt to impersonate an enemy, wear someone else's armor, cross a rickety bridge, reach a high ledge, or hide behind cover.

If you are lighter or heavier than usual for your ST, you may qualify for a build-related disadvantage. The following table gives the thresholds for these disadvantages for normal humans.

The extremes of each weight range usually match the extremes of the associated height range. Overlaps are *intentional.* Consider two ST 10 men who stand 5'8" and weigh 175 lbs.: one might be big-boned and lean, the other fine-boned and chubby. Depending on muscle tone a 160-lb. man could have any ST from 9 to 13 and claim "Average" build.

Regardless of weight, you never *have* to take a build-related disadvantage. If you want to be ST9, 5'1," and 250 lbs. with "Average" build, the GM should allow it.

Build-related disadvantages are described below. In some settings, the GM may require you to take reaction modifiers if you select these traits, but this is not automatic.

Skinny

-5 points

You have approximately 2/3 the average weight for your ST. This gives you -2 to ST when you resist knockback. You get -2 to Disguise – or to Shadowing, if you are trying to follow someone in a crowd. Your HT may not be above 14.

Overweight

-1 point

You have approximately 130% the average weight for your ST. You get -1 to Disguise – or to Shadowing, if you are trying to follow someone in a crowd. However, your extra fat gives you +1 to Swimming rolls, and +1 to ST when you resist knockback.

Fat

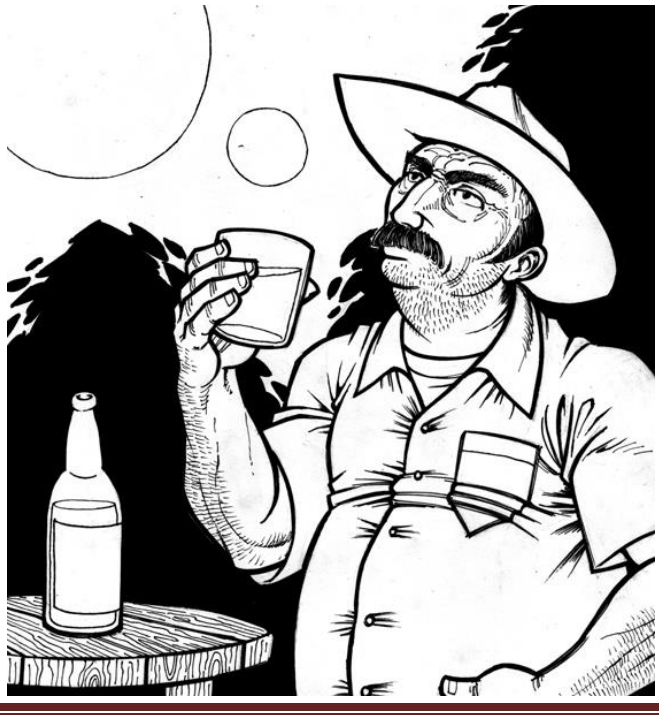
-3 points

You have approximately 150% the average weight for your ST. You get -2 to Disguise – or to Shadowing, if you are trying to follow someone in a crowd. However, your extra fat gives you +3 to Swimming rolls, and +2 to ST when you resist knockback. Your HT may not be above 15. This disqualifies you from attending Star Fleet Academy.

Very Fat

-5 points

You have approximately *twice* the average weight for your ST. You get -3 to Disguise – or to Shadowing, if you are trying to follow someone in a crowd. However, the extra fat gives you +5 to Swimming rolls, and +3 to ST when you resist knockback. Your HT may not be above 13. This disqualifies you from attending Star Fleet Academy.



Build Table

ST	*Height Range*	*Weight Range by Build*				
		Skinny	*Average*	*Overweight*	*Fat*	*Very Fat*
6 or less	4'4"-5'2"	40-80 lbs.	60-120 lbs.	80-160 lbs.	90-180 lbs.	120-240 lbs.
7	4'7"-5'5"	50-90 lbs.	75-135 lbs.	100-175 lbs.	115-205 lbs.	150-270 lbs.
8	4'10"-5'8"	60-100 lbs.	90-150 lbs.	120-195 lbs.	135-225 lbs.	180-300 lbs.
9	5'1"-5'11"	70-110 lbs.	105-165 lbs.	140-215 lbs.	160-250 lbs.	210-330 lbs.
10	5'3"-6'1"	80-120 lbs.	115-175 lbs.	150-230 lbs.	175-265 lbs.	230-350 lbs.
11	5'5"-6'3"	85-130 lbs.	125-195 lbs.	165-255 lbs.	190-295 lbs.	250-390 lbs.
12	5'8"-6'6"	95-150 lbs.	140-220 lbs.	185-290 lbs.	210-330 lbs.	280-440 lbs.
13	5'11"-6'9"	105-165 lbs.	155-245 lbs.	205-320 lbs.	235-370 lbs.	310-490 lbs.
14 or more	6'2"-7'	115-180 lbs.	170-270 lbs.	225-355 lbs.	255-405 lbs.	340-540 lbs.

SIZE MODIFIER (SM)

Size Modifier rates a person or object's most significant dimension: length, width, or height. It is a modifier to rolls to hit you in combat and to Vision rolls made to spot you. Thus, it is a bonus for large creatures, a penalty for small ones. Although large creatures are easier targets, a positive SM qualifies them to buy ST and HP more cheaply by taking the "Size" limitation.

Most humans – and humanoids, robots, etc. that can pass for human – have SM 0, and can ignore this rule. Nonhumans use the SM on their species profile. However, your SM may deviate from the average if you are not full-grown, or if you are a genetic dwarf or giant.

It is neither an advantage nor a disadvantage to have a nonzero SM – the benefits and drawbacks tend to cancel out. The exceptions are genetic dwarfism and gigantism, as these condition affect bodily proportions (notably relative arm and leg length) and have social ramifications (you stand out in a crowd).

Dwarfism (-1 SM)

-15 points

You are abnormally short for your species. Regardless of ST, your height falls below the lowest value on the Build Table – under 4'4," for a human. This gives you Size Modifier -1. Choose your weight from the first line of the Build Table and reduce it by 15%

You have -1 to Basic Move (short legs). In combat, your reach is reduced by 1 yard. This is partly because you have short arms and partly because you must use scaled-down weapons (regardless of your ST, your arms lack the leverage to control full-sized weapons).

You get -2 to Disguise – or to Shadowing, if you are trying to follow someone in a crowd. In backward settings, the GM may require you to take a Social Stigma if you suffer from Dwarfism.

A member of *any* species may be a dwarf. Scale down height by a factor of 0.75 from the species average, and modify the species SM by -1. Otherwise, the rules remain the same.

Size Modifier Table

Longest Dimension	Size Modifier
0.05 yard (1.8")	-10
0.07 yard (2.5")	-9
0.1 yard (3.5")	-8
0.15 yard (5")	-7
0.2 yard (7")	-6
0.3 yard (10")	-5
0.5 yard (18")	-4
0.7 yard (2')	-3
1 yard (3')	-2
1.5 yards (4.5')	-1
2 yards (6')	0
3 yards (9')	+1
5 yards (15')	+2
7 yards (21')	+3
10 yards (30')	+4
15 yards (45')	+5
20 yards (60')	+6
30 yards (90')	+7
50 yards (150')	+8
70 yards (210')	+9
100 yards (300')	+10
150 yards (450')	+11

Gigantism (+1 SM)

0 points

You are abnormally tall for your species. Regardless of ST, your height falls above the highest value on the Build Table – under 7', for a human. This gives you Size Modifier +1 and +1 to Basic Move (long legs), and qualifies you to buy ST and HT at a discount. Choose your weight from the last line of the Build Table and increase it by 10%

You get -2 to Disguise – or to Shadowing, if you are trying to follow someone in a crowd. On the other hand, height often provides a bonus to Intimidation skill (see p. 166). In backward settings, the GM may require you to take a Social Stigma if you suffer from Gigantism.

A member of *any* species may be a giant. Scale your height up by a factor of 1.25 from the species average, and modify the species SM by +1. Otherwise, the rules remain the same.

> ***Shopping for the Big, Tall, Thin, and Small***
>
> If you are Skinny, Fat, or Very Fat, or have Dwarfism or Gigantism, clothing and armor tailored for average folk will not fit you. There is a premium of 10% added (20% for Gigantism or Very Fat) to most clothing

AGE AND BEAUTY

Age and physical appearance play a major role in how others perceive you. Choose carefully!

AGE

You are free to pick any age within the usual lifespan for your species. Humans usually fall somewhere between "young adult" and "old" – 18 to 70 years – but fiction is full of heroic youths and sharp 90-year-old veterans.

For nonhumans that don't age at the same rate as humans, charts are provided to give you age ranges. See more on aging on p. 240.

The Elderly

If you age *in play,* you will have to make HT rolls to avoid attribute loss. See *Age and Aging* on p. 240.

If you *start* at an advanced age, you have no special disadvantages. Not everyone ages well, but heroes are exceptional, and you are free to make elderly characters as fit and as capable as you wish.

Note that in many societies, the elderly enjoy great respect. Represent this by taking Social Regard (Venerated) – see p. 102.

PHYSICAL APPEARANCE

Appearance is mostly as "special effect" – you may choose any physical appearance you like. At minimum, note the color of your skin, hair, and eyes (or other features appropriate to your species: scales, feathers, paint job, etc.). However, certain traits count as advantages or disadvantages.

Appearance Levels

Appearance is rated in levels. Most people have "Average" appearance, for 0 points. Good looks give a reaction bonus; this is an advantage and costs points. Unappealing looks give a reaction penalty; this is a disadvantage and gives you back points. These reaction modifiers only affect those who can see you! Those who cannot see you might have to make a new reaction roll upon first meeting you in person (GM's option).

Reaction modifiers due to appearance only affect members of your own species, a very similar species, or a dissimilar species that finds your species attractive (for whatever reason). In all cases, the GM's word is final; Humans are "very similar" to Alpha-Centaurans, but Klingons are unlikely to care about a Human's appearance. If you are Horrific, Monstrous, Hideous, or Transcendent in appearance, you will be disqualified from attending Star Fleet Academy.

Horrific: You are indescribably monstrous or unspeakably foul, and cannot interact with normal mortals. This gives -6 on reaction rolls. This level is subject to GM approval. *-24 points.*

Monstrous: You are hideous *and* clearly unnatural. Most people react to you as a monster rather than a sapient being. This gives -5 on reaction rolls. Again, this level is subject to GM approval. *-20 points.*

Hideous: You have any sort of disgusting looks you can come up with: a severe skin disease, wall-eye ... preferably several things at once. This gives -4 on reaction rolls. *-16 points.*

Ugly: As above, but not so bad – maybe only stringy hair and snaggle teeth. This gives -2 on reaction rolls. *-8 points.*

Unattractive: You look vaguely unappealing, but it's nothing anyone can put a finger on. This gives -1 on reaction rolls. *-4 points.*

Average: Your appearance gives you no reaction modifiers either way; you can blend easily into a crowd. A viewer's impression of your looks depends on your behavior. If you smile and act friendly, you will be remembered as pleasant-looking; if you frown and mutter, you will be remembered as unattractive. *0 points.*

Attractive: You don't enter beauty contests, but are definitely good-looking. This gives +1 on reaction rolls. *4 points.*

Handsome (or Beautiful): You *could* enter beauty contests. This gives +4 on reaction rolls made by

those attracted to members of your sex, +2 from everyone else. *12 points.*

Very Handsome (or Very Beautiful): You could *win* beauty contests – regularly. This gives +6 on reaction rolls made by those attracted to members of your sex, +2 from others. *Exception:* Members of the same sex with reason to dislike you (more than -4 in reaction penalties, regardless of bonuses) *resent* your good looks, and react at -2 instead. As well, talent scouts, friendly drunks, slave traders, and other nuisances are liable to become a problem for you. *16 points.*

Transcendent: You are an "ideal specimen." This gives +8 (!) on reaction rolls made by those attracted to members of your sex, +2 from others, and all the troublesome side effects of Very Handsome. This level is subject to GM approval. *20 points.*



OTHER PHYSICAL FEATURES

There is more to appearance than good (or not-so-good) looks. You may take any combination of the following traits in conjunction with *any* appearance level.

Fashion Sense

5 points

Your look is always one step ahead of the crowd. You have the ability to create a fashion statement out of the cheapest and most nondescript materials. This gives +1 to reaction rolls in social situations when you have a chance to plan your attire in advance. You can also give *someone else* a +1 reaction bonus when you put together the outfit.

Mistaken Identity

-5 points

You are often mistaken for someone else. Your "double's" allies approach you and tell you things you don't want to know, and his acquaintances will treat you in strange and irritating ways. His enemies are after you, too! You might eventually get things straightened out, but not without some effort.

Odious Personal Habits

-5, -10, or -15 points

You usually or always behave in a fashion repugnant to others. An Odious Personal Habit (OPH) is worth -5 points for every -1 to reaction rolls made by people who notice your problem. Specify the behavior when you create your character, and work out the point value with the GM.

Examples: Body odor, constant scratching, or tuneless humming would give -1 to reactions, and are worth -5 points apiece. Constant bad puns or spitting on the floor would give -2 to reactions, worth -10 points apiece. We leave -15-point habits (-3 to reactions) to the imagination of those depraved enough to want them! (And those will disqualify you from Star Fleet Academy.)

The reaction penalty for an OPH applies only to members of your species. It is up to the GM to handle the reactions of other species. A constant drool will irritate other humans, but some Carnivons might not even notice – and a Vergarian might think it was cute! Of course, an entire *species* can behave in a manner repugnant to most other species. These "Odious Species Habits" are priced identically to OPHs.

Pitiable

5 points

Something about you makes people pity you and want to take care of you. You get +3 on all reaction rolls from those who consider you to be in a position of helplessness, weakness, or need (which *never* includes those with the Callous disadvantage). Taken in conjunction with above-average looks, Pitiable means you are "cute" instead of "sexy"; in combination with below-average looks, it means you are "appealingly homely," like a basset hound.

Unnatural Features

-1 point/level

You are superficially "normal" but have one or more disturbing cosmetic features. To qualify for points, these must be unnatural *for your species.* Pointed ears and fur would be unnatural for a Human, but not for a Lyran! You *must* specify the origin of your Unnatural Features.

Each level, to a maximum of five levels, gives -1 to your Disguise and Shadowing skills and +1 to others' attempts to identify or follow you (including their Observation and Shadowing rolls), unless almost everyone else in the crowd happens to share your features. (Enough Unnatural Features may disqualify you from attending Star Fleet Academy.)

SOCIAL BACKGROUND

The next few sections discuss your society's level of technological development, cultures, and languages. It is an advantage to be technologically advanced, culturally literate, or linguistically talented. *Inadequacy* in these areas can be a crippling disadvantage.

TECHNOLOGY LEVEL (TL)

"Technology level" (or "tech level") is a number that rates technological development. The more advanced the society, the higher its TL; see *Tech Level and Starting Wealth* (p. 35). The GM will tell you the TL of your homeworld. Be sure to note this, as it affects your access to certain traits – notably skills – and equipment.

Characters *also* have a TL, equal to that of the technology with which they are most familiar. Unless you are especially primitive or advanced, you should record the TL of your game world as your personal TL and move on.



Low TL

-5 points/TL below campaign TL

Your personal TL is below that of the campaign world. You start with *no* knowledge (or default skill) relating to equipment above your personal TL. You will be able to learn DX-based technological skills (pertaining to vehicles, weapons, etc.) in play, if you can find a teacher, but fundamental differences in thinking prevent you from learning IQ-based technological skills. To overcome this limitation, you must buy off this trait, increasing your personal TL. This usually requires a lengthy period of re-education. Until you buy off the trait, you cannot enter Star Fleet Academy.

High TL

***5 points*/TL above campaign TL**

Your personal TL is above that of the campaign world. You may enter play with skills relating to equipment up to your personal TL. This is most useful if you also have access to high-TL equipment, but the knowledge of a high-tech doctor or scientist can be very useful in a low-tech setting, even without specialized equipment!

CULTURE

You are automatically familiar with the social peculiarities of one major culture of your choice. You suffer no skill penalties when interacting with people from that culture. The GM will provide a list of cultures to choose from (or let you invent your own – many GMs appreciate players' contributions to the game world!).

When dealing with an *unfamiliar* culture, you have -3 to use any skill with a significant cultural component, including Carousing, Criminology, Detect Lies, Diplomacy, Fast-Talk, Intimidation, Leadership, Merchant, Poetry, Politics, Psychology, Public Speaking, Savoir-Faire, Sex Appeal, Sociology, Streetwise, and Teaching. To get rid of this penalty, buy the following advantage:

Cultural Familiarity

1 or 2 points/culture

You are familiar with cultures other than your own, and do not suffer the -3 penalty for unfamiliarity. This costs 1 point per culture of the same (or very similar) species, or 2 points per alien culture. To prevent point-cost inflation, the GM should use broad definitions of culture.

See *Cultural Adaptability* (p. 85) for additional options.

LANGUAGE

GURPS Prime Directive assumes most characters can read and write their "native" language and any others specified in their Species Profile. This ability costs no points, but should be noted on your character sheet; e.g. "Arcturian (Native) [0]; Federation Standard (Native) [0]."

The rest of this section is only important if you can communicate in more than one language (an advantage) or have difficulty with your native tongue (a disadvantage).

Comprehension Levels

The point cost to learn an additional language depends on your "comprehension level": a measure of how well you function in that language overall. There are four comprehension levels:

None: You are *completely* incapable of functioning in the language. If you do not spend points on a non-native language, this comprehension level is assumed – there is no need to note it for *every* language you don't know! *0 points/language.*

Broken: You can recognize important words and understand simple sentences if they are spoken slowly. You have -3 when using skills that depend on language, such as Fast-Talk, Public Speaking, Research, Teaching, and Writing. This doubles to -6 for artistic skills that rely on the beauty of the language (Poetry, Singing, etc.). In stressful situations – e.g., encounters involving combat or reaction rolls – you must roll against IQ to understand or make yourself understood in the language. On a failure, you convey no information, but you may try again. Critical failure means you convey the *wrong* information! For hurried speech, bad phone connections, etc., this roll is at -2 to -8! Native speakers who already dislike foreigners (see *Intolerance,* p. 131) react to you at an extra -1. *2 points/language.*

Accented: You can communicate clearly, even under stress. However, your speech and writing are idiosyncratic, and it is obvious that this is not your native language. You have -1 when using skills that depend on language, doubled to -2 for artistic skills. You receive no reaction penalty from native speakers, but you will be unable to pass for a native (this can be a major problem for would-be spies!). *4 points/language.*

Native: You have full mastery of the language, including idioms. You can *think* in the language. You have no penalty to use skills that depend on language. You start with the languages specified in your Species Profile at this level for free. If you buy Native comprehension in a foreign tongue, you can pass for a native speaker. *6 points/language.*

How *GURPS* Works: IQ, Sentience, and Sapience

Sentience is self-awareness. Any being with a ***GURPS*** IQ of at least 1 is sentient for purposes of this rule.

Sapience is defined as the ability to use tools and language. In ***GURPS,*** this requires at least IQ 6.

Those with IQ 5 or less *cannot learn technological skills or possess Languages — not even the initial Language that most characters get for free.* They can still communicate primitive concepts (such as hunger or danger) through gesture or vocalization, and may be trained to respond to a few commands. See p. 303 for specific ***SFU*** definitions.

The *Language* rules are for *sapient* characters. You must have at least IQ 6 to receive a native tongue for free and be able to learn new languages. Sapience does not guarantee the physical capacity for speech, though – you might need to rely on sign language.

Sign Language

A true sign language – e.g., Ranel – is complex, stylized, and can communicate almost any concept. Treat it as any other language, with one important difference: a sign language has *one* form (signed) instead of two (spoken and written). As a result, sign languages cost half as much: 1 point for Broken, 2 points for Accented, and 3 points for Native comprehension.

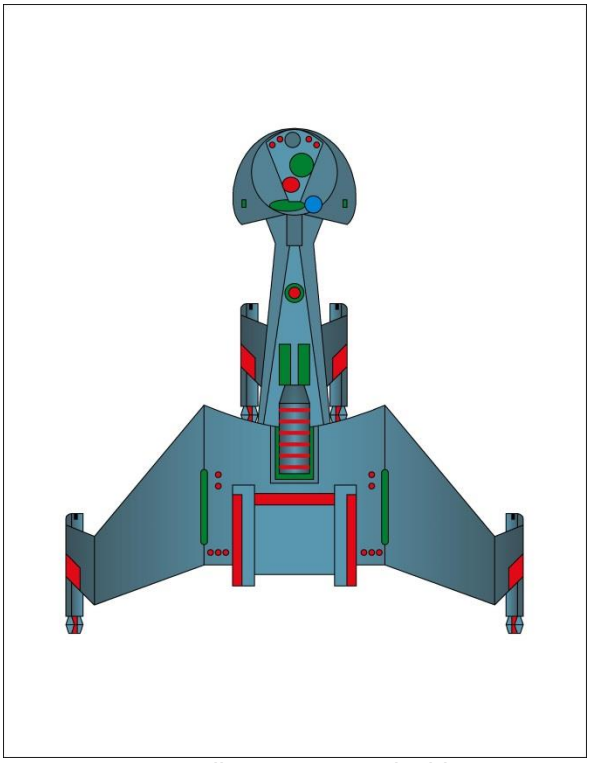
Characters with the Mute (p. 123) disadvantage start with one sign language and *written* ability in one language – both at Native level – *instead* of spoken and written ability in one language.

Learning Languages

To learn a new language, use the rules for learning skills: 200 hours of learning gives you one point to spend. Note that language study is *four times as hard* without a teacher!

If you live on another world and speak its language at all times, that is the automatic equivalent of 4 hours/day of training; there is no need to allocate specific study time unless you want to get more than this default. Thus, every 50 days, you get a character point to spend in that language.

Note that as a side-effect of this rule, any character that has purchased an *Academy Template* is assumed to have learned the primary language of that academy upon completion (if he didn't already know it). For example, a Tellarite who left his homeworld speaking Tellar would, upon graduation from Star Fleet Academy, be assumed to have learned Federation Standard (a variant of English) at Native level.



Klingon B10 Battleship

WEALTH AND INFLUENCE

Now you need to determine your position in your society: How much money do you have, what privileges do you enjoy, and how do others react to you?

WEALTH

Wealth is relative. A middle-class American lives in more luxury than a medieval king, though he may have fewer gold coins in his basement. It all depends on the game world – see *Tech Level and Starting Wealth* (p. 35). In most worlds, the range of standard starting wealth and income is relatively great, and your skills determine your job and income; see *Economics* (p. 241) for more information.

Personal wealth is rated in "wealth levels." A level of "Average" costs no points, and lets you support an average lifestyle for your game world. The rest of these rules apply if you are unusually poor or wealthy, have a source of incomes that does not require you to work, or are in debt.

Wealth

Variable

Above-average Wealth is an advantage; it means you start with two or more times the average starting wealth of your game world. Below-average Wealth is a disadvantage; it means you start with only a fraction of average starting wealth.

Dead Broke: You have no job, no source of income, no money, and no property other than the clothes you are wearing. Either you are unable to work or there are no jobs to be found. *-25 points*.

Poor: Your starting wealth is only 1/5 of the average for your society. Some jobs are not available to you, and no job pays very well. *-15 points.*

Struggling: Your starting wealth is only 1/2 of the average for your society. Any job is open to you (you can be a Struggling doctor or trivideo actor), but you don't earn much. This is appropriate if you are a student. *-10 points.*

Average: The default wealth level, as explained above. *0 points.*

Comfortable: You work for a living, but your lifestyle is better than most. Your starting wealth is twice the average. *10 points.*

Wealthy: Your starting wealth is five times average; you live very well indeed. *20 points.*

Very Wealthy: Your starting wealth is 20 times average. *30 points*.

Filthy Rich: Your starting wealth is 100 times average. You can buy almost anything you want without considering the cost. *50 points.*

Multimillionaire: "Filthy rich" doesn't even begin to describe your wealth! For every 25 points you spend beyond the 50 points to be Filthy Rich, increase your starting wealth by another factor of 10: Multimillionaire 1 costs 75 points and gives 1000 times average starting wealth, Multimillionaire 2 costs 100 points and gives 10,000 times starting wealth and so on. *50 points + 25 points/level of Multimillionaire.*

Starting Wealth

"Starting wealth" covers both money and property. Start with the amount of money your wealth level entitles you to. Buy the possessions you want to start with. Any unspent money is your bank account.

Tech Level and Starting Wealth

Tech level determines starting wealth, as technologically advanced societies tend to be richer. Below is a comparison of TLs and suggested starting wealth.

TL0: $250.
TL1: $500.
TL2: $750.
TL3: $1,000.
TL4: $2,000.
TL5: $5,000.
TL6: $10,000.
TL7: $15,000.
TL8: $20,000.
TL9: $30,000.
TL10: $50,000.
TL11: $75,000.
TL12: $100,000.

Double the starting wealth for each TL over TL12. For example, TL14 has a starting wealth of $400,000. ***GURPS Prime Directive*** gives wealth and prices in "$" for convenience.

Tech Level and Equipment

You enter play with "starting wealth" appropriate to the *campaign* TL. If you are from a higher TL, you may start with access to the equipment of your *personal* TL. However, *the price of an item of equipment is doubled for every TL by which its TL exceeds that of the campaign!*

Independent Income

1 point/level

You have a source of income that does not require you to work. Your monthly income is 1% of your starting wealth (adjusted for wealth level) per level of this trait, to a maximum of 20%. This trait assumes that you cannot or will not invade your capital.

This trait is unrelated to wealth level. A Filthy Rich heiress has Independent Income … but so do an Average retired Star Fleet crew member or Poor welfare recipient.

Independent Income most often means your occupation is something like dilettante, retiree, or welfare recipient – not an actual "job." However, you can have Independent Income *and* a job; just add the income from both sources.

REPUTATION

It is possible to be so well-known that your reputation becomes an advantage or a disadvantage. This affects reaction rolls made by NPCs (see p. 198). A reputation has four elements: *Details, Reaction Modifier, People Affected,* and *Frequency of Recognition.*

Details

The details of your reputation are entirely up to you; you can be known for bravery, ferocity, eating green snakes, or whatever you want. However, you *must* give specifics. Reputation is, by definition, something noteworthy; there is no such thing as a "generic" reputation.

Reaction Modifier

Specify the reaction-roll modifier that you get from people who recognize you. This determines the base cost of your reputation. For every +1 bonus to reaction rolls (up to +4), the cost is 5 points. For every -1 penalty (up to -4), the cost is -5 points.

People Affected

The size of the group of people who might have heard of you modifies the base cost:

Almost everyone in your game world (but *not* those from other universes – at least, not until they meet you!): ×*1.*

Almost everyone in your game world *except* one large class (everyone but the Klingons, everyone except Star Fleet): ×*2/3 (round down).*

Large class of people (everyone from a specific planet, all mercenaries, all tradesmen, etc.): ×*1/2 (round down).*

Small class of people (all priests of Wazoo, all literate Vergarians): ×*1/3 (round down).*

If the class of people affected is so small that, in the GM's opinion, you would not meet even one in the average adventure, your reputation isn't worth points.

Frequency of Recognition

Either your name or your face is enough to trigger a "reputation roll" to see if the people you meet have heard of you. Roll once for each person or small group you meet. For a large group, the GM may roll more than once if he likes. The frequency with which you are recognized modifies the cost of your reputation:

All the time: ×*1.*
Sometimes (roll of 10 or less): ×*1/2 (round down).*
Occasionally (roll of 7 or less): ×*1/3 (round down).*

Of course, your reputation extends only within a certain area. If you travel far enough away, the GM may require you to "buy off" the disadvantage points you received for a bad reputation. (There is no corresponding bonus for losing a good reputation.)

Multiple Reputations

You may have more than one reputation, and your reputations can overlap; for example, military personnel will have both Professional Reputation and Heroic Reputation. The GM should check each one before determining how an NPC reacts to you. Your total reaction modifier from reputations cannot be better than +4 or worse than -4 in a given situation.

Multifaceted Reputations

A single reputation can give different reaction modifiers with different groups, provided the groups do not overlap. Set the reaction modifier for each group, modify the cost for the size of the group, and then add up the resulting costs. Modify this total for frequency of recognition. The reputation is an advantage if the net point cost is positive, a disadvantage if negative. The final point cost may be 0, but you should still record it on your character sheet!

IMPORTANCE

Your formally recognized *place* in society is distinct from your personal fame and fortune. To influence others through established channels (as opposed to relying on popularity or bribery), you must purchase one or more types of social rank, each of which has unique benefits and drawbacks.



Seltorian Admiral on the Bridge

Status

5 points/level

Status is a measure of social standing. If you do not specifically buy Status, you have Status 0. Status costs 5 points per level. For instance, Status 5 costs 25 points, while Status -2 is -10 points. Status also costs money to maintain (see p. 242).

Status is not the same as personal popularity (see *Reputation,* p. 36) or the popularity of your species or ethnic group (see *Social Regard,* p. 102, and *Social Stigma,* p. 139). Status can sometimes influence others' reactions, but its main effect is to spell out where you stand in the social pecking order. In short, Status represents *power.*

High Status

Status greater than 0 means you are a member of the ruling class in your culture. Your family may be hereditary nobles (many empires outside the Federation have these), successful businessmen or politicians, or some other type of big shots. You may even have achieved Status by your own efforts. As a result, others *in your culture only* defer to you, giving you a bonus on all reaction rolls.

High Status carries various privileges that vary by the world; your GM will give you this information. Note that any high-Status person is a likely target for kidnappers and social climbers, and that some criminal types *hate* "the ruling class."

Low Status

Status less than 0 means you are a serf or a slave, or simply very poor. Members of Subjugated or Subject races often have Low Status. This is not the same thing as Social Stigma.

The interaction of Status, Social Stigma, and Reputation can give interesting results. For example, a Subject Race person might be a hero in a military battle, earning such a reputation that others react well to him.

Recognizing Status

Status only affects reaction rolls if it is obvious to those around you. In some settings your bearing, dress, and speech communicate your Status. Indeed, if you have very high Status, your face may be easily recognized – or perhaps the entourage that surrounds you gets the message across.

You may have to provide proof (ID cards, DNA scans, etc.) before you will be recognized.

Rank

5 or 10 points/level

Specific sectors of society – e.g., the civil service, the military, and certain powerful religions – often have internal ranking systems, distinct from Status. If an organization like this has significant social influence, or access to useful resources, then its members must pay points for their rank within the organization.

Rank comes in levels. Each Rank has authority over those of lower Rank – regardless of personal ability. In most cases, there are six to eight levels of Rank. The GM should determine the highest Rank available to starting characters, usually Rank 3-5.



Unlike Status, Rank costs no money to maintain. On the other hand, almost all forms of Rank come with a Duty (see p. 127). Rank often has stringent prerequisites, too – typically one of the traits given under *Privilege* or a minimum skill level. These things have their own point costs, not included in the cost of the Rank.

Rank may coexist with Status. If so, then high Rank grants additional Status at no extra cost: +1 to Status at Rank 2-4, +2 to Status at Rank 5-7, and +3 to Status at Rank 8 or higher. This represents society's respect for senior members of important social institutions. If you hold multiple types of Rank, then you may claim a Status bonus for each of them.

Alternatively, one form of Rank might replace Status; for instance, Religious Rank in a theocracy. In societies like this, Status *does not exist.* Each level of Rank gives all its usual benefits plus the effect of an equivalent level of Status (p. 36).

Rank is worth 5 points per level if it coexists with Status, or 10 points per level if it replaces Status. Common varieties of Rank include:

Administrative Rank: Position within a governmental bureaucracy. When dealing with other administrators, differences in Rank work just like differences in Status. At TL5 and higher, a large bureaucracy might have *several* varieties of Rank: one per government department, and possibly extra categories for the senate, judiciary, etc. (Defense or law-enforcement officials use Military or Police Rank instead.) Note this on your character sheet; e.g., Administrative Rank (Judiciary).

Courtesy Rank: Those who have formerly held Rank may retain that Rank as "Courtesy Rank" for only 1 point per level. Those who *currently* hold a title that carries little real authority may also take Courtesy Rank. Courtesy Rank is for social situations only; it gives you a fancier title.

Merchant Rank: Position within a national or transnational organization of merchants. This could be anything from the mercantile culture of the Aztecs (where Merchant Rank verged on being Status) to the "merchant marine" of a modern or futuristic society (where Merchant Rank often parallels Military Rank during wartime).

Military Rank: Position within a military organization. Each organization is structured differently. In general, personnel that are not specifically leaders will be Rank 0-2, while low-level officers and senior enlisted men will be Rank 3-4. Rank 5 and higher is normally limited to major commands and duties where the officer is responsible for extremely valuable or rare resources. Limited-duty officers, specialists, and personnel with little *actual* responsibility or command authority have a lower Rank in ***GURPS*** terms, despite possibly possessing titles identical to those of a higher Rank; represent this with one or more levels of Courtesy Rank.

Police Rank: Position in a police force. Each agency has its own variety of Rank. You must buy Legal Enforcement Powers (p. 95) before you can buy Police Rank; this is the difference between a patrol officer (Police Rank 0, for 0 points) and an ordinary citizen (*no* Police Rank, also 0 points). Note that in a police state, there is no difference between Police Rank and Military Rank.

Rank for Spies: Officers of intelligence services often possess a special category of Military Rank, distinct from that of line soldiers. Employees of civilian intelligence agencies usually possess some variety of Administrative Rank instead. Finally, some counterintelligence officers are actually police, and hold Police Rank.

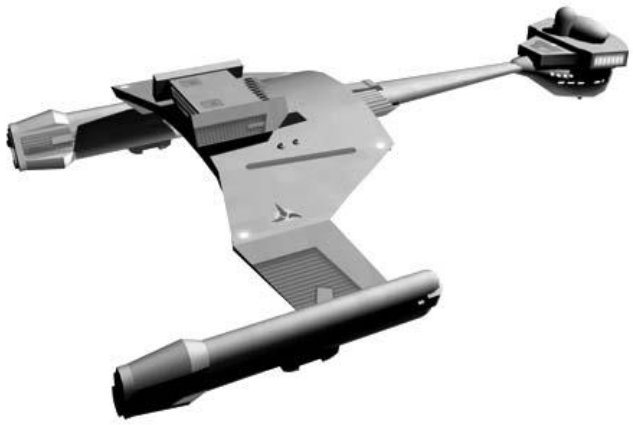
Religious Rank: Position in a religious hierarchy. Each religion has its own variety of Rank. You must buy Clerical Investment (p. 85) before you can buy Religious Rank; this is the difference between a novice (Religious Rank 0, for 0 points) and a layperson (*no* Religious Rank, also 0 points). Other common requirements include a minimum of Theology skill. Differences in rank work just like differences in Status when dealing with co-religionists and those who respect your faith.

Temporary Rank: Those of higher Rank may *temporarily* increase your Rank for a predetermined amount of time – until the end of a project, battle, etc. This process is called *brevetting* in the case of Military Rank. To keep temporary Rank, you must meet all the usual requirements and pay the appropriate point cost.

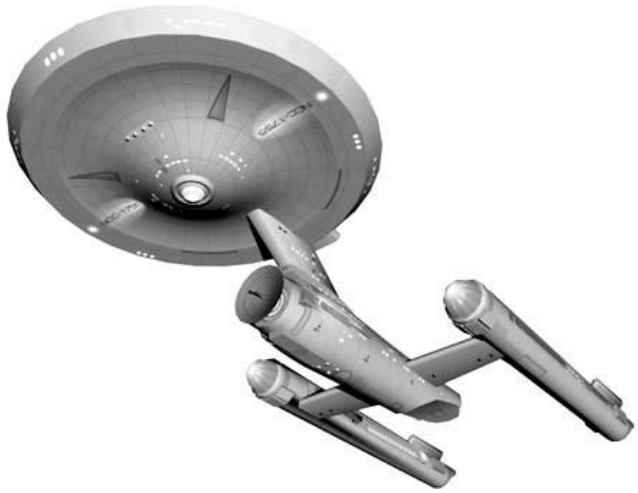
Privilege

You may buy special privileges within your society – e.g., a hard-to-obtain license, an "in" with an influential social group, or an exemption from certain laws – that allow you more latitude in your actions. Such advantages are not directly linked to Rank or Status. For example, a spy with low Rank might have a "license to kill," while his commander, a bureaucrat with much higher Rank, is bound by all the rules on polite society.

Privileges include the advantages of Clerical Investment (p. 85), Legal Enforcement Powers (p. 95), Legal Immunity (p. 95), Security Clearance (p. 102), and Social Regard (p. 102).



Klingon D5



Federation Heavy Battlecruiser

MILITARY RANKS, GRADE, & SENIORITY

NOTE: This section only applies to characters who are in Star Fleet or some other military organization (i.e., characters that have bought one of the Academy templates). If you are generating a nonmilitary character, feel free to skip this section!

Just as Status (p. 36) reflects your position in society, Military Rank reflects your position in a military or paramilitary organization. Each level of Military Rank encompasses one or more grades, which are commonly referred to as ranks. They are called grades here to help avoid confusion with the Rank advantage. Each grade has authority over lesser grades, regardless of personal ability.

All military characters are assumed to have bought an Academy or other Template which gives them the specified starting grade, Military Rank, Professional Reputation, and Seniority Points.

Players may improve their starting grade by buying the Military Rank advantage appropriate for the desired grade; see Rank in Chapter 3. Players should check with the GM to determine what grades and corresponding levels of Military Rank are suitable for the campaign. If the group is playing a rough-and-tumble squad of Marine grunts, the GM may limit them to a max grade of E6 and Military Rank 1; whereas if they are playing the command staff of a sector admiral, then they should buy a much higher grade and Military Rank. Players should also buy additional levels of Professional Reputation as required by the Promotion Table for their service at this time, at the cost of 2.5 points per level. They may buy more or less than this with the GM's approval, if doing so fits the character's background. In addition, they start with a number of Seniority Points as required for their desired grade. (Note: The basic ***GURPS*** rules provide only eight military *ranks;* the ***Star Fleet Universe*** uses more than 20 *grades.* The costs are adjusted in ***GPD*** so that it all comes out the same, but you get to hold a promotion party much more often!)

Example: A player decides to create a character that is a Marine 1st Lieutenant (O2). He must buy three levels of Military Rank, and while he has the opportunity during character generation also buys three levels of Professional Reputation with the GM's approval, representing several incidents of exemplary service in the character's young career (perhaps two Commendation Medals and a Bronze Star or MSM; see Chapter 6). The GM and player discuss what these were, and their impact on the character. This costs him 22 character points (15 + 7.5, rounded down), not including the cost of the Academy template. The character starts with 10 Seniority Points, and some big expectations from his superiors.

Note that unlike the other Federation services, the GIA has *no* enlisted personnel; GIA agents are always officers.

Promotion/Grade Table

This table is used for Federation military services and others with a similar grade structure. Other empires may have their own Promotion Tables representing the unique nature of their services, which will be presented in future sourcebooks.

Grade	Rank	Seniority	Reputation	Status
E1	0	0	0	0
E2	0	5	0	0
E3	0	10	0	0
E4	0	20	0	0
E5	1	30	+1	0
E6	1	40	+1	0
E7	2	50	+1	1
E8	2	75	+1	1
E9	2	100	+2	1
E10	2	150	+3	1
WO*	3	175	+2	1
O1	3	0	0	1
O2	3	10	0	1
O3	4	30	+1	1
O4	4	50	+1	1
O5	5	70	+2	2
O6	6	90	+2	2
O7	7	110	+3	2
O8	8	130	+3	3
O9	8	150	+4	3
O10	8	200	+4	4
O11	**	**	+4	4

Explanation of Terms and Notes:

Rank: The number of levels of the Military Rank advantage needed to advance to this grade.

Seniority: The number of Seniority Points needed to advance to this grade.

Reputation: The level of the Professional Reputation advantage needed to advance to this grade.

Status: The number of free levels of Status this grade receives.

* WO = Warrant Officer. In Star Fleet, Warrant Officers are civilians who are given temporary status as officers for the duration of a specific mission. In other services, a Warrant Officer was previously Enlisted and due to seniority and high levels of competence was granted a commission. Warrant Officers generally specialize in one skill or area of competence, for example warp engine maintenance, communications, or shuttlecraft pilot.

** There are only three O11s in the Federation: the Grand Admiral of Star Fleet, the Marshal of the Star Fleet Marines, and the Field General of the National Guard. These are normally NPCs, making this rank unobtainable by player characters in most campaigns.

The E10 and O10 ranks are extremely senior and not generally available as player characters. Fleet Captain and Regimental Colonel are honorary titles used in special cases.

Grade Titles

Enlisted	Star Fleet Titles	Marines Titles
E1	Crewman Recruit	Private
E2	Crewman Apprentice	Private First Class
E3	Crewman	Lance Corporal
E4	Petty Officer 3rd Class	Corporal
E5	Petty Officer 2nd Class	Team Sergeant
E6	Petty Officer 1st Class	Staff Sergeant
E7	Chief Petty Officer	Gunnery Sergeant
E8	Senior Chief Petty Officer	Master Sergeant
E9	Master Chief Petty Officer	Sergeant Major
E10	Command Master Chief	Command Sergeant Major

Officer	Star Fleet Titles	Marines Titles
O0	Midshipman	Cadet
O1	Ensign	2nd Lieutenant
O2	Junior Lieutenant	1st Lieutenant
O3	Senior Lieutenant	Captain
O4	Lieutenant Commander	Major
O5	Commander	Lieutenant Colonel
O6	Captain	Regimental Colonel
O7	Commodore	Brigadier General
O8	Rear Admiral	Major General
O9	Vice Admiral	Lieutenant General
O10	Fleet Admiral	Colonel General
O11	Grand Admiral	Marshal

Officer (only)	GIA Titles	Marshal Titles
GS1	Probational Agent	Marshal, 3rd Grade
GS2	Agent	Marshal, 2nd Grade
GS3	Special Agent	Marshal, 1st Grade
GS4	Senior Agent	Senior Marshal
GS5	Agent in Charge	Marshal in Charge
GS6	Section Chief	Section Marshal
GS7	Branch Chief	Sector Marshal
GS8	Division Chief	Division Marshal
GS9	Deputy Director	Deputy Chief Marshal
GS10	Director	Chief Marshal

EMPIRES AND SPECIES OF THE *STAR FLEET UNIVERSE*

The ***Star Fleet Universe*** covers a considerable geographic area (10,000×30,000 parsecs) with a vast number of planets. Thousands of these planets are inhabited, a few hundred by native intelligent species. The area of the Alpha Octant is divided into numerous political powers, called "empires" (although some are not in the legal form of an Empire or large enough to be worthy of that designation in any case).

Pick a Species, Any Species

Anyone creating a character will first select the species (or race). There are many choices, all of which have their own drawbacks and advantages. The choices are:

Alpha-Centaurans: They are descended from humans transported there long ago by the Old Kings. Women of this culture are strong and dominant.

Andorians: Blue-skinned humanoids from Andoria, citizens of the Federation, warlike and tough.

Andromedans: Invaders whose robots do the work of the invasion.

Arcturians: Elflike humanoids from Arcturus, citizens of the Federation, most are pacifistic.

Brecon: Four-armed humanoids, always assigned to Star Fleet in pairs.

Carnivons: This doglike species was exterminated by the Lyrans and Kzintis – or were they?

Cromargs: Short in stature, Klingon subject race.

Cygnans: Humanoids born on Cygnus, citizens of the Federation, albinos, highly technological.

Deians: Beautiful humanoids related to Humans.

Dunkars: Orange-skinned humanoids, the most trusted of the Klingon subject races.

Gorns: Dinosaurians scattered to several planets by the ancient Lizard Kings.

Hilidarians: Lizard-men, Klingon subject race.

Humans: From Earth-descended stock, either born on Earth or one of many colony planets. Most will be citizens of the Federation, including those criminal humans who serve with the Orion Pirates.

Hydrans: Short three-armed and three-legged creatures who breathe methane, are native to gas giants, and live in the Hydran Kingdom. It should be noted that many descendants of Klingon subject races (and even Ranel and Phelen from Lyran space) live on oxy-nitrogen planets in the Hydran Kingdom as free citizens of the Exile Races.

Jindarians: An ancient species known for harvesting materials from asteroids.

Klingons: Humanoids, a major species with entire planets of multi-billion population, the military caste are the only Klingons most humans encounter.

Korlivilar: Feline members of the ISC, they are masters of speed and reaction time.

Kzintis: Known as Tigermen to their Klingon enemies.

Lyrans: Leopard-men, enemies of the Kzintis.

Mynieni: Non-humanoid, citIzens of the Federation.

Orions: Green-skinned humanoids, citizens of the Federation, original source of the Orion Pirates.

Paravians: A bipedal birdlike species, they became extinct when a sun snake destroyed their sun. Or did they?

Phelen: Porpoisoids who are subjects of the Lyrans.

Prellarians: Dwarfish, these are masters of high-grav and null-grav technologies.

Pronhoulites: Lizard-like ISC members, they are masters of military matters.

Q'Naabians: Dwarfish in size, these are the historians of the ISC.

Ranel: Racoonoids who are subjects of the Lyrans.

Rigellians: Born on planets around Rigel (or on colonies) the Rigelians are humanoid and members of the Federation. Few serve with the Orion Pirates.

Romulans: Descended from Vulcans, they honestly believe they are destined to rule the galaxy.

Rovillians: Porpoisoid, psionically active members of the ISC.

Seltorians: Insectoid species on a holy war against the Tholians.

Skoleans: Lizard-men, Federation citizens, most serve as mercenaries to the Gorns.

Slirdarians: Bear-apes, shock troops of the Klingon Empire, most of them are not particularly bright.

Tellarites: Pig-faced humanoids from Tellus, citizens of the Federation, always ready to argue about anything.

Tholians: Crystalline creatures who live in high temperatures and come from another galaxy.

Veltressai: Best known for their linked quadruplets, they are the clear leaders of the ISC, at least in their own estimation.

Vudar: A reptilian species with an ambiguous relationship to the Klingon Empire.

Vulcans: Also known (rarely) as Vulcanian. These are humanoids with copper-based blood, a devotion to logic, and no real sense of humor. They are stronger and smarter than humans.

Yitlians: Associated by treaty with the Klingons, they are fierce warriors.

Zoolies: Klingon subject race, highly perceptive and sought after for commando teams.

GURPS Federation includes Antareans, Fralli, Mantorese, and more information about that empire.

GURPS Klingons includes the timid Bargantines (the greatest farmers in the Empire), the lobster-like Vergarians (who once revolted), and more about that Empire.

GURPS Romulans includes the telepathic Satha'hi, Gerlunians (lost cousins of the Gorns), and the walking trees of death known as Dionaeans.

General Notes

Any given species has billions of members, not all of whom think, look, or act alike. There are exceptional cases in all species, and even those that could be considered "within the normal range" can vary considerably. A player character could (with GM permission) be from a species not usually found in his campaign circumstances. For example, history records a handful of Earth-born human renegades fighting for the Klingons.

ABOUT THE SPECIES PROFILES

Every player character (indeed, every character) in ***GURPS Prime Directive*** comes from a species (i.e., is a member of a specific species from a specific planet, or in some cases, from a group of nearby planets where they were seeded by the precursor beings).

Members of a species have certain general traits that apply to almost all members of that species. Hence, to play a Klingon, you start out with a list of attribute modifiers and other information. In most cases, you can "buy off" (spend points to remove) a given trait that is psychological in nature. For example, most of the Bargantines freeze up in combat, but a few with natural abilities and a few thousand more who have undergone rigorous training (which few of them pass) can function normally in combat.

A given player character might be given an "unusual background" with the permission of the GM. This might be a matter of genetics (e.g., human dwarves exist as a subset of the human genome), previous damage or injury (e.g., loss of limbs), psychological damage (e.g., fear of combat), unusual upbringing (e.g., a Klingon who was lost on Vulcan as an infant and raised by a Vulcan family), special training (e.g., a Star Fleet Marine who went to special forces school before being discharged for failing a psychological evaluation), or as many other unique stories as there are people in the galaxy!

Features and Taboo Traits

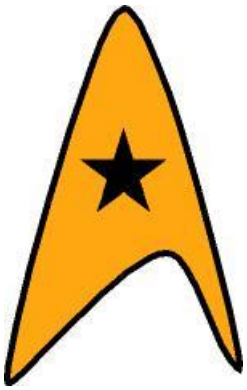
A "feature" is a note on how the species differs from Humans when that difference does not grant an advantage or disadvantage. Features cost 0 points.

A "taboo trait" is an attribute level, advantage, disadvantage, or skill that is off-limits to members of the species. This, too, is worth 0 points.

Character Record Sheet

Players can find a downloadable version of the player record sheet for ***GURPS 4th Edition*** at: http://www.sjgames.com/gurps/resources/CharacterSheet.pdf

United Federation of Planets



The United Federation of Planets is a multispecies political entity with its headquarters on the planet Earth. Several species hold seats on its ruling council; many other species are affiliate members. Federation colonies or stations have been established on over a thousand other planets. Most Federation ships are manned by crews composed of 80-90% of one species, with the remainder being a mixture of all others.

The Federation is dominated by the Humans, including those of Earth parentage who were born on other planets. Humans provide more than 70% of Star Fleet personnel and dominate every phase of its operations. Humans are regarded as the most militaristic, but not the most warlike, of the member species of the Federation.

The Federation is probably the most idealistic of all the empires. Federation ships never attack without warning, and while the Federation has fought wars with all of its neighbors, it has never started one. The Federation has negotiated borders with all of its neighbors and has not sought to expand them militarily.

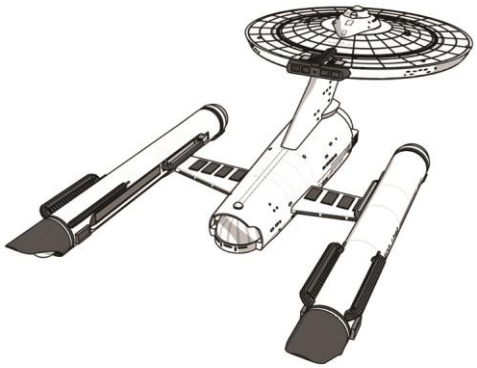
Economically, however, the Federation is the most aggressive empire in its sector of the galaxy. Federation merchant ships are found almost everywhere during peacetime, and the "Neutral Zones" between the Federation and its neighbors abound with Federation colonies set up within the strict letter of the relevant treaties. The Federation considers "peace" to include free access to the markets and ports of all other empires. Since the Federation has the strongest economy, it has the most money to buy things with and the most production capacity to build things and tends to dominate the galactic economy. Other empires may scoff, but in the end the numbers don't lie. The Federation is the most economically efficient system in local space, and the Humans are the ones who run it. Not even Tellarites can argue with success!

The Federation military consists of Star Fleet (a military force answering to the Federation president and council; much of this force is used in peacetime for exploration and colony building) and the National Guards (planetary self-defense forces including ground-based weapons, fighters, and even some ships controlled by each planet's government). The Federation Marshals Service is a branch of the civilian government which investigates crimes that go from one planet to another; it also handles counter-espionage. The Federation Police (which has numerous small starships) handles tariffs, customs, and most anti-piracy work. (When the pirates in a given area get out of hand, the police call Star Fleet for backup.) The Federation Police could be considered the equivalent of the US Coast Guard. The Galactic Intelligence Agency

is a civilian agency focused on spying, covert operations, and intelligence gathering outside of the Federation.

All Federation citizens have Federation Standard as an extra Native language due to the insistence of educators that actually speaking a language is much preferable to relying on an artificial translation which, no matter how sophisticated, can miss important nuances of emphasis and phrasing. A very few citizens who lead their lives on an outlying single-species colony might not know Federation Standard. For more information, see ***GURPS Federation.***

The member species of the UFP that appear in ***GURPS Prime Directive*** are: Humans, Vulcans, Andorians, Rigellians, Alpha-Centaurans, Cygnans, Tellarites, Brecon, Prellarians, Mynieni, Deians, Arcturians, Orions (p. 58), and Skoleans (p. 56). There are many, many more; their numbers are growing all the time.



Federation Heavy Battlecruiser

Humans

0 points

Humans are the most numerous species in Federation space and among the most adaptable. While most of the other species don't particularly go in for "Terra"-forming and don't like to colonize worlds that are drastically different from their homeworlds, Humans are willing to settle and work just about anywhere in the galaxy. This, and their strong tradition of innovation and cooperation, has brought Humans to the forefront of the current interstellar situation.



It is considered fortunate by some of Terra's neighbors that Humans are not oriented more towards military expansion. It would be a daunting task for even three or four of the local cultures to halt a determined Human expansion drive if their formidable industrial capacity were tooled up and directed to that end.

Homeworld: Class M, Gravity 1.00G, Atmospheric pressure 1.00, Mean temperature 72°F, Zorski Group I-a.

Vulcans

70 Points

The Vulcans (and their Romulan cousins) are descended from a much more primitive and warlike culture. Unlike the Romulans, the Vulcans chose to focus on reason, self-discipline, and suppression of emotions.



The Vulcans are basically a pacifistic people who do not believe in the assertive use of overwhelming force to resolve disputes. Their cultural devotion to pure logic at the cost of greatly repressing their emotional identity is well known. A remarkable side effect of this logic-based rationality is the enormously high incidence of psionic ability found in Vulcans. It is interesting to note that, by way of comparison, Romulans are no more likely to show positive psionic potential than the average rate for the other species, which is about one in every 2.5 million healthy adults. While all Vulcans possess psionic potential, only about one in every 20,000 has the potential to become a true Psionic Master. A Vulcan character created without Vulcan Psi Powers is still a latent psionic, and may buy Vulcan Psi Powers during campaigns with no restriction. (see Vulcan Psi Powers, p. 108.)

Homeworld: Class K, Gravity 1.18G, Atmospheric pressure 0.83, Mean temperature 92°F, Zorski Group III-a.

Attribute Modifiers: ST+1 [10]; IQ+2 [40].

Advantages: Acute Hearing 1 [2]; Extended Lifespan 1 [2]; Indomitable [15]; Lightning Calculator [2]; Nictitating Membrane 1 [1]; Photographic Memory [10]; Less Sleep 2 [4]; Regeneration (Regular, only while in Autotrance, -30%) [18]; Unfazeable [15]; Vulcan Psi Powers 1 [5].

Perk: Autotrance [1].

Disadvantages: Code of Honor (Logical behavior) [-10]; Honesty (12) [-10]; Intolerance (Emotional or illogical behavior) [-5]; No Sense of Humor [-10]; Pacifism (Self Defense Only) [-15]; Truthfulness (12) [-5].

Taboo Traits: all forms of psionics except those included in Vulcan Psi Powers.

Rigellians

11 points

Rigellians are large humanoids, often reaching seven feet or more in height, and are renowned for their strength and stamina. Due to the unusually high UV output of their sun, Rigellians are darkly pigmented. Their skin features a kind of dermal tattooing which shows up as a network of blue lines covering the entire body in a random pattern, and their body hair is often a stark white in coloring.



Rigellians are strongly bound by the notions of "Family and Honor." Family ties are unusually strong in Rigellian culture, with three or more generations often living and working together. Rigellians mate for life, and husbands and wives never separate, nor do they remate if their spouse dies. A Rigellian's word is his bond, and the whole family shares in the dishonor of any family member's breaking of a promise or oath. Crime and dishonesty are virtually unheard of in Rigellian culture, and families provide for the material and emotional needs of their members.

The Rigellian Primacy Fathers and members of the society in general were aghast to discover the natures of some of the other interstellar societies, such as the Klingons and the Romulans. They were horrified to find that advanced interstellar empires were founded on the principles of conquest and enslavement, principles abhorrent to Rigellian culture. This caused so much of a cultural fervor that within the first decades of Rigellian membership in the Federation a full 30% of the planetary population applied to join Star Fleet. Even today, while Humans may represent the largest numerical component in the Federation and Star Fleet, the Rigellians have, by far, the largest proportion of their population in service with the Federation. *Until the stars are at peace,* they say, *and all the children of the heavens are together,* the Rigellians cannot rest or forsake their greater duties.

Homeworld: Class M, Gravity 1.05G, Atmospheric pressure 1.04, Mean temperature 80°F, Zorski Group I-a.

Attribute Modifiers: ST+2 [20].
Secondary Characteristic Modifiers: FP+2 [6].
Advantages: Combat Reflexes [15]; Rapid Healing [5].
Perk: Ultraviolet Tolerance [1].
Disadvantages: Fanaticism (Spread of civilization) [-15]; Honesty (12) [-10]; Sense of Duty (to Family) [-5]; Truthfulness (12) [-5].
Quirk: Humble [-1].

Cygnans

19 points

Cygnans as a species resemble Human albinos with one major difference: where a Human albino's eyes are pinkish, the Cygnan's eyes are jet black, with no discernible whites or pupils. It cannot be confirmed or disproved that Cygnans descended from Earth-human stock, but there are no fossil ancestors on their own planet, meaning they were transplanted there within the last 50,000 years.

The Cygnan sun, Shresha, is a K3 orange dwarf; its output of ultraviolet emissions is much lower than that of the suns of other Federation worlds. As a result, the Cygnans have lost the usual pigmentation that would serve to protect them from the sun's harmful effects. When visiting other worlds, Cygnans protect themselves at all times by the use of a special long-lasting chemical sunscreen.



The Cygnans hold a firm belief that they are the descendants of an extremely advanced, starfaring species. Their religions are centered on the numerous half-remembered myths and legends about the lost Sky Fathers and their gifts and teachings. The gifts are remembered as ones of science and technology; the teachings are remembered as ones enjoining them to explore and share those gifts. Just as the Sky Fathers came from the stars to light the Cygnans' way to a more advanced society, so too do the Cygnans feel the urge to enlighten less advanced peoples. Because of this (and the Kzinti occupation), Cygnus is the Federation member most vocally opposed to the Prime Directive. Despite official policies, Cygnan adherents to The Ways of the Fathers have established illicit "Seranaya Missions" on more than one pre-starflight world.

There are numerous systems and components now in standard use throughout the Federation which are the direct result of Cygnan research and technology. The Cygnans are extremely adept at all forms of technological endeavors, considering them to be forms of art. The Cygnan homeworld was in Kzinti-dominated space from about Y70 until the Federation took over that area with the Border Declaration of Y102. Cygnan characters during that period must buy the Disadvantage: Subjugated (Kzinti) (see p. 139) which reduces the species profile cost by 20.

Homeworld: Class M, Gravity 1.10G, Atmospheric pressure 1.03, Mean temperature 68°F, Zorski Group I-b.

Advantages: Talent 1 (Mathematical Ability) [10]; Talent 4 (Physical Science) [20]; Versatile [5].
Disadvantages: Gregarious [-10]; Weakness (Sunlight; 1d/30 minutes; Mitigator –60%) [-6].

Alpha-Centaurans

50/24 points

Alpha-Centaurans are almost identical to Humans, and there is little doubt that the two species share recent common ancestry. General motor response in Alpha-Centaurans is markedly higher than in Humans, however; an increased rate of activity in the brainstem and central nervous system seems to be the cause.



The females of the species dominate Alpha-Centauran culture at all levels, and the form of government is definitely a matriarchy. Alpha-Centauran men are not mentally or physically inferior to the women, but their society has evolved along different lines than that of Earth. Hence males have been taught to give in to those in control (explaining the -2 to Will modifier).

Male Alpha-Centaurans are almost never found in the governmental, legal, or military structures of Alpha-Centauran culture, and only rarely in the scientific, technical or mercantile professions. Males are found primarily in the agrarian and unskilled labor forces or are not employed at all. The home planet of the Alpha Centaurans is largely agrarian and pastoral. The population is fairly low, and the planet is not a major economic element of the Federation.

Homeworld: Class M, Gravity 0.98G, Atmospheric pressure 1.05, Mean temperature 76°F, Zorski Group I-a.

Females

50 points

Attribute Modifiers: DX+2 [40].
Advantages: Charisma 1 [5]; Fit [5].

Males

24 points

Attribute Modifiers: ST+1 [10]; DX+1 [20].
Secondary Characteristic Modifiers: Will-2 [-10].
Advantages: Fit [5].
Quirk: Humble [-1].

Prellarians

35 points

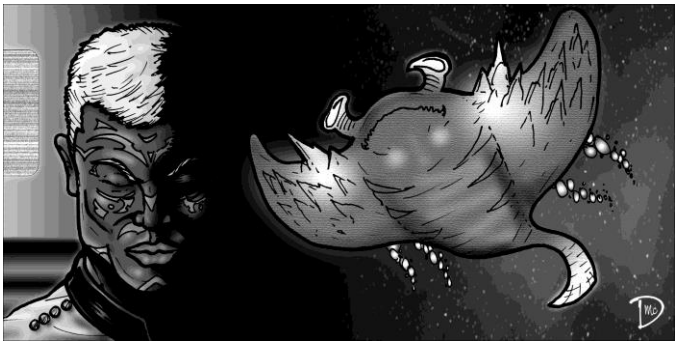
Prellarians are Associate Members of the Federation, renowned for their mastery of high-grav and null-grav technology. A squat humanoid species, they are at home in tunnels. Their powerful frames and technological inclinations are a direct result of their preference for high gravity habitats (some measuring as high as 2.5 G). Rarely growing to a height of greater than four feet, the Prellarians are highly prized not only for their technological knowledge, but also for their ability to crawl through tight conduits and cramped access ports. The Prellarians developed the training environment on Federation Prime Central where new prime team members receive their Zero-G Maneuvering training.



Prellarians have a deeply ingrained fear of heights that is difficult for them to overcome, even in low gravity environments. Technicians who insist upon excessive safety tethering when operating over an open area or at some height are often referred to as acting like “scared Prellarians.” The Prellarians have imparted an almost religious significance to many of the minerals and gems that others merely think of as valuable. Their discovery of sigma-positronium, for example, with its unique attraction/repulsion qualities, led to the development of both null-grav and high-grav generators. The Prellarians have a deep reverence for this mineral, while the rest of the Federation who come into contact with it simply look at it as useful.

Homeworld: Class E, Gravity 1.98G, Atmospheric pressure 1.30, Mean temperature 82°F, Zorski Group I-b.

Attribute Modifiers: ST+1 [10].
Secondary Characteristic Modifiers: SM-1.
Advantages: Improved G-Tolerance (±1.0 G) [15]; Intuition [15]; Pressure Support 1 [5].
Disadvantages: Phobia (Heights) (12) [-10]



Deians

37 points

The Deians (pronounced DAY-enz) are an Associate Member species closely related to Humans. The Deians had established colonies on three planets within their home star system and were actively seeking contact with other species when a Federation Galactic Survey Cruiser, the *USS Magellan* (NCC-1363), entered orbit around their homeworld in Y150. They call their homeworld "Kal'Tyar Seterra Nerillar," which can be loosely translated as "First and True Home." It is the third planet of the star known as Paktar.

The first reported contact with the Deians dwelled heavily on their amazing, godlike beauty and the name "Deians" naturally followed. They resemble humans in many ways, although their species does not share the variances in pigmentation found in Earth Humans. All Deians have the same pale-blue skin coloring and little or no facial hair. Their overwhelming beauty, both male and female, is also their most daunting disadvantage as they find it difficult to convince others, particularly humans, to take them seriously. They have no problem with those species that do not appreciate humanoid beauty.



The Deians refer to themselves as True Nerillar. In public they use the species designations Human, Cygnan, etc., but in private refer to them in the order in which they were first encountered; Humans are Second Nerillar, Cygnans are Third Nerillar, and so on. Deians believe that all other humanoid species are related to them in some way.

Homeworld: Class M, Gravity 1.08G, Atmospheric pressure 1.13, Mean temperature 80°F, Zorski Group I-a.

Attribute Modifiers: IQ+1 [20].
Advantages: Charisma 1 [5]; Handsome/Beautiful [12].

Mynieni

67 points

The Mynieni (pronounced my-NINE-ee) are a non-humanoid Federation Associate Member species. They resemble upside-down pears supported by many strong ropy tendrils sprouting from the bottom of their bodies (in game terms, 24 effective limbs). The Mynieni's body, which is most often a purplish-gray color, is about three feet from top to bottom and about eight feet in circumference at its widest point. The "legs" add an additional foot in height. Two very pale, dinner-plate sized eyes complete the picture. They are included here (along with the rules necessary to play them) as an example of some of the strange species to be found in ***GURPS Federation.***

Conditions on their homeworld, Mynie, have caused the Mynieni to develop a completely nocturnal lifestyle. The Mynieni only venture above ground during the moonless night and as such have evolved eyes almost 10 inches in diameter, with a retractable sheath to control the size of their cornea. As a result, their sensitivity to light is almost 20 times that of a Human. Starlight is more than enough for a Mynieni to operate under normal rules.

The Mynienis' hundreds of ciliary limbs allow them to perform extremely subtle and precise manipulations. These multiple limbs also give the Mynieni a superior ability to traverse difficult terrain and to maintain their balance.



The Mynieni showed little interest in the Federation until just before the General War, when fear of an invasion compelled them to take a more active role.

When inquiries have been made about the Mynienis' abrupt change in stance and behavior, they will only reply that "The Burnishers are now known to be returning. We must all be ready to meet them, and on their terms." The Mynieni refuse to elaborate on this, and many in the Federation Council have dismissed this as being a metaphor. There is no doubt, however, that the Mynieni themselves are taking the ominous pronouncement to heart, and there is evidence that the entire structure of Mynieni society is undergoing drastic changes. Where this change will ultimately take the Mynieni, or what the exact meaning of their warning about *The Burnishers* might mean, is currently a mystery.

Homeworld: Class M, Gravity 0.85G, Atmospheric pressure 1.20, Mean temperature 60°F, Zorski Group VI-c.

Attribute Modifiers: ST-3 [-30]; DX+1 [20]; IQ+1 [20].
Secondary Characteristic Modifiers: SM-1.
Advantages: Extra Arms 10 (Short, No physical attack) [20]; Extra Legs 10 (Cannot kick) [8]; Flexibility [5]; High Manual Dexterity 4 [20]; Night Vision 9 [9]; Peripheral Vision [15].
Disadvantages: Invertebrate [-20].
Species Feature: Normal light level for Mynieni is very low; Per-8 for humans. Mynieni eyes take a second to adjust to sudden light changes.

Brecon

45 points

The Brecon are four-armed, golden-skinned humanoids of average build with an average height of 7 to 8 feet. While they are humanoid, they are not related to Humans.

They are unique within the Federation in that there will always be a pair of Brecon assigned to a ship or none at all. In the distant past, the Grenpahk and the Sorel (the two warring ethnic factions of the Brecon) finally ended the centuries-long conflict that had ravaged their homeworld by signing the Jyrahk Accord. This agreement stated that to ensure that their ethnic differences never again would cause them to go to war, they would henceforth have equal standing and representation in all endeavors.



This has led to a voluntary partnership agreement to produce an equal representation within Star Fleet. Since Star Fleet has such rigid requirements for entry (turning away many more applicants than are accepted), the Brecon could not demand that an equal number of Grenpahk be admitted for every Sorel that was accepted. Instead the Brecon apply to Star Fleet in pairs; if either one of the pair fails to gain admittance, the other declines to join as well. In this way the pair are encouraged to form a close interrelation, studying and usually serving together, further cementing the cross-cultural bond that the Brecon have worked so hard to establish. If one of a pair is killed or disabled, he would probably be replaced by another Brecon volunteer, perhaps one whose partner was disqualified. (This partnership means each Brecon in Star Fleet has a sense of duty to his partner.)

Homeworld: Class M, Gravity 0.98G, Atmospheric pressure 1.10, Mean temperature 79°F, Zorski Group I-b.

Secondary Characteristic Modifiers: SM+1.
Advantages: Extra Arms 2 [20]; Extra Attack 1 [25].



Federation Fast Cruiser

Arcturians

40 points

With their wide eyes and slight features, the Arcturians can best be described as being similar in appearance to the Elves found in Human folklore. Arcturians are a small, yet hardy, species. They rarely exceed 5'5" feet in height, and they average 120 pounds.

Centuries of relying on their wits rather than their size has helped them to develop a proficiency with both weapons and martial arts, and Star Fleet has added Sincaht, an Arcturian martial arts philosophy, to the curriculum at Prime Central.

All Arcturians in Star Fleet are trained in basic Sincaht and are able to aptly defend themselves.

Very, very, few Arcturians have any psionic ability; those that do so would be treated as genetic freaks by their own people.

Arcturians of the Ferkite Order are trained from birth as warriors and do not share the Pacifism disadvantage of their brethren. Many of these serve in the Star Fleet Marines and in the Special Forces; some of them serve on prime teams. Sadly, a few of the Ferkite Order have joined the Orion pirates.



Homeworld: Class M, Gravity 1.10G, Atmospheric pressure 0.90, Mean temperature 65°F, Zorski Group II.

Attribute Modifiers: ST-1 [-10]; DX+2 [40].
Secondary Characteristic Modifiers: Basic Speed +1 [20].
Advantages: Night Vision 5 [5].
Disadvantages: Pacifism (Self-Defense Only) [-15].



Federation Strike Cruiser

Andorians

50 points

Andorians are tall, slender humanoids, with blue skin, white hair, and obvious "antennae" protruding from the top of their heads. As a species, Andorians are renowned for their heightened perceptive acuity, which stems from the great number of predatory creatures that populate their homeworld. Their "antennae" are actually extensions of their sinus cavities, allowing the Andorians a great sensitivity to minute variations in pressure and temperature. They provide improved hearing and an enormously enhanced sense of smell. The actual receptors are situated within the depressions at the tips of the "antenna" and are protected by the hard cartilaginous tissue that keeps the "antennae" rigid. Andorians' visual ability is also well above humanoid standards.



There is a common misconception about Andorians – that they are humorless and easily irritated; this is not quite correct. The harsh history of early Andorian civilization has left a strong social taboo against the appearance of frivolity or wasted effort. Their curt refusals often make them seem prudish or unsociable, while in fact they simply don't have a strong cultural interest in such activities. They are often considered a "warrior race," but this is not entirely accurate. Many of them are recruited in the Star Fleet Marines, where their perception is a major advantage.

Andorian culture is predicated on the "cooperative." A cooperative these days is a group of 60 to 100 family groups who have banded together to pool their resources and abilities to provide for the whole of their number. Cooperatives tend to grow around single lines of endeavor or a nucleus or core trait and attract individuals or families that are involved with this sort of endeavor or something closely related to it.

There are technical cooperatives, mercantile cooperatives, entertainment cooperatives, military cooperatives, and every other sort of cooperative that could be thought of. In fact, most Andorians consider *Star Fleet* to be a form of cooperative; certainly the ones who *do* join Star Fleet think so!

Homeworld: Class M, Gravity 1.07G, Atmospheric pressure 1.15, Mean temperature 34°F, Zorski Group III-b.

Attribute Modifiers: DX+1 [20].
Secondary Characteristic Modifiers: Per+5 [25].
Advantages: Discriminatory Smell [15]; Subsonic Hearing [5]; Ultrahearing [5]; Vibration Sense [10].
Disadvantages: Hidebound [-5]; Loner (12) [-5]; Low Pain Threshold [-10]; No Sense of Humor [-10].

Tellarites

27 points

Tellarites are stocky humanoids with an average height of approximately five feet. They are covered with a small but tough layer of wool-like matting over most of their body, and their hands feature four stubby fingers; their heads and faces are often compared to that of a Terran pig.



The Tellarites are a hardy species, owing to the great abundance of calcium and other heavy minerals in their bodies (resulting in the "Telis" root of their Federation name). Tellarite bone and cartilage structures are much more massive than their Human counterparts, resulting in a much greater physical strength and innate resistance to bodily damage. This also results in their body mass being 1.5 times that of a normal Human of that height.

The Tellarite species regards the planet Hahrnohk-7 as their homeworld. Although overeager Federation representatives conferred the name Tellarites on them before universal translators were able to translate their language, the Tellarites refer to themselves simply as "Those of Hahrnohk." There is evidence, however, which suggests that the Tellarites as a species did not originate on this planet. Archaeological digs on the three main continents on Hahrnohk-7 have yielded no evidence of the Tellarite species dating back further than 15,000 years. This is a mystery which fascinates the Federation but which the Tellarites themselves don't seem too concerned about.

While the Tellarites have petitioned vigorously for Full Membership status in the past, their militant policies, in addition to their continued and undenied contacts with the Orion Pirate cartels, have not served them well with the Federation High Council. This is particularly true for the Andorians, who hold a significant and unwavering dislike for the Tellarites. Still, the Tellarites' natural adeptness with mechanical devices has put them in high demand in engineering labs and shipyards throughout the Federation, and beyond.

Homeworld: Class M, Gravity 1.24G, Atmospheric pressure 0.95, Mean temperature 67°F, Zorski Group II.

Attribute Modifiers: ST+1 [10]; HT+2 [20].
Secondary Characteristic Modifiers: HP+3 [6].
Advantages: Fearlessness 2 [4]; Damage Resistance 1 (Tough Skin, -40%) [3]; Resistant (Disease) +8 [5].
Perk: Fur [1].
Disadvantages: Bully (12) [-10]; Odious Species Habit (Argumentative) [-5]; Selfish (12) [-5].
Quirks: Edgy [-1]; Nosy [-1].
Species Features: Extra dense body structure: add 100 pounds to weight, cannot float.

The Klingon Empire



The Klingon Empire arose on the ruins of a previous empire of which the Klingons had been a "subject race." The "Old Kings" had used Klingons primarily in their starship crews, and when the Old Kings disappeared the Klingons quickly picked up the pieces. The Klingon Empire now includes at least 12 planets with native species, all of them subservient "subject races" to the Klingons themselves.

The Klingons have three major enemies: the Kzintis and the Hydrans, with whom many wars have been fought, and the Federation, which has not often been an active enemy but which threatens the Empire with economic domination. Three minor powers, the Tholians (who occupy stolen Klingon territory), the Lyran Democratic Republic (a renegade Lyran province), and the WYNs, are on the Klingon borders. The Klingons have alliances with the neighboring Lyrans (a species they have fought in the past) and the Romulans. The Klingons were allied with the Federation during the Early Years Era and during the Andromedan War.

The Klingon government includes the emperor, three appointed princes, the chancellor (a prime minister who handles civilian and industrial affairs), the Council, and a military headquarters. The Council consists of the most powerful leaders in all fields and has approval over most appointments (including the princes) and many decisions.

The Klingon military forces include:

• The Deep Space Fleet (DSF), which is the naval (starship) branch of the regular military.

• The Klingon Army, with a hundred divisions of ground troops, handles planetary defense and major invasions.

• The Klingon Marines provide detachments on starships. They serve as boarding parties and raiding forces.

• The Internal Security Forces (ISF) are the police.

• The Empire Security Service (ESS), the secret police, is tasked with preventing treason, corruption, and insurrection.

• The Klingon Galactic Bureau, the foreign intelligence service, handles covert operations in enemy territory.

• The Galactic Research Unit, the military intelligence branch, primarily analyzes sensor data and intercepted communications. It had little, if any, involvement in outright espionage until the General War, when the need for intelligence saw the GRU expand its activities into this area.

The Klingon Empire is a poor one economically, and it can only match the Federation in military power at the cost of a lower standard of living for its people. Any attempt to match the Federation standard of living would require disbanding the military forces, leaving the Empire vulnerable to a host of enemies.

The term "ethnic Klingons" is used when it is necessary to differentiate between Klingons and "Klingon Empire Forces." Almost 60% of all Klingon Empire starship crewmen are non-Klingon, thus the development of Military Klingon, a 300-word "command language" taught to all subject race military personnel. The Klingons never really trust the subject races, which is why all Klingon ships have "security stations" and a detachment from the Empire Security Service (an organization that puts the Gestapo to shame). Only a few subject race personnel receive officer commissions. It is something of a mystery why Klingon warriors would rather fill out their crews with politically unreliable non-Klingons than simply draft ethnic Klingon civilians for that role. In early times, the Vergarians (another subject race) revolted and were bombed into the Stone Age as an example to other subject races to behave (or else).

Subject race persons have the disadvantages of Social Stigma (Minority group) [-10] and Status -1 [-5]. This applies only when in the Klingon Empire, dealing with Klingons. Once off-world (the WYN Cluster, Orion Pirates, etc.), these disadvantages no longer apply. (Some ethnic Klingons new to the situation may react to the subject race persons as though the disadvantages still apply, but quickly learn that subject race persons and Klingons are legally equals.)

For more information, see ***GURPS Klingons.***

Ethnic Klingon Warriors

44 points



Klingons are generally regarded as a brutal warrior species, but this characterization is not entirely fair or accurate. Klingons are humanoids very similar to terrestrial Humans, with only a tiny portion of their planetary populations selected as warriors. There are actually two primary Klingon social classes: warriors and civilians. Virtually all Klingons encountered, including starship, base, ground crews, Marines, ground forces, etc., will be of the warrior class. Klingons in the warrior class tend to want to improve their reputation so as to gain promotions more rapidly.

Klingon youths must take special training and pass a series of tests to become warriors, and while there

are no formal barriers to children of civilians becoming warriors, few who grow up in a civilian environment show any interest. It is traditional for children of warriors to follow in a parent's footsteps, although such heritage will not make their passage through the ranks any easier.

Most Klingons are born and raised on their home planet, which is known as Klinshai. A few billion live on major Klingon colony worlds. Four colony worlds are run by the military, and one by the police, and are places where retired warriors can run farms or businesses and raise fine children who are strongly encouraged to join the military. Klingons from the three sources (Klinshai, warrior colonies, and other colonies) sometimes regard each other as different social classes.

Some ethnic Klingon civilians serve on starships, mostly in technical or support positions (doctors, scientists, supply officers, engineers).

Klingon warriors are not sadistic or brutal. They do not hesitate to use force if it is the most appropriate course of action, but do not necessarily think of force as the first or only alternative. Klingons will not attack civilian targets simply for the thrill of killing defenseless people, but neither will they hesitate to attack a military target just because it is surrounded by civilians. The Klingons have been known to destroy Federation civilian colonies in the Neutral Zone (when they can get away with it) to prevent those planets from being claimed as possessions of the Federation. (To Humans, a Klingon appears callous, but Klingons consider it being practical.)

Note that Klingons in ***GURPS Prime Directive*** and the ***Star Fleet Universe*** are based on the original source material and appear very much like Humans.

Homeworld: Klinshai: Class M, Gravity 1.02G, Atmospheric pressure 1.03, Mean temperature 83°F, Zorski Group II.

Attribute Modifiers: ST +1 [10]; DX +1 [20]; HT +1 [10].
Advantages: Fit [5]; High Pain Threshold [10]; Higher Purpose (Improve heroic reputation) [5].
Perk: Alcohol Tolerance [1].
Disadvantages: Callous [-5], Short Lifespan 1 [-10].
Quirks: Proud [-1]; Staid [-1].



Klingon D5W

Dunkars

19 points

Dunkars are orange-skinned humanoids whose homeworld has long since been part of the Empire. Dunkars are quiet, genteel people who excel in administration and enjoy above all else the telling of a good tale or yarn.



Of all the subject races controlled by the Klingons, the Dunkars are the most passive and accepting of their situation, and hold a status second only to the ethnic Klingons themselves. Numerous Dunkars have risen to positions of responsibility and even authority in the Empire due to their levelheaded and calm manner. Some even serve as officers.

Homeworld: Class M, Gravity 0.98G, Atmospheric pressure 1.01, Mean temperature 75°F, Zorski Group II.

Attribute Modifiers: ST-1 [-10]; IQ+2 [40].
Advantages: Fearlessness 2 [4].
Disadvantages: Social Stigma (Minority group) [-10]; Status -1 [-5].

Slirdarians

-6 points

Slirdarians are a hulking bear-ape species and are the equal of the Gorns and Kzintis for physical size and power in a humanoid lifeform. The Klingons once tried to conquer the Slirdarian home planet, but were defeated after two decades of guerrilla warfare. The fighting between the two species engendered a feeling of mutual respect, and in the end, the Klingons withdrew except for a handful of trading stations, which became the focus for recruitment.



Most Slirdarians are of below-average intelligence by Human standards, but there are many notable exceptions. There are more sergeants and lieutenants in the Klingon ground forces that are Slirdarian than any of the other subject races. Only the ethnic Klingons outnumber them. More than a few have attended the Academy and reached positions of company or even battalion command. The only non-Klingon to ever reach "flag" rank was a Slirdarian: Brigadier General Razmond Kobol Tsumasoln, known to history as "Kobol of the Rock." He held the rank of Major but took over an entire division of ground troops when the senior Klingon officers were killed. His personal leadership

inspired the division to resist a two-year Kzinti siege of the planet they were defending.

Only the bravest (or craziest) enemy ground troops will accept hand-to-hand combat with Slirdarians. Fast, strong, and able to operate all but the most high-tech equipment, Slirdarians are the first-line shock troops of the Empire. Slirdarians do not usually serve with Hilidarians because of the long-standing rivalry between them dating from the First Klingo-Kzinti War as detailed in ***GURPS Klingons.***

Homeworld: Class M, Gravity 1.20G, Atmospheric pressure 1.21, Mean temperature 88°F, Zorski Group IV-c.

Attribute Modifiers: ST+2 [18] (-10% for SM+1); DX+1 [20]; IQ-2 [-40].
Secondary Characteristic Modifiers: SM+1; HP+2 [4]
Advantages: Damage Resistance 1 (Tough Skin, -40%) [3]; Sharp Claws [5]; Sharp Teeth [1]; Temperature Tolerance 2 [2]; Very Fit [15].
Perk: Fur [1].
Disadvantages: Berserk [-10]; Bloodlust [-10]; Social Stigma (Minority group) [-10]; Status -1 [-5].

Hilidarians

36 points

Hilidarians are a reptilian species similar in outward appearance to the Gorns or Pronhoulites, although closer in physical size to the latter and not directly related to either. Hilidarians are amphibious, with webbed feet and hands, but can function more than adequately on land. While they walk erect when required, they are more comfortable (and much faster) when on all fours. They are capable of great bursts of speed in this mode, although on arrival at the destination they will have to stop and draw their weapons.



Hilidarians are a subject race employed mostly in ground forces, although some serve as technicians in starship crews. A few obtain battlefield commissions, and a handful have attended academies or service schools. It is uncommon for Hilidarians and Slirdarians to be in the same company and *very* unusual for them to be in the same platoon because of a long-standing rivalry or animosity between them. Those selected for service with special teams (including Dagger Teams) are carefully picked to avoid personality conflicts with members of other species. Physically equal to Klingons or other humanoids, they are not nearly as powerful as the Slirdarians, but they are more intelligent and clever.

Homeworld: Class M, Gravity 1.04G, Atmospheric pressure 1.05, Mean temperature 89°F, Zorski Group V-b.

Attribute Modifiers: ST+1 [10].
Advantages: Amphibious [10]; Damage Resistance 2 (Tough Skin, -40%) [6]; Enhanced Move 1 (Ground, Temporary Disadvantage, No Fine Manipulators, -30%) [14]; Fearlessness 5 [10]; Sharp Teeth [1]; Single-Minded [5]; Striker (Tail) [5].
Disadvantages: Cold-Blooded [-5]; Semi-Upright [-5]; Social Stigma (Minority group) [-10]; Status -1 [-5].

Cromargs

34 points

Cromargs, humanoid dwarfs whose blotchy skin is a result of too much radiation exposure on their home planet, are the tragic remnants of a once-proud species. While Humans were dragging themselves up out of the Dark Ages, the Cromargs were experimenting with atomic energy and electronics.



Having built a technological society, the Cromargs never developed the drive to go into space. They began to bicker among themselves over political matters. In the end, a terrible atomic war ravaged their world, driving the shattered remnants underground. They eked out a marginal existence with a small, but stable population, for hundreds of years until the Klingons arrived. As they had retained high technology, the Cromargs serve the Empire as technicians. Many Klingon gunners controlling a starship phaser have a Cromarg technician to keep the phaser working. Klingon infantry battalions have Cromargs who man the rocket launchers and other heavy weapons.

Homeworld: Class M, Gravity 0.99G, Atmospheric pressure 0.99, Mean temperature 69°F, Zorski Group II.

Attribute Modifiers: IQ+2 [40]; HT-2 [-20].
Secondary Characteristic Modifiers: SM-1; HP-2 [-4]
Advantages: Resistant (Psionics) +3 [10]; Talent 1 (Mathematical Ability) [10]; Versatile [5]; Xeno-Adaptability [20].
Disadvantages: Social Stigma (Minority group) [-10]; Status -1 [-5]; Susceptible (Disease) -3 [-12].

Zoolies

14 points

Zoolies are an odd humanoid species recruited by the Klingons for their unusual nighttime capabilities. Zoolies have two sets of eyes, one for daylight and another, larger pair for use in total darkness. (These eyes can see into the infrared spectrum and can gather more ambient light.)



The Zoolies are highly perceptive. Many Klingon commando teams include Zoolies, and some are composed exclusively of Zoolies, but Zoolies rarely appear elsewhere in the Klingon military. A handful of them serve as mechanics or technicians on starships, where they can use their night vision in the darker bowels of the ship. Many Klingon Dagger Teams include a Zoolie, a prestigious assignment.

Homeworld: Class M, Gravity 0.95G, Atmospheric pressure 0.96, Mean temperature 69°F, Zorski Group I-b.

Advantages: Acute Vision 5 [10]; Infravision [10]; Night Vision 9 [9].

Disadvantages: Social Stigma (Minority group) [-10]; Status -1 [-5].



Klingon F5W

Yitlians

23 points

Yitlians are humanoids; their only outwardly distinguishing trait is slightly yellow skin and double nostrils.



Yitlia, their homeworld, is slightly larger than Earth. Rich both agriculturally and in minerals, the planet has vast deposits of strategic minerals. The Yitlian home planet is not inside Klingon territory, but far away in the outer reaches of the Lyran Star Empire where a treaty allows the Klingons to exploit new worlds. It is perhaps fortunate that it was the Klingons, rather than the Lyrans, who made first contact, as the Yitlians have an antipathy to all things feline. The Yitlians are associated by treaty with the Klingon Empire; they are not considered a subject race, but for all intent and purpose might as well be and the social stigmas and lower status apply to them as it would to members of a subject race. (The Lyrans do not often allow other species in their territory to leave their planets; the Yitlian situation is unique.)

Recorded Yitlian history goes back about 6,000 years. About 4,000 years ago, the Yitlians began to war with another sentient species that arose on their homeworld. The Akalanaita ("vile ones") were a species of intelligent felines descended from predatory cats that roamed the vast plains. There is no evidence that Akalanaita were related to the Lyrans or Kzintis, although some Klingon researchers believe they may have been a result of a "seeding" program by the "Leopard Kings". The war between the species lasted nearly 1,900 years, ending about 2,000 years ago when the Yitlians exterminated the Akalanaita.

Homeworld: Class M, Gravity 1.09G, Atmospheric pressure 1.09, Mean temperature 79°F, Zorski Group I-b.

Attribute Modifiers: DX+1 [20].

Advantages: Acute Taste and Smell 4 [8]; Discriminatory Smell [15]; High Manual Dexterity 2 [10].

Disadvantages: Impulsiveness [-10]; Intolerance (Felinoids) [-5]; Social Stigma (Minority group) [-10]; Status -1 [-5].



Zoolie Dagger

Romulan Star Empire

The Romulan Star Empire is the most aggressive of the empires. Romulan territory includes even fewer inhabitable planets than the Gorn Confederation space and contains the home systems for the "suppressed races". (These were discovered late in the Romulans' expansion and the Romulans kept their discovery very quiet.) The Romulans seem to honestly believe that they are destined to rule the Galaxy and are constantly working toward this end.

The Romulan government includes the Emperor, the Praetor, the Senate, the Military Command (which includes the various fleets' training command, base commands, and military production), and the Civil Administration (which includes planetary governors, police forces, ground legions, etc.). The "Great Houses" (extended families that function in some ways as political factions) have great influence over the government. The Romulan government is located on Romulus; Remus is considered to be a second homeworld.

For more information, see the sourcebook ***GURPS Romulans.***

Romulans

33 points

The warlike Romulans (and their Vulcan cousins) are descended from a much more primitive culture. While it was formerly believed that the Romulans and Vulcans had diverged into different species, more recent research has determined that genetically they are virtually identical and can interbreed. Over the centuries, however, they had differentiated in such ways that many still do consider them to be two separate species. Unlike a Vulcan, the typical Romulan chooses to focus on advancement of the Romulan Star Empire (and if he is a member of a "Great House", the advancement of that Great House's goals as well), putting aside petty jealousies and personal ambition. Neither emotions nor logic are shunned, each having an appropriate use. The Romulans, free from the strict emotional control of Vulcan society, are more passionate, but lack the high percentage of people with psionic abilities (and this lack also may be in part due to biological factors). The regenerative powers Vulcans have are entirely due to the so-called "Vulcan mindset" resulting from intensive training to develop these abilities virtually from infancy (while the brain is still "pliable"), while the Romulans do not put any particular emphasis on these Vulcan mental disciplines.



The Romulan Code of Honor is detailed in Chapter 8 and it is drilled in Romulans practically from birth. Two Romulans could have honest disagreements as to how best to serve the Code, some simply don't subscribe to it (and the disadvantage must be bought off).

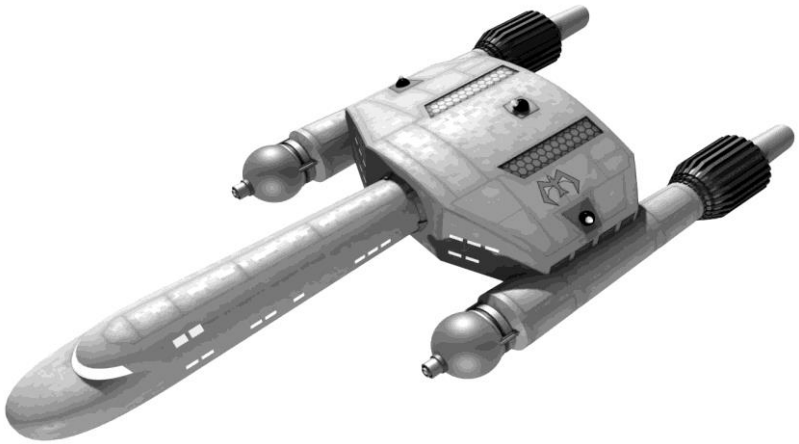
Homeworlds: Romulus: Class M, Gravity 1.10G, Atmospheric pressure 1.11, Mean temperature 79°F, Zorski Group III-a; Remus: Class K, Gravity 1.16G, Atmospheric pressure 1.12, Mean temperature 125°F, Zorski Group III-a.

Attribute Modifiers: ST+1 [10]; DX+1 [20]; IQ+1 [20]; HT+1 [10].

Advantages: Acute Hearing 1 [2]; Extended Lifespan 1 [2].

Disadvantages: Code of Honor (Romulan) [-10]; Duty (Romulan Empire, 12 or less) [-10]; Intolerance (non-Romulans) [-10].

Quirks: Careful [-1]



Romulan SeaHawk

Kzinti Hegemony

The Kzinti government is a monarchy; the ruling hereditary sovereign is known as the Patriarch. There are four principal divisions of Kzinti territory, ruled by the Duke (Klingon border), the Marquis (Federation border), the Count (Lyran border), and the Baron (newly explored territory). There is sometimes a Crown Prince who is the heir apparent to the Patriarch. Countless civil wars, coups, and assassinations play a role in selecting the successor to any hereditary post.



There have been numerous wars with the Klingons, Lyrans, and (in earlier times) with the Federation. Just before the General War began in Y166, the Kzintis allied with the Federation against the Klingons, and benefited from Federation technological assistance to upgrade their military.

The Kzinti Hegemony Fleet is aggressive and highly professional, but has spent much of its time in various civil wars over the succession to the throne. The most notable Kzinti Civil War (Y116) resulted in the flight of the Usurper to the WYN Cluster. Kzintis would like to see the WYN Cluster destroyed because it shelters that pretender to the Patriarchy throne, but have been unable to do so due to the support the WYN receive from other powers.

The Kzinti Hegemony was originally composed only of Kzinti-inhabited worlds. Since expanding to its current size, the Hegemony has gained control of several planets with native sentient species, but does not allow individuals of those species to leave their planets.

Kzintis

45/37 points

The Kzintis are large humanoids of clear feline ancestry. In spite of a superficial resemblance between Kzintis and Lyrans (indeed, Federation scientists have determined the two feline species share a common ancestor), hatred would not be too strong a word to describe Kzinti feelings toward Lyrans. Kzintis are carnivorous, and stories of them eating their captives are certainly true. This distasteful habit prevented the Federation from accepting them as allies for many decades.

Kzinti culture is such that the males are rarely taught to curb their temper. They tend to act on impulse, which can be a nasty combination with a bad temper.

Kzinti females issue a pheromone that makes them attractive to male Kzintis. They don't seem to be as bad tempered or as impulsive as their male counterparts. Kzinti culture is such that most Kzinti females stay home and raise children rather than going away to space. However this changed after Y185. During the General War, many Kzinti females took over running their husband's business; when the war ended, they weren't all content to stay in their home doing housework and raising children.



Note: Despite superficial similarities, these Kzintis are not the Kzin found in another science fiction universe. The Kzintis of the ***SFU*** have cat ears and no tails. Kzintis in the ***SFU*** will almost never allow their true names to be known by outsiders, and each adopts a "battlename" by which he is known to foreigners.

Homeworld: Class M, Gravity 1.25G, Atmospheric pressure 1.19, Mean temperature 79°F, Zorski Group IV-a.

Males

45 points

Attribute Modifiers: ST+2 [18] (-10% for SM+1).
Secondary Characteristic Modifiers: SM+1; Basic Speed +2 [40].
Advantages: Damage Resistance 1 (Tough Skin, -40%) [3]; Night Vision 9 [9]; Parabolic Hearing 2 [8]; Sharp Claws [5]; Sharp Teeth [1].
Perk: Fur [1].
Disadvantages: Bad Temper [-10]; Impulsiveness [-10]; Intolerance (Lyrans, Carnivons) [-5]; Odious Species Habits (Eat other sentient beings) -3 [-15].

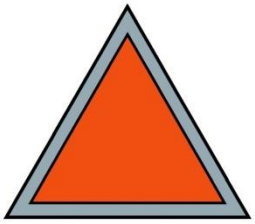
Females

37 points

Attribute Modifiers: ST+1 [9] (-10% for SM+1).
Secondary Characteristic Modifiers: SM+1.
Advantages: Attractive (Area Effect, 4 yards, +100%; Accessibility: own species only, -10%; Emanation, -20%; Sense-Based: smell, -20%)[6] and Affliction (Area Effect, 4 yards,+100%; Disadvantage: Lecherousness, +10%; Accessibility: own species only, -10%; Emanation, -20%; Sense-Based: smell, -20%) [16], total [22]; Damage Resistance 1 (Tough Skin, -40%) [3]; Night Vision 9 [9]; Parabolic Hearing 2 [8]; Sharp Claws [5]; Sharp Teeth [1].
Perk: Fur [1].
Disadvantages: Intolerance (Lyrans, Carnivons) [-5]; Odious Species Habits (Eat other sentient beings) -3 [-15].
Quirks: Chauvinistic [-1].

The Confederation of the Gorn

The Gorn Confederation (the two versions of the name are interchangeable) consists of three intelligent races joined into a single political unit. All developed on separate planets but are so nearly identical that they obviously come from common stock; their species profiles are identical and they can interbreed.



Their area of space includes relatively few habitable planets and, apparently, no native intelligent species beyond themselves. This was not always true, however. Prior to the Gorns encountering the Romulans, the Gorns encountered a sentient species — the birdlike Paravians, also descended from the original Gorn gene pool. The Paravians had found fossils of "demons" during the Paravian Middle Ages. As these "demons" were fossilized Gorns, the Paravians concluded the Gorns were demons and attacked them with unparalleled savagery. The war continued at a low level for decades, with the Gorns ultimately destroying all the Paravian colonies and all Paravian spacecraft, destroying all Paravian facilities capable of producing any more spacecraft, and blockading the species on its homeworld. Then a sun snake plunged into the Paravian sun causing it to go nova, destroying the Paravian homeworld and all the Paravians trapped there by the Gorn blockade. The Gorns felt they had caused the destruction of this species, creating the shock of "Paravian Guilt" within the Gorn culture. The Gorns ended the Third Gorn-Romulan War by driving the Romulans back to the original borders, but refused to press the war into Romulan space due to "Paravian Guilt."

If the Gorns are famous for anything, it is for the stinginess of their legislature, which avoids providing the military with sufficient funding. The Gorns would be a much greater power in the universe if their percentage of gross national product devoted to the military matched that of the Federation (let alone the Romulans or Klingons).

The Gorn Confederation has been at war with the Romulan Empire since they met. After an initial period of tension, the Confederation has been firm friends with the UFP. The Gorns have an excellent working relationship with the Skoleans.

Gorns

13 points

The Gorns are large tailless saurians with a high degree of intelligence and personal bravery. They are physically as large as (or larger than) Kzintis, being taller than (and with perhaps twice the bulk of) Humans.

Planets have been found with signs of extinct populations of transplanted Gorns. An unknown precursor, generally labeled "Lizard Kings," is thought to have transplanted the Gorns to these worlds from some unknown birthplace. The Gorns are very interested (but not obsessive) about this. Many adventurers and scientists search planets for signs of the Lizard Kings or other extinct Gorn relatives in Gorn as well as in Federation and Romulan territory.

The three races of Gorns are known as the Gray Scales (who had reached the highest technological level and built the starships that reunited the races), the Brown Scales (who had reached TL8 before being contacted), and the Green Scales (who were a TL6 agrarian race). It took nearly a century before the original social stereotyping was eliminated by intensive programs to bring the Green Scales and Brown Scales up to the level of the Gray Scales. Originally, the three Gorn races each had developed its own language; they quickly adopted "Standard Gorn" (now known simply as "Gorn") as the language of trade and education and now all Gorns use that language. During the first decades, Brown Scale businessmen took passage on Gray Scale ships to the Green Scale homeworld, where they set up industries using cheap Green Scale labor. Prior to Y120, you could still find resentment and prejudice in some areas and individuals.



Homeworlds: Ghdar I: Class M, Gravity 1.09G, Atmospheric pressure 1.11, Mean temperature 85°F, Zorski Group V-b; Ghdar II: Class M, Gravity 1.07G, Atmospheric pressure 1.08, Mean temperature 82°F, Zorski Group V-b; Ghdar III: Class M, Gravity 1.06G, Atmospheric pressure 1.10, Mean temperature 87°F, Zorski Group V-b.

Attribute Modifiers: ST+3 [27] (-10% for SM+1); DX-1 [-20].

Secondary Characteristic Modifiers: SM+1; HP+2 [4]; Basic Move-2 [-10].

Advantages: Damage Resistance 2 (Tough Skin, -40%) [6]; High Pain Threshold [10]; Sharp Teeth [1].

Disadvantages: Cold-Blooded [-5].

-2 points

The warm-blooded Skoleans are an associate member of the Federation. Their homeworld Skoleos is in Federation space, very close to the border with the Gorns. They resemble a Terran chameleon both in appearance and in special abilities. While they rarely exceed five feet in height and are not particularly strong, their lean and wiry build allows them to react quickly with a high level of eye-hand coordination.



When the various galactic powers began development of fighters, the Gorns realized that they had a *big* problem – *themselves.* A fighter built large enough to fit a Gorn pilot would lack maneuverability and speed, factors essential to success. Skolean mercenaries had been serving with Gorns for years, and there was a strong bond between the two unrelated reptilian species. In fact, many young Skoleans learn to communicate in the Gorn language. It would have made good sense for the Gorns to design and build their fighters around a Skolean pilot, but the Gorns went one better and simply built Federation fighters under license. (They also bought the entire assembly line for the Federation F-12 fighter, building thousands as G-12s, after the Federation picked the rival F-18.)

While there might have been legal problems involved with Federation citizens serving in the Gorn military, this was carefully ignored by both sides in a fashion reminiscent of American pilots serving in Britain's Royal Air Force during the early years of WWII on Earth, or with Gurkhas serving in the British and Indian armies.

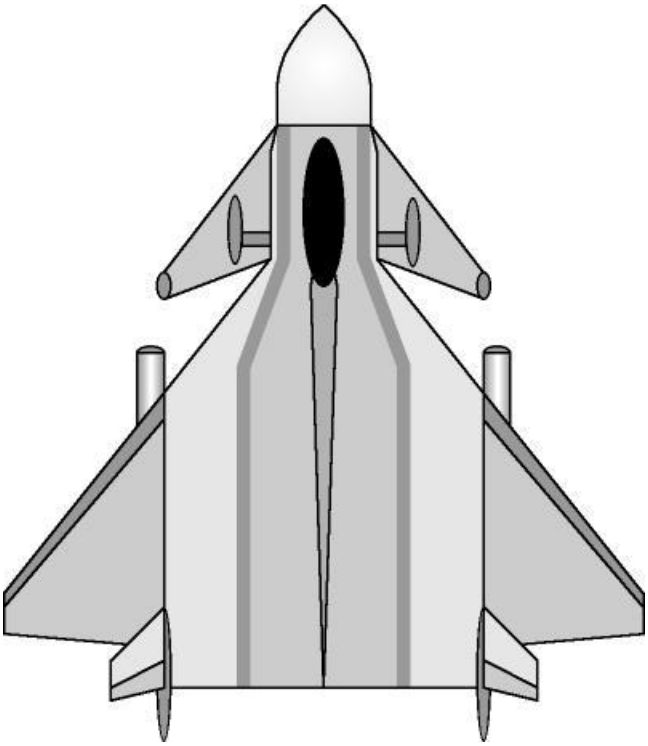
Skoleans are sometimes found serving in Star Fleet or other Federation jobs, and are rarely found serving in the Marines and other highly physical occupations. They can be considered available as another Federation member species, although most Skoleans who serve off-planet do so with the Gorns, not the Federation. Skolean mercenaries serve the Gorns in many capacities, not just as fighter pilots. Some serve as naval crewmen and a few hold commissions or even command ships.

Homeworld: Class M, Gravity 0.81G, Atmospheric pressure 0.96, Mean temperature 72°F, Zorski Group V-c.

Attribute Modifiers: ST-1 [-10]; DX+1 [20]; HT-1 [-10].

Advantages: Chameleon 2 [10]; Enhanced Tracking [5]; Peripheral Vision [15]; Resistant (Acceleration) +8 [3].

Disadvantages: Unfit [-5]; Vulnerability (cr ×2) [-30].



One of the Gorn G-12 fighters that Skoleans piloted so successfully.

Tholian Holdfast

Escaping the Seltorian Revolt, the Tholians fled the M81 Galaxy, settling on the edge of the Milky Way Galaxy at the end of the Orion Arm in what was then Klingon territory. While the original group of Tholians was small and the Tholians' only starships were tiny police cutters, Tholian technology was so superior that the Tholians were able to conquer the area, destroying (or enslaving?) several Klingon colonies in the process. The Klingons maintain a perpetual state of war against the "foreign invaders." Klingon ships are rotated through the famed Tholian Border Squadron, engaging in combat training due to the near-constant border skirmishes as the Tholians fiercely defend their territory. The Federation, which was briefly allied to the Tholians in the General War, never asked what had happened to the Klingon colonists.

During the General War, the original Tholians were joined by a fleet of their original warships (known at first as "Neo-Tholians" to Star Fleet Intelligence). Not long after that, an expedition of Seltorians arrived and (with Klingon help) set up a base and began attacking the Tholians in a combination of a religious crusade and a big-game hunt.

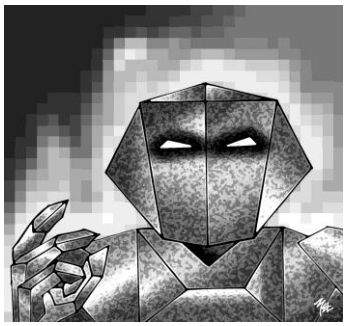
Despite a nature that is alien even by galactic standards, the Tholians are masters of playing off one side against the other, not from cowardice but necessity (their forces are too small to stand losses). The first principle taught in their academy is "Let's you and him fight." Even so, extensive Tholian patrols prevent Orion piracy in their space.

The Tholians are known to keep prisoners from the Klingon Empire and the Federation and to use the prisoners as forced laborers on worlds that are too cold for Tholians to live on.

Tholians

101 points

The Tholians are asexual crystalline entities who live in very hot environments. They temporarily assume a gender when mating and for the three years spent raising their offspring. They are not native to the Milky Way Galaxy, but once dominated their native galaxy, which we call M81. The Tholians were overthrown in a Seltorian-led galaxy-wide revolt. However, a small group of Tholians escaped the Seltorian Revolt and brought their "planet", which was a provincial capital and a small Dyson Sphere (i.e., a huge hollow structure with a small artificial star inside), with them. It took nearly 200 years for these Tholians to travel to our galaxy. Most Tholians still live in their Dyson Sphere and now consider it their homeworld in the Alpha Octant. The Dyson Sphere's interior environmental conditions are detailed under the description of the homeworld below. If Tholians have to interact in person with other species, they use special environmental suits.



Homeworld: Class T, Gravity 0.88G, Atmospheric pressure 0.85, Mean temperature 400°F, Zorski Group X.

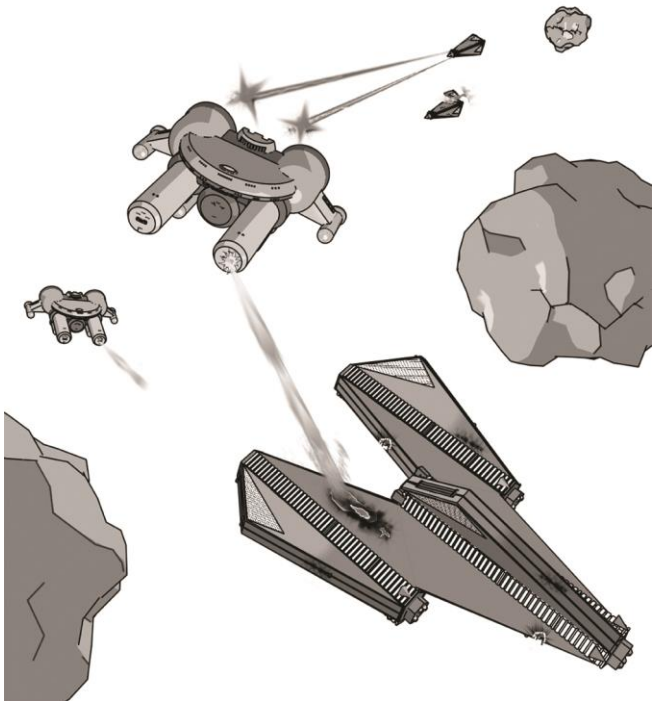
Attribute Modifiers: IQ+1 [20]; HT-1 [-10].

Secondary Attribute Modifiers: High TL +2 (Tholian physiology and medicine only, -50%) [5].

Advantages: Body of Stone [140]; the DR 5 is Flexible (-20%) and Semi-ablative (-20%) [-10]; Detect (Electric and Magnetic fields) [20]; Flight (paramagnetic, -25%; low ceiling, 5 feet, -25%; visible, -20%) [12]; Ultrahearing [5].

Disadvantages: Increased Life Support (Extreme Heat) [-10]; Intolerance (Non-Tholians) [-10]; No Legs (aerial) [0]; Weakness (Oxygen/Anaerobic, 1d per minute, very common) [-60].

Quirk: Outside of their native environment, Tholians radiate heat (and light as a soft glow) which makes them easier to see: +1 indoors, +4 in darkness, and+10 with Infravision [-1].



Tholians and Seltorians Fighting

Orions and Orion Pirates

When the Federation was formed in Y4, the Orions (not then members of the Federation) actually had a larger and better organized economy. The Federation grew rapidly and engulfed the Orion territory, which remained independent. During the first Federation-Romulan War (starting in Y40), the Orions were allied with the Federation and provided money, production, and technology to support the war. In Y45 the Orions joined the Federation, but negotiated a unique membership status that gave them a higher degree of autonomy and local sovereignty (mostly keeping Star Fleet out of Orion space) compared to other Federation members. When the Klingons invaded the Federation in Y171, the Orions exercised the clause of their membership allowing them to temporarily leave the Federation and become a neutral empire; they remained so until rejoining the Federation late in the General War.



Whenever the Orion government is a member of the United Federation of Planets, some Orions serve on Star Fleet ships. Of the members of the Federation, the Orions are perhaps the most economically aggressive, both within and outside Federation territory.

Officially (according to the Orion government, anyway), the famed and fiercely independent Orion Pirates are simply common thieves and criminals, many of whom are not even Orions, and who have no link to the Orion government or people.

The stories of the origins of the Orion Pirates are as varied as the pirates themselves. Some of them supposedly evolved from the mega-corporations based on the Orion homeworld. Some of the original Orion Pirates are rumored to have been a clandestine arm of the Orion government, using ships provided to them and manned by regular officers and crewmen of their own fleet. What is certain is that since their formation, the Orion Pirates have extended their operations to cover most known areas of the Alpha Octant. If the Orion government or the mega-corporations ever did control the pirates, they controlled only a few of them by the time of the General War (Y168).

As the Orion Pirates slipped into lawlessness, they organized into cartels, each controlling all pirate operations in a given area; see p. 257 for a map of the cartels' territory. Each cartel has many ships under its direct control, although about two-thirds of all Orion Pirate ships are independent ships. Independent operators lease an operations area from a crimelord and purchase their needed supplies, weapons, and maintenance from cartel facilities. Some Orion Pirate ships have a large number of crewmembers who are non-Orion (Humans, Romulans, Klingons, and even Vulcans); a few have no ethnic Orion crewmembers at all.

The Orion Pirates are equal-opportunity exploiters of all the galactic powers, except for the independent WYN Cluster, whose autonomy they protect in order to use it as a base of operations. Pirates (of any species) are considered to be outlaws. As with many pirates, they tend to have the disadvantage of greed and an intolerance of the legal system.

Orions

42 points

The ethnic Orions are a dexterous, green-skinned species resembling, but not directly related to, Humans. Much of what "everyone knows" about the Orions is a result of a few popular melodramas featuring Orion Pirates with an Orion "slave girl" somewhere in the cast. As a result, many believe that Orion women are all sexy slave girls and all Orion men are rakish pirates. However, most Orion women are housewives and mothers or choose to have a career; most Orion men follow respectable careers and come home to their children each night.

Orions who are more charismatic than the norm (and who also have less moral difficulty rearranging the wealth so that it comes to them) frequently seem to step naturally into the role of Orion Pirate. "Orion slave girl" (or "escort" as the males prefer to be known) is a highly paid profession with specific training needed for the person who wishes to follow that profession. In no way is it slavery. In some ways it resembles the geishas of Earth; some practitioners even add spying to their resume.

Homeworld: Class M, Gravity 0.95G, Atmospheric pressure 1.03, Mean temperature 75°F, Zorski Group III-b.

Attribute Modifiers: DX+1 [20].
Advantages: Fearlessness [2]; Xeno-Adaptability [20].



Hydran Kingdom

Starting in Y40 with the First Lyran-Hydran War and in Y66 with Klingon-Hydran border skirmishes, the Hydran Kingdom has been in conflict with those two empires. While Hydrans and Klingons (or Lyrans) cannot live on the same worlds, neither has been willing to share systems with the other.

The Hydran Kingdom was conquered by the Klingons and Lyrans in Y87 and held as a client state. However, the Klingons and Lyrans never reached three remote colony planets (Altroth, Minxitith, and Krooth) where powerful merchant guilds had established themselves. The Hydran government fled to these colonies, known at the time as the Lost Colonies. By Y135, the well-established economies on these three worlds were able to build a fleet large and powerful enough to kick the Klingons and Lyrans out of Hydran space. After the Reestablishment, the systems were called the Old Colonies; "Lost Colonies" and "Old Colonies" have since become interchangeable.

The Hydran government is a monarchy, but the bureaucracy holds the real power as dozens of royal princes conspire for the throne.

The Hydran fleet uses vast numbers of fighter-shuttles, and most of their ships are hybrid warship-carriers.

Hydrans

10 points

One of the few non-bipedal species in known space, Hydrans are short beings (just over four feet tall), greenish-gray in color, with a barrel-shaped body, three stubby legs, three equally spaced tentacles, and no necks.

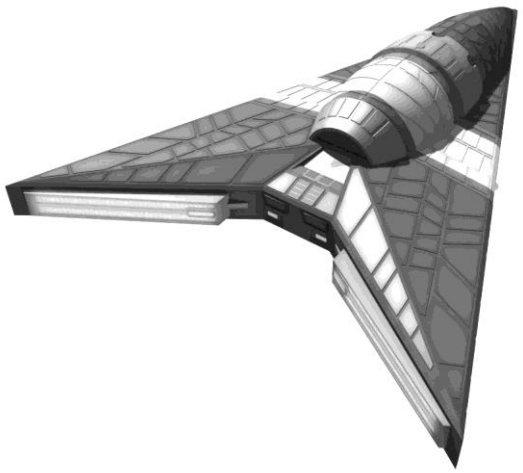


Their methane atmosphere would be uncomfortable (or fatal) to most other species. They breathe methane (which provides most of their food) and could survive on virtually any methane planet. Their homeworld is somewhat smaller than Uranus and of lower density. They are highly intelligent. Their small stature puts them at a minor disadvantage in ground combat, but their starships are among the most respected in space and are designed for close-range combat.

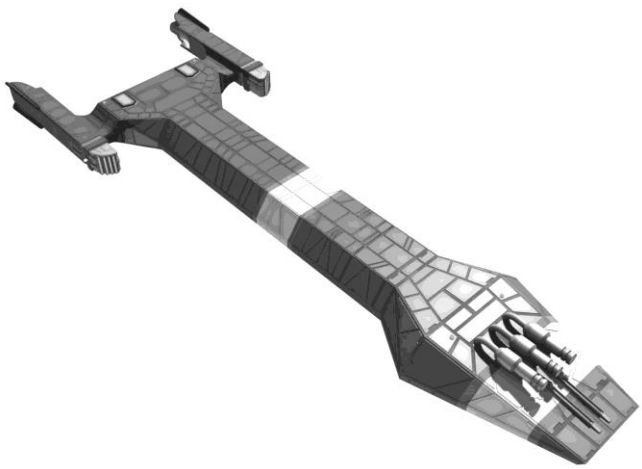
Hydrans come in three sexes that are generally referred to as "male," "female," and "matriarchal." As the matriarchals have the intelligence of a sheepdog, they are not often seen as player characters. The species profile below is for both males and females. Note that the listed disadvantages come into play only when Hydrans are away from their native environment or not on ships designed for them alone.

Homeworld: Class S, Gravity 1.13G, Atmospheric pressure 3.16, Mean temperature -220°F. Zorski Group IX-a.

Attribute Modifiers: ST-1 [-10]; IQ+1 [20].
Advantages: Ambidexterity [5]; Extra Arms 1 (Extra Flexible +50%, Long +100%) [25]; two modified arms (Extra Flexible +50%, Long +100%) [30]; Extra Legs 1 [5]; Injury Tolerance (No Neck) [5].
Disadvantages: Increased Life Support (Nitrogen-methane atmosphere at cryogenic temperatures) [-10]; Weakness (Oxygen/Anaerobic, 1d per minute, very common) [-60].



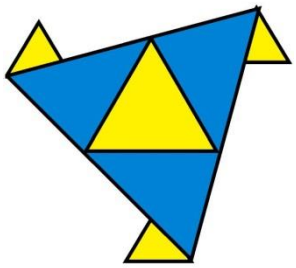
The Hydran Hunter is a frigate-class ship.



Hydran Apache Medium Command Cruiser

Andromedan Invaders

The Andromedans arrived from the M31 Galaxy about Y166 and were little more than a nuisance until the end of the General War when they launched a major invasion that very nearly conquered the Milky Way Galaxy. Intelligence estimates that several dozen ships were launched from Andromeda two centuries prior to Y166. Analysis indicates that the Andromedans secured a base in the Lesser Magellanic Cloud and began probes into the Milky Way Galaxy itself sometime in late Y165.



Their weapons are largely of unknown types and technologies.

Nothing is known about the Andromedans as beings: the only Star Fleet Marine who ever saw one and lived could not speak of it nor could medical science help him do so. Andromedan boarding parties are composed entirely of robotic combat systems, leading some to theorize that the Andromedans are themselves robots or computer software. Other theories run the gamut from plants to animals to minerals to evil spirits.

There are no Andromedan player characters in ***GURPS Prime Directive.*** Andromedan robots may be approximated for use by the GM. As there are dozens of types, GMs may use their imagination to design them. One might imagine that any robot doesn't need air, has communications (radio) to other robots, is immune to disease, and cannot "learn." (All skills are programmed in.) Three common Andromedan robots include:

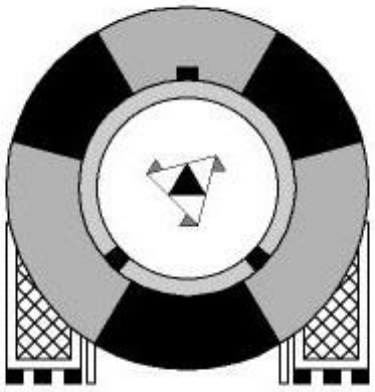
General Boarding Robot: This floats on anti-grav systems (six yards per turn), has two manipulator arms, has armor equal to Marine Battle Armor, and has four phaser pistols built in (each with a 90° arc of fire). The robot has the equivalent of ST 14 and DX 14 for any fighting skills. It is shaped like a round canister with a short cone on each end. There is a sensor stalk sticking out of the top cone and can be withdrawn if necessary. There is one manipulator arm attached to a small rotating ring at the end of each cone. This gives each arm unimpeded movement all the way around the robot. The phasers are placed equidistant from each other around the "equator" of the main canister. Each phaser can be fired independently, provided there is a target in the proper range.

Small Scout Drone: This floats on anti-grav systems (10 yards per turn), has sensors equal to a tricorder, is only lightly armored, and has one phaser pistol built in (with a 360° arc of fire). This robot has the equivalent ST 8 and DX 15 for any fighting skills. It has the equivalent of IQ 10 for operating the sensors. It is shaped like a sphere three feet in diameter. It has a small nub on the top and bottom of the sphere. The top nub is the phaser emitter.

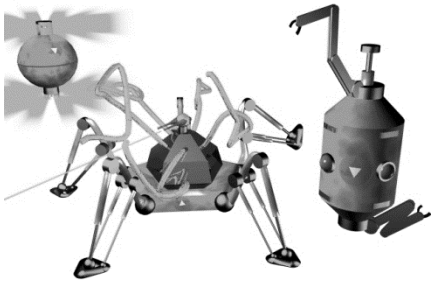
Heavy Weapons Robot: Heavily armored, this walks on legs (some have tracks or wheels, all are fairly noisy) at three yards per turn. It has five metal tentacles (three yards long) plus a heavy weapon (and enough power to fire it 10 times). This robot has the equivalent to ST 15 and DX 12 for fighting purposes. It is fairly rare; at most 10% of boarding robots in any given group will be of this or similar heavy types. There are two main components to this robot. The bottom part is the locomotive portion that houses the legs (or wheels or tracks). The legged version has four legs located at the corners of a square base. The top part is a large pentagonal cone. Each face has a tentacle protruding from it. Each tentacle is thin with a small grasper at each end; the strength of each belies their size. However, the grasper is rarely used as the tentacle is primarily used to wrap and either hold or crush opponents within range. The heavy weapon is mounted on the top of the cone and can rotate 360°. The heavy weapon is typically either a rocket launcher (equivalent to a light rocket launcher) or a phaser weapon (equivalent to a repeating phaser). The rocket launcher will have 10 rockets available to fire.



Andromedan Cobra



Andromedan Intruder



Lyran Star Empire

The Lyran Star Empire is located on the far side of the Klingon Empire from the Federation. It is divided into 21 counties (one of which rebelled to become the neutral Lyran Democratic Republic). One county is run by the King-Emperor, with the others divided into four duchies (each run by a duke). The Lyrans (like the Kzintis, and unlike the Klingons) do not allow sentient species within their empire into space.



Early in history, the Lyrans fought wars with the Klingons, but as time passed, they became Klingon allies. The alliance was originally one of convenience, but by the time of the General War the Lyrans and Klingons were firm friends with the mutual respect of warriors. The strong central organization of the Klingons did leave the Klingons as the senior partner in the alliance. The Lyrans have engaged in constant warfare with the Kzintis and Hydrans; they also joined in the Coalition invasion of the Federation in Y171. They have engaged in attempts to reintegrate the LDR into the Empire, and would love to see the WYN Cluster destroyed, but have been unable to do so due to the support the WYN receive from the Lyrans' enemies. The high level of internal conflict within the Lyran Star Empire has kept the empire as a whole from dominating a much larger area of the galaxy.

The hatred between the Lyrans and Kzintis is so tremendous that every attempt at peace negotiations breaks down into hand-to-hand combat. Federation diplomats attending international conferences have been advised to not stand physically between Kzinti and Lyran diplomats, even when the discussions are proceeding calmly. The fact that Kzintis and Lyrans somehow coexist peacefully inside the WYN Cluster is an embarrassment to both empires.

Subject race persons have the disadvantages of Social Stigma (Subjugated by Lyrans) [-20]. This applies only when in the Lyran Star Empire, dealing with Lyrans. Rarely do these people escape from the Lyran Star Empire, but when they do, once they are off-world (the WYN Cluster, Orion Pirates, etc.), these disadvantages no longer apply. (Some Lyrans new to the situation may react to the subject race persons as though they are subjugated, but quickly learn that subject race persons and Lyrans are legally equals.)

Lyrans

48 points



The Lyrans (pronounced Lear-uhns) are Human-sized cat-like humanoids with great physical strength. Their fur coats and features bear a striking resemblance to those of a Terran lynx with some variations; their temperaments are also similar. Lyrans have short fur-covered tails. Males and females are equals. Federation scientists have determined that the Lyrans and Kzintis are descended from common stock seeded by the "Leopard Kings" countless years ago; however if this commonality is mentioned in the presence of a member of either species, the discussion is likely to become heated (and bloody).

Homeworld: Class M, Gravity 1.10G, Atmospheric pressure 1.02, Mean temperature 70°F, Zorski Group IV-a.

Attribute Modifiers: ST+1 [10]; DX+1 [20]; IQ+1 [20].
Advantages: Damage Resistance 1 (Tough Skin, -40%) [3]; Discriminatory Smell [15]; Night Vision 9 [9]; Sharp Claws [5]; Sharp Teeth [1].
Perk: Fur [1].
Disadvantages: Curious [-5]; Gregarious [-10]; Intolerance (Kzintis and Carnivons) [-5]; Odious Species Habits (Eat other sentient beings) -3 [-15].
Quirk: Chauvinistic toward Lyrans from other counties [-1].

Peladine Republic (Conquered)

Peladine is a class-M planet within Lyran territory. It gave birth to two intelligent species, the Ranel and the Phelen. After several wars, they achieved a unified Peladine Republic and had achieved TL9 when they were discovered by the Lyran Empire in Y130. The Lyrans quickly reduced them to a subject race. Since then, Ranel and Phelen are rarely found offworld. A few are recruited into Lyran service; a few who cannot tolerate Lyran rule join the Orion Pirates.

Homeworld: Class M, Gravity 0.97G, Atmospheric pressure 0.95, Mean temperature 72°F, the Ranel are Zorski Group IV-c; the Phelan are IV-d.

Ranel

25 points

The Ranel resemble four-foot tall, bipedal Terran raccoons and share the habit of curiosity with that species. The Ranel are mute, and all Ranel know their

sign language (their native language, no cost). Those Ranel who must interact with alien species wear a speech synthesizer which resembles and accordion, but allows them to use spoken language. As a mute species, all Ranel receive a +3 to Sign Language rolls. All Ranel are taught by the Phelan to understand the Phelan spoken language. While they do not speak the language, they comprehend it.

Attribute Modifiers: DX+1 [20].
Advantages: Brachiator [5]; Catfall [10]; Damage Resistance 1 (Tough Skin, -40%) [3]; Flexibility (Double-Jointed) [15]; Sharp Teeth [1].
Perk: Fur [1].
Disadvantages: Mute (Mitigator, speech synthesizer -60%) [-10]; Social Stigma (Subjugated by Lyrans) [-20].

Phelen

42 points

The Phelen resemble Terran dolphins. As their flippers have Bad Grip, they built TL8 artificial hands (and used their mouth for fine manipulation). Later, the Ranel made TL9 artificial arms for them. They can speak in their own tongue to the mute Ranel. All Phelan are taught by the Ranel to understand the Ranel sign language. While they usually cannot sign in it, they comprehend it. (A few Phelan use their artificial arms to sign, but they are a rarity.)

Attribute Modifiers: ST+2 [20]; HT+2 [20].
Secondary Characteristic Modifiers: Water Move +2 [10].
Advantages: Damage Resistance 2 (Tough Skin, -40%) [6]; Doesn't Breathe (Oxygen Storage, 200×normal, -20%) [16]; Pressure Support 2 [10]; Speak Underwater (Interface Crossing, +50%) [8]; Striker (Tail) [5].
Disadvantages: Bad Grip 2 (Mitigator, artificial arms -20%) [-8]; Dependency (Immersion in water, daily) [-15]; No Legs (Aquatic) [0]; Short Arms [-10]; Social Stigma (Subjugated by Lyrans) [-20].

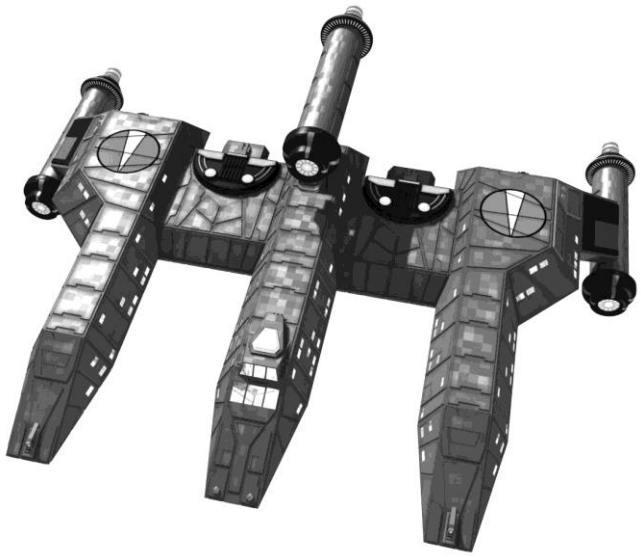


Lyran Democratic Republic

One of the 21 Lyran counties rebelled in Y145 and became the independent and neutral Lyran Democratic Republic. The tiny enclave remained independent mostly because Foremost Duchy welcomed the reduction in power of its rival, the Enemy's Blood Duchy (of which the LDR had been a part). The LDR later acquired some significant Hydran technology as a result of the Hydrans bribing them to stay neutral in the General War. While an officially neutral power, the LDR has fought minor wars with the Hydrans and with the Klingons, two of their neighboring empires. Tensions with the Lyran Star Empire have remained high, no doubt caused in part by the LDR's attempts to export its revolution to the Lyran Star Empire. The Lyran Star Empire and the Lyran Democratic Republic have fought at least two minor wars with each other.



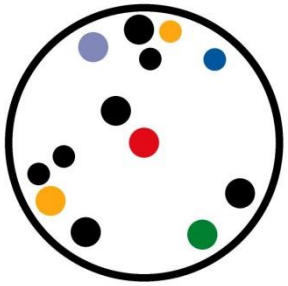
Ethnic Lyrans from the LDR will be identical to other Lyrans, except that they will average about an inch shorter in height. The Carnivons were presumed extinct when the LDR was formed; had they been alive, Lyran inhabitants of the LDR would have shown them the same intolerance as other Lyrans had. Some Ranel and Phelan work in the LDR in various jobs.



Lyran Alleycat War Destroyer

The WYN Cluster

The WYN Star Cluster stands as a huge (50-parsec diameter) beacon at the crossroads of the galaxy. Marking the point where the Klingon, Lyran, and Kzinti borders meet, the Cluster itself was long considered uninhabitable. Surrounded by a dense cloud of highly radioactive dust, it was assumed that the entire cluster was saturated with deadly radiation.



There is no species profile for the WYN because there are no ethnic WYN. All residents of the WYN Cluster are immigrants from other species and empires described in this book. Kzinti and Lyran characters from the WYN Cluster do not have the mutual Intolerance rating toward each other. They *both* have a -5-point intolerance rating toward all Kzintis and Lyrans from outside of the WYN Cluster. Characters from Klingon "subject races" who were "freeborn" in the Cluster do not have the Social Stigma or Low Status disadvantages. Klingons born in the Cluster do not have the same attitude toward subject races.

In Y116, the Kzinti Duke failed in an effort to seize the Patriarchal throne. Pursued by the victorious Patriarch's fleet, the Usurper (as he was known forever after) led the ragged survivors of his fleet to the edge of the WYN Cluster and plunged directly into it, believing it better to die than be taken prisoner. However, the Usurper and his followers survived. The radioactive clouds were a relatively thin shell, but only by driving into them at Warp 7 could even that brief exposure be tolerated. Once inside, his people were safe. Given up for dead by his former empire, the Usurper secretly began constructing a society within the Cluster.

Later, a large group of Lyrans (on the losing side of one of their civil wars) also flew into the Cluster to die, and, surprisingly, made an alliance with their hated enemies, the Kzintis. In time, Klingon renegades also joined the mix. When Orions (fleeing pursuit) entered the Cluster (expecting to die) they found the WYNs ready to deal. Once the Orions were involved, renegades from virtually every sentient species in the galaxy joined the WYNs. Common enemies and a common cause forced these groups to set aside past rivalries and form a rare multi-species culture.

The planets and asteroids within the Cluster are rich in rare metals, making the WYNs a wealthy empire. They would no doubt be destroyed by their neighbors were it not for a combination of defensive factors. First, until they recovered from the effects of the radiation, invading ships would suffer continuous malfunctions that drastically reduced their effectiveness in combat, and the small WYN fleet could easily defeat much larger forces. The second reason for WYN defensive success was that none of the bordering empires could afford to see the others gain control of the fabulously wealthy area. The WYN try to maintain a strict neutrality despite the fact that an entire Orion Pirate cartel operates from the Cluster.

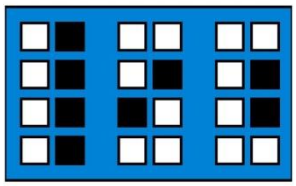




WYN Barracuda

The Inter-Stellar Concordium (ISC)

The Inter-Stellar Concordium (ISC) is an organization of five species associated by treaty, all speaking a common language. In this they are similar to the Federation. As is typical of the eastern regions of the Alpha Octant, all of these species are native to different planets, but most of these systems are within a relatively small area at the center of ISC territory. The various species discovered each other, fought several minor wars, and formed the ISC before the era of warp-powered starships.



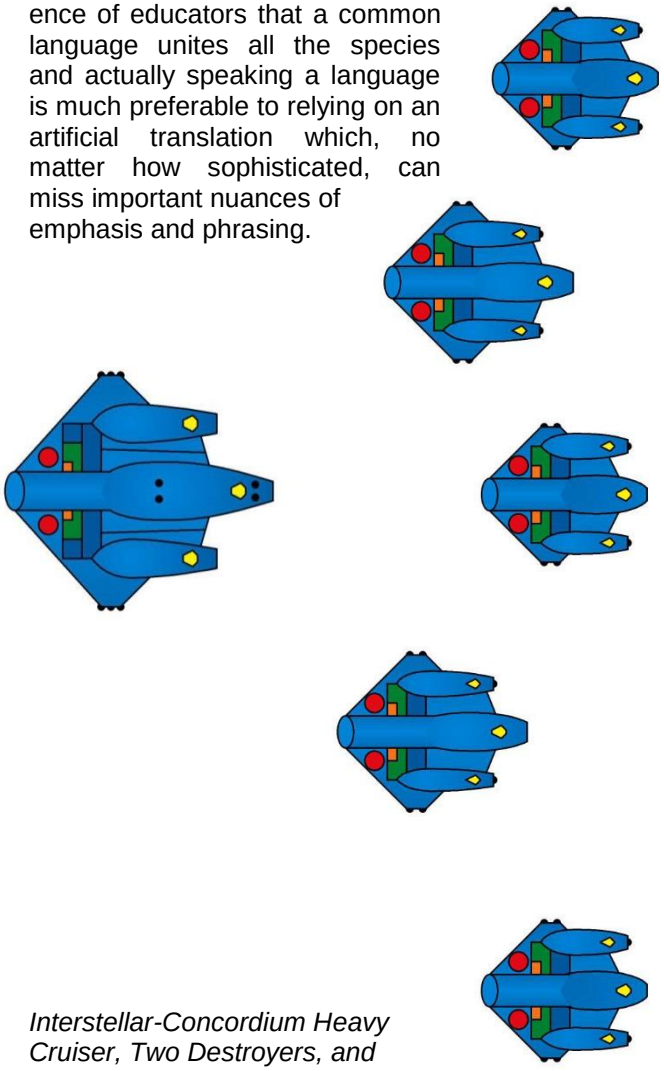
There, the resemblance to the Federation ends. The ISC has no concept of a Prime Directive, and will intervene in the development of any species to bring it up to ISC standards. The ISC's prime conviction is that "a peaceful, harmonious and well-ordered universe is the duty of all sentient species. Civilizations collapse when that duty is ignored, therefore it must be required of all." The dark underside of the ISC is that they have no respect for individual or cultural rights that violate this principle, and will go to any lengths to enforce their idea of "peace, order, and good government." Therefore, the ISC will try (usually successfully) to separate warring powers, forcing them back within their borders. The ISC does not try to conquer those powers or force them to adopt ISC philosophies, but the ISC enforces a "Zero Tolerance for War" policy.

The ISC became aware of the Gorns and Romulans in Y160 when the energy flashes of a battle were detected by a far-ranging survey mission. As the ISC is singularly pacifistic anyway (having found wars very unprofitable), its first encounter with the two warring empires left a scar on the ISC psyche. The ISC had assumed that the development of warp-power would lead all species to a higher understanding based on the realization that there were enough worlds for everyone. The "outworlders" were considered to be dangerously violent and not entirely sane. After seeing the battles, the ISC treated both neighbors with the same disdain and considered both to be untrustworthy, dangerous lunatics. There was never any thought of allying with one against the other; both were considered (metaphorically speaking) to be wild animals to be kept outside of the civilized area of the ISC itself. The Romulans and Gorns, however, constantly tried to enlist the ISC on their side. The two enemies never had enough combat power to spare to make any serious move against the ISC (beyond responding to their incursions). During this period ISC diplomats met with both species, and ambassadors were sent to the Federation and other capitals.

What the ISC found shocked them even more deeply. The galaxy had not just two dangerous lunatic empires on the loose but, in fact, had at least eight, and they apparently became more and more barbaric the farther they were from the ISC. The ISC built a huge fleet and, at the end of the General War (Y185), imposed themselves as peacekeepers between the warring factions. (Those factions regarded the ISC forces as buying them time to build new fleets.) With their forces scattered as they were, the huge ISC fleet (which might have defended the sector) became easy prey for the invading Andromedans.

The ISC is a democracy that makes sure each species has a voice. Each species has an election every five years. The species elects a vice president for the empire's government. These elections are staggered so that only one vice-president is elected each year. The most senior vice president (the one facing re-election or replacement) is the president for the year. It is expected that the president will govern, not spend time on campaigning for re-election. Seniority starts over again at election; there is no "carry over" of years in service when it comes to the seniority of the vice presidents.

All ISC citizens have ISC Standard as an extra Native language due to the insistence of educators that a common language unites all the species and actually speaking a language is much preferable to relying on an artificial translation which, no matter how sophisticated, can miss important nuances of emphasis and phrasing.



Interstellar-Concordium Heavy Cruiser, Two Destroyers, and Three Frigates in Echelon Formation

Veltressai

79 points

The Veltressai are humanoids and they are clearly the leaders of the ISC. The policy of stopping conflicts emanates from their original role in uniting many species into the ISC.

Veltressai were the leaders at infiltrating the Romulan Star Empire to find out more about it. Many times it was the "normal" Veltressai who were assigned this duty, but for particularly hazardous missions, a Quad would be assigned. The Quad would only have one member in public at a time, but if their member were to be killed, they would know everything he learned. The Veltressai (and the Veltressai alone) flew trading ships into Romulan space. They posed as traders from "out there" and were able to determine much about the ruthlessness and lengths the Romulans were willing to go to in order to fulfill their perceived destiny of ruling the galaxy. By limiting these missions to Veltressai, the ISC was able to disguise that a united empire was behind the visits.

Veltressai Quads

141 points

One of every 20 Veltressai births consists of a set of four identical quadruplets who are empathetically and telepathically linked and, while four individuals, have one personality. Anything known or felt by one is relayed telepathically to the others (within 15 miles maximum) within minutes and is part of their common experience.

A memory buffer allows the four individuals to function without distraction, maintain peripheral contact, and "catch up" at convenience. Veltressai Quads are frequently called the "Captain's Race" because the four Quad members can arrange their schedule to keep one of them on duty at all times. If Veltressai Quads try to pick up individual careers, they quickly find that they have the "book learning" of the careers other than their own, but may not have the physical skills to accomplish the task. If a Quad member tries to do a task that he didn't learn himself and doesn't practice regularly, the GM may impose a penalty, such as using a secondary attribute as the skill base. For example, if a Quad member who is a Marine tries to do the surgery that another Quad member knows as a surgeon, the GM may add penalties for being unfamiliar with the equipment and/or may rule that a DX-based roll be used instead of IQ. Thus the Quads are strongly urged to pick one profession for all four Quad members. (The Veltressai leadership always stresses this to Quads from their earliest education on.)

If separated by distance, unconsciousness, or a telepathic shield, each Quad functions independently but the "Telepathic Addiction Withdrawal" penalty starts after 24 hours. (This penalty is only in effect if there is a single Quad; two Quads able to link are not affected.) Telepathic addiction is a very difficult addiction to overcome. The separated Quad member suffers a -1 penalty to all DX based skills. In addition, his IQ is temporarily lowered by 1 for the duration of the withdrawal period. (The reason is because the character is continually distracted by the loss of the telepathic link.) It can be overcome over time, and the character can beat the addiction in 1d6+6 months.

As soon as the lone Quad member re-establishes contact, he will merge back into the group mind and exchange memories quickly in 1d6 minutes, removing the effects of the isolation. Medications or poisons with a psychological effect will affect all four when they Mindshare; one HT roll is made for all four Quad members, using the lowest HT.

A Quad which suffers a loss of a member has a -1 penalty to all IQ based Skills for a period of 2d6 weeks while the surviving Quads work through their mourning and grief. Note that this is cumulative with the telepathic addiction withdrawal, so the sole survivor would undergo withdrawal and mourning. If one Quad member dies, the survivors cannot spend character points for anything until they buy off a portion of the Advantage: Ally Group. If one player character is a member of a Quad, the GM controls the others. If one Quad member dies, the survivors cannot spend character points for anything until they buy off a portion of the Advantage: Ally Group.

Homeworld: Class M, Gravity 0.78G, Atmospheric pressure 0.95, Mean temperature 77°F, Zorski Group II.

All Veltressai

Attribute Modifiers: ST -1 [-10]; IQ +2 [40].

Advantages: Common Sense [10]; Fearlessness 2 [4]; Intuition [15]; Xeno-Adaptability [20].

Veltressai Quads Add

Advantages: Ally Group (3 allies, same point cost, appearing almost all the time, ×3, Sympathy, Medications with psychological effects have same effect on other Quad members when mind-linked, -10%) [41]; Mindlink (Only to other members of Quad, Nuisance Effect; distracted during periodic telepathic contact with other members, -10%) [9]; Telesend (Broadcast, +50%, Accessibility, Only to other members of the Quad, -60%) [27].

Disadvantages: Addiction (Mindlinking with other Quad members, expensive, can only link with other members of Quad, totally additive, legal) [-15].



Q'Naabians

27 points



Q'Naabians are one of the five species that formed the Inter-Stellar Concordium. They are short humanoids, with a greenish dappled skin. A Q'Naabian may use his tail to express emotion, much as Terran dogs do.

Because the system Q'Naabia is relatively far away from the other four ISC homeworlds, Q'Naabians did not get as deeply involved with the early Resource Wars that happened among the five species. They joined the Inter-Stellar Concordium more out of a sense of curiosity than anything else and are its top historians. They tend to keep to themselves, giving the impression that they are snobs, but in fact they simply prefer the company of their own species — in their own environmentally controlled, oxygen/chlorine atmosphere living cabin. While Q'Naabians prefer a colder temperature (about 52°F) than most of the fellow member species of the ISC, they can tolerate a "normal" Class-M planetary temperature. When they are in a "normal" oxygen/nitrogen atmosphere on board a ship or base or on planet-side, Q'Naabians carry a small canister of chlorine gas with them. They then can breathe a trace amount of chlorine through what Humans would call a nasal cannula. Without the chlorine, they would die quickly, much as a Human deprived of oxygen.

Q'Naabian culture praises the recording of history. Not every species is lucky enough to have racial memory, so the true history must be recorded for them. In addition, a memory of what your people did is more easily placed in context by knowing what may have influenced decisions. Each Q'Naabian ship (and later every ISC ship) included at least one Q'Naabian historian. Those historians tend to be quite curious and that curiosity can lead them into danger. (What happens if that big red button on that wall gets pushed? What is behind that door?) Historians often swear to devote their lives to the pursuit of knowledge. A Q'Naabian historian who deliberately misstates or slants the true facts of history is shunned by polite Q'Naabian society. The same love of truth means that if a Q'Naabian engineer tells you it will take three hours to repair an engine, it will be as an accurate an estimate as he can make. There's no padding an estimate so that his department will look good.

Q'Naabians live longer than Humans, about as long as Vulcans which is 180 years. They have a racial memory of sorts, sometimes having a sense of déjà vu in situations they have never encountered. They tend to be truthful due to societal expectations. The historian can be curious enough that the curiosity can lead them into trouble. Any Q'Naabian who deliberately records false information as true history is ostracized by proper Q'Naabian society.

Homeworld: Q'Naabia: Class R, Gravity 0.88G, Atmospheric pressure 1.33, mean temperature 52°F, Zorski Group VIII-a. In some places the planet Q'Naabia is listed as Q'Naab. Q'Naabia is the preferred form.

Attribute Modifiers: IQ+2 [40]; HT+1 [10].
Advantages: Extended Lifespan 1 [2]; Racial Memory (Passive) [15].
Disadvantages: Dependency (Chlorine gas, Very Common, Constantly) [-25]; Increased Life Support (chlorine-oxygen atmosphere) [-10]; Truthfulness (12) [-5].

Pronhoulites

48 points



The Pronhoulites are land-based, bipedally erect, reptilian humanoids, perhaps distantly related to the Gorns (or not). Pronhoulites are not as powerful as the Gorns, but are much faster. They are one of the five species found in the Inter-Stellar Concordium.

Pronhoulites originally formed many tribes that squabbled over territory. They finally united under the joint rulership of King and Queen Rathanon. Tradition suggested that no other ruler would have the primary name of Rathanon. (When the Pronhoulites started traveling in space, the kings and queens took on the title of emperor and empress, but still held to the naming convention.) To unite the tribes it was emphasized that friendship was one of the primary devotions of all Pronhoulites. Duty was important, be it to the tribe or the highest level of the kingdom. As the gods had blessed the union of the tribes, so Pronhoulites showed their devotion to those gods through performing their duties and forming strong and loyal friendships.

Every proper Pronhoulite undergoes The Time of Cleansing, which is obviously marked by eating his tribe's native foods and privately marked by performing the rituals and meditations of his tribe. Fortunately, The Time of Cleansing is staggered through the various tribes so that good friends can take over any serious obligations that might interfere. Pronhoulites who are serving a higher duty to the state perform anything private in their off-hours.

Pronhoulites never placed an emphasis on frivolous technology to the degree that many other species did. They enjoy many of the innovations, but believe that they must rule technology and not be ruled by it. Technology is reserved for practical usage and not as

much for recreational purposes. If a meeting is held in a town, Pronhoulites feel it is far better to be there in person. However, if it isn't practical to be there, then it is perfectly acceptable to use technology to participate by videocasting.

They have never become numerous enough to be a major power within the ISC. Part of the reason is that being cold-blooded, the planets they find attractive are not as numerous. Pronhoulites are aggressive in protecting what they deem important (what they have sworn a duty to and to their friendships). They are adaptable to situations and other beings. They seem to have an instinct for and are very adept at military matters. A Pronhoulite strategist is valued in the military, police, and navy. Many who join the ISC's navy become first officers where they are happy following a duty, not creating new paths. They tend to gravitate to the Marines where they carry out their missions and assignments, usually successfully.

The Pronhoulites were in favor of doing more than just separating the barbarian powers, perhaps utterly destroying any ships they found in conflict. The other species in the ISC were more inclined to hope that by "spanking the barbarians," the barbarian species would learn that they didn't have to fight.

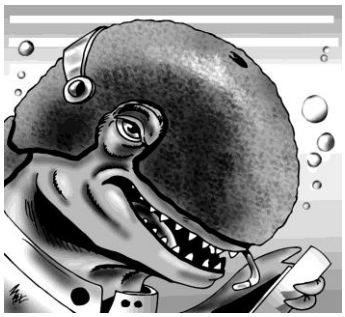
Homeworld: Class M, Gravity 1.45G, Atmospheric pressure 1.25, mean temperature 95°F, Zorski Group V-b.

Attribute Modifiers: ST+1 [10]; DX+1 [20].
Secondary Characteristic Modifiers: Basic Speed +1 [20].
Advantages: Damage Resistance 1 (Tough Skin, -40%) [3].
Disadvantages: Cold Blooded [-5].
Taboo Trait: Temperature Tolerance.

Rovillians

100 points

The Rovillians are one of the five species that formed the Inter-Stellar Concordium. They are a psionically active aquatic species, something like a cross between a turtle and a dolphin. They have vestigial exo-chitin on their backs and heads and possess crudely articulated digits on their flippers. While ungainly on dry land, the Rovillians are inhumanly graceful and acrobatic in their native element. When in the water, a Rovillian can use his strong tail to strike a ball in sport or an enemy in a fight.



All Rovillians have latent psionic abilities, much like the Vulcans. Many (but not all) Rovillians who make it into space have developed them to some extent, especially telepathy (to improve communication with the "dry" ISC species) and telekinesis (to compensate for their lack of fine manipulators). Rovillians tend to be healthier and stronger than Humans, more like Rigellians. Part of the reason for their increased strength is due to the higher gravity of their home planet.

The physiology of the Rovillians was much debated by Federation scientists and based in part off glimpses from viewscreens. For many years it was thought they must be totally aquatic and (like Terran dolphins) must moisten their bodies frequently. Scientists speculated that it would be easier for such a species to work from a tank. Only during the era of the ISC Pacification did it become known that Rovillians actually have stubby hind legs to walk on, much as if a turtle could walk on its hind legs. When a Rovillian wants to swim, he tucks up his legs next to his body and uses his flippers and tail to achieve a very fast speed. Heavy-duty moisturizing ointments take care of a Rovillian's skin when he is out of the water. Rovillians can speak, but their voices tend to be very high-pitched. When communicating with their "dry" coworkers, Rovillians with telepathy use that to be sure that what they mean is communicated accurately. (Their coworkers may find this "dual voice" somewhat disconcerting until they become used to it.) Rovillians do breathe, but they can hold their breath for a long time compared to Humans.

The ISC has made accommodations on their ships for their semi-aquatic crewmates. Every ship includes a large swimming pool which helps keep all the crew fit. It is a common saying though, "Never race a man with his own flippers." Crew quarters are modular so that where a Q'Naabian might have a bed (or a Veltressai Quad might prefer a set of bunk beds), a Rovillian has a "lounging pool" for relaxation and sleep. Duty stations have chairs that swivel and recline. Much as Hilidarians do, the Rovillians reverse the chair and lean forward in it, the better to see the instrument panel. If a Rovillian must stand for a long period of time, you may catch him using his muscular tail as a third point of contact.

Technologically, the Rovillians didn't have the level of sophistication of the others in the ISC did. So many forms of power don't "play well" with water. Some speculate the plasma cannons found on the earlier ships of the Rovillian nation were suggested by the exhalation from the Rovillians' "blowholes." Still, the Rovillians managed to build a fearsome fleet in numbers compared to the other four species and as part of unification had to scrap about half of it.

What the Rovillians lacked in technology, they more than made up for in their culture. Movement is an art form with them, much as rhythmic gymnastics are for Humans. They enjoy sports based in water. Newer sports for them are "The Races." Typical of the

Rovillians, they identified a problem, created a solution, and then made the solution fun.

While the Rovillians were almost totally aquatic, their lower limbs were slowly shrinking in size and strength. Some scientists speculate that eventually they would be little more than vestigial limbs. Now that Rovillians lead semi-aquatic lives, they need their legs to more easily move around. They created a pedal exercise “bike” to help strengthen their legs. This grew into something resembling a unicycle which they race for sport. One race is for pure strength – Rovillians peddle the unicycle for speed. A second race is for dexterity and reaction time – the unicycle has an added battery pack and small engine. Courses vary and may include obstacles. The Rovillian equivalent of a triathlon is a water race, a strength race, and a dexterity race.

Note that the Mute disadvantage only applies to speaking outside of water to non-Rovillians (i.e., any Rovillian that is living off his homeworld or not on a world colonized by Rovillians should take this disadvantage).

Homeworld: Class N, Gravity 1.51G, Atmospheric pressure 1.47, mean temperature 79°F, Zorski Group IV-d.

Attribute Modifiers: ST+2 [20]; HT+2 [20].
Secondary Characteristic Modifiers: Water Move +4 [20].
Advantages: Doesn’t Breathe (Oxygen Storage, 200×normal, -20%) [16]; Pressure Support 2 [10]; Telekinesis 5 (Psychokinetic, -10%) [23]; Telesend (Telepathic, -10%) [27]; Striker (Tail) [5].
Disadvantages: Bad Grip 2 [-10]; Cannot Speak (Mute, mitigator, translators -60%) [-10]; Dependency (Immersion in water, hourly, mitigator, uses moisturizer daily, -60%) [-6]; No Legs (Semi-Aquatic) [0]; Semi-Upright [-5]; Short Arms [-10].

Korlivilar

158 points



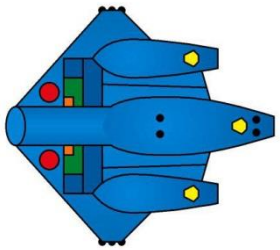
The Korlivilar are a feline species; their height often measures less than 6 feet. The Korlivilar are the undisputed masters of speed and reaction time, and most often serve as forward scouts and in special forces units. They do require lots of sleep to function well, spending only a third of the day awake by choice. However, they awaken easily, so often their shipboard cabins are soundproofed. They also tend to be loners or to work in small groups that understand their need for “down time.”

The Korlivilar are not like the other feline species found in the Alpha Octant of the Milky Way Galaxy. They are not as big as the Kzinti but slightly bigger than the Lyrans. They are both stronger and more dexterous than the Lyrans. Their coats tend to run to earth tones such as black, brown, tans, and a dusty red. Occasionally a non-albino white Korlivilar is born. In the more distant past, these were considered to be a gift from the gods and were raised to an age where they could be sent to a church-run monastery. There they became priests and scholars.

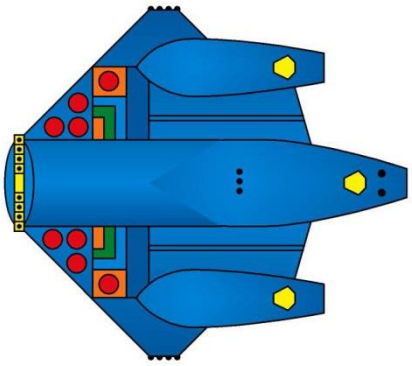
When the Korlivilar heard that the Kzintis and Lyrans had exterminated the Carnivons, they were appalled. These were not stupid predators, driven by appetite alone. These were sentient beings. The felines were worse than the Gorns who were responsible for the genocide of the Paravians, but were at least sorry for what they had done. The Kzinitis and Lyrans had done it and were proud of it. The Korlivilar doubled down on aggressively bringing peace to the galaxy.

Homeworld: Class M, Gravity 0.98G, Atmospheric pressure 1.05, mean temperature 75°F, Zorski Group IV-a.

Attribute Modifiers: ST+2 [+20]; DX+4 [80].
Secondary Characteristic Modifiers: Per+2 [10].
Advantages: Absolute Direction [5]; Combat Reflexes [15]; Damage Resistance 1 (Tough Skin, -40%) [3]; Enhanced Move 1 (Ground) [20]; Infravision [10]; Sharp Claws [5]; Very Fit [15].
Perk: Fur [1].
Disadvantages: Light Sleeper [-5]; Loner [-5]; Sleepy [-16].



ISC Cruiser



ISC Battleship

Seltorian Tribunal

The Seltorians resemble large humanoid insects. They reach a height of 5'4"-5'7" and weigh 100-156 pounds at full maturity. This seems to be a species constant, except for the Queens which are much larger. There are two sexes divided into five types. The Seltorian species resides in the original Tholian Home Galaxy (M81). Prior to the downfall of the Tholians, the Seltorians (genetically engineered by the Tholians for loyalty) occupied the position of "Most Trusted Subject Race" within that galaxy and enforced Tholian rule of their other subject races. It turned out that a few Seltorian sages lacked the loyalty gene and a revolutionary conspiracy grew.



About a decade before the Revolution, Seltorian scientists stumbled upon a weapon that would disrupt webs. When the Tholians realized what was going on, they destroyed the starbase that had originally invented the weapon. But hundreds of the components (and blueprints to build more) had already been distributed to other bases and were quickly fitted to Seltorian ships. The entire Seltorian Revolution lasted only a few years, as the Tholians lost base after base to growing rebel fleets. After the revolution was complete, the Seltorians simply replaced the Tholians as masters of a galaxy-wide empire.

It was known that some Tholian forces had escaped the debacle. Various factions of the Seltorians debated what should be done, with one group wanting to let the surviving Tholians go in peace while others wanted to hunt down the hated overseers. Several groups were known to have escaped to (or at least toward) other nearby galaxies, and the Tribunal resolved to track them down.

Hive Ships of incredible size were assembled and sent on long voyages to many different galaxies, including both the Milky Way and Andromeda galaxies. With the exception of the Hive Ship that reached the Milky Way Galaxy, nothing is known of the other expeditions (although it can be imagined that the Hive Ship that went to Andromeda did not fare well).

Scouts from this Hive Ship, following the ion trail left by the Tholian 312th Battle Squadron, contacted the Klingons in Y182. They announced their presence and mission, and the Klingons were only too happy to point out the location of the Tholian Holdfast.

The Seltorians asked the Klingons if they could set up a base on any convenient planet and conduct combat operations against the Tholians. The Klingons, facing a growing stalemate in the General War, were only too happy to accept the offer of co-belligerency. The Seltorian force, which had arrived as a holy crusade and functioned as a war crimes tribunal, quickly took on the aspect of a big game hunt.

The ISC Pacification Forces arrived in late Y186 and insisted that the Tholians and Seltorians stop fighting immediately. When they did not, the ISC assaulted the Seltorian base, destroying it. When the last remnants of the escaping Seltorians fled to the Klingon starbase in that sector, the Klingons destroyed them. With the General War over, the Klingons did not want or need the fast-breeding Seltorians within their Empire. A few individuals may have survived on pirate ships or in remote areas.

Most Seltorians only communicate in their native language. Even in their home galaxy they never knew the Tholian language as they simply used translation devices to communicate.

Homeworld: Unknown, data is from ships: Gravity 0.98G, Atmospheric pressure 1.01, mean temperature 65°F, Zorski Group VI-b.

Queens

-15 points

The only fertile females are the queens, who make up less than 1% of the population and live more than a century. Queens continue to grow throughout their long lifespan (almost an inch a year) and can reach lengths of nearly 16 feet (all of the length gain is in the abdomen, making their legs useless). One mating session can produce hundreds of thousands of eggs, and queens usually mate many times during their life span.



Egg production can be controlled by limiting dietary intake, which allows the Seltorians to limit their population (or to increase it rapidly when needed). Queens do not need or possess a particularly high level of intelligence.

Because their size over time spans two different categories, the queens are divided into young queens (up to nine feet long or SM+1) and elder queens (nine feet and longer, SM+2). Elder queens are frequently placed onto gravity sleds that will take them safely from place to place. The sled allows fewer Seltorian workers (always directed by a Seltorian sage) to have to try to move the queen. The controls are placed so the queen herself cannot reach them and direct the sled erratically. The sled is designed to be added onto as the queen increases in size.

Seltorian queens are mature at when they reach their seventh month. Their aging thresholds are at 75, 100, and 125 years. When queens reach the age of 100, unless there is a need for more workers, they are

retired to a dark, quiet chamber where they live until there is again a need for large numbers of workers.

Seltorian queens get slower as they get longer and this affects their point value. For every foot in length over six (each foot takes about 12 years to achieve), their Basic Move decreases by 1 [-5 per foot of growth]. The disadvantage of No Legs (Sessile) [-50] comes into effect when the queen achieves a Base Move of 0.

Attribute Modifiers: IQ-4 [-80]; HT+5 [50].
Secondary Characteristic Modifiers: HP+5 [7]; SM+1.
Advantages: Extended Lifespan 1 [2]; Damage Resistance 2 (Tough Skin, -40%) [6].

Rams

-4 points

Fertile males, called rams, are driven to mate with a queen and live only until they do so, after which they die in an hour. Rumors that the queens eat their mates appear to be incorrect. Players should not play rams; they mate, then they die. Rams are mature at seven months. At two years, the ram hormones burn out and the former ram is now a sage (see following section). There are not that many rams to begin with and only 10-20% of the rams survive long enough to become a sage.

***Attribute Modifiers*:** ST+2 [20].
Advantages: Damage Resistance 2 (Tough Skin, -40%) [6].
Disadvantages: Incurious (6) [-10]; Obsession: Mate with Queen (6) [-20].



Seltorian Ram and Worker

Sages

40 points

Those rams who do not mate within a few weeks of sexual maturity become infertile and live for two centuries or more as sages. The sages run the government, have the highest intelligence, provide most of the starship officers and industrial administrators, and take a much longer view of the development of the species. While it would seem that the choice between the short lifespan of a fertile ram and the longer, more fulfilling lifespan of a sage would be a simple one, this choice is not one given to the Rams. It is more a case of not being in the right place at the right time. The only downside is that the genetic material of sages is not passed on.



Sages have aging thresholds at 300, 400, and 500 years.

Attribute Modifiers: IQ+2 [40].
Advantages: Damage Resistance 2 (Tough Skin, -40%) [6]; Extended Lifespan 2 [4].
Disadvantages: Incurious (6) [-10].
Species Feature: Sterile [0].

Workers

21 points

The infertile females are the workers, who make up more than 95% of the population and live only a few years; one authoritative source cites a life span of five years but suggests that few workers die natural deaths. Workers are reasonably intelligent and provide most of the starship crews, a job for which they are trained practically from birth. They are born with the knowledge that they will not lead long lives, but they work mostly without complaint. They reach physical and mental maturity in only a few months. At five years, if they are workers, they start aging rapidly and will die within a month as their organs fail. If they live over five years, they are really experts.

Attribute Modifiers: ST+2 [20]; DX+1 [20]; IQ+1 [20]; HT+2 [20].
Advantages: Damage Resistance 2 (Tough Skin, -40%) [6].
Disadvantages: Incurious (6) [-10]; Self-Destruct [-10]; Short Lifespan 4 [-40]; Workaholic [-5].
Species Feature: Sterile [0].

Experts

75 points

For unknown reasons, a tiny percentage of the female workers have lifespans as long as the male sages, and due to their years of experience, become experts in their tasks. Never aspiring to leadership (not that sages would tolerate it anyway), experts continue their hard work without complaint.



Experts have aging thresholds at 300, 400, and 500 years.

Attribute Modifiers: ST+2 [20]; DX+1 [20]; IQ+1 [20]; HT+2 [20].
Advantages: Damage Resistance 2 (Tough Skin, -40%) [6]; Extended Lifespan 2 [4].
Disadvantages: Incurious (6) [-10]; Workaholic [-5].
Species Feature: Sterile [0].

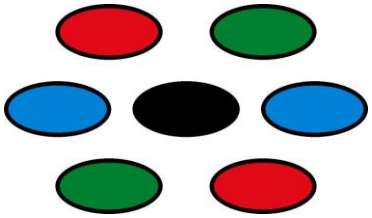


Seltorian Cruiser

Jindarian Caravans

126 points

The Jindarians are an ancient species, well adapted to living in widely varying gravitational conditions. Jindarians function normally at up to 0.5G without a "gravity suit." After that, every additional increase of 0.25G causes a temporary drop of one point in ST, DX, and HT. The "gravity suit" works well to 1.5G; after that, every increase of 0.25G causes a temporary drop of one point in ST, DX, and HT. Of particular note is the Jindarian skeleton (composed of an intricate variably ossiform cartilage) and an advanced respiratory system that actively adapts to the oxygen/carbon dioxide ratio of the surrounding atmosphere. Jindarians produce a strong unique smell due to their specialized respiratory system.



The Jindarians have been in space for perhaps 100,000 years, and have no known homeworld (or indeed, no known "national government"). It is not known if they originated within the Alpha Octant of the Galaxy or arrived from elsewhere. To some extent, the Jindarians appear to operate as "Gypsies," establishing themselves in a system's asteroid field and later moving on.

The larger Jindarian ships (dreadnoughts, battlecruisers, and construction dockyard ships) are built from asteroids riddled with tunnels and fitted with warp engines and other systems. These asteroid ships are virtually indistinguishable from other asteroids, at least until they start moving or fighting. Smaller Jindarian ships (cruisers, destroyers, frigates) have typical metal hulls.

The Jindarians appear to operate in groupings referred to as "caravans," which can be anywhere from 3 to 12 of their asteroid ships. For reasons that are unknown, it appears that any caravan about to become larger than 12 ships will subdivide into two or more caravans, each moving in a different direction. Thus dozens (perhaps hundreds) of their fleets of hollow asteroid ships crisscross the galaxy (ignoring wars, borders, laws, and treaties) to mine whatever asteroid belts they find valuable.



Caravans are led by a Jindavo. His senior commanders are known Jindbaros. The politics inside a caravan are complex, with the various asteroid ship captains spying on the Jindavo and being spied on by him in return. Assassinations are common, but there is no such thing as a "typical" caravan government or culture.

Most Jindarian caravans operate in star systems that are not inhabited; hence their activities go on almost unnoticed. When they move into an inhabited system (which is rarely done as conflicts are expensive), problems quickly result. When Jindarians move into a star system, they try to drive out any miners already there rather than tolerate interference with "their"

claims. In an uninhabited system, the prospectors simply move on to less disputed stakes. In an inhabited system, the effect is generally ruinous to the local economy, as the Jindarians keep most of the fruits of their labors and what they sell is at prices just below what the material can be imported for. It seems that Jindarians in general would be what humans would call "misers" as they take in far more than they spend.

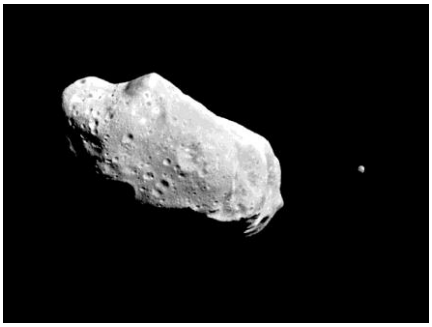
There is no overall Jindarian government; every "caravan" has its own style of operations. Some make (and keep) contracts with various empires. From time to time, a given empire will find one particular caravan to be so injurious that it sends a fleet to wipe them out or force them to depart.

Most Jindarian asteroid ships have only very small amounts of gravity (0.1G or less), and in many areas this falls to as low as 0.02G. While walking is possible, most Jindarians move around inside their own ships by "swimming" through the air. The Jindarians use a "gravity suit" when forced to go to another ship or a planet. This suit is good for at most a few hours of operations in an environment up to 1.5G. The Jindarians have had this technology for thousands of years, but the other Galactic Powers have never matched its quality.

Most Jindarians only communicate in their native language. They can live for as long as five centuries. They have aging thresholds at 160, 240, and 320 years.

Homeworld: Unknown, data is from ships: Gravity 0.08G, Atmospheric pressure 0.67, mean temperature 55°F, Zorski Group VI-c.

Attribute Modifiers: DX+3 [60].
Advantages: 3D Spatial Sense [10]; Ambidexterity [5]; Doesn't Breathe (Oxygen Storage, 200×normal, -20%) [16]; Double-Jointed [15]; Extended Lifespan 1 [2]; Extra Arms 2 (Foot Manipulators, -30%; No Physical Attack, -50%) [4]; G-Experience (All) [10]; Immunity (to adverse effects of Micro-Gravity) [5]; Peripheral Vision [15]; Radiation Tolerance 20 [20]; Vacuum Support [5].
Disadvantages: Bad Smell [-10]; Dependency (Microgravity, common, constantly, mitigator, uses gravity suit to interact with other species; -60%) [-20]; Miserliness [-10].
Quirk: Acceleration Weakness [-1].

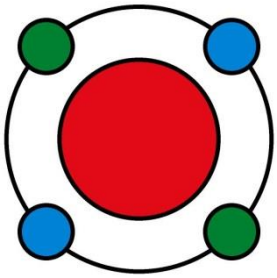


Jindarian Cruiser

Vudar Enclave

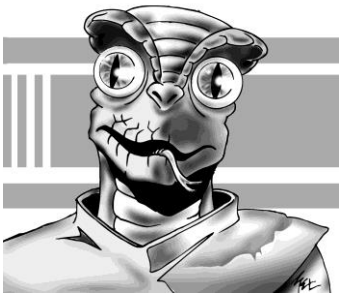
50 points

The Vudar, a bipedal reptilian species, live near the edge of the galaxy in an area where a weakness in the energy barrier known as "The Hole" produced ionizing radiation that was hazardous to most species, but on which the Vudar thrived.



The Klingons had to police and colonize the area, but the radiation made this dangerous for them, so they reached an accord of necessity unique in the history of the Klingon Empire. They allowed the Vudar to build and operate armed starships (up to destroyers before the General War, to light cruisers as the General War dragged on).

What the Klingons did not realize was that the radiation field made it impossible to accurately track Vudar ships. So long as the Klingons could not track more than the authorized number at any one time, the Vudar could build as many as they wanted. The Vudar built a rather large fleet, and this resulted in Vudar independence in Y178.



Well, that's one version of the story, the one the Federation believed. The truth was less clear, and the Vudar were never really independent. The Vudar took a larger and larger role in policing the outer galactic edges of the Klingon Empire as trusted auxiliaries. The Hydrans would not attack into Vudar-policed areas (even parts of the original Hydran Kingdom) in an effort to "keep the Vudar neutral" which was not really what was going on. (The Vudar were perfectly happy with the idea of policing a part of the Klingon Empire that no one was attacking. The Klingons were quite happy to concentrate their limited forces along a narrower front.) With the "quasi-independent" Vudar "holding a part of the front" with ships that the Klingon Empire did not have to pay for, the emperor was willing to tolerate the unresolved issues of just exactly how independent the Vudar were. The Vudar knew very well that once the war was over, the Klingon Empire could force the issue if they behaved as anything less than loyal.

Vudar are descended from a line of gecko-like lizards. Their eyes have a clear inner eyelid which affords them protection while swimming. This eyelid also allows them to "wet" their lenses without seeming to blink. This gives others the impression they are staring at things. The only way that they are amphibious (in the traditional sense) is in their ability to swim well. (***GURPS*** benefits of Amphibious all apply.)

Vudar are fully mature at age 14. They have aging thresholds at 30, 45, and 60 years.

Vudar have the disadvantages of Social Stigma (Minority group) [-10] and Status -1 [-5]. This applies only when in the Klingon Empire, dealing with Klingons. Once off-world (the WYN Cluster, Orion Pirates, etc.), these disadvantages no longer apply. (Some ethnic Klingons new to the situation may react to the Vudar as though the disadvantages still apply, but quickly learn that Vudar and Klingons are legally equals.)

Most Vudar will add Military Klingon as a language skill in addition to their native language.

Homeworld: Class M, Gravity 0.89G, Atmospheric pressure 1.01, mean temperature 75°F, Zorski Group V-c.

Attribute Modifiers: IQ+1 [20].

Advantages: Acute Vision 2 [4]; Amphibious [10]; Nictitating Membrane 1 [1]; Radiation Tolerance 200 [35]; Resistant to Poison +3 [5].

Disadvantages: Short Lifespan [-10]; Social Stigma (Minority group) [-10]; Status -1 [-5].



Vudar Heavy Cruiser

Paravian Raiders

17 points

The Paravians were a bipedal birdlike species, whose homeworld was in a system located between the Gorn homeworlds and the Galactic Core. They lost a savage war with the Gorns, and the species is extinct in the Alpha Sector.

The Gorns and Paravians first met in Y24, at the very start of the space exploration period for both species and it was the first contact for each species. Early discussions exposed that both shared a great mystery: they were not native to their homeworlds. The fossil record indicated that both had been transplanted to their planets by forces or beings unknown about 13,400 years earlier. Further explorations provided an even greater surprise: the Paravians were descended from a species virtually identical to the Gorns which had become extinct after an asteroid impact on their homeworld 12,600 years earlier. The Paravian reaction to the paleontological evidence was a fanatical hatred for the Gorns, as the fossil Gorns of their own world had for centuries held the position of demons and devils.



The Paravians launched a campaign of hatred such as the known galaxy had never seen before and has only rarely seen since. The war lasted for 10 years until the Gorns succeeded in blockading the Paravian homeworld in Y85 and then hunting down all of the surviving raiders. Rather than wipe out the Paravians (who refused to negotiate), the Gorns eliminated all Paravian facilities related to space travel. A squadron of warships then kept the Paravians neatly trapped on their homeworld.

This plan worked for a dozen years, but in Y94 a sun snake dove into the Paravian star, causing it to go nova. The Gorn garrison ships were unable to even attempt a rescue, and the Paravians would not have accepted their help. There were occasional reports of Paravians after the nova incident. Perhaps these were the descendants of raiders who had escaped the Gorns. None of these reports were ever confirmed.

While Paravians have wings, their ability to fly was limited. Most could glide from a height or running start; some athletic individuals could actually fly for several dozen meters. Some non-athletic individuals could not fly at all. Due to their light, hollow bones, Paravians are more susceptible to any bludgeoning attacks or crushing damage.

Homeworld: Class M, Gravity 0.80G, Atmospheric pressure 1.33, mean temperature 90°F, Zorski Group V-a.

Attribute Modifiers: ST-1 [-10]; DX+1 [20]; HT+1 [10].

Secondary Characteristic Modifiers: Basic Speed +1 [20].

Advantages: Flight (Gliding, -50%; Winged, -25%) [10].

Disadvantages: Intolerance (Gorns) [-5]; Vulnerability (cr×2) [-30]

Skill: Flight at HT [2].

Carnivon Horde

48 points

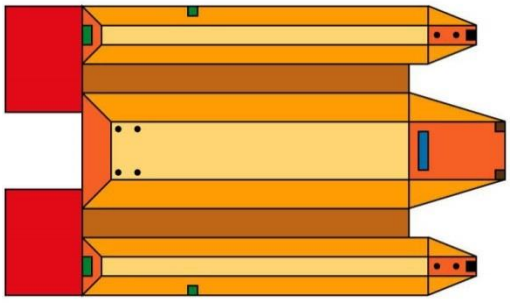
The Carnivons were exterminated by the Lyrans and Kzintis about Y110. This data applies before that date.

The Carnivon species was often described as "wolf-like," but they were in fact genetically related to the Kzintis and Lyrans and all three apparently descended from some ancestral species. Curiously, the felinoid species (descended from solitary hunters) were able to create fairly unified stellar empires, while the Carnivons (descended from pack hunters) were a species rather than a nation.



Carnivons stood about four feet tall, massed about 120 pounds, and were covered with coarse fur that ranged from black to gray to brown. Carnivons walked erect and had opposable thumbs, just as their felinoid cousins do. Carnivons reached physical maturity within a year, but were regarded as juveniles until their hormones balanced at three years old. Carnivons were regarded as too old to fight by their 25th birthday and few survived into their 30s. They have aging thresholds at 20, 25, and 30 years.

There was no such thing as a Carnivon government. There were, at any given time, from a dozen to two dozen Hordes (each with millions of members) subdivided into Packs. Each Pack was a feudal state, with its own ships, colonies, and interests. Some were autocratic, some democratic, and others had familial structures. Packs (and even Hordes) were known to divide or merge, sometimes violently. Warlords tried to unify the Hordes but none succeeded in merging more than a few, and none of the mergers survived the warlord. There was no single "home planet" for Carnivons. (The homeworld listed below is the world that they originated on.)



Carnivon Cruiser

The only thing the Lyrans and the Kzintis ever agreed upon was their hatred of the Carnivons, who hated them in return. The felinoid species destroyed all of the Carnivon worlds and inhabitants they could find by Y110. Rumors that Carnivons survive in remote areas are unconfirmed.

Homeworld: Class M, Gravity 1.18G, Atmospheric pressure 1.15, mean temperature 75°F, Zorski Group IV-a.

Attribute Modifiers: ST+1 [10]; DX+1 [20]; HT+1 [10].
Advantages: Combat Reflexes [15]; Damage Resistance 1 (Tough Skin, -40%) [3]; Discriminatory Smell [15]; Night Vision 9 [9]; Teeth (Sharp) [1].
Perk: Fur [1].
Disadvantages: Gregarious [-10]; Intolerance (Kzintis, Lyrans, and other Hordes) [-5]; Short Lifespan 2 [-20].
Quirk: Chauvinistic (other packs within your Horde) [-1].



Check out Amarillo Design Bureau's ***Master Starship Book*** series to find out everything you ever wanted to know about the ships. The books have descriptions of the ships but no Ship Display Diagrams or Annexes.

Height and Weight Ranges

Species	Height Range	Weight Range
Alpha-Cent., male	5'2"-6'8"	124-280 lb.
Alpha-Cent., female	4'10"-6'4"	89-245 lbs.
Andorian, male	5'2"-6'8"	124-280 lbs.
Andorian, female	4'10"-6'4"	89-245 lbs.
Antarean, male	5'2"-6'8"	124-280 lbs.
Antarean, female	4'10"-6'4"	89-245 lbs.
Arcturian, male	4'11"-5'6"	112-174 lbs.
Arcturian, female	4'6"-5'1"	72-134 lbs.
Bargantine, male	4'10"-5'8"	89-181 lbs.
Bargantine, female	4'9"-6'3"	74-230 lbs.
Brecon, male	6'11"-8'1"	184-372 lbs.
Brecon, female	6'9"-7'11"	159-347 lbs.
Carnivon, male	4'1"-5'7"	137-215 lbs.
Carnivon, female	4'-5'6"	132-210 lbs.
Cromarg, male	4'3"-4-9"	194-286 lbs.
Cromarg, female	4'1"-4'7"	154-246 lbs.
Cygnan, male	5'2"-6'8"	124-280 lbs.
Cygnan, female	4'10"-6'4"	89-245 lbs.
Deian, male	5'2"-6'8"	124-280 lbs.
Deian, female	4'10"-6'4"	89-245 lbs.
Dionaean, both genders	3'2"-10'6"	51-510 lbs.
Dunkar, male	5'2"-6'8"	124-280 lbs.
Dunkar, female	4'10"-6'4"	89-245 lbs.
Fralli, male	5'2"-6'8"	119-275 lbs.
Fralli, female	4'10"-6'4"	84-240 lbs.
Gerlunian, male	5'10"-6'6"	164-320 lbs.
Gerlunian, female	5'8"-6'4"	134-290 lbs.
Gorn, male	5'10"-7'4"	184-420 lbs.
Gorn, female	5'8"-7'2"	154-390 lbs.
Hilidarian, male	5'2"-6'8"	134-290 lbs.
Hilidarian, female	4'10"-6'4"	94-250 lbs.
Human, male	5'2"-6'8"	124-280 lbs.
Human, female	4'10"-6'4"	89-245 lbs.
Hydran, all genders	3'11"-4'9"	139-279 lbs.
Jindarian, all genders	6'1"-8'1"	165-307 lbs.
Klingon, male	5'2"-6'8"	124-280 lbs.
Klingon, female	4'10"-6'4"	89-245 lbs.
Korlivilar, male	5'3"-5'9"	135-181 lbs.
Korlivilar, female	4'10"-5'4"	107-153 lbs.
Kzinti, male	6'10"-7'8"	179-319 lbs.
Kzinti, female	6'8"-7'6"	154-294 lbs.
Lyran, male	5'2"-6'8"	124-280 lbs.
Lyran, female	4'10"-6'4"	89-245 lbs.
Mantorese, male	5'6"-6'	224-316 lbs.
Mantorese, female	5'5"-5'11"	219-311 lbs.
Mynieni, male	3'9"-4'3"	74-134 lbs.
Mynieni, female	4'2"-4'8"	99-159 lbs.
Orion, male	5'2"-6'8"	119-275 lbs.
Orion, female	4'10"-6'4"	84-240 lbs.
Paravian, male	5'10"-7'4"	124-280 lbs.
Paravian, female	5'8"-7'2"	89-245 lbs.
Phelen, male	7'1"-7'11"	217-263 lbs.
Phelen, female	7'1"-7'11"	182-228 lbs.
Prellarian, male	3'7"-4'1"	144-204 lbs.
Prellarian, female	3'5"-3'11"	114-174 lbs.
Pronhoulite, male	5'2"-6'8"	124-280 lbs.
Pronhoulite, female	4'10"-6'4"	89-245 lbs.
Q'Naabian, male	4'1"-4'7"	89-149 lbs.
Q'Naabian, female	3'11"-4'5"	84-144 lbs.
Ranel, male	4'3"-4'9"	54-114 lbs.
Ranel, female	4'2"-4'8"	49-109 lbs.
Rigellian, male	6'4"-7'10"	134-290 lbs.
Rigellian, female	5'10"-7'4"	94-250 lbs.
Romulan, male	5'2"-6'8"	224-380 lbs.
Romulan, female	4'10"-6'4"	149-305 lbs.
Rovillian, male	5'2"-6'8"	124-280 lbs.
Rovillian, female	4'10"-6'4"	89-245 lbs.
Satha'hi, male	5'2"-5'8"	119-179 lbs.
Satha'hi, female	4'10"-5'4"	84-144 lbs.
Seltorian, all types (except Queens)	5'4"-5'7"	109-156 lbs.
Skolean, male	4'9"-5'3"	119-179 lbs.
Skolean, female	4'8"-5'2"	104-164 lbs.
Slirdarian, male	5'10"-7'8"	154-294 lbs.
Slirdarian, female	6'8"-7'3"	134-274 lbs.
Tellarite, male	4'11"-5'5"	194-286 lbs.
Tellarite, female	4'9"-5'3"	104-196 lbs.
Tholian, all genders	4'7"-6'1"	74-310 lbs.
Veltressai, male	5'2"-6'8"	124-280 lbs.
Veltressai, female	4'10"-6'4"	89-245 lbs.
Vergarian, all genders	4'2"-5'0"	94-186 lbs.
Vudar, male	5'4"-6'10"	124-280 lbs.
Vudar, female	5'-6'6"	89-245 lbs.
Vulcan, male	5'2"-6'8"	224-380 lbs.
Vulcan female	4'10"-6'4"	149-305 lbs.
Yitlian, male	5'2"-6'8"	124-280 lbs.
Yitlian, female	4'10"-6'4"	89-245 lbs.
Zoolie, male	5'2"-6'8"	124-280 lbs.
Zoolie, female	4'10"-6'4"	89-245 lbs.

ACADEMY TEMPLATES

A character may buy an Academy Template, but is not required to do so. Normally only one may be purchased. Characters who are initially generated as enlisted characters and later attend officer training should only pay the difference in character point cost between the enlisted and officer templates which were purchased.

All of these templates give the character some level of Resistant to Disease; this represents the immunizations and other preventative medical treatment received during training. The benefit granted by Resistant to Disease (and its cost) is dependent upon the Tech Level of the society; as a result, the level of Resistant to Disease granted in these templates is at the most basic level, which is TL 9. GMs should feel free to increase the level of Resistant to Disease if their campaign is set at a higher Tech Level.

Some disadvantages prevent a character from entering the military. In most cases, species traits that are disadvantages are not a bar to such service. Note that if the character should acquire such a disadvantage during the course of play, the character is no longer qualified to remain in that service. The character must either buy off the disadvantage or leave the service, possibly as a medical retiree. GMs have some latitude on this. The individual might be kept on duty because of his extraordinary skills, or could be retired, then hired as a civilian advisor and given a "warrant" rank and allowed to stay with his group.

Disadvantages that disqualify a character from entering the military include Addiction (to illegal substances), Bad Temper (extreme), Berserk, Blindness (no mitigation), Bloodlust, Compulsive Behaviors, Cowardice, Deaf (no mitigation), Delusions, Dependency, Extra Sleep (level 4), Fragile (to commonly encountered items), Gluttony, Greed, Laziness, Lecherousness, Mute (no mitigation), Phobias (to items that would be commonly found in the service), Sadism, Short Lifespan (unless the person can serve at least five years), Space Sickness, Unfit, and Weakness (to common substances). Any prospective cadet or recruit turned down by a service or academy may appeal the decision to the proper board (the GM) and that decision is final. During times of conflict, waivers were frequently given. Sometimes a special skill was needed and the person might be recruited for that skill, in spite of a personal disadvantage.

Code of Honor (Uphold the Prime Directive) is an example of a code of honor that an empire's military generally holds. The Prime Directive is discussed on p. 302.

The time in service listed for each rank and academy is for the total and assumes peacetime promotion. In times of war, promotion can take as little as half the time.

Other Academies

The academies listed below are found within the Federation. Other empires have their own academies, which will be detailed in their sourcebooks and in other supplements. Each planet has its own self-defense military force with its own Academy; these are basically Star Fleet Academy packages without some items such as xenology, research, or diplomacy.

Star Fleet Academy

40 points

After four years, graduates become officers at Grade O1 (Ensign); players may increase the starting Grade of their characters but not beyond O5 (Commander). Increasing the Grade takes time: gaining the O2 takes an additional year; O3 takes four years; O4 takes 10 years; O5 takes 15 years. Most graduates add these skills to a practical college education.

Suggested Minimums: ST 9, DX 9, IQ 12, HT 9. (These are not counted in the point value.)

Advantages: Fit [5]; Military Rank 3 [15]; Resistant to Disease (+3) [3]; Social Regard (Respected) 3 [15].

Disadvantages: Code of Honor (Uphold the Prime Directive) [-10]; Duty (Star Fleet) (15 or less) [-15]; Sense of Duty (Federation) [-10].

Skills: Administration IQ-1 [1]; Astronomy/TL IQ-2 [1]; Beam Weapons/TL (Pistol) DX [1]; Computer Operation/TL IQ [1]; Computer Programming/TL IQ-2 [1]; Diplomacy IQ-2 [1]; Electronics Operation/TL (Transporter) IQ [2]; Electronics Operation/TL (Tricorder) IQ [2]; Engineer/TL (choose one) IQ-2 [1]; Engineer/TL (Electronics) IQ-2 [1]; Expert Skill (Xenology) IQ-2 [1]; First Aid/TL IQ [1]; Free Fall DX-1 [1]; History (Recent Federation) IQ-2 [1]; Judo DX-2 [1]; Law (Federation Military) IQ-2 [1]; Leadership IQ-1 [1]; Mathematics/TL (Applied) IQ-2 [1]; Mechanic/TL (choose one) IQ-1 [1]; Navigation/TL (Space) IQ [2]; Operations (Space) IQ-1 [2]; Physics/TL (specialty optional) IQ-3 [1]; Piloting/TL (Shuttlecraft) DX-1 [1]; Piloting/TL (Starship) DX-1 [1];Research/TL IQ-1 [1]; Savoir-Faire (Military) IQ [1]; Shiphandling/TL (Starship) IQ-1 [2]; Spacer/TL IQ [1]; Strategy (Space) IQ-2 [1]; Survival (choose one) Per-1 [1]; Tactics IQ-2 [1]; Vacc Suit/TL IQ-1 [1].

Star Fleet Basic Training

0 points

After 90 days, graduates become enlisted personnel at Grade E1 (Crewman Recruit); players may increase the starting Grade of their characters but not beyond E5 (Petty Officer 2nd Class). Increasing the Grade takes time: gaining the E4 or E5 takes an additional 90 days though wartime "shake and bake" training or one year per Grade in peacetime.

Suggested Minimums: ST 9, DX 9, IQ 10, HT 9. (These are not counted in the point value.)

Advantages: Fit [5]; Military Rank [0]; Resistant to Disease (+3) [3]; Social Regard (Respected) 1 [5].

Disadvantages: Code of Honor (Uphold the Prime Directive) [-10]; Duty (Star Fleet) (15 or less) [-15]; Sense of Duty (Federation) [-10].

Skills: Astronomy/TL IQ-2 [1]; Beam Weapons/TL (Pistol) DX [1]; Computer Operation/TL IQ [1]; Electronics Operation/TL (choose one) IQ [2]; Electronics Operation/TL (choose one) IQ [2]; Engineer/TL (choose one) IQ-1 [2]; Expert Skill (Xenology) IQ-2 [1]; First Aid/TL IQ [1]; Free Fall DX-1 [1]; History (Recent Federation) IQ-2 [1]; Judo DX-2 [1]; Law (Federation Military) IQ-2 [1]; Mathematics/TL (Applied) IQ-2 [1]; Mechanic/TL (choose one) IQ-1 [1]; Physics/TL (specialty optional) IQ-3 [1]; Savoir-Faire (Military) IQ [1]; Spacer/TL IQ [1]; Survival (choose one) Per-1 [1]; Vacc Suit/TL IQ-1 [1].

Federation Marine Academy

62 points

After four years, graduates become officers at Grade O1 (2nd Lieutenant); players may increase the starting Grade of their characters but not beyond O5 (Lieutenant Colonel). Increasing the Grade takes time: gaining the O2 takes an additional year; O3 takes four years; O4 takes 10 years; O5 takes 15 years. Most graduates add these skills to a practical college education.

Suggested Minimums: ST 10, DX 10, IQ 12, HT 12. (These are not counted in the point value.)

Advantages: Fearlessness 3 [6]; Military Rank 3 [15]; Resistant to Disease (+3) [3]; Social Regard (Respected) 3 [15]; Very Fit [15].

Disadvantages: Code of Honor (Uphold the Prime Directive) [-10]; Duty (Star Fleet Marines) (15 or less) [-15]; Sense of Duty (Federation) [-10].

Skills: Administration IQ-1 [1]; Armoury/TL (Small Arms) IQ-1 [1]; Beam Weapons/TL (Pistol) DX+2 [4]; Beam Weapons/TL (Rifle) DX+2 [4]; Camouflage IQ [1]; Climbing DX [2]; Computer Operation/TL IQ [1]; Electronics Operation/TL (Communications) IQ [2]; First Aid/TL IQ+1 [2]; Free Fall DX-1 [1]; Gunner/TL (Beams) DX [1]; History (Recent Federation) IQ-2 [1]; Karate DX-2 [1]; Knife DX [1]; Law (Federation Military) IQ-2 [1]; Leadership IQ [2]; Operations/TL (Land) IQ-1 [2]; Parachuting/TL DX [1]; Running HT-1 [1]; Savoir-Faire (Military) IQ [1]; Spacer/TL IQ [1]; Stealth DX-1 [1]; Strategy (Land) IQ-1 [2]; Survival (choose two) Per-1 [2]; Swimming HT [1]; Tactics IQ-1 [2]; Throwing DX-1 [1]; Tonfa DX-1 [1]; Vacc Suit/TL IQ-1 [1].

Federation Marine Boot Camp

37 points

After 90 days, graduates become enlisted personnel at Grade E1 (Private); players may increase the starting Grade of their characters but not beyond E4 (Corporal). Increasing the Grade takes time: gaining the E3 or E4 takes an additional 90 days though wartime "shake and bake" training or one year per Grade in peacetime.

Suggested Minimums: ST 10, DX 10, IQ 12, HT 12. (These are not counted in the point value.)

Advantages: Fearlessness 2 [4]; Military Rank [0]; Resistant to Disease (+3) [3]; Social Regard (Respected) [15]; Very Fit [15].

Disadvantages: Code of Honor (Uphold the Prime Directive) [-10]; Duty (Star Fleet Marines) (15 or less) [-15]; Sense of Duty (Federation) [-10].

Skills: Armoury/TL (Small Arms) IQ-1 [1]; Beam Weapons/TL (Pistol) DX+2 [4]; Beam Weapons/TL (Rifle) DX+2 [4]; Camouflage IQ [1]; Climbing DX [2]; Computer Operation/TL IQ [1]; Electronics Operation/TL (Communications) IQ [2]; First Aid/TL IQ [1]; Free Fall DX-1 [1]; Gunner/TL (Beams) DX [1]; History (Recent Federation) IQ-2 [1]; Karate DX-2 [1]; Knife DX [1]; Law (Federation Military) IQ-2 [1]; Leadership IQ-1 [1]; Parachuting/TL DX [1]; Running HT-1 [1]; Savoir-Fair (Military) IQ [1]; Spacer/TL IQ [1]; Stealth DX-1 [1]; Survival (choose two) Per-1 [2]; Swimming HT [1]; Tactics IQ-2 [1]; Throwing DX-1 [1]; Tonfa DX-1 [1]; Vacc Suit/TL IQ-1 [1].

Merchant Marine Academy

36 points

After two years, graduates become officers at Grade O1 (Ensign); players may increase the starting Grade of their characters but not beyond O5 (Commander). Increasing the Grade takes time: gaining the O2 takes an additional year; O3 takes four years; O4 takes 10 years; O5 takes 15 years.

Suggested Minimums: ST 8, DX 8, IQ 10, HT 8. (These are not counted in the point value.)

Advantages: Merchant Rank 3 [15]; Resistant to Disease (+3) [3].

Disadvantages: Code of Honor (Obey the Prime Directive) [-5]; Duty (Merchant Marine) (12 or less) [-10]; Sense of Duty (Merchant Marine Crew) [-5].

Skills: Accounting IQ-2 [1]; Administration IQ [2]; Astronomy/TL IQ-2 [1]; Beam Weapons/TL (Pistol) DX [1]; Brawling DX [1]; Computer Operation/TL IQ [1]; Diplomacy IQ [4]; Economics IQ-2 [1]; Electronics Operation/TL (choose one) IQ [2]; Electronics Operation/TL (Tricorder) IQ [2]; Expert Skill (Xenology) IQ-2 [1]; Fast-Talk IQ-1 [1]; First Aid/TL IQ [1]; Free Fall DX-1 [1]; Freight Handling IQ-1 [1]; Law (Federation Trade) IQ [4]; Leadership IQ-1 [1]; Mathematics/TL (Applied) IQ-2 [1]; Mechanic/TL (choose one) IQ-1 [1]; Merchant IQ [2]; Navigation/TL (Space) IQ [2]; Piloting/TL (Starship) DX-1 [1]; Shiphandling/TL (Starship) IQ-1 [2]; Savoir-Faire (Merchant Marine) IQ [1]; Spacer/TL IQ [1]; Vacc Suit/TL IQ-1 [1].

Merchant Marine Basic Training

3 points

After 90 days, graduates become enlisted personnel at Grade E1 (Crewman Recruit). Players may only gain a higher Grade with the permission of the GM. In most cases, the starting Grade should not be advanced beyond E5 (Petty Officer 2nd Class); this takes one year of experience per grade.

Suggested Minimums: ST 8, DX 8, IQ 9, HT 8. (These are not counted in the point value.)

Advantages: Merchant Rank 0 [0]; Resistant to Disease (+3) [3].

Disadvantages: Code of Honor (Obey the Prime Directive) [-5]; Duty (Merchant Marine) (12 or less) [-10]; Sense of Duty (Merchant Marine Crew) [-5].

Skills: Administration IQ-1 [1]; Astronomy/TL IQ-2 [1]; Beam Weapons/TL (Pistol) DX [1]; Brawling DX [1]; Computer Operation/TL IQ [1]; Diplomacy IQ-2 [1]; Electronics Operation/TL (choose one) IQ [2]; Expert Skill (Xenology) IQ-2 [1]; Fast-Talk IQ-1 [1]; First Aid/TL IQ [1]; Free Fall DX-1 [1]; Freight Handling IQ-1 [1]; Law (Federation Trade) IQ-2 [1]; Mathematics/TL (Applied) IQ-2 [1]; Mechanic/TL (choose one) IQ-1 [1]; Merchant IQ-1 [1]; Savoir-Faire (Merchant Marine) IQ [1]; Spacer/TL IQ [1]; Vacc Suit/TL IQ-1 [1].

Galactic Intelligence Agency Academy

67 points

In most cases, students are recruited after at least three years in college. If the courses taken in college match skills below, then those college "credits" are subtracted from the point total if the player wishes. Alternatively, the skill may be increased appropriately. Players may work with the GM to create a graduate trained for a specific job such as forensic accounting. Generally, graduating from the Academy means that you spend a total of five years being educated.

Sometimes students are recruited from the military or other professions. If their skills match skills below, the points spent in the skill can be subtracted from the point total. Players may work with the GM to create a graduate trained for a specific job such as infiltrating the Orion pirates.

After acquiring the necessary skills, graduates become officers at Grade GS1 (Probational Agent); players may increase the starting Grade of their characters but not beyond GS4 (Senior Agent). Note that the GIA does not have any enlisted personnel. Increasing the Grade takes time: gaining the O2 takes an additional year; O3 takes four years; O4 takes 10 years; O5 takes 15 years.

Suggested Minimums: ST 8, DX 8, IQ 12, HT 10. (These are not counted in the point value.)

Advantages: Fit [5]; Legal Enforcement Powers [15]; Military Rank 3 [15]; Resistant to Disease (+3) [3]; Social Regard (Respected) 3 [15].

Disadvantages: Duty (GIA) (15 or less) [-15]; Sense of Duty (Federation) [-10].

Quirks: Code of Honor (Respect the Prime Directive) [-1];

Skills: Acting IQ-1 [1]; Beam Weapons/TL (Pistol) DX [1]; Computer Operation/TL IQ [1]; Computer Programming/TL IQ-2 [1]; Criminology/TL IQ-1 [1]; Cryptography/TL IQ-2 [1]; Diplomacy IQ-2 [1]; Electronics Operation/TL (Security Systems) IQ [2]; Electronics Operation/TL (choose one) IQ [1]; Escape DX-2 [1]; Expert Skill (Xenology) IQ-2 [1]; Explosives/TL (Demolition) IQ-1 [1]; First Aid/TL IQ [1]; Free Fall DX-1 [1]; Garrote DX [1]; History (Recent Federation) IQ-2 [1]; Intelligence Analysis IQ-2 [1]; Interrogation IQ-1 [1]; Judo DX-1 [2]; Karate DX-2 [1]; Knife DX [1]; Law (Federation) IQ [4]; Leadership IQ-1 [1]; Lockpicking/TL IQ-1 [1]; Observation Per-1 [1]; Parachuting/TL DX [1]; Psychology IQ-2 [1]; Research/TL IQ [2]; Savoir-Faire (choose one) IQ [1]; Shadowing IQ-1 [1]; Stealth DX-1 [1]; Strategy (Space) IQ-2 [1]; Tactics IQ-2 [1]; Vacc Suit/TL IQ-1 [1].

Federation Marshals Service Academy

63 points

After four years, graduates become officers at Grade GS1 (Marshal 3rd Grade); players may increase the starting Grade of their characters but not beyond GS4 (Senior Marshal). Note that the Marshals Service does not have any enlisted personnel. Increasing the Grade takes time: gaining the O2 takes an additional year; O3 takes four years; O4 takes 10 years.

Suggested Minimums: ST 9, DX 8, IQ 12, HT 10. (These are not counted in the point value.)

Advantages: Fit [5]; Legal Enforcement Powers [15]; Military Rank 3 [15]; Resistant to Disease (+3) [3]; Social Regard (Respected) 3 [15].

Disadvantages: Code of Honor (Obey the Prime Directive) [-5]; Duty (Marshal Service) (15 or less) [-15]; Sense of Duty (Federation) [-10].

Skills: Beam Weapons/TL (Pistol) DX [1]; Computer Operation/TL IQ [1]; Criminology/TL IQ-1 [1]; Cryptography/TL IQ-2 [1]; Diplomacy IQ [4]; Electronics Operation/TL (Security Systems) IQ [2]; Electronics Operation/TL (choose one) IQ [1]; Expert Skill (Xenology) IQ-2 [1]; First Aid/TL IQ [1]; History (Recent Federation) IQ-2 [1]; Intelligence Analysis IQ-2 [1]; Interrogation IQ [2]; Judo DX [4]; Karate DX-2 [1]; Knife DX [1]; Law (Federation) IQ [4]; Leadership IQ-1 [1]; Professional Skill (Law Enforcement) IQ [2]; Psychology IQ-2 [1]; Research/TL IQ [2]; Savoir-Faire (Law Enforcement) IQ [1]; Shadowing IQ [2]; Stealth DX-1 [1]; Strategy (Space) IQ-2 [1]; Tactics IQ-2 [1]; Vacc Suit/TL IQ-1 [1].

"Shake and Bake School"

1 point

So-called "shake and bake" schools are used only in wartime when the rapid expansion of the military forces demands more new junior leaders than can be produced by the normal "two years in a front-line post" can provide. These schools last 90 days, take selected high performing individuals from basic training or boot camp, and focus entirely on how to lead a group of 5-10 people. Most leadership on this level is done by the simple order of "follow me and do what I tell you to do."

Skills: Leadership IQ-1 [1].

PROFESSIONAL CERTIFICATIONS

Unlike the Academy Templates above, these professional certifications list the minimum skill levels that a person should have for a given position. No cost can be given for them, as the cost for these skills are completely dependent on the characters' attributes. However, at least one character point must be spent on the skill in question; simply having a high-enough default is not sufficient.

Players who wish to have their characters considered "competent" in their profession should purchase the skills below; there is no absolute requirement to do so, but a character with low levels of Navigation/TL (space) is likely to end up a cook's assistant, not a helmsman!

Communications Officer: Cryptography/TL-12; Electronics Operation/TL (Communications)-15; Electronics Repair/TL (Communications)-15; Mathematics/TL (Cryptology)-12.

Damage Control Technician: Armoury/TL (choose one)-12; Electronics Repair/TL (choose one)-15; Electronics Repair/TL (choose one)-12; Mechanic/TL (choose one)-15; Spacer/TL-15.

Helm/Navigation: Astronomy/TL-12; Electronics Operation/TL (Sensors)-15; Electronics Repair/TL (Sensors)-15; Navigation/TL (Space)-15; Piloting/TL (Aerospace)-15.

Medical Assistant: Diagnosis/TL-12; Electronics Operation (Medical)-12; Electronics Repair (Medical)-12; First Aid/TL-15; Physician/TL-12; Physiology/TL (native species)-12.

Medical Doctor: Diagnosis/TL-15; Electronics Operation (Medical)-12; Electronics Repair (Medical)-12; First Aid/TL-18; Physician/TL-18; Physiology/TL (native species)-15; Physiology/TL (one other species, if applicable to empire)-12; Surgery/TL-15.

Operations Officer: Computer Operation/TL-18; Electronics Operation/TL (choose one)-15; Electronics Operation/TL (choose two)-12; Electronics Repair/TL (choose one)-15; Electronics Repair/TL (choose one)-12.

Propulsion Engineer: Electrician/TL-15; Engineer/TL (Electrical)-12; Mechanic/TL (Warp Engine)-15; Mechanic/TL (Impulse)-15.

Science Officer: Computer Operation/TL-15; Electronics Operation/TL (Scientific)-18; Electronics Repair/TL (Scientific)-12; Any one science skill (primary discipline)-15; Any two science skills (secondary disciplines or related)-12.

Special Forces Training: Armoury/TL (Small Arms)-15; Beam Weapons/TL (Pistol)-15; Beam Weapons/TL (Rifle)-15; Camouflage-15; Climbing-15; Electronics Operations/TL (Communications)-12; Engineer/TL (Combat)-12; Explosives/TL (Demolition)-12; First Aid/TL-15; Forward Observer/TL-12; Jumping-12; Karate-15; Knife-15; Navigation/TL (Land)-12; Operations/TL-12; Stealth-15; Strategy-12; Swimming-12; Tactics-12; Throwing-12; Traps/TL-12.

Transporter Operator: Electronics Operation/TL (Sensors)-15; Electronics Operations/TL (Transporter)-18; Electronics Repair/TL (Transporter)-16; Electronics Repair/TL (Sensors)-12.

Weapons (Tactical) Officer: Armoury/TL (Heavy Weapons)-12; Armory/TL (Small Arms)-12; Electronics Operation/TL (Electronic Warfare)-12; Electronics Operation/TL (Force Shields)-12; Electronics Operation/TL (Sensors)-12; Electronics Repair/TL (choose two of the above)-12; Gunner/TL (Pick one of: phaser, empire-specific heavy weapon, empire-specific seeking weapon)-15; Gunner/TL (Pick remaining two of: phaser, empire-specific heavy weapon, empire-specific seeking weapon)-12; Tactics-12.



3 ADVANTAGES & DISADVANTAGES

ADVANTAGES

An "advantage" is a useful trait that gives you a mental, physical, or social "edge" over someone else who otherwise has the same abilities as you. Each advantage has a cost in character points. This is fixed for some advantages; others can be bought in "levels," at a cost per level (e.g., Acute Vision costs 2 points/level, so if you want Acute Vision 6, you must pay 12 points). Advantages with "Variable" cost are more complicated; read the advantage description for details.

You can start out with as many advantages as you can afford – although some advantages are forbidden to certain kinds of characters. You can also add advantages in play, if the GM permits. For instance, all the beneficial social traits in Chapter 2 (Status, Wealth, etc.) are advantages, and you could realistically acquire any of these in the course of the game. For information on adding advantages in play, see Chapter 9.

TYPES OF ADVANTAGES

Advantages fall into several broad categories, each of which has affects who can possess those advantages and how they work in play.

Mental advantages originate from your mind, or perhaps even your *soul.* They stay with you even if your mind ends up in a new body. Most mental advantages work automatically, but a few require a roll against IQ, Perception, or Will to use.

Physical advantages are part of your body. You lose these traits if your mind moves to a new body – and if another mind takes over *your* body, the body's new owner gains your physical advantages. Advantages provided by bionics and similar implants usually fall into this category (the GM may rule that these take time to become familiar with. Make a HT roll to activate any physical advantage that does not work automatically.

Social advantages are associated with your identity. This category includes Rank, Status, Wealth, and related traits from Chapter 2.

Exotic advantages are traits that ordinary humans cannot have (in most cases). Nonhumans will often have exotic advantages as part of their species template, but this does *not* entitle them to add other such traits freely. You need the GM's permission to add exotic traits that do not appear on your species template.

Many exotic advantages could belong to more than one of these categories. This is noted where especially appropriate. The GM has the final say when choosing any advantage. The categories of advantages are meant to assist GM judgment, not replace it.

PSIONICS IN THE *STAR FLEET UNIVERSE*

As noted, psionics are rare in the ***Star Fleet Universe.*** Only about one in every 2.5 million healthy adults has psionics, except for Vulcans. As far as anyone in the ***SFU*** is concerned, "that's just the way it is."

Some Federation psionics who are not Vulcan go to Vulcan to gain control over their gifts. They may also gain the advantage of Vulcan Psi Powers which for non-Vulcans does not include the specialized Affliction, Nerve Pinch.

For more on psionics see ***GURPS Basic Set,*** p. 254.

NOTE TO PLAYERS

The selection of advantages and disadvantages in this chapter are taken from ***GURPS 4th Edition.*** We have chosen the ones we feel are best suited for the ***Star Fleet Universe*** and think you can play with just these; however, more are included in ***GURPS Basic Set Characters.*** When we reference one of these advantages or disadvantages it will be marked with a ‡ symbol. Most references to magic and the supernatural have been omitted as not germane to the ***Star Fleet Universe.***

ADVANTAGES LIST

3D Spatial Sense

see *Absolute Direction*

Absolute Direction

5 or 10 points

You have an excellent sense of direction. This ability comes in two levels:

Absolute Direction: You always know which way is north, and you can always retrace a path you have followed within the past month, no matter how faint or confusing. This ability does not work in environments such as interstellar space or the limbo of the astral plane, but it *does* work underground, underwater, and on other planets. This gives +3 to Body Sense‡ and Navigation (Air, Land, or Sea). *5 points.*

3D Spatial Sense: As above, but works in three dimensions. This ability *is* useful in deep space – although it does not help you if you travel across dimensions. You get the skill bonuses given for Absolute Direction, plus +1 to Piloting and +2 to Aerobatics, Free Fall, and Navigation (Hyperspace‡ or Space). *10 points.*

Special Limitations

Requires Signal: You rely on signals from a navigational satellite network (like Earth's GPS) or similar system. Your ability does not function in the absence of such a system, and it can be jammed. -20%.

Acute Senses

2 points/level

You have superior senses. Each Acute Sense is a separate advantage that gives +1 per level to all Sense rolls you make – or the GM makes for you – using that one sense.

Acute Hearing gives you a bonus to hear something, or to notice a sound (for instance, someone taking the safety off a gun in the dark). *2 points/level.*

Acute Taste and Smell gives you a bonus to notice a taste or smell (for instance, poison in your drink). *2 points/level.*

Acute Touch gives you a bonus to detect something by touch (for instance, a concealed weapon when patting down a suspect). *2 points/level.*

Acute Vision gives you a bonus to spot things visually, and whenever you do a visual search (for instance, looking for traps or footprints). *2 points/level.*

With the GM's permission, you may also buy Acute Sense advantages for specialized senses such as Scanning Sense‡ and Vibration Sense.

You cannot usually buy Acute Senses in play – raise your Perception instead. However if you lose a sense, the GM may allow you to spend earned points on other Acute Senses to compensate. For instance, if you blinded, you might acquire Acute Hearing.

Administrative Rank

see *Rank,* p. 37

Affliction

10 points/level

You have an attack that causes a baneful, *nondamaging* effect: blindness, paralysis, weakness, etc. Specify the details of the attack form when you buy the advantage. This is an exotic advantage that requires the GM's permission to add.

By default, Affliction is a ranged attack with 1/2D 10, Max 100, Acc 3, RoF 1, Shots N/A, and Recoil 1, although you can apply modifiers to change these statistics (see Modifiers, p. 109).

If you hit, your victim gets a HT+1 roll to resist. Apply a penalty equal to the level of the Affliction (so Affliction 1 gives an unmodified HT roll). The victim gets a bonus equal to his DR *unless* the Affliction has one of the following modifiers: Blood Agent, Contact Agent, Cosmic‡, Follow-Up, Malediction, Respiratory Agent, or Sense-Based. The victim gets a further +3 if he is beyond 1/2D range.

If the victim makes his HT roll, he is unaffected. If he fails, he suffers the effects of the Affliction. By default, he is stunned (see p. 224). He may roll vs. HT+1 once per second to recover, but once again at a penalty equal to the level of the Affliction (DR has no effect on this roll).

If your Affliction causes an effect other than stunning, this is a special enhancement (see below). You can inflict more than one effect by giving your Affliction multiple special enhancements. These effects occur simultaneously, except where noted.

Successive Afflictions that produce the same effects are not normally cumulative. Use the single *worst* effect.

Use the special enhancements below to create specific Afflictions. Many Modifiers (see p. 109) are also logical. For instance, a blinding flash is Sense-Based (p. 114); most drugs have Follow-Up (p. 112), Blood Agent (p. 110), or Contact Agent (p. 110); and touch attacks call for Melee Attack.

If an Affliction produces two or more effects due to the special enhancements below, some of these effects may be *secondary.* Secondary effects occur only if the victim fails his HT roll by 5 or more or rolls a critical failure. A secondary effect is worth 1/5 as much; e.g., Secondary Heart Attack is +60% rather than +300%.

Once you have chosen all the modifiers on your Affliction, describe the nature of the attack as detailed in *Innate Attack.*

Special Enhancements

Advantage: The victim immediately experiences the effects of a specific physical or mental advantage. Advantages with instantaneous effects affect the target *once,* as soon as he is hit, if he fails his HT roll. Advantages that can be switched on and off (such as Insubstantiality‡) are automatically "on" for one minute per point by which the victim fails his HT roll, and are *not* under the subject's control. This is worth +10% per point the advantage is worth; e.g., Insubstantiality‡ (an 80 point advantage) would be +800%! If the advantage comes in levels, specify the level.

Attribute Penalty: The victim suffers *temporary* attribute loss. This is +5% per -1 to ST or HT, or +10% per -1 to DX or IQ. For instance, an attack that caused DX-3 and IQ-2 would be +50%. Lower all skills based on reduced attributes by a like amount. ST penalties also reduce BL and damage, while IQ reductions also apply to Will and Perception. Secondary characteristics are not otherwise affected; for instance, HT reduction does not affect Basic Speed or FP. Penalties last for one minute per point by which the victim fails his HT roll.

Coma: The victim collapses, profoundly unconscious, and will likely die in days unless treated. +250%.

Cumulative: Repeated attacks *are* cumulative! You must take this in conjunction with Attribute Penalty, or with an Advantage, Disadvantage, or Negated Advantage Enhancement that inflicts a "leveled" trait. +400%.

Disadvantage: The victim temporarily gains one or more specific physical or mental disadvantages (but *not* self-imposed mental disadvantages – see p. 120). This is worth +1% per point the temporary disadvantages are worth; e.g., Paranoia‡ [-10] is worth +10%. If a disadvantage comes in levels, specify the level. The disadvantages last for one minute per point by which the victim fails his HT roll.

Heart Attack: The victim suffers an incapacitating heart attack, and will die in minutes unless treated. +300%.

Incapacitation: The victim is incapacitated for a number of minutes equal to the margin of failure on his HT roll. After that, he is stunned until he can make a HT roll (roll once per second). If you combine Incapacitation with other effects (such as Irritant), those effects occur after the Incapacitation wears off; they replace the stunning and last for the same length of time the Incapacitation did. Incapacitation can take the form of any of the following: Daze, +50%; Hallucinating, +50%; Retching, +50%; Agony, +100%; Choking, +100%; Ecstasy, +100%; Seizure, +100%; Paralysis, +150%; Sleep, +150%; or Unconsciousness, +200%. See *Incapacitating Conditions* (p. 229) for game effects.

Irritant: The victim suffers an impairing but non-incapacitating condition *instead of* being stunned. It lasts for a number of minutes equal to the margin of failure on his HT roll. The possibilities are Tipsy +10%; Coughing, +20%; Drunk, +20%; Moderate Pain, +20%; Euphoria, +30%; Nauseated, +30%; Severe Pain, +40%; or Terrible Pain, +60%. For definitions, see *Irritating Conditions* (p. 229).

Negated Advantage: The victim loses a specific advantage for one minute per point by which he failed his HT roll. There is no effect if the victim lacks that advantage! This enhancement is worth +1% per point the advantage is worth. If the advantage comes in levels, you must specify the level negated.

Stunning: May only accompany Advantage, Attribute Penalty, Disadvantage, or Negated Advantage. If the victim fails to resist, he is stunned (per an unmodified Affliction) *in addition to* the effects of the other enhancement(s). +10%.

Allies

Variable

Many fictional heroes have partners – loyal comrades, faithful sidekicks, trusted retainers, or lifelong friends – who accompany them on adventures. These partners are "Allies."

An NPC Ally is wholly reliable. Perhaps you fought side by side in a long war; trained under the same master; or grew up in the same village. The two of you trust each other implicitly. You travel together, fight back-to-back, share rations in hard times, and trade watches through the night.

Your Ally is usually agreeable to your suggestions, but he is not your puppet. He *will* disagree with you from time to time. An Ally may try to dissuade you from a plan that seems foolish to him – and if he can't talk you out of the plan, he may refuse to cooperate. An Ally may even cause problems for you: picking fights, landing in jail, insulting a high noble ... Of course, the Ally will also try to bail you out when *you* make mistakes.

The GM will not award you bonus character points for any play session in which you betray, attack, or unnecessarily endanger your Ally. Blatant, prolonged, or severe betrayal will break the trust between you and your Ally, and he will leave you permanently. If you drive your Ally off in this way, the points you spent on him are *gone,* reducing your point value. Leading your Ally into danger is all right, as long as *you* face the same danger and are a responsible leader.

The point cost for an Ally depends on his power and frequency of appearance. Only PCs who take NPCs as Allies pay points for the privilege. Two PCs can be mutual "allies" for free, as can two NPCs – and NPCs *never* pay points for PCs as Allies. An Ally is specifically a skilled NPC associate for one PC.

Ally's Power

Consult the following table (p. 83) to determine how many points you must spend on your Ally. "Point Total" is the Ally's point total expressed as a percentage of the PC's starting points; "Cost" is the cost of the Ally. If the Ally's point total falls between two percentages, use the *higher.*

Point Total	*Cost*
25%	1 point
50%	2 points
75%	3 points
100%	5 points
150%	10 points

Allies built on more than 150% of the PC's starting points are not allowed; treat such NPCs as Patrons (see p. 98). *Exception:* The progression above extends indefinitely for nonsentient (IQ 0) Allies; each 50% of the PC's starting points costs a further +5 points.

Allies built on no more than 100% of the PC's starting points may *also* be Dependents. Add the cost of Ally and Dependent together and treat the combination as a single trait: an advantage if the total point cost is positive; a disadvantage if it is negative.

Ally Groups

You may purchase as many Allies as you can afford. Each Ally is normally a separate advantage, but you can treat a group of related Allies as a single trait to save space on your character sheet. For a group of *individuals* – with their own unique abilities and character sheets – add the costs of the individual Allies to find the cost of the group, adjust the total cost for frequency of appearance, and then apply any special modifiers.

For a group of more than five *identical* and *interchangeable* allies that share a single character sheet – for instance, an army of low-grade thugs or a swarm of robot drones – find the point cost to have one member of the group as an Ally, and then multiply that cost as follows to find the cost of the group:

Size of Group	*Multiplier*
6-10	×6
11-20	×8
21-50	×10
51-100	×12

Add ×6 to the multiplier per tenfold increase in number (e.g., 100,000 Allies would be ×30). The GM may require an Unusual Background (p. 107) if you wish to have hordes of Allies, or even prohibit groups larger than a certain size – although he might permit an army or other large group as a *Patron.* Frequency of appearance multipliers and special modifiers (if any) apply to the final cost of the entire group.

Frequency of Appearance

Choose a frequency of appearance (see boxed text on the right). If your Ally appears at the start of an adventure, he accompanies you for the duration of that adventure.

Allies in Play

As with Dependents, the GM will adjust your Ally's abilities in order to keep his point total a fixed percentage of your own as you earn points. This will keep his value as an advantage constant. The *GM* decides how the Ally evolves, although he might ask you for your input.

If your Ally dies through no fault of yours, the GM will not penalize you. (Exception: Veltressai Quads, see p. 65.) You may put the points spent on the deceased Ally toward a new Ally. The new relationship should normally develop gradually, but the GM might allow an NPC to become an Ally on the spot if you have done something that would win him over (e.g., saving his life). This is especially appropriate in cultures where debts of honor are taken seriously.

There is no penalty for amicably parting ways with your Ally. You may use the points spent on him to buy a new Ally met during play

Special Limitations

Unwilling: You have obtained your Ally through coercion (e.g., blackmail). You do not have to treat him as well as you would a normal Ally. However, he *hates* you and is likely to act accordingly, reducing his overall reliability level. If you endanger such an Ally or order him to do something unpleasant, he may rebel (GM's option) if the consequences of doing so would be less severe than those of doing your bidding. An Ally who rebels is *gone,* along with the points you spent on him. -50%.

Frequency of Appearance

Whether you pay points for a useful relationship with an NPC or collect points for a troublesome one, it is unlikely that the NPC will be a constant presence. Each friend or foe has a *frequency of appearance,* and will figure into a given adventure only if the GM rolls less than or equal to that number on 3d at the start of the adventure. How the NPC interacts with you if the roll succeeds depends on the nature of the relationship.

Frequency of appearance multiplies the point cost for an Associated NPC *after* determining power level and group size (as applicable), but *before* you apply any special modifiers:

Constantly (no roll required): ×*4.* The NPC is always present. This level is reserved for NPCs – usually Allies – that are implanted, worn like clothing, etc.

Almost all the time (roll of 15 or less): ×*3.*

Quite often (roll of 12 or less): ×*2.*

Fairly often (roll of 9 or less): ×*1.*

Quite rarely (roll of 6 or less): ×*1/2 (round up).*

Ambidexterity

5 points

You can fight or otherwise act equally well with either hand, and never suffer the -4 DX penalty for using the "off" hand. Note that this does *not* allow you to take extra actions in combat – that's Extra Attack. Should some accident befall one of your arms or hands, assume it is the left one.

Amphibious

10 points

You are well-adapted to movement in the water. You do not suffer skill penalties for working underwater, and you can swim at your full Basic Move. You still require air (but see Doesn't Breath). Typical features include smooth, seal-like skin and webbed fingers and toes. If you can move *only* in the water, take the Aquatic disadvantage instead. This is an exotic advantage that requires the GM's permission to add.

Appearance

see *Appearance Levels,* p. 31

Above-average appearance is treated as an advantage.

Artificer

see *Talent*

Body of Stone

140 points

Your body is made of rock. This meta-trait includes the following advantages: Doesn't Breathe [20]; DR 5 [25]; Immunity to Metabolic Hazards (see *Resistant*) [30]; Injury Tolerance (Homogenous, No Blood) [45]; Pressure Support 3 [15]; Sealed [15]; Vacuum Support [5]; and Fragile (Brittle) [-15]. This is an exotic meta-trait that requires the GM's permission to add.

Brachiator

5 points

You can travel by swinging on vines, tree branches, ropes, chandeliers, etc. You get +2 to Climbing skill, and can move at half your Basic Move while brachiating. This is an exotic advantage that requires the GM's permission to add.

Business Acumen

see *Talent*

Catfall

10 points

You subtract five yards from a fall automatically (treat this as an automatic Acrobatics success – don't check again for it). In addition, a successful DX roll *halves* damage from any fall. To enjoy these benefits, your limbs must be unbound and your body free to twist as you fall. This is an exotic advantage that requires the GM's permission to add.

Chameleon

5 points/level

You can change your surface pattern to blend into your surroundings. In any situation where being seen is a factor, you get +2 per level to Stealth skill when perfectly still, or +1 per level if moving. Clothing reduces this bonus to +1 per level when you are motionless, with no bonus if you are moving (unless the clothing is, in the GM's opinion, camouflaged relative to your current environment).

Chameleon does not normally help in the dark or against someone relying upon senses other than sight. However, you can specify that your ability is effective against a particular visual or scanning sense (e.g., Infravision or Radar‡) *instead* of normal vision. This is an exotic advantage that requires the GM's permission to add.

Special Enhancements

Extended: Your ability affects more than one visual or scanning sense. Each sense beyond the first is +20%.

Special Limitations

Always On: You cannot turn this ability off. Strangers react at -1; the flickering effect is irritating. -10%.

Charisma

5 points/level

You have a natural ability to impress and lead others. Anyone can acquire a semblance of charisma through looks, manners, and intelligence – but *real* charisma is independent of these things. Each level gives +1 on all reaction rolls made by sapient beings with whom you actively interact (converse, lecture, etc.); +1 to Influence rolls; and +1 to Fortune-Telling‡, Leadership, Panhandling‡, and Public Speaking skills. The GM may rule that your Charisma does not affect members of extremely alien species.

Claws

Variable

You have claws. This advantage modifies all your hands and feet; there is no discount for claws on only some of your limbs. This is an exotic advantage that requires the GM's permission to add. There are several variations:

Blunt Claws: Very short claws, like those of a dog. Add +1 per die to the damage you inflict with a punch or kick; e.g., 2d-3 becomes 2d-1. *3 points.*

Hooves: Hard hooves, like those of a horse. Add +1 per die to the damage you inflict with a kick, and give your feet (only) +1 DR. *3 points.*

Sharp Claws: Short claws, like those of a cat. Change the damage you inflict with a punch or kick from crushing to cutting. *5 points.*

Talons: Longer claws – up to 12" long. Change the damage you inflict with a punch or kick from crushing to your choice of cutting or impaling (choose before you roll to hit). *8 points.*

Long Talons: Huge claws, like sword blades extending from your body! Treat these as Talons, but damage is +1 per die. *11 points.*

Clerical Investment

5 points

You are an ordained priest of a recognized religion. You enjoy a number of privileges that a layman lacks, notably the authority to preside over weddings, funerals, and similar ceremonies. This gives you a +1 reaction bonus from co-religionists and those who respect your faith, and entitles you to use a title – Father, Sister, Rabbi, etc.

Remember that not all clerics are "good"! Aka'Ar, high priest of the unholy Cult of Set, is also a vested priest. The blessings and marriages are as meaningful to his followers as those of a vicar are to his parish.

Clerical Investment is purely social in nature. It does *not* confer miraculous powers. Clerical Investment *includes* Religious Rank 0 (see p. 38). If you want more influence within your church, buy up your Rank.

Clinging

20 points

You can walk or crawl on walls and ceilings. You can stop at any point and stick to the surface without fear of falling. Neither feat requires a roll against Climbing skill, provided the surface is one you can cling to. Move while clinging is half your Basic Move. This is an exotic advantage that requires the GM's permission to add.

If you are falling and try to grab a vertical surface to break your fall, the GM must first decide whether there is anything in reach. If there is, make a DX roll to touch the surface, and then make a ST roll at -1 per 5 yards already fallen. If you succeed, you stop your fall. Otherwise, you continue to fall – but you may subtract 5 yards from the height of the fall thanks to the slowing effect of the failed Clinging attempt. Variations in gravity affect these distances; e.g., in 0.5G, the ST roll would be at -1 per *10* yards.

Combat Reflexes

15 points

You have extraordinary reactions, and are rarely surprised for more than a moment. You get +1 to all active defense rolls (p. 211), +1 to Fast-Draw skill, and +2 to Fright Checks (p. 200). You never "freeze" in a surprise situation, and get +6 on all IQ rolls to wake up, or to recover from surprise or mental stun. Your *side* gets +1 on initiative rolls to avoid a surprise attack – +2 if you are the leader. (See ***GURPS Basic Set*** p. 393 for more on *Surprise Attacks and Initiative.*) Combat Reflexes is included in Enhanced Time Sense‡.

Common Sense

10 points

Any time you start to do something the GM feels is *STUPID,* he will roll against your IQ. A successful roll means he must warn you: "Hadn't you better think about that?" This advantage lets an impulsive *player* take the part of a thoughtful character.

Courtesy Rank

see *Rank,* p. 37

Cultural Adaptability

10 or 20 points

You are familiar with a broad spectrum of cultures. When dealing with those cultures, you never suffer the -3 "cultural unfamiliarity" penalty. Point cost depends on the scope of your familiarity:

Cultural Adaptability: You are familiar with all cultures of your species. *10 points.*

Xeno-Adaptability: You are familiar with all cultures in the ***Star Fleet Universe,*** regardless of species. *20 points.*

Cultural Familiarity

see p. 33

Damage Resistance

5 points/level

Your body itself has a Damage Resistance score. Subtract this from the damage done by any physical or energy attack *after* the DR of artificial armor (you can normally wear armor over natural DR) but *before* multiplying the injury for damage type. By default, natural DR does not protect your eyes or help against purely mental attacks such as telepathy.

Normal humans cannot purchase DR at all. Creatures with natural armor can buy DR 1 to 5. Thick skin or a pelt would be DR 1; a *heavy* pelt, or scales like those of a lizard would be DR 2; armor plates would be DR 3; alligator scales or elephant hide would be DR 4; and a giant tortoise would have DR 5.

Many special modifiers are available to change the basic assumptions of this advantage.

Special Enhancements

Absorption: You can absorb damage and use it to enhance your abilities. Each point of DR stops one point of damage and turns it into one character point that you can use to improve traits (anything but skills) temporarily. You store these points in a "battery" with capacity equal to DR (e.g., DR 10 gives a 10-point battery). Once this battery is full, each point of DR will still stop one point of damage, but will not convert it into a character point. You do not have to use stored points immediately, but you cannot reallocate points once used. You lose absorbed points – unused ones

first – at the rate of one point per second. You lose enhanced abilities as the points drain away. (*Exception:* If you are missing HP or FP, you can heal yourself. Restoring one HP drains 2 stored points *immediately;* restoring one FP drains 3 points. Such healing is permanent. Only HP or FP in excess of your usual scores drain away.) You cannot absorb damage from your own ST or attack abilities. +80% if absorbed points can only enhance one trait (determined when you create your character) *or* can only heal; +100% if you can raise *any* trait.

Force Field: Your DR takes the form of a field projected a short distance from your body. This protects your entire body – including your eyes – as well as anything you are carrying, and reduces the damage from attacks *before* armor DR. Effects that rely on touch only affect you if carried by an attack that does enough damage to pierce your DR. +20%.

Hardened: Each level of Hardened reduces the armor divisor of an attack by one step. These steps are, in order: "ignores DR," 100, 10, 5, 3, 2, and 1 (no divisor). +20% per level.

Reflection: Your DR "bounces back" any damage it *stops* at your attacker. The remaining damage affects you normally. The attacker doesn't get an active defense against the first attack you reflect back at him but gets his usual defenses against subsequent reflected attacks. Reflection only works vs. direct hits! It cannot reflect damage from explosions, fragments, poison gas, or anything else that affects an entire area. This enhancement is mutually exclusive with Absorption. +100%.

Special Limitations

Ablative: Your DR stops damage *once.* Each point of DR stops one point of basic damage but is destroyed in the process. Lost DR "heals" at the same rate as lost HP (including the effects of Regeneration). -80%.

Can't Wear Armor: Your body is designed in such a way that you cannot or will not wear body armor or clothing. -40%.

Directional: Your DR only protects against attacks from one direction. -20% for the front (F); -40% for the back (B), right (R), left (L), top (T), or underside (U). Humanoids may only take this limitation for front and back.

Flexible: Your DR is not rigid. This leaves you vulnerable to blunt trauma (see p. 214). -20%.

Limited: Your DR applies only to certain attack forms or damage types. See *Limited Defenses* (p. 87) for details

Partial: Your DR only protects a specific hit location. This is worth -10% per -1 penalty to hit that body part. For instance, an animal with butting horns and a thick skull might have "Skull only," for -70%. "Torso only" is -10%, and also protects the vital organs. When you take this limitation for arms, legs, hands, or feet, the DR protects *all* limbs of that type. If it only protects one limb, the limitation value doubles (e.g., arms are -2 to hit, so a single arm would be -40%). If you have arms, legs, etc. with different penalties, use the least severe penalty to calculate limitation value.

Semi-Ablative: When an attack strikes semi-ablative DR, every 10 points of basic damage rolled removes one point of DR, regardless of whether the attack penetrates DR. Lost DR "heals" as for Ablative (and you cannot combine the two). -20%.

Tough Skin: By default, Damage Resistance is "hard": armor plate, chitin, etc. With this limitation, your DR is merely tough skin. Any effect that requires a scratch (e.g., poison) or skin contact (e.g., electrical shock or Pressure Points‡ skill) affects you if the attack carrying it penetrates the DR of any armor you are wearing – even if it does exactly 0 damage! Your *natural* DR, being living tissue, provides no protection at all against such attacks. This limitation includes all the effects of the Flexible limitation; you cannot take both. It is mutually incompatible with Force Field. -40%.

"Layered" Defenses

You may have multiple "layers" of DR with different combinations of modifiers. You must specify the order of the layers – from outermost to innermost – when you create your character. You may not change this order once set.

Danger Sense

15 points

You can't depend on it, but sometimes you get this prickly feeling right at the back of your neck, and you know something's wrong . . . If you have Danger Sense, the GM rolls once against your Perception, secretly, in any situation involving an ambush, impending disaster, or similar hazard. On a success, you get enough of a warning that you can take action. A roll of 3 or 4 means you get a little detail as to the nature of the danger.

Danger Sense is included in Precognition‡; if you have the latter trait, you cannot also have Danger Sense.

Daredevil

15 points

Fortune seems to smile on you when you take risks! Any time you take an unnecessary risk (in the GM's opinion), you get a +1 to all skill rolls. Furthermore, you may reroll any critical failure that occurs during such a high-risk behavior.

Example: Orion pirates open fire on you with disruptors. If you crouch down behind a wall and return fire from cover, Daredevil gives no bonuses. If you vault over the wall and charge the pirates, screaming, it provides all its benefits.

Detect

Variable

You can detect a specific substance or condition, even when it is shielded from the five human senses.

This requires one second of concentration, after which the GM will secretly make a Sense roll for you (See *Sense Rolls,* p. 195). The range modifiers from the *Size and Speed/Range Table* (p. 211) apply. You may buy a special Acute Sense to improve the roll, thereby increasing your effective range. This is an exotic advantage that requires the GM's permission to add.

On a success, the GM tells you the direction to the nearest significant source of the substance, and gives you a clue as to the quantity present. On a failure, you sense nothing.

Detect also includes the ability to *analyze* what you detect. This requires an IQ roll; the better the roll, the more precise the details. For instance, if you had Detect (Metal), you could tell gold from iron on a successful IQ roll, and might learn details – such as whether the gold is in the form of ore or bars, and its precise purity – on a critical success.

The base cost of Detect is as follows:

Rare (dilithium, gold, radar, radio): *5 points.*

Occasional (precious metal, electric fields, magnetic fields, radar *and* radio): *10 points.*

Common (humans, supernatural phenomena, supernatural beings, metal, electric *and* magnetic fields): *20 points.*

Very Common (all life, all supernatural phenomena *and* beings, all minerals, all energy): *30 points.*

Note that the ability to detect certain phenomena can often justify other advantages, For instance, Detect (Magnetic Fields) could explain Absolute Direction.

Special Enhancements

Precise: On a successful Sense roll, you also learn the distance to whatever you detect. +100%.

Signal Detection: You can detect an active transmission of some sort, such as a radio, radar, or laser; see Scanning Sense‡ and Telecommunication. You suffer no range penalties, but must be within twice the signal's own range and (if the signal is directional) within in its path. +0%.

Special Limitations

Vague: You can only detect the presence or absence of the target substance. Direction and quantity are revealed only on a critical success, and you cannot analyze what you detect. This limitation is mutually exclusive with Precise. -50%.

Discriminatory Hearing

15 points

You have a superhuman ability to distinguish between sounds. You can *always* identify people by voice, and can recognize individual machines by their "sound signature." You may memorize a sound by listening to it for at least one minute and making a successful IQ roll. On a failure, you must wait at least one full day before making a repeated attempt. This is an exotic advantage that requires the GM's permission to add.

You get +4 (in addition to any Acute Hearing bonuses) on any task that utilizes hearing, and receive +4 to Shadowing skill when following a noisy target.

To simulate the passive sonar used by submarines, add a -30% Accessibility limitation, "Only underwater."

Limited Defenses

When you buy Damage Resistance – or *any* advantage that protects against damage (as opposed to nondamaging effects) – you may specify that it is only effective against certain damage types. This is a limitation that reduces the cost of the advantage. Attacks fall into four rarity classes for this purpose:

Very Common: An extremely broad category of damage that you are likely to encounter in almost any setting. *Examples:* ranged attacks, melee attacks, physical attacks (from any material substance), energy attacks (e.g., beam weapons, electricity, fire, heat and cold, and sound), or all damage with a specified advantage origin (chi, magic, psionics, etc.). -20%

Common: A broad category of damage. *Examples:* a standard damage type (one of burning, corrosion, crushing, cutting, impaling, piercing, or toxic), a commonly encountered *class* of substances (e.g., metal, stone, water, wood, or flesh), a threat encountered in nature *and* produced by exotic powers or technology (e.g., acid, cold, electricity, or heat/fire), or a refinement of a "Very Common" category (e.g., magical energy). -40%

Occasional: A fairly specific category of damage. *Examples:* a common substance (e.g., steel or lead), any one specific class of damage that is usually produced *only* by exotic abilities or technology (e.g., particle beams, lasers, disintegrators, or shaped charges), or a refinement of a "Common" category (e.g., magical electricity, piercing metal). -60%

Rare: An extremely narrow category of damage. *Examples:* charged particle beams, dragon's fire, piercing lead, ultraviolet lasers, or an uncommon substance (e.g., silver or blessed weapons). -80%

Unless specified otherwise, limited DR works only against *direct* effects. If you are levitated by an anti-grav beam and then dropped, the damage is from the fall; "DR vs. beam weapons" would not protect. Similarly "DR vs. Slirdarians" would not help against a boulder hurled by a Slirdarian – the damage is from a boulder, not a Slirdarian. Be sure to work out such details with the GM before setting the value of the limitation. If the GM feels that a quality would *never* directly influence damage, he need not allow it as a limitation!

Discriminatory Smell

15 points

Your sense of smell is far beyond the human norm, and can register distinctive odors for practically everything you may encounter. This allows you to recognize people, places, and things by scent. You may memorize a scent by sniffing it for at least one minute and making a successful IQ roll. On a failure, you must wait at least one full day before making a repeated attempt. This is an exotic advantage that requires the GM's permission to add.

You get +4 (in addition to any Acute Taste and Smell bonuses) on any task that utilizes the sense of smell, and receive +4 to Tracking skill.

Special Enhancements

Emotion Sense: You can detect a person or animal's emotional state by odor. This functions as the Empathy advantage, but you must be within 2 yards of the subject. +50%.

Discriminatory Taste

10 points

This talent functions in most ways like Discriminatory Smell, but enhances the sense of taste instead, so tracking is not possible. You must ingest a small quantity of the material to be examined; for a living subject, this means bodily fluids. This gives you an IQ roll to recognize the taste, identify whether a substance is safe to eat, etc. You can perform a detailed "analysis" with a roll against a suitable skill (Chemistry, Cooking, Pharmacy, Poisons, etc.). You get +4 (in addition to any Acute Taste and Smell bonuses) on any task that utilizes the sense of taste. This is an exotic advantage that requires the GM's permission to add.

Doesn't Breathe

20 points

You do not breathe or require oxygen. Choking and strangulation attempts cannot harm (or silence!) you, and you are immune to inhaled toxins. You are still affected by contact poisons, pressure, and vacuum; take Sealed, Pressure Support, and Vacuum Support respectively, to resist those threats. This is an exotic advantage that requires the GM's permission to add.

Special Limitations

Gills: You can extract oxygen from water, allowing you to remain submerged indefinitely. You are immune to strangulation and "the bends." If you can *only* survive underwater, and suffocate in air as quickly as a normal human would drown underwater, Doesn't Breathe (Gills) is a 0-point feature; otherwise, -50%.

Oxygen Absorption: As Gills, but you can absorb oxygen through the surface of your body whether it is in the air, a liquid, or other medium. Your body does not absorb poisonous gases, but you will suffocate if there is *no* oxygen available. You can use breathing equipment in space (your lungs are capable of working normally). You may not have the Sealed advantage. -25%.

Oxygen Combustion: As Oxygen Absorption, but you *cannot* breathe underwater or anywhere else fire cannot burn. -50%.

Oxygen Storage: You need to breathe, but you can go for extended periods of time without doing so; perhaps you store oxygen (like a whale) or have superior blood oxygenation. This differs from Breath-Holding in that you are completely immune to "the bends" *while your oxygen supply holds out.* If you can effectively "hold your breath" for 25 times as long as usual, this is -50%; 50 times, -40%; 100 times, -30%; 200 times, -20%; 300 times, -10%.

Doesn't Sleep

20 points

You do not have to sleep at all. You can ignore all ill effects from missed nights of rest. This is an exotic advantage that requires the GM's permission to add.

Double-Jointed

see *Flexibility*

Eidetic Memory

5 or 10 points

You have an exceptionally good memory. Anyone may attempt an IQ roll to recall the general sense of past events – the better the roll, the truer the memory, but details are often sketchy. With this talent, you automatically succeed at these "memory rolls," and you often recall *precise* details. This trait comes in two levels:

Eidetic Memory: You automatically remember the general sense of everything you concentrate on, and can recall specific details by making an IQ roll. It is possible to "learn" this advantage in play (bards and skalds often acquire it to recall poems and songs). *5 points.*

Photographic Memory: As above, but you automatically recall specific details, too. Any time you, the *player* forget a detail your *character* has seen or heard, the GM or other players must remind you – truthfully! *10 points.*

This trait affects recall, not comprehension, and so does not benefit skills. However, it gives a bonus whenever the GM requires an IQ roll for learning: +5 for Eidetic Memory, +10 for Photographic Memory.

Empathy

5 or 15 points

You have a "feeling" for people. When you first meet someone – or are reunited after an absence – you may ask the GM to roll against your IQ. He will tell you what you "feel" about that person. On a failed IQ roll, he will *lie!*

This talent is excellent for spotting impostors, possession, etc., and for determining the true loyalties of NPCs. You can also use it to determine whether someone is lying … not what the truth is, but just whether they are being truthful with you.

This advantage comes in two levels:

Sensitive: Your ability is not entirely reliable; the IQ roll is at -3. You get +1 to your Detect Lies and Fortune-Telling‡ skills, and to Psychology rolls to analyze a subject you can converse with. *5 points.*

Empathy: Your ability works at full IQ, and the bonus to Detect Lies, Fortune-Telling‡, and Psychology is +3. *15 points*.

This advantage works only on sapient (IQ 6+), *natural* beings. The equivalent talents for animals, plants, and supernatural entities are Animal Empathy‡, Plant Empathy‡, and Spirit Empathy‡, respectively.

Enhanced Move

20 points/level

Each level of Enhanced Move *doubles* your top speed in one environment: Air, Ground, Space‡, or Water. You may also take a half-level of Enhanced Move, either alone or with any whole number of levels; this costs 10 points and multiplies Move by 1.5. This is an exotic advantage that requires the GM's permission to add.

Your multiplied Move is your *top speed.* Record it in parentheses after your Enhanced Move trait. *Example:* Enhanced Move 4 (Ground Speed 128).

Enhanced Move does *not* affect Basic Speed, Basic Move, or Dodge. Its benefits apply only when moving along a relatively straight, smooth course (see *Sprinting,* p. 192). It does have some defensive value, however; those who attack you with ranged attacks must take your speed into account when calculating speed/range.

Most forms of Enhanced Move have prerequisites. Enhanced Move (Water) requires Amphibious or Aquatic. Enhanced Move (Air) requires Flight.

Enhanced Tracking

5 points/level

You can "track" more than one target – whether with a built-in sensor array or eyes that can swivel independently, like those of a chameleon. An Aim or Evaluate maneuver (p. 114) normally applies to a single target. Each level of Enhanced Tracking allows your maneuver to apply to one additional target. You can only track targets that you can detect, and you cannot Aim at more targets than you have ready weapons to Aim with. This is an exotic advantage that requires the GM's permission to add.

Extended Lifespan

2 points/level

An average life cycle is defined as maturity at age 18, with aging effects (see p. 125) starting at age 50 and accelerating at ages 70 and 90. Each level of Extended Lifespan *doubles* all these values. This is an exotic advantage that requires the GM's permission to add.

Extra Arms

Variable

In ***GURPS,*** a limb with which you can manipulate objects is an *arm,* regardless of where it grows or what it looks like. A normal arm can strike a blow that inflicts thrust-1 crushing damage based on ST. The human norm is two arms for 0 points. Extra arms have a base cost of 10 points apiece. This is an exotic advantage that requires the GM's permission to add.

Coordination

You can use extra arms freely for multiple *noncombat* tasks. For instance, with three arms, you could perform a one-handed task (e.g., use a computer mouse) and a two-handed task (e.g., type) simultaneously. You need Enhanced Tracking to perform tasks that require attention to events in more than one place at a time, however.

You can also use all of your arms in concert for a *single* combat maneuver where extra arms would be helpful; e.g., grappling in close combat. And if you have at least three arms, you can use a shield normally with one arm and still wield a two-handed weapon, just as a normal human fighter can use a shield and one-handed weapon at the same time.

No matter how many arms you have, though, you do not get additional attacks (or other extra maneuvers) in combat unless you buy Extra Attacks.

Close Combat with Extra Arms

Extra arms give a huge advantage in close combat. You cannot punch with more than one arm at a time unless you have Extra Attack, but you may *grapple* with all of your arms at once. Each extra arm of regular length or longer, over and above the generic set of two, gives +2 to any attempt to grapple or break free from a grapple. Having more arms than your opponent also gives +3 on any attempt to pin or resist a pin.

Special Enhancements

Extra-Flexible: Limbs with this enhancement are more flexible than human arms, like tentacles or an elephant's trunk. These limbs can always reach and work with other limbs, regardless of body positioning, general layout, or "right" and "left." +50%.

Long: Your arm is longer *in proportion to your body* than a human arm relative to the human body. This increases your effective SM for the purpose of calculating reach with that arm (see *Size Modifier and Reach,* p. 206). This *does* affect the reach of melee weapons wielded in that hand. Each +1 to SM also adds +1 per die to swinging damage. +100% per +1 to SM.

Special Limitations

Foot Manipulators: Your "arm" is really an unusually dexterous leg. You cannot walk while you are manipulating objects with it (although you can sit, float, or fly). This is a Temporary Disadvantage limitation, the disadvantage being Legless. This kind of arm is usually – but not always – Short. -30%.

No Physical Attack: The limb can manipulate but cannot punch or wield melee weapons, and gives no bonus in close combat. It can still wield a firearm or similar ranged weapon. -50%.

Short: The arm has reach "C" (close combat only), and lacks the leverage to use any weapon that must be swung. Subtract one yard from the reach of any melee weapon wielded by that limb. If *all* of your arms are short, you are at -2 on any attempt to grapple. -50%.

Weak: The arm has less than your full body ST for lifting, striking, and grappling. -25% if the arm has half your body ST, or -50% if it has 1/4 your body ST (round down in both cases).

Modifying Beings with One or Two Arms

Beings with one or two arms *can* use the special modifiers above. Point cost is equal to 1/10 the percentile modifier per affected arm. Thus, enhancements become advantages and limitations become disadvantages. For instance, Short is -50%, so it is worth -5 points per arm. Someone with two short arms would have a -10-point disadvantage.

Those with one arm can only apply these modifiers once, but also get the -20 points for One Arm. For instance, an elephant's trunk would be Extra-Flexible (+50%), Long (+100%), and Weak (-50%). These modifiers total +100%, for a 10-point advantage. The -20 points for One Arm would make the net cost -10 points.

Extra Attack

25 points/attack

You can attack more than once per turn. The "default" assumption in ***GURPS*** is that you can make *one* attack per turn, no matter how many limbs you have. Each Extra Attack allows one additional attack per turn. You may not have more attacks than you have limbs (arms, legs, etc.), natural weapons (Strikers, Teeth, etc.), and attack powers (Afflictions, Bindings‡, and Innate Attacks) with which to attack. The GM's word on what constitutes an "attack" is final.

A normal human can purchase *one* Extra Attack. This lets him attack with both hands at once, and represents unusually good coordination; nonhumans have no such limitation (but must get the GM's permission).

Extra Attack is exactly that: an extra Attack maneuver on your turn in combat. It does not eliminate the -4 penalty for an "off" hand (see *Ambidexterity*) or let you take multiple Aim maneuvers (see *Enhanced Tracking*). You may use some of your attacks for Feint maneuvers, but you many not take multiple actions of other kinds – that requires Altered Time Rate‡.

Extra Attacks and All-Out Attack

When an individual with Extra Attacks makes an All-Out Attack, he must select *one* type of bonus for *all* his attacks that turn. He could not, for instance, take All-Out Attack (Determined) with one attack and All-Out Attack (Strong) with another. If he chooses All-Out Attack (Double) to increase his number of attacks, he gets *one* additional attack.

Extra Legs

Variable

If you can walk on a limb but cannot use it to manipulate objects, it is a leg in ***GURPS*** (for legs that double as arms, see Extra Arms). A normal leg can kick for thrust/crushing damage at your usual reach (1 yard for a human). The human norm is two legs, which costs 0 points. This is an exotic advantage that requires the GM's permission to add. It costs points to have more than two legs:

Three or four legs: If you lose a leg, you can continue to move at half Move (round down). Loss of a second leg causes you to fall. *5 points.*

Five or six legs: Each leg lost reduces Move by 20% until only three legs are left. At that point, your Move is 40% normal. Loss of another leg causes you to fall. *10 points.*

Seven or more legs: Each leg lost reduces Move by 10% until only three legs are left. At that point, your Move is 40% normal. Loss of another leg causes you to fall. *15 points.*

You can apply the following modifiers to *all* your legs:

Special Enhancements

Long: Your legs are longer *in proportion to your body* than human legs relative to the human body. This increases your effective SM for the purpose of calculating reach when kicking (see *Size Modifier and Reach,* p. 206) and when clambering over obstacles. +100% per +1 to SM.

Special Limitations

Cannot Kick: You cannot use your legs to kick for damage. -50%.

Modifying Beings with Two Legs

The modifiers above *can* be applied to creatures with only two legs. Point cost is equal to 1/10 the percentile modifier. For instance, a human with Cannot Kick (-50%) would have a -5 point disadvantage.

Fashion Sense

see p. 32

Fearlessness

2 points/level

You are difficult to frighten or intimidate! Add your level of Fearlessness to your Will whenever you make a Fright Check or must resist the Intimidation skill or a supernatural power that induces fear. You also subtract your Fearlessness level from all Intimidation rolls made against you.

Filter Lungs

5 points

Your respiratory system can filter out ordinary contaminants; e.g., dust, pollen, smoke, and even tear gas (but not nerve gas or other contact agents). You suffer no ill effects from such things. This is especially useful in polluted cities and on alien worlds. Note that if you have Doesn't Breathe, you do not need this advantage! This is an exotic advantage that requires the GM's permission to add.

Fit

5 or 15 points

You have better cardiovascular health than your HT alone would indicate. This comes in two levels:

Fit: You get +1 to all HT rolls (to stay conscious, avoid death, resist disease or poison, etc.). This does *not* improve your HT attribute or HT-based skills! You also recover FP at twice the normal rate. *5 points.*

Very Fit: As above, but the bonus to HT rolls is +2. In addition, you *lose* FP at only half the normal rate. *15 points.*

In both cases, this advantage applies only to FP lost to exertion, heat, etc. It has no effect on FP spent to power psi.

Flexibility

5 or 15 points

Your body is unusually flexible. This advantage comes in two levels:

Flexibility: You get +3 on Climbing rolls; on Escape rolls to get free of ropes, handcuffs, and similar restraints; on Erotic Art‡ skill; and on all attempts to break free in close combat (see ***GURPS Basic Set,*** p. 391). You may ignore up to -3 in penalties for working in close quarters (including many Explosives and Mechanic rolls). *5 points.*

Double-Jointed: As above, but more so. You cannot stretch or squeeze yourself abnormally, but any part of your body may bend any way. You get +5 on Climbing, Erotic Art‡, and Escape rolls, and on attempts to break free. You may ignore up to -5 in penalties for close quarters. *15 points.*

Flight

40 points

You can fly. The "default" is full-fledged, self-powered flight without wings or gliding surfaces. This works at any altitude where there is still significant atmosphere – but in the upper atmosphere, you'll need a way to survive in very thin, cold air (e.g., Doesn't Breathe and Temperature Tolerance). You *cannot* fly in a trace atmosphere or vacuum. This is an exotic advantage that requires the GM's permission to add.

Your flight Move is Basic Speed × 2 (drop all fractions). As explained in *Move in Other Environments* (p. 28), you can adjust this for ±2 points per ±1 yard/second. For very high speeds, take Enhanced Move (Air). If you do not have any of the Controlled Gliding, Gliding, Lighter Than Air‡, Small Wings, Space Flight Only‡, or Winged Flight limitations, you can also "fly" at half-speed underwater. Flight includes the ability to hover at Move 0 as well.

Special Limitations

Cannot Hover: You must always move at least 1/4 your top airspeed (round up) when flying. This is incompatible with Controlled Gliding and Gliding. -15%.

Controlled Gliding: Like Gliding in most respects, but you can gain altitude by riding updrafts or "thermals." A typical ascent rate is one yard per second. You can locate thermals, if any are present, on a successful IQ or Meteorology roll (one attempt per minute). -45%.

Gliding: You cannot gain altitude. With a running leap, you can launch yourself with an air Move equal to Basic Move. Each turn, you can change velocity by up to 10 yards/second × local gravity in Gs (Earth's gravity is 1G). To accelerate, you must descend by 1 yard for each 1 yard/second added to velocity; top speed is Basic Move × 4. To decelerate, you must fly level. If you do not descend at least 1 yard, you *automatically* decelerate by 1 yard/second that turn. When working out turning radius, your basic air Move is 10 × local gravity in Gs. Each level of Enhanced Move (Air) either doubles top speed *or* halves deceleration in level flight (e.g., one level means you only lose 0.5 yard/second in level flight); specify which when you buy it. -50%.

Small Wings: As Winged, except that your wingspan is no more than half your height. You use your wings to steer and to stabilize your flight – not to lift. If your wings are crippled in flight, roll against Aerobatics‡ skill (or default) to land safely. -10%

Winged: You use large wings or skin flaps to fly. Wingspan is at least twice your height. In order to take off, land, or maneuver, you must have an open area with a radius equal to your wingspan in all directions. If your wings are bound, or if a wing is crippled (more than 1/3 of your wings, if you have more than two), you cannot fly. Treat wings as arms for the purpose of targeting and crippling. If you wish to strike blows or manipulate objects with your wings, you must pay for

them as Strikers or Extra Arms in addition to the cost of Flight. -25%.

G-Experience

1 to 10 points

You have experience working in one or more gravitational fields other than your native one, and your reflexes adapt quickly to the way objects move and fall in those fields. You suffer only half the usual DX penalty for different gravity (see *Different Gravity,* p. 196). In situations where low gravity would make a task *easier,* you roll at full DX, plus the bonus for low gravity, plus an extra +1. For instance, if a normal person would get +2 to catch a ball in low gravity, you would get +3.

This trait costs 1 point per gravity field with which you have experience. For instance, an Earth native who works on the moon might have G-Experience (0.16G). To enjoy the benefits of G-Experience in *all* gravity fields, buy G-Experience (All) for 10 points.

Healer

see *Talent*

High Manual Dexterity

5 points/level

You have remarkably fine motor skills. Each level (to a maximum of four) gives +1 to DX for tasks that require a delicate touch. This includes all DX-based rolls against Artist‡, Jeweler‡, Knot-Tying‡, Leatherworking‡, Lockpicking, Pickpocket‡, Sewing‡, Sleight of Hand, and Surgery, as well as DX-based rolls to do *fine* work with Machinist or Mechanic (e.g., on clockwork). This bonus doesn't apply to IQ-based tasks or large-scale DX-based tasks, nor does it apply to combat-related die rolls of any kind.

High Pain Threshold

10 points

You are as susceptible to injury as anyone else, but you don't *feel* it as much. You *never* suffer a shock penalty when you are injured. In addition, you get +3 on all HT rolls to avoid knockdown and stunning – and if you are tortured physically, you get +3 to resist. The GM may let you roll at Will+3 to ignore pain in other situations.

High TL

see p. 33

Higher Purpose

5 points

You are driven to exceed your normal limits in one specific pursuit. You must state this exactly as if it were a Code of Honor disadvantage: "Defend all women," "Slay all Kzinti," etc. If, in the GM's judgment, you are unfaltering in your pursuit of your Higher Purpose, you get +1 to all die rolls that pertain *directly* to the pursuit of your cause. If you deviate from your Higher Purpose, you lose this bonus . . . and the GM is free to penalize you for bad roleplaying just as if you had ignored a Code of Honor.

A Higher Purpose must be *specific.* In addition, a Higher Purpose must entail genuine risk and inconvenience. The GM should not allow pragmatic Higher Purposes like "Faithfully serve my superiors." All Higher Purposes are subject to GM approval.

Immunity

see *Resistant*

Improved G-Tolerance

5 to 25 points

You can function under a wide range of gravities. For a normal human, the penalties for non-native gravity accrue in increments of 0.2G; see *Different Gravity* (p. 196). A larger increment costs points: 5 points for 0.3G, 10 points for 0.5G, 15 points for 1G, 20 points for 5G, and 25 points for 10G. Normal humans are limited to 10 points in this trait.

Independent Income

see p. 35

Indomitable

15 points

You are impossible to influence through ordinary words or actions. Those who wish to use Influence skills on you (see *Influence Rolls,* p. 197) must possess a suitable advantage: Empathy if you are a human or similar being. Everyone else – however convincing – fails automatically. This trait often accompanies Unfazeable.

Infravision

0 or 10 points

You can see into the infrared portion of the spectrum, allowing you to detect varying degrees of heat. This lets you fight at no penalty even in absolute darkness, *if* your target emits heat (this includes nearly all living beings and most machines). It also gives you +2 on all Vision rolls to spot such targets, since their heat stands out from the background. You can follow a heat trail when tracking: add +3 to Tracking rolls if the trail is no more than an hour old. This is an exotic advantage that requires the GM's permission to add.

Infravision does *not* let you distinguish colors, and only allows you to judge the general size and shape of heat-emitting objects, including living beings (for instance, you might have trouble telling two people of the same size apart). Roll at -4 to distinguish between objects of similar size and shape. The GM may also require a Vision-4 roll to read by reflected heat. Sudden flashes of heat (e.g., a flare, fiery explosion, or infrared laser) can blind you, just as a flash of light can blind ordinary vision.

Cost depends on your capabilities:

You can only see using Infravision, and are subject to its limitations at all times: *0 points.*

You can switch freely between normal vision and Infravision: *10 points.*

Injury Tolerance

Variable

You have fewer physiological weaknesses than ordinary living beings. The cost of this advantage depends on the precise frailties eliminated. Note that some forms of Injury Tolerance include others, and that Diffuse and Homogenous are mutually incompatible. (Note that the forms No Eyes and No Head are not included here, but are in the ***GURPS Basic Set.***) This is an exotic advantage that requires the GM's permission to add.

Diffuse: Your body is fluid or particulate, composed of a swarm of smaller entities, or perhaps made of pure energy. This makes you immune to crippling injuries and reduces the damage you suffer from most physical blows; see *Injury to Unliving, Homogenous, and Diffuse Targets* (p. 216). Most foes (GM's decision) cannot slam or grapple you! Diffuse includes all the benefits of No Blood, No Brain, and No Vitals. *100 points.*

Homogenous: Your body has no vulnerable internal organs, bones, muscles, or other mechanisms. As a result, you are less susceptible to piercing and impaling attacks; see *Injury to Unliving, Homogenous, and Diffuse Targets* (p. 216). Homogenous includes the benefits of No Brain and No Vitals. This trait is intended for entities such as amoebas, trees, and slimes. It is part of the Body of Stone advantage. *40 points.*

No Blood: You do not rely upon a vital bodily fluid (like blood) for survival. You do not bleed, are unaffected by blood-borne toxins, and are immune to attacks that rely on cutting off blood to part of your body. *5 points.*

No Brain: Your brain – if you have one – is distributed throughout your body, or isn't your true seat of consciousness. Your opponents cannot target it for extra damage. You may have a head, but a blow to the skull or eye is treated no differently than a blow to the face (except that an eye injury can still cripple that eye). *5 points.*

No Neck: You have no neck. As a result, you have no "neck" hit location, and cannot be decapitated, choked, or strangled. *5 points.*

No Vitals: You have no vital organs (such as a heart or engine) that attackers can target for extra damage. Treat hits to the "vitals" or "groin" as torso hits. *5 points.*

Unliving: Your body is not composed of living flesh. You take reduced damage from piercing and impaling attacks, but are not quite as resilient as if you were Homogenous; see *Injury to Unliving, Homogenous, and Diffuse Targets* (p. 216). This trait is intended mainly for machines and would be appropriate for Andromedan robots. *20 points.*

Innate Attack

Variable

You have a natural or built-in attack with which you can inflict physical damage (for nondamaging attacks see Affliction and Binding[‡]). This is an exotic advantage that requires the GM's permission to add.

By default, this is a ranged attack with 1/2F 10, Max 100, Acc 3, RoF 1, Shots N/A, and Recoil 1, although you can apply modifiers to change these statistics (see pp. 109-114.)

An Innate Attack inflicts 1d damage per level. Its cost per level depends on the *type* of damage it inflicts.

Burning (burn)

Your attack inflicts damage using flame, an energy beam, or localized electrical burns. It may ignite fires. *5 points/ level.*

Corrosion (cor)

Your attack involves acid or something similar. For every 5 points of basic damage you inflict, reduce the target's DR by 1, in addition to regular damage. (Living beings heal natural DR at the same rate as HP.) *10 points/level.*

Crushing (cr)

Your attack inflicts damage through blunt impact, like a bludgeoning weapon or an explosive blast. It is likely to cause knockback (p. 215), and is more effective at inflicting blunt trauma (p. 214) than other types of damage. *3 points/level.*

Cutting (cut)

Your attack inflicts lacerations, like those caused by an axe or broken glass. Multiply penetrating damage by 1.5. Cutting attacks can inflict blunt trauma and cause knockback. *7 points/level.*

Fatigue (fat)

Your attack is nonlethal. It might involve a low-amperage electric shock, or a "mind blast," or even inflict a weakening effect such as hypothermia or starvation. It reduces FP, not HP, and cannot affect machines. *10 points/level.*

Impaling (imp)

Your attack inflicts stab wounds like a spear or an arrow. *Double* penetrating damage in flesh! Impaling attacks can target the eyes and vital organs, can inflict blunt trauma, and may slip through some high-tech flexible armor. *8 points/level.*

Piercing

Your attack involves a fast blunt projectile, such as a bullet, or is sharp but too small to qualify as impaling, like a dart or stinger. It may inflict blunt trauma, and can target the eyes and vital organs. There are four sub-classes of piercing attack:

Small piercing (pi-): Use this for very low-energy projectiles (e.g., blowgun darts), or for attacks that tend to punch through the target and leave a small wound channel (e.g., armor-piercing bullets). Against flesh, *halve* the damage that penetrates DR. *3 points/level.*

Piercing (pi): Use this for most rifle and pistol bullets. *5 points/level.*

Large piercing (pi+): Use this for attacks similar to large-caliber solid bullets, or for smaller projectiles that create large wound channels (e.g., hollow-point bullets). Multiply penetrating damage in flesh by 1.5. *6 points/level*.

Huge piercing (pi++): Use this for attacks that leave an even larger wound channel than large piercing. *Double* penetrating damage in flesh! *8 points/level.*

Toxic (tox)

Your attack inflicts cellular damage in the manner of disease, poison, or radiation. It cannot normally affect machines. The modifiers Cyclic, Onset, and Resistible are usual, but not required. *4 points/level.*

Partial Dice

You do not have to buy whole-numbered dice of damage. Each ±1 to damage counts as ±0.3 dice. Round the final cost *up.* For instance, an Innate Attack that does 1d+2 damage counts as 1.6 dice. If it were crushing (5 points per die), it would cost 1.6 × 5 = 8 points.

Some attacks do only *1 point* of damage. This counts as 0.25 dice. Once again round cost *up.* Such attacks can still be deadly – especially if they involve the Follow-Up or Cyclic enhancements!

Special Modifiers

Many special modifiers for Innate Attack appear under *Attack Enhancements and Limitations* (p. 109). You can use these to create almost *any* attack – built-in guns, lasers, jets of liquid fire, gale-force winds, etc. – and to duplicate the capabilities of weapons listed in ***GURPS*** books.

Fatigue and toxic attacks intended to simulate poison or disease *require* modifiers. Noxious agents on Claws, Teeth, darts, etc. use Follow-Up. Gases and spray use Respiratory Agent or Contact Agent, often with Area Effect, Cone, or Jet. Attacks that depend on touch or on skin contact use Blood Agent or Contact Agent, plus one of Aura‡ or Melee Attack.

Regardless of other modifiers, Innate Attacks are treated as ranged attacks unless given the Melee Attack limitation; then they're considered melee weapons.

Description

After applying all relevant modifiers, name and describe the attack. You can be as general as "electrical field" or as specific as "poisoned claws on the right hand." At the GM's discretion, the description can imply additional noncombat abilities: for instance, a jet of high-pressure water could put out fires. The GM has the final say as to whether your description fits the campaign setting, and may modify the attack if necessary.

Alternative Attacks

If you have multiple Innate Attacks, you may define them as being the *same* basic attack, but with different settings, ammo types, etc. Determine the cost of these "alternative attacks" as usual, but only pay full price for the *most expensive* attack. Buy additional attacks at 1/5 cost (round up).

This can save a lot of points, but there are drawbacks. First, since the attacks represent a single ability, you cannot use them simultaneously, even if you are capable of multiple attacks. This also prevents you from combining them with the Link enhancement. As well, any critical failure or malfunction that disables one of your attacks disables *all* of them. Finally, if your most expensive attack is somehow drained or neutralized, none of the cheaper attacks will work.

You may also apply this rule to multiple Afflictions or Bindings‡, or any combination of this with Innate Attacks that you cannot use simultaneously. With the GM's permission, you can apply this rule to multipurpose Strikers as well.

Intuition

15 points

You usually guess right. When faced with a number of alternatives, and no logical way to choose among them, you can ask the GM to let you use your Intuition. The GM makes a secret IQ roll, with a bonus equal to the number of "good" choices and a penalty equal to the number of "bad" choices. On a success, he steers you to a good choice; on a critical success, he tells you the *best* choice. On a failure, he gives you no information; on a critical failure, he steers you toward a *bad* choice. The GM can modify this as he sees fit for other situations where Intuition might logically help. Only one roll per question is allowed.

The GM should never allow Intuition to short-circuit an adventure – for instance, letting a Federation marshal walk into a room, slap the cuffs on the guilty party, and close the case. At the most, Intuition would point the marshal in the direction of a good clue. GMs who don't think they can control Intuition should not allow it in their games.

Intuitive Mathematician

see *Lightning Calculator*

Language Talent

10 points

You have a knack for languages. When you learn a language at a comprehension level above None, you automatically function at the next-highest level; thus, you can purchase a language at Accented level for 2 points or at Native level for 4 points. For full language rules, see *Language* (p. 33).

Legal Enforcement Powers

5, 10, or 15 points

You are a law enforcer, with the accompanying powers and restrictions. The point cost depends on the kinds of laws you enforce, the size of your jurisdiction, how answerable you are for your actions, and the degree of respect you must show for the civil rights of others:

- You have local jurisdiction, the ability to arrest suspected criminals, the power to perform searches with an appropriate warrant, and *possibly* the right to carry a concealed weapon. *Example:* Federation marshal. *5 points.*
- As above, but you also have national or international jurisdiction, *or* are not obligated to respect the civil rights of others, *or* are free to engage in covert investigations, *or* may kill with relative impunity. *10 points.*
- You have three or more of the above abilities. *Example:* Klingon Paladin. *15 points.*

Legal Enforcement Powers almost always require an appropriate Duty. In some cases, a Reputation (positive, negative, or mixed) is also appropriate. All levels of Legal Enforcement Powers *include* Police Rank 0. To become a senior law enforcer, buy more Rank.

Legal Immunity

5 to 20 points

You are exempt from some or all of the laws of your society. Should you break the law, ordinary law enforcers do not have the power to charge you. Only one particular authority – your own church or social class, a special court, or perhaps your ruler – can judge or punish you.

The point cost depends on how sweeping the immunity is (GM's judgment):

- You are not subject to ordinary laws, but the rules that govern your behavior are just as strict. *5 points.*
- As above, but the laws that apply to you are *less* strict than those that apply to most people: *10 points.*
- You can do nearly anything you please provided you don't injure the nation, church, or other power that granted you Legal Immunity in the first place. *15 points.*

For an extra 5 points, you may add "diplomatic pouch" privileges: you can send and receive mail or objects that the ordinary authorities cannot legally stop or examine.

One class of Legal Immunity is of special interest to the ***Star Fleet Universe:***

Diplomatic Immunity: You are a diplomat for your empire. You may ignore the laws of all empires except your own. While in other empires you cannot be prosecuted for *any* crime, no matter how grave; the local police may arrest you, but they cannot press charges. The only recourse is for a foreign government to declare you *persona non grata.* This means you must leave the empire at once, ending your current assignment – and possibly your career. Empires may request your extradition for normal prosecution, but your government is unlikely to comply. This trait always comes with a Duty to a government agency, and often has some level of Administrative Rank (p. 37) as a prerequisite. *20 points.*

Less Sleep

2 points/level

You need less sleep than most people. A normal human requires 8 hours of sleep per night. Each level of this advantage – to a maximum of four levels – lets you get by with one hour less than this, giving you a few extra hours each day in which to study or work on other projects.

Lightning Calculator

2 or 5 points

You have the ability to do math in your head, instantly. This talent comes in two levels:

Lightning Calculator: You, the *player,* may use a calculator at any time, to figure anything you want – even if your *character* is fleeing for his life! For simple math problems, the GM may just say that your character knows the answer. *2 points.*

Intuitive Mathematician: As above, but your ability is not limited to arithmetic. You can perform astrogation without a computer, do any level of engineering design in your head, and solve differential equations almost instantaneously. You never need a calculator; you yourself are far faster than that, and even faster than many computers. *5 points.*

True mathematical geniuses will have one of the above traits and one or more levels of Mathematical Ability (see *Talent*).

Longevity

2 points

Your lifespan is naturally very long. You fail aging rolls (see p. 238) only on a 17 or 18 – or only on an 18 if your HT is 17 or better!

Mathematical Ability

see *Talent*

Merchant Rank

see *Rank,* p. 37

Military Rank

see *Rank,* p. 37

Mind Control

50 points

You can mentally dominate those you can *see* or *touch.* To use this ability, concentrate for one second and then roll a Quick Contest: your IQ vs. your subject's Will. This is an exotic advantage that requires the GM's permission to add.

Modifiers: Range penalties to the subject; -1 per slave *already* under your control; +2 if you concentrate for a full minute, or +4 if you concentrate for a full hour.

If you win, your victim will obey your every command until you free him. Your control persists for as long as you take uninterrupted Concentrate maneuvers. Once you stop, your control lingers for one minute per point by which you won the Quick Contest. (To increase this, add Extended Duration.) If you are incapacitated (stunned, knocked out, etc.), or attempt to force the subject to act against his principles (e.g., commit suicide or harm a loved one), roll another Quick Contest. If your victim wins, he breaks free. Roll at the moment of truth – you can march him to the edge of a cliff, but he doesn't roll until he's about to leap.

If you lose, you cannot attempt to control that subject again for 24 hours, and he feels a sense of mental coercion emanating from you. On a critical failure, you also lose control of *anyone else* under the influence of this ability!

Mind Control often has limitations: Accessibility (Only on opposite sex), Sense-Based (for hypnotic voices, eyes, scents, etc.), and so on. It may also have attack modifiers, subject to the restrictions that apply to attacks with Malediction.

Special Enhancements

Conditioning: You can reconstruct the subject's psyche and implant suggestions. In effect, you can add or remove *any* mundane mental disadvantage. Add Delusions for false memories, or Amnesia‡ to wipe memories. Your victim must be under your control, cooperative, and conscious. Roll a second Quick Contest. You are at -1 per full -5 points of disadvantages changed, but you may substitute Brainwashing skill for IQ. Duration in *days* is equal to your margin of victory. If you win *and* roll a critical success, the conditioning is permanent! A conditioned subject who is no longer under your direct control imposes no penalty on the use of Mind Control on others. Note that another person with this ability can use it to undo your work. +50%.

No Memory: Your victims have no memory of anything that occurred while under your control. +10%.

Special Limitations

Conditioning Only: You cannot use regular Mind Control – only Conditioning (above). Uncooperative victims must be restrained before you can use your ability. -50%.

Puppet: Your victims have no initiative while under your control, and temporarily acquire Slave Mentality‡. -40%.

Telepathic: Your ability is part of the Telepathy (or Vulcan) psi power. -10%.

Mind Probe

20 points

You can perform a deep "mind probe." In effect, you can force the subject to answer any *one* specific question that he can answer with a brief sentence. To attempt a probe, you must first either touch your subject or successfully read his mind with Mind Reading. You must also share a language with him. This is an exotic advantage that requires the GM's permission to add.

To use Mind Probe, you must concentrate for one second and roll a Quick Contest of your IQ (or Interrogation skill, if higher) vs. your subject's Will. If you win, you rip the answer from his mind. The answer is what the subject *believes* to be true – if he doesn't know, he'll tell you. If you lose, you may try again, at a cumulative -2 per repeated attempt to ask the *same* (or very similar) question in the past hour. Should you critically fail, you cannot probe that person again for 24 hours.

You may use Mind Probe to ask as many questions as you wish, but each question is a new use of your ability, and requires a second of concentration and its own Quick Contest.

Special Modifiers

The special enhancements and limitations given for Mind Reading are also available for Mind Probe.

Mind Reading

30 points

You can eavesdrop on others' surface thoughts. You must be able to see or touch the subject to affect him. Concentrate for one second and roll a Quick Contest of IQ vs. the subject's Will. Modify the roll for range penalties to the subject (see p. 211). This is an exotic advantage that requires the GM's permission to add.

If you win, you can "hear" everything the subject says, subvocalizes, or *actively* thinks about as a voice in your head. Received thought comes at the speed of speech. If you do not understand the language, or if your subject isn't sapient, you only pick up feelings, images, and general intent. You can maintain Mind

Reading for as long as you wish without further concentration. If you switch to another person, you must stop reading your current subject and roll a Quick Contest with the new subject. To read multiple subjects at once, take Compartmentalized Mind‡.

If you lose, you may try again, at a cumulative -2 per repeated attempt on that subject in the past hour. Should you critically fail, you cannot read that person again for 24 hours.

The Sense-Based *limitation* – especially Touch-Based – is common. If you take Hearing-Based, you can only read the thoughts of someone whose words you can hear, but can function as a "truthreader" or (with Universal) a "universal translator."

Special Enhancements

Sensory: You can also tap into your subject's senses. This lets you experience everything he experiences. If he is tortured, knocked out, or killed, the GM may require a Will roll to avoid stunning – or perhaps even a Fright Check! +20%.

Universal: You automatically understand thoughts, even those of non-sapient subjects and those with whom you do not share a language. +50%.

Special Limitations

Species-Based: Your ability only works on those of your own species or a *very* similar species (for instance, humans are similar to Alpha-Centaurans, but not to dogs or Hilidarians). Combine this with the Sense-Based limitation (Touch or Scent) to represent a species that can share thoughts through biochemical means. -20%.

Sensory Only: As for Sensory, but you can't read thoughts at all. -20%.

Telecommunication: Your ability only works on those with whom you are presently in contact via Telecommunication. -20%.

Telepathic: Your ability is part of the Telepathy (or Vulcan) psi power. -10%.

Mind Shield

4 points/level

You have a "shield" that warns you of and defends against mental attacks. Add your Mind Shield level to IQ or Will whenever you resist an advantage with the Telepathic limitation. This is an exotic advantage that requires the GM's permission to add.

Your shield also resists attempts to locate your mind using psionics. Such abilities must win a Quick Contest against your Will + Mind Shield level to find you.

You may voluntarily lower your Mind Shield if you wish – for instance, to let a friend read your mind. Lowering or raising your shield is a free action, but it must take place at the start of your turn. Mind Shield *does* protect you while you are asleep or unconscious, unless you fell asleep or were knocked out while your shield was voluntarily lowered.

Special Limitations

Telepathic: Your ability is part of the Telepathy (or Vulcan) psi power. -10%.

Mindlink

Variable

You have a permanent telepathic rapport with someone – often a twin, loved one, hive member, etc. You automatically succeed at all attempts to contact him with Telesend (see *Telecommunication*) and Mind Reading, provided he chooses not to resist or has Slave Mentality‡. Mindlink does *not* allow automatic contact across interstellar distances (more than 0.1 light-year), nor can it reach other dimensions, parallel worlds, etc.

Mindlink costs 5 points for a single person, 10 points for 2-9 people, 20 points for 10-99 people, 30 points for 100-999 people, and so on – add 10 points per tenfold increase in the number of people.

As a rule, the GM should only permit PCs to buy Mindlinks with Allies, Contacts‡, and Dependents; and other PCs (if their players permit). One exception is married and mind-bonded Vulcan couples.

Special Modifiers

You may give Mindlink the same modifiers as your Mind Reading or Telesend advantage. In most cases, the GM should *require* this.

Nictitating Membrane

1 point/level

You have a transparent lens over your eyes that you can open and close like an eyelid. This lets you see normally underwater, and protects your eyes from sand, irritants, etc. Each level of Nictitating Membrane provides your eyes (only) with DR 1 and adds +1 to all HT rolls concerned with eye damage. This is an exotic advantage that requires the GM's permission to add.

Night Vision

1 point/level

Your eyes adapt rapidly to darkness. Each level of this ability (maximum nine levels) allows you to ignore -1 in combat or vision penalties due to darkness, provided there is at least some light.

Example: Night Vision 4 would completely eliminate darkness penalties up to -4 and would reduce a penalty of -7 to -3.

Regardless of level, Night Vision only works in partial darkness. It has no effect on the -10 for *total* darkness (for that, get Dark Vision‡).

Outdoorsman

see *Talent*

Parabolic Hearing

4 points/level

You can "zoom in" on a particular sound or area, and can filter out background noise from sounds of interest to you. Each level of Parabolic Hearing *doubles* the distance at which you can clearly hear any given sound (see *Hearing,* p. 197.) This is an exotic advantage that requires the GM's permission to add.

Patrons

Variable

A "Patron" is an NPC – or even an entire *organization* – that serves as your advisor, employer, mentor, or protector. An employer must be exceptional to qualify as a Patron, though; a Patron is much more than an ordinary boss!

Power

The base point cost of a Patron depends on its power. Use the categories below as a guide, but note that some Patrons won't fit neatly into any of them. The GM's word is final.

A powerful individual (usually built on at least 150% of the PC's starting points) or a fairly powerful organization (assets of at least 1,000 times starting wealth for the world). *10 points.*

An extremely powerful individual (built on at least twice the PC's starting points) or a powerful organization (assets of at least 10,000 times starting wealth). *15 points.*

An ultra-powerful individual (built on as many points as the GM wants!) or a very powerful organization (assets of at least 100,000 times starting wealth). *20 points.*

An extremely powerful organization (assets of at least 1 million times starting wealth). *25 points.*

A national government or giant multinational organization (net worth basically incalculable). *30 points*.

Frequency of Appearance

Choose a frequency of appearance, as explained under *Frequency of Appearance* (p. 83). If the GM determines that your Patron appears at the start of an adventure, he *may* design the adventure to include an assignment or aid from the Patron. He may also choose to leave out your Patron, if its appearance would make no sense or disrupt the adventure.

However, if the GM determined that your Patron *could* have appeared, and you try to contact your Patron during the adventure (for help, advice, etc.), then the contact is likely to be successful and you may receive aid. (Within reason – if you're locked in a prison without any means of communication, you won't be contacting *anybody.*) You will not know whether your Patron is "available" on a given adventure until you attempt to request aid. As a rule, you should only be able to reach your Patron for help once per adventure.

Remember that a powerful Patron could be helpful without actually intervening! A Chicago hood who can say, "I'm from Big Eddie," or a crime-fighter who can flash a Q-clearance card, may carry some extra weight in a tough spot.

Party Patrons

Often, several PCs – perhaps the entire party – share a Patron (they are all agents of the same government, for example). No matter how many characters share a Patron, the cost is *not* shared; each character must pay full price for the Patron. On the other hand, the GM will make an appearance roll for each character at the start of each adventure – and if the Patron appears for *any* of them, then it is usually available for *all* of them. The GM should scale the quality and quantity of the aid provided in proportion to the number of successful appearance rolls.

Drawbacks

If your Patron is an army, corporation, feudal lord, etc., you may owe it a Duty. It may also require a stringent code of behavior in return for its aid; see *Self-Imposed Mental Disadvantages* (p. 120). A Patron might also have powerful foes that are now *your* foes; this can give you an Enemy. Such factors can cut the effective cost of a Patron significantly, and turn it from a benefit to a considerable liability!

Employers and Patrons

Not every employer is a Patron. If you can depend on your employer to get you out of trouble (at least sometimes), it might really be a Patron. Otherwise, it's just a job. For example, a small police department is a 10-point Patron if, as some do, it takes care of its own. But Star Fleet, though powerful, is not a likely Patron – at least for an ordinary crew member. You *could* say, "The Captain takes care of his men." But you could just as easily say, "I'm on my own if I get in trouble," and play a crew member who does not have a Patron.

You can apply the following modifiers *after* multiplying for frequency of appearance:

Special Enhancements

Equipment: Your Patron supplies useful equipment that you can use for your own purposes, and that you would otherwise have to buy. This enhancement only applies if the equipment is *yours* once given. A soldier with a military Patron would not pay extra for his weapons, since when he goes off duty, he can't take them along. An adventurer in the employ of a generous noble who hands out useful "gifts" *would* pay extra. +50% if the equipment is worth no more than the average starting wealth in the campaign, or +100% if it is worth more than that.

Highly Accessible: You can attempt to contact your Patron at any time – even when you are locked in jail, lost on an unexplored planet, etc. This is most appropriate if either the technology is so advanced that your communication is implanted or otherwise always accessible. +50%

Special Abilities: Your Patron wields power out of proportion to its wealth or point value. +50% if your Patron has extensive social or political power (e.g., the Governor of New York or the Pope), or +100% if your Patron has magical powers in a nonmagical world, possesses equipment from a TL greater than yours, grants you special powers, or has unusual reach in time or space (e.g., a super, spirit, or god).

Special Limitations

Minimal Intervention: Your Patron is less useful than its power level would suggest. On a successful appearance roll, the GM makes a reaction roll for your Patron to determine whether it actually provides aid; see *Reaction Table* (p. 198). On a Neutral or better reaction, you receive the aid your Patron thinks you *need* – which may or may not be what you *want.* -50%.

Secret: Your Patron works behind the scenes. You do not know who it is and you cannot request aid directly. You might be able to call for help in such a way that the Patron gets the message (GM's decision), but there is no guarantee that the Patron will take action. The only evidence of this kind of Patron is minor incidents and "lucky breaks." This may take the form of information, equipment, or even direct aid … but only when it suits the Patron, and always in an untraceable way. A patron like this often regards its aid as an investment on which it expects some return; therefore, it might not have your best interests at heart! Only the GM knows any of these details. *You* know nothing other than the fact that you have a Patron. -50%.

Unwilling: You have obtained your Patron through coercion (e.g., blackmail). It provides aid only because there is no other choice, and it *definitely* does not have your best interests at heart! You will eventually make one request too many (GM's judgment – perhaps the appearance roll comes up 18) and lose the Patron; remove the Patron from your character sheet and lower your point value accordingly. Since a Patron is by definition more powerful than you are, taking an Unwilling Patron is risky. If the Patron can find a way to break your "hold," it will, and may well become an Enemy. -50%.

Perfect Balance

15 points

You can always keep your footing, no matter how narrow the walking surface, under normal conditions. This lets you walk along a tightrope, ledge, tree limb, or other anchored surface without having to make a die roll. If the surface is wet, slippery, or unstable, you get +6 on all rolls to keep your feet. In combat, you get +4 to DX and DX-based skill rolls to keep your feet or avoid being knocked down. Finally, you get +1 to Acrobatics, Climbing, and Piloting skills.

Peripheral Vision

15 points

You have an unusually wide field of vision. You can see a 180° arc in front of you without turning your head, and have 30° of peripheral vision to either side of *that.* This gives you a 240° "arc of vision" for observation and ranged attacks. The figure below shows the arc of vision for a normal character (white) and for someone with Peripheral Vision (gray plus white).

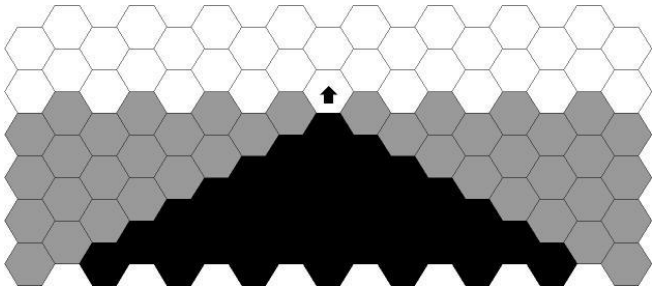
If you are playing with a battle map, you can make melee attacks into "side" ("right" and "left") hexes as well as "front" hexes – although a one-handed attack to the opposite side (e.g., attacking your left hex with your right hand) is clumsy and considered a Wild Swing (see ***GURPS Basic Set***, p. 388). You still cannot attack a foe directly behind you except with a Wild Swing.

This also helps on defense! If you are attacked from a "side" hex, you defend at no penalty. Even against attacks from the rear, your active defense is only at -2.

Out of combat, you get +3 to all rolls to detect Shadowing attempts or ambushes from behind, and the GM will always make a Vision roll for you to spot dangers "behind your back."

Special Limitations

Easy to Hit: Your eyes are on stalks, unusually large, or otherwise more vulnerable to attack. Others can target your eyes from within their arc of vision at only -6 to hit. -20%.



Photographic Memory

see *Eidetic Memory*

Physical Science Talent

see *Talent*

Pitiable

see p. 32

Police Rank

see *Rank,* p. 37

Pressure Support

5 to 15 points

Every character has a "native pressure." This is listed in each the template for each species. A native pressure other than that of your species is a 0-point feature, but if you can survive for a prolonged period of time at a *wide range* of pressures, you have an

advantage. This is an exotic advantage that requires the GM's permission to add. This trait comes in three levels:

Pressure Support 1: You can survive at pressures between your native pressure and 10 times that. *5 points.*

Pressure Support 2: You can withstand pressures between your native pressure and 100 times that. *10 points.*

Pressure Support 3: You are *immune* to the effects of high pressure. *15 points.*

Pressure Support lets your body stay at a constant internal pressure with respect to a constant and uniform external pressure. This protects against attacks that manipulate ambient pressure or crush the entire body, but provides no defense against *localized* or *transient* pressure changes. In particular, Pressure Support does not reduce or prevent damage from crushing attacks or explosions of any kind.

Those with Pressure Support often have the Sealed advantage, but this is not required.

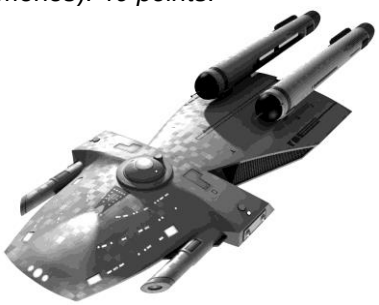
Racial Memory

15 or 40 points

You have access to the memories of your direct genetic ancestors. This is an exotic advantage that requires the GM's permission to add. This ability comes in two forms:

Racial Memory (Passive): Your talent is vague and totally passive. The GM secretly makes an IQ roll for you in any situation that your ancestors might have encountered. On a success, you get a feeling of *déjà vu* about the situation. It is up to you to interpret this. A critical success gives a vivid replay of ancient ancestral memories. On a failure, nothing happens. A critical failure results in a wrong impression. *15 points.*

Racial Memory (Active): You may use this advantage *actively.* If you want to know something, the GM first determines whether or not your ancestors knew the answer. Then he rolls against your IQ to see if you can gain access to the information. If your ancestors didn't have the answer and the roll succeeds, you will know that. On a critical failure, you will believe your ancestors didn't know, even if they really did. This requires one turn of absolute concentration (the GM may require more elaborate preparations to recall very ancient memories). *40 points.*



Federation Old Light Cruiser

Radiation Tolerance

Variable

Your cells are resistant to radiation. This is an exotic advantage that requires the GM's permission to add. The cost of this advantage depends on the divisor of the effective dose of radiation you receive – *after* dividing by the Protection Factor (PF) of artificial protection such as armor.

Divisor	***Cost***
2	5 points
5	10 points
10	15 points
20	20 points
50	25 points
100	30 points
200	35 points
500	40 points
1000	45 points

Rank

see *Rank,* p. 37

Rapid Healing

5 or 15 points

Your wounds heal quickly. This trait comes in two levels:

Rapid Healing: Whenever you roll to recover lost HP *or* to see if you can get over a crippling injury, you get +5 to your effective HT. *Prerequisite:* HT 10+. *5 points.*

Very Rapid Healing: As above, but when you roll to recover lost HT, a successful HT roll means you heal *two* HP, not one. *Prerequisite:* HT 12+. *15 points.*

Note that this advantage does not hasten recovery from the *short-term* effects of injury, such as stunning and knockout; get Recovery for that.

Recovery

10 points

You recover from unconsciousness very quickly. When determining the length of time you remain unconscious for any reason, divide all times by 60: hours become minutes, minutes become seconds . . . even a month-long coma becomes a mere 12-hour sleep. This is an exotic advantage that requires the GM's permission to add.

Reduced Consumption

2 points/level

You can go for a long time without food and water, or fuel – although you still require these things. (For indefinite endurance, see Doesn't Eat or Drink‡.) This advantage comes in four levels:

Reduced Consumption 1: You require 2/3 as much food and water as usual ("two meals a day"). *2 points*.

Reduced Consumption 2: You require 1/3 as much food and water as usual ("one meal a day"). *4 points*.

Reduced Consumption 3: You require food and water only once per week ("one meal a week" or about 5% as much). *6 points.*

Reduced Consumption 4: You require food and water only once per month ("one meal a month" or about 1% as much). *8 points.*

Special Limitations

Cast-Iron Stomach: You require the standard *amount* of food and water, but the *quality* is irrelevant. You can eat rotten vegetables and fuzzy blue-green meat, and drink dishwater and sour milk. Instead of reducing how often you must eat, reduce your demands on life support (and your food costs) by a like amount: to 2/3 normal at level 1, 1/3 normal at level 2, 5% normal at level 3, and 1% normal at level 4. You get a bonus equal to your level (+1 to +4) to resist the effects of food-borne poisons or diseases not tailored expressly for you, but -3 on reactions from anyone watching you eat! -50%.

Food Only: You require less food, but the usual amount of water. -50%.

Water Only: You require less water, but the usual amount of food. -50%.

Regeneration

Variable

Your wounds heal in mere hours, minutes, or seconds! To regenerate lost *limbs,* you will also need Regrowth‡ – but Regeneration will greatly accelerate that ability. Regeneration includes Rapid Healing at no extra cost. This is an exotic advantage that requires the GM's permission to add.

The cost of this trait depends on your regeneration speed:

Regeneration (Slow): You recover 1 HP every 12 hours, in addition to normal healing. *10 points.*

Regeneration (Regular): You recover 1 HP per hour. *25 points.*

Regeneration (Fast): You recover 1 HP per minute. *50 points.*

Regeneration (Very Fast): You recover 1 HP per second. *100 points.*

Regeneration (Extreme): You recover 10 HP per second. *150 points.*

Special Enhancements

Heals Radiation: You shed accumulated rads at *10 times* the rate at which you heal missing HP. For instance, Regeneration (Regular) removes 10 rads per hour. This *will* heal "permanent" radiation damage. +40%.

Special Limitations

Radiation Only: As Heals Radiation, but you *only* shed rads – you do not heal HP. -60%.

Religious Rank

see *Rank,* p. 37

Reputation

see p. 36

A positive Reputation is an advantage and should be noted as such on your character sheet.

Resistant

Variable

You are naturally resistant (or even immune) to noxious items or substances that are not direct, physical attacks. This gives you a bonus on all HT rolls to resist incapacitation or injury from such things.

The bonus from Resistant applies to all rolls to resist noxious effects within a particular category – usually some combination of disease, poison, and environmental syndromes (altitude sickness, the bends, space sickness, etc.). It also applies to rolls to resist *attacks* that use these effects. This includes Afflictions with one of Blood Agent, Contact Agent, Follow-Up, or Respiratory Agent, and Innate Attacks that have such modifiers *and* inflict toxic or fatigue damage.

Resistant does *not* protect against effects that Damage Resistance or Protected Sense‡ either stop or provide a HT bonus to resist. This includes Afflictions and Innate Attacks that do not have any of the modifiers given above.

The base cost for Resistant depends on the rarity of the effects it counteracts:

Very Common: A broad category within the noxious items described above. *Example:* Metabolic Hazards (all threats that only affect the living, including all disease and poison, plus such syndromes as altitude sickness, bends, seasickness, and jet lag). *30 points.*

Common: A group of related items encountered as often in nature as in an attack, *or* some other suitably broad subset of "Very Common." *Examples:* Poison (all toxins, but not asphyxiants or corrosives) or Sickness (all diseases and environmental syndromes). *15 points.*

Occasional: A group of closely related items more often encountered in nature than as a deliberate attack, *or* a subset of a "Common" group. *Examples:* Disease (all bacteria, viruses, fungus infections, etc.) or Ingested Poison. *10 points.*

Rare: A specific item or environmental syndrome, *or* a subset of an "Occasional" group. *Examples:* Acceleration (blackouts due to extreme G-forces), Altitude Sickness, Bends (decompression sickness), Seasickness, or Space Sickness; Nanomachines. *5 points.*

Multiply base cost to reflect your degree of resistance:

You are *totally* immune to all noxious effects, and never have to make resistance rolls (write this as "Immunity" on your character sheet): ×*1*.

You have +8 to all HT rolls to resist: ×*1/2.*

You have +3 to all HT rolls to resist: ×*1/3.*

Drop all fractions from the final cost.

An ordinary human could believably have any level of resistance to a *mundane* "rare" item, such as Seasickness. He might also have Resistant to Disease (+3) [3], Resistant to Disease (+8) [5], or Resistant to Poison (+3) [5]. Anything higher requires the GM's permission.

Mental Resistance: It is possible to be Resistant to a purely mental threat. This works as described above, except that the bonus applies to resistance rolls against IQ and Will instead of HT. "Psionics" is an allowed category, and is considered Very Common.

Sealed

15 points

You are encased in a gas- and liquid-impermeable layer. This makes you waterproof, and grants complete immunity to corrosive or toxic agents that must touch skin or exposed machinery to work. You must still breathe, unless you also have Doesn't Breathe; however, your exterior breathing apparatus (nose, snorkel, etc.) is protected by this trait. Likewise, you are *not* automatically pressurized; for that, take Pressure Support or Vacuum Support). This is an exotic advantage that requires the GM's permission to add.

Security Clearance

Variable

A government agency or corporation trusts you with access to sensitive information that would otherwise be "off limits" to someone of your Rank or Status. For instance, a general "cleared" for military secrets commensurate with his Military Rank would not have to buy Security Clearance separately, but a civilian with exactly the same level of access would have to pay points for the privilege.

Point cost depends on your degree of access:

- You have access to a relatively narrow range of secrets on a "need to know" basis. *Example:* a starship helmsman, who might know secrets about spacecraft, weapons, and targets. *5 points.*
- You have *either* free access to a narrow range of secrets *or* "need to know" access to a broad range of secrets. *Example:* a counterintelligence officer, who would have limited access to *many* secrets, as part of his job is to protect them. *10 points.*
- You have free access to a broad range of secrets. *15 points.*

Halve these values (round up) if the organization that grants the Security Clearance is of relatively minor importance (e.g., a small corporation or municipal government).

You cannot receive a security clearance without a thorough background check. The GM is free to forbid this advantage to any PC who has a suspicious past (including such traits as Debt‡ or Secret) or an unstable personality (for instance, Paranoia‡ or Sadism).

Sensitive

see *Empathy*

Single-Minded

5 points

You can really concentrate! You get +3 to success rolls for any lengthy mental task you concentrate on to the exclusion of other activities, if the GM feels such focus would be beneficial. You tend to ignore everything else while obsessed (roll vs. Will to avoid this), and have -5 to all rolls to notice interruptions.

The GM may rule that certain complex tasks (e.g., social activities) *require* you to divide your attention. This trait has no effect in such situations.

Smooth Operator

see *Talent*

Social Regard

5 points per +1 reaction

You are a member of a class, race, sex, species, or other group that your society holds in high regard. To be an advantage, this must be obvious to anyone who meets you. This is the opposite of Social Stigma; membership in a given social group cannot result in both Social Regard and Social Stigma.

Social Regard costs 5 points per +1 to reaction rolls, to a maximum of +4. This is not a Reputation, despite the similarities in cost and effect. You are treated well because of *what* you are, not because of *who* you are. Think of it as "privilege by association." The way you are treated on a good reaction roll will depend on the type of Regard:

Feared: Others will react to you much as if you had successfully used Intimidation skill. Those who like you stand aside, while those who dislike you flee rather than risk a confrontation. You are met with silent deference, and perhaps even respect, but never friendly familiarity. *Examples:* a Klingon ESS agent in an Army barracks.

Respected: You receive polite and obsequious deference, much as if you had high Status (p. 36), regardless of your *actual* Status. Social interactions other than combat usually go smoothly for you – but there will be times when the kowtowing gets in the way. *Examples:* a member of a ruling caste or a ruling species.

Venerated: Total strangers react to you in a caring way. They give up seats, let you ahead of them in

lines, and receive your every word as pearls of wisdom. They also take great pains to prevent you from putting yourself in danger or even discomfort – even when you *need* to do so! *Example:* an elderly person in many societies.

Speak Underwater

5 points

You can talk normally while submerged, and you can understand what others say while underwater. This is an exotic advantage that requires the GM's permission to add.

Special Enhancements

Interface Crossing: You can talk to those outside of the water while submerged, and can understand people on the surface talking to you. +50%.

Special Rapport

5 points

You have a unique bond with another person. This acts as a potent version of Empathy that works only with one person, without regard to distance. You *always* know when your partner is in trouble, in pain, lying, or in need of help, no matter where he is. This requires no IQ roll. Your partner receives the same benefits with respect to you.

Both partners in a Special Rapport must buy this advantage. Your partner need not be a lover, or even a close friend, but the GM has the final say. In particular, the GM may wish to forbid PCs from buying Special Rapports with powerful NPCs who would otherwise qualify as Patrons (or allow it, but require an Unusual Background).

Status

see p. 36

High Status is an advantage, and should be noted on your character sheet.

Striker

5, 6, 7, or 8 points

You have a body part that you can use to strike an aimed blow, but *not* to manipulate objects (see Extra Arms) or walk on (see Extra Legs). This might be a set of horns or protruding tusks, a heavy tail, a stinger, or any number of other natural weapons. This is an exotic advantage that requires the GM's permission to add.

Your Striker can attack at reach C ("close combat only"), inflicting thrust damage at +1 per die; e.g., 2d-1 becomes 2d+1. Damage is *crushing* or *piercing* for 5 points, *large piercing* for 6 points, *cutting* for 7 points, or *impaling* for 8 points. See *Innate Attack* for details.

Roll against DX or Brawling to hit with your Striker. You can also use it to parry as if you had a weapon. Use the *higher* of (DX/2) + 3 or your Brawling parry.

Special Enhancements

Long: Your Striker is long relative to your body. This increases your effective SM for the purpose of calculating reach (see *Size Modifier and Reach*, p. 206). +100% per +1 to SM if you can attack at any reach from C to maximum, or +75% per +1 to SM if you can only attack at maximum reach (and *never* in close combat).

Special Limitations

Cannot Parry: You cannot parry with your Striker. -40%.

Clumsy: Your Striker is unusually inaccurate. This is common for tails and similar Strikers aimed from outside your usual arc of vision. -20% per -1 to hit.

Limited Arc: Your Striker can only attack straight ahead, straight behind, etc. Specify a direction when you buy the Striker. If your target isn't in the right place, and you cannot maneuver to put him there, *you cannot attack him at all.* -40%.

Weak: Your Striker is unusually blunt or light, or simply incapable of using your full ST. It inflicts only basic thrust damage, without the +1 per die. -50%.

Subsonic Hearing

0 or 5 points

You can hear very low-frequency sounds (under 40 Hz), such as the rumble of distant storms, the vibrations from incipient earthquakes, and the approach of stampeding herd beasts or armored vehicles. This gives +1 to Tracking skill if your quarry is moving on the ground. This is an exotic advantage that requires the GM's permission to add. Cost depends on your capabilities:

You can hear very low-frequency sounds only: *0 points.*

You can hear very low-frequency sounds *and* other sounds: *5 points.*

Note that Subsonic Hearing is included in the cost of Subsonic Speech‡; you cannot take both traits.

Talent

Variable

You have a natural aptitude for a set of closely related skills. "Talents" come in levels, and give the following benefits:

- A bonus of +1 per level with all affected skills, even for default use. This effectively raises your attribute scores for the purpose *of those skills only;* thus, this is an inexpensive way to be adept at small class of skills. (Generalists will find it more cost-effective to raise attributes.)
- A bonus of +1 per level on all reaction rolls made by anyone in a position to notice your Talent, if he would be impressed by your aptitude (GM's judgment). To receive this bonus, you must demonstrate your Talent – most often by using the affected skills.

- A reduction in the time required to learn the affected skills in play, regardless of *how* you learn them. Reduce the time required by 10% per level of Talent; e.g., Animal Friend 2 would let you learn animal-related skills in 80% the usual time. This has no effect on the *point cost* of your skills.

You may never have more than four levels of a particular Talent. However, overlapping Talents *can* give skill bonuses (only) in excess of +4.

Cost of Talents

The cost of a Talent depends on the size of the group of skills affected:

Small (6 or fewer related skills): *5 points/level.*
Medium (7 to 12 related skills): *10 points/level.*
Large (13 or more related skills): *15 points/level.*

Skills with multiple specialties are considered to be *one* skill for this purpose. Once you buy a Talent, the list of affected skills is fixed. (*Exception:* The GM may rule that a Talent affects new skills appearing in later ***GURPS*** supplements, or skills he invents in the course of the campaign, if the Talent would logically be of value to those skills.)

Examples of Talents

Some of the following Talents have been modified to reflect the normal skill sets in the ***Star Fleet Universe.*** Skills that are not common are marked Skill‡. The point cost for the ***SFU*** has been noted if you do not include the "missing" skills and if it affects the value. If you decide to include the skills, use the "with the missing skills" point cost. The following Talents are considered standard for the ***Star Fleet Universe:***

Artificer: Armoury, Carpentry‡, Electrician, Electronics Repair, Engineer, Machinist, Masonry‡, Mechanic, and Smith‡. *Reaction bonus:* anyone you do work for. *5 points/ level in the **SFU;** 10 points/level with the missing skills.*

Business Acumen: Accounting, Administration, Economics, Finance, Gambling, Market Analysis‡, Merchant, and Propaganda. *Reaction bonus:* anyone you do business with. *10 points/level.*

Healer: Diagnosis, Esoteric Medicine‡, First Aid, Pharmacy, Physician, Physiology, Psychology, Surgery, and Veterinary. *Reaction bonus:* patients, both past and present. *10 points/level.*

Mathematical Ability: Accounting, Astronomy, Cryptography, Engineer, Finance, Market Analysis‡, Mathematics, and Physics. *Reaction bonus:* engineers and scientists. *10 points/level.*

Outdoorsman: Camouflage, Fishing‡, Mimicry‡, Naturalist, Navigation, Survival, and Tracking. *Reaction bonus:* explorers, nature lovers, and the like. *5 points/ level in the **SFU;** 10 points/level with the missing skills.*

Physical Science: Astronomy, Chemistry, Geology, Meteorology, and Physics. *5 points/level.*

Smooth Operator: Acting, Carousing, Detect Lies, Diplomacy, Fast-Talk, Intimidation, Leadership, Panhandling‡, Politics, Public Speaking, Savoir-Faire, Sex Appeal, and Streetwise. *Reaction bonus:* con artists, politicians, salesmen, etc. – but only if you are not trying to manipulate them. *15 points/level*.

Custom Talents

At the GM's option, you may create your own Talent with a custom skill list. However, the GM's word is law when determining which skills are "related" and how many points the Talent is worth. Talents should always be believable inborn aptitudes. For instance, Sports Talent might make sense – some athletes really do seem to have a gift.

Teeth

0, 1, or 2 points

Anyone with a mouth has *blunt* teeth that can bite for thrust-1 crushing damage. This costs 0 points, and is typical of most herbivores. This is an exotic advantage that requires the GM's permission to add. You can have a more damaging bite:

Sharp Teeth: Like those of most carnivores. Inflict thrust-1 *cutting* damage. *1 point.*

Sharp Beak: Like that of a bird of prey. Inflicts thrust-1 *large piercing* damage. *1 point.*

Fangs: Like those of a *Smilodon.* Inflict thrust-1 *impaling* damage. *2 points.*

Telecommunication

Variable

You can communicate over long distances without speaking aloud. You can send words at the speed of ordinary speech or pictures at the speed at which you could draw them. This is an exotic advantage that requires the GM's permission to add. To establish contact requires one second of concentration and an IQ roll. After that, no concentration is required. You can maintain multiple contacts, but the IQ roll is at a cumulative -1 per contact after the first.

Telecommunication works amid even the loudest noises, although interference and jamming can disrupt your signal. Those with suitable equipment may attempt to locate, intercept, or jam your transmission. This requires an Electronics Operation (Communications) roll for an electromagnetic signal, an Electronics Operation (Psychotronics) roll for a psionic signal, and so forth.

Each variety of Telecommunication is a *separate advantage* with its own benefits and drawbacks. Some forms have limited range, which you can adjust using Increased Range or Reduced Range.

Infrared Communication: You communicate using a modulated infrared beam. Base range is 500 yards in a direct line of sight. The short range and line-of-

sight requirement make jamming and eavesdropping almost impossible under normal circumstances. You can only communicate with those who have this advantage or an infrared communicator. *10 points.*

Laser Communication: You communicate using a modulated laser beam. Base range is 50 miles in a direct line of sight. The narrow beam and line-of-sight requirement make it extremely hard to eavesdrop on you. You can only communicate with people who have this advantage or a laser communicator. *15 points.*

Radio: You communicate using radio waves. Base range is 10 miles. Your signal is omni-directional, but because you can shift frequencies, eavesdroppers must still roll vs. Electronics Operation (Communications) to listen in. A side benefit is that you can receive AM, FM, SB, and ordinary radio signals on an IQ roll (takes one second). Note that radio-frequency "noise" from lightning and unshielded electronics can interfere with Radio. Radio does not work *at all* underwater. *10 points.*

Telesend: You can transmit thoughts directly to others via psi or other exotic means (be specific!). Your subject receives your thoughts even if he lacks this ability. Range is theoretically unlimited, but the IQ roll to use this ability takes the range penalties given under *Long-Distance Modifiers* (see boxed text). If you cannot see or otherwise sense your subject, you have an additional penalty: -1 for family, lovers, or close friends; -3 for casual friends and acquaintances; or -5 for someone met only briefly. *30 points*.

Special Enhancements

Broadcast: This enhancement is only available for Telesend. It lets you send your thoughts to everyone in a radius around you. This requires an IQ roll at the long-distance modifier for the desired radius, plus an additional -4. +50%.

Short Wave: This is only available for Radio. You can bounce your signal off a planet's ionosphere (if the planet has one). This lets you transmit to (or receive from) any point on the planet. Note that solar flares, weather, etc. can disrupt short-wave communications. +50%.

Universal: Your messages are automatically translated into your subject's language. The GM may limit this enhancement to individuals from advanced tech levels, or restrict it to Telesend. +50%.

Video: You are not limited to simple pictures! You can transmit real-time video of anything you can see. +40%.

Special Limitations

Species: Your ability only works on those of your own species or a *very* similar species, per Mind Reading. -20%.

Receive Only: You can receive but not send. This limitation is not available for Telesend. -50%.

Send Only: You can send but not receive. This limitation is not available for Telesend. -50%.

Telepathic: Your ability is part of the Telepathy psi power. -10%.

Vague: You cannot send speech or pictures. You can only send a simple code (e.g., Morse code) – or general concepts and emotions, in the case of Telesend. -50%.

Long-Distance Modifiers

Use these modifiers for advantages that work over long distances such as Telesend. If the distance falls between the two values, use the *higher.*

Distance	*Penalty*
Up to 200 yards	0
1/2 mile	-1
1 mile	-2
3 miles	-3
10 miles	-4
30 miles	-5
100 miles	-6
300 miles	-7
1,000 miles	-8

Add another -2 per additional factor of 10.

Telekinesis

5 points/level

You can move objects without touching them. In effect, you manifest an invisible force that acts under your conscious direction at a distant point. This is an exotic advantage that requires the GM's permission to add. Specify how you do this; possibilities include magnetism, psionic psychokinesis, an ultra-tech "tractor beam," etc.

You can manipulate distant objects just as if you were grasping them in a pair of hands with ST equal to your Telekinesis (TK) level. You can move any object you have strength enough to lift, at a Move equal to your TK level, modified as usual for encumbrance level (see *Encumbrance and Move,* p. 28). Regardless of level, maximum range is 10 yards; to modify range, take Increased Range or Reduced Range.

Telekinesis requires constant concentration to use. In combat, this means you must take a Concentrate maneuver on your turn. Your TK may then perform *one* standard maneuver as if it were a disembodied pair of hands at some point within your range: a Ready maneuver to pick up an object; a Move maneuver to lift and carry it; an Attack maneuver to throw it, or to grab or strike directly; and so on.

Example: On your turn in combat, you take a Concentrate maneuver and state that your TK is taking an Attack maneuver to grab a phaser from a foe. The following turn, you can Concentrate again and specify

that your TK is taking an Aim or Wait maneuver to cover your enemy with the phaser, an Attack maneuver to shoot him, or a Move maneuver to bring the phaser to your hand.

No rolls are necessary for ordinary lifting and movement. For more complex actions, the GM might require you to make a DX or skill roll. In situations where you would roll against ST, roll against your TK level instead.

All of the above assumes that you are using TK to perform a task at a distance. TK can also discreetly assist you with such skills as Gambling (especially to cheat!), Lockpicking, and Surgery. In general, anything that would benefit from High Manual Dexterity gets a +4 bonus if you can successfully make an IQ roll to use your TK properly. On a failure, the GM may assess any penalty he feels is appropriate.

Grappling and Striking: You can use TK to attack a foe directly. Roll against DX or an unarmed combat skill to hit. Your foe defends as if attacked by an invisible opponent (see ***GURPS Basic Set,*** p. 394). If you grapple, your foe cannot grab hold of the TK force, but he *can* try to break free as usual – and if he also has TK, he can take a Concentrate maneuver and use his TK level instead of his ST. The turn after you grapple a foe using TK, your TK can use a Move maneuver to pick him up off the ground, provided you have enough TK to lift his weight. Someone in this position can't do anything that relies on ground contact (run, retreat, etc.), but can perform any other action that is possible while grappled.

Levitation: If you have enough TK to lift your own body weight, you can levitate. Take the Concentrate maneuver and have your TK take Move maneuvers to propel your body. For true psychokinetic flight, take Flight with the Psychokinetic limitation (below).

Throwing: By applying a TK impulse for a fraction of a second, you can *throw* objects faster (and farther) than you can move them. Take a Concentrate maneuver and have your TK take an Attack maneuver. This works just as if you were throwing the object with ST equal to your TK level. Roll against Throwing or Thrown Weapon skill to hit, depending on the object being hurled. For 1/2D and Max purposes, measure range from the *object* (not yourself!) to the target; for the purpose of *range penalties,* use the *sum* of the distance from you to the object and from the object to the target. Once you throw something, you have "released" your telekinetic grip – your TK must take a Ready maneuver to pick it up again.

Special Limitations

Magnetic: Your TK is "super magnetism," and only affects ferrous metals: iron (including steel), nickel, and cobalt. -50%.

Psychokinetic: Your ability is part of the Psychokinesis psi power. This makes it mental or physical. -10%.

Visible: Your TK is not an invisible force, but a disembodied hand, glowing personal "tractor beam" or similar. This makes it much easier to defend against your TK attacks (do not use the *Visibility* rules in ***GURPS Basic Set***). -20%.

Telesend

see *Telecommunication*

Temperature Tolerance

1 point/level

Every character has a temperature "comfort zone" within which he suffers no ill effects (such as FP or HP loss) due to heat or cold. For ordinary humans, this zone is 55° wide and falls between 35° and 90°. The center of this zone can be centered *anywhere* (and is specified in the Species Template for that species), but this is a 0-point feature for a zone no larger than 55°. A larger zone is an advantage. This is an exotic advantage that requires the GM's permission to add to humans at a level higher than 2. Each level of Temperature Tolerance adds HT degrees to your comfort zone, distributed in any way you wish between the "cold" and "hot" ends of the zone.

Temperature Tolerance confers no special resistance to attacks by fire or ice unless the only damage is a result of a rise or fall in the ambient temperature. In particular, it cannot help you if your *body temperature* is being manipulated.

Ultrahearing

0 or 5 points

You can hear sounds in the frequencies above the normal range of human hearing (20 kHz). This allows you to hear dog whistles, sonar, motion detectors, etc. You can detect active sonar at *twice* its effective range. This is an exotic advantage that requires the GM's permission to add. Cost depends on your capabilities:

You can hear only high-frequency sounds: *0 points.*

You can hear high-frequency sounds *and* other sounds: *5 points.*

This advantage is included in Ultrasonic Speech‡; if you have Ultrasonic Speech, you cannot take this as well.

Unfazeable

15 points

Nothing surprises you – at least, nothing that's not obviously a threat. The world is full of strange things, and as long as they don't bother you, you don't bother them.

You are exempt from Fright Checks, and reaction modifiers rarely affect you either way. You treat strangers with distant courtesy, no matter how *strange* they are, as long as they're well-behaved. You have

the normal reaction penalty toward anyone who does something rude or rowdy, but you remain civil even if forced to violence. Intimidation just does not work on you!

You are not emotionless – you just never display strong feelings. The stereotypical aged kung fu master or English butler has this trait.

You must roleplay this advantage fully, or the GM can declare that it has been lost. This advantage is incompatible with all Phobias.

Universal Digestion

5 points

You have remarkably adaptable digestive processes that let you derive nutrition from any nontoxic animal or plant protein, no matter how alien or fantastic. This enables you to subsist on things that would normally be harmless but non-nutritious. You have no special resistance to poison, though; for that, buy Resistant. One side benefit of this trait is that you can quickly and safely dispose of any nontoxic, organic evidence by *eating* it! This is an exotic advantage that requires the GM's permission to add.

Unusual Background

Variable

This is a "catch-all" trait that the GM can use to adjust the point total of any character with special abilities that are not widely available in the game world. "Special abilities" might mean cinematic traits, magic spells, exotic advantages (for a human), supernatural advantages (for *anyone*), or almost anything else – it depends on the setting. Players are free to suggest Unusual Backgrounds to the GM, but the GM decides whether a proposed Unusual Background is acceptable, and if so, what its cost and benefits are.

Not every unusual character concept merits an Unusual Background. The GM should only charge points when the character enjoys a tangible benefit. For instance, it would be unusual for a human to be raised by wolves, but unless this gave him special capabilities (such as Speak with Animals‡), it would be background color, worth 0 points.

Vacuum Support

5 points

You are immune to deleterious effects associated with vacuum and decompression. This advantage does not give you an air supply; buy Doesn't Breathe for that. This is an exotic advantage that requires the GM's permission to add.

Those with Vacuum Support usually have the Sealed advantage, and often have Radiation Tolerance and Temperature Tolerance, but none of these traits are *required.*

Versatile

5 points

You are extremely imaginative. You get a +1 bonus on any task that requires creativity or invention, including most rolls against Artist‡ skill and all Engineer rolls for new inventions, and all skill rolls made to use the Gadgeteer‡ advantage.

Very FIt

see *Fit*

Very Rapid Healing

see *Rapid Healing*

Vibration Sense

10 points

You can detect the location and size of objects by sensing vibrations with your skin, whiskers, or antennae. You must specify whether this ability works in the air or in the water. This is an exotic advantage that requires the GM's permission to add.

Vibration Sense is *not* a substitute for vision. You can locate an opponent in the dark, but you cannot detect details (e.g., whether he is armed). In a perfectly still, dark chamber, you would have only a vague notion of the size of the area, but you would be able to sense a barrier before you ran into it, and could find openings by sensing the flow of air or water.

To use Vibration Sense, make a Sense roll. Consult the *Size and Speed/Range Table* (p. 211) and apply *separate* bonuses for the target's size and speed, and a penalty for the range to the target. Wind (in air) or swift currents (in water) will generate "noise" that interferes with your sense. Find the speed of the wind or current on the table and assess the relevant speed *penalty.*

A successful roll reveals the rough size, location, speed, and direction of movement of the target. It does not provide any information about the object's shape, color, etc. Once you have detected something, you may target it with an attack. The modifiers that applied to your Sense roll also apply to your attack roll, but can never give you a bonus to hit.

Note that if you are outside the element (air or water) where your ability functions, or if you are wearing a sealed suit, this ability does not work at all!

Special Enhancements

Universal: Your Vibration Sense works both in the air and in the water. +50%.

Voice

10 points

You have a naturally clean, resonant, and attractive voice. This gives you +2 with the following skills: Diplomacy, Fast-Talk, Mimicry‡, Performance‡, Politics, Public Speaking, Sex Appeal, and Singing‡. You also get +2 on any reaction roll made by someone who can hear your voice.

Vulcan Psi Powers

5 points/level

This advantage represents natural or learned ability to control the Vulcan psionic gifts. A Vulcan character may have latent psionics without psi abilities, but can always gain this advantage later.

With this advantage you gain a bonus to any roll to activate or otherwise use Vulcan psionic advantages; e.g., Vulcan Psi Powers 2 would give +2 to use Mind Reading abilities. This most often modifies IQ, Will, and Perception rolls.

The advantages that Vulcan Psi Powers affects include: Mind Control (Puppet, -40%; Telepathic, -10%) [25]; Mind Probe (Touch Based, -20%; Telepathic, -10%) [14]; Mind Reading (Touch-Based, touch, -20%; Telepathic, -10%) [21]; Mind Shield (Telepathic, -10%) [4] per level; Nerve Pinch: Affliction (HT; Accessibility, Hit Location, -4 to hit, -20%; Contact Agent, -30%; Melee Attack, Reach C, -30%; Racial, -20%; Telepathic, -10%; Unconscious, +200%) [19] per level; Special Rapport (Telepathic, -10%) [5].

For more on Psionics see **GURPS Basic Set.**

Wealth

see p. 35

Xeno-Adaptability

see *Cultural Adaptability*

PERKS

A "perk" is a very minor advantage, worth only 1 point. Perks cannot be modified with enhancements or limitations, and they can be added in play without upsetting game balance. Otherwise, perks use the same rules as other advantages.

The GM is encouraged to create new perks. No perk should provide wealth, social standing, or combat bonuses. A perk can provide a modest bonus (up to +2) to an attribute, skill, or reaction roll in relatively rare circumstances. The GM may allow more generous bonuses, if they apply only in *extremely* rare situations.

Alcohol Tolerance

Your body metabolizes alcohol with remarkable efficiency. You can drink steadily for an indefinite period with no major detrimental effects. *Binging* affects you as it would anyone else. You get +2 on all HT rolls related to drinking.

Autotrance

You can enter a trance at will. This requires one minute of complete concentration and a successful Will roll, at -1 per additional attempt per hour. This trance gives +2 on rolls to contact spirits, etc. You must make a Will roll to break your trance. If you fail, you can try again every five minutes.

Deep Sleeper

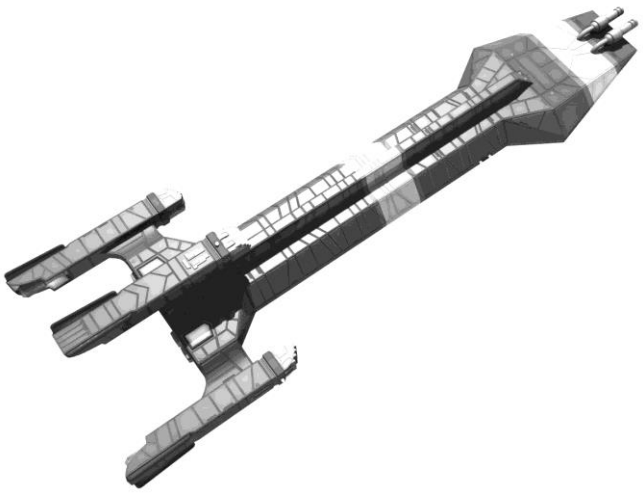
You can fall asleep in all but the worst conditions, and can sleep through most disturbances. You never suffer any ill effects due to the quality of your sleep. You get an IQ roll to notice disturbances and awaken, just like anyone else; success is automatic if you have combat reflexes.

Fur

You have fur. This prevents sunburn. This is an exotic perk that requires the GM's permission to add. Thicker fur might justify 1-3 levels each of Damage Resistance and Temperature Tolerance. You must buy these other traits separately.

Ultraviolet Tolerance

You are immune to the effects of UV radiation, even the intense sunlight of a blue-white star. This is an exotic perk that requires the GM's permission to add. You do not tan or burn, nor does the radiation cause any other harmful effects.



Hydran Iroquois New Heavy Cruiser

MODIFIERS

A *modifier* is a feature that you can add to a trait to change the way it works. There are two basic types of modifiers: *enhancements* and *limitations.* Adding an enhancement makes the underlying trait more useful, while applying a limitation attaches additional restrictions to your ability.

Modifiers adjust the base cost of a trait in proportion to their effects. Enhancements *increase* the cost, while limitations *reduce* the cost. This is expressed as a percentage. For instance, a +20% enhancement would increase the point cost of an advantage by 1/5 its base cost, while a -50% limitation would reduce it by half its base cost.

You can apply any number of modifiers to a trait. Total them to find the net modifier, and then apply this modifier to the base cost of the trait. Round the resulting cost *up* to the next-highest whole number. For example, a +10% enhancement, a +40% enhancement, a -30% limitation, and a -45% limitation would give a net modifier of -25%. This would reduce the cost of a 10-point advantage to 7.5 points, which would round up to 8 points.

Modifiers can *never* reduce cost by more than 80%. Treat a net modifier of -80% or worse as -80%. Thus, no matter how many limitations you take, you cannot lower the cost of a trait to less than 1/5 its base cost.

The GM has the final say as to which traits you can modify, and in which ways. Some combinations make no sense, others have potential for abuse, and still others might not suit the campaign.

Special Modifiers

Many advantages, and some disadvantages, offer "special enhancements" and "special limitations." These modifiers are generally applicable only to the specific trait(s) with which they are described. However, the GM may choose to extend the special modifiers of one particular trait to other, very similar traits.

Range, Area, and Duration for Advantages

When applying modifiers, you occasionally need to know the range, area of effect, or duration of an advantage for which one or more of these quantities is not specified – for instance, when applying an enhancement that gives a range to an ability that normally has none. Assume that *range* is 100 yards, *area* is a circle 2 yards in radius (and 12' high, should volume matter), and *duration* is 10 seconds, unless the advantage specifies otherwise. Exceptions will be noted.

ENHANCEMENTS

You can apply enhancements to advantages, and more rarely to basic attributes and secondary characteristics. The GM might even permit specific enhancements on certain *skills,* but this is difficult to justify unless the skill functions much as an advantage (which is sometimes true of species-specific innate skills possessed by nonhumans).

Accurate

+5%/level

Your attack is unusually accurate. Each +1 to Accuracy is a +5% enhancement.

Area Effect

+50%/level

Your ability works as an area power instead of affecting a single target. Everything in the area suffers the attack's damage or other effects. On a miss, use the scatter rules (p. 221) to see where the area is centered. Active defenses don't protect against an area attack, but victims may attempt to dive for cover or dodge and retreat to leave the area. For more information, see *Area-Effect Attacks* (p. 221).

Radius	***Modifier***
2 yards	+50%
4 yards	+100%
8 yards	+150%
16 yards	+200%

Further levels continue to double the radius. If applied to an advantage that *already* covers an area, each level doubles the base radius.

Area Effect is a prerequisite for Mobile‡, Persistent, Selective Area, Bombardment, and Emanation‡.

Armor Divisor

Variable

Your attack can pierce more armor than its base damage would indicate.

Armor Divisor	***Modifier***
(2)	+50%
(3)	+100%
(5)	+150%
(10)	+200%

Only Innate Attacks and Afflictions can have this enhancement. Armor Divisor is a "penetration modifier"; you cannot combine it with other penetration modifiers, such as Contact Agent and Follow-Up.

Blood Agent

+100%

On an attack with Area Effect or Cone, this is an *enhancement*. See the Blood Agent limitation for details.

Cone

Variable

Your attack spreads to affect everyone in a cone-shaped area. Cones use special rules; see *Area-Effect Attacks* (p. 221). Decide on the maximum width of the cone, in yards, at the attack's maximum range. Cone costs +50% *plus* +10% per yard of maximum width.

You cannot combine Cone with Area Effect, Aura‡, Jet, Melee Attack, Rapid Fire, or Emanation‡.

Contact Agent

+150%

On an attack with Area Effect or Cone, this is an enhancement. See the Contact Agent limitation for more information.

Attack Enhancements and Limitations

Some enhancements and limitations are intended only for Affliction, Binding‡, and Innate Attack, and for advantages modified with the Ranged enhancement. They are called "attack" modifiers. Certain of these have additional restrictions; e.g., Armor Divisor applies only to Affliction.

The following enhancements are *not* attack modifiers: Extended Duration, Increased Range, Link, Reduced Fatigue Cost, and Selectivity.

The following limitations are *not* attack modifiers: Limited Use, Mitigator, Nuisance Effect, and Reduced Range.

Turning Enhancements Off and On

When you use an enhanced trait, you must use *all* of its enhancements unless a particular enhancement – or the underlying ability itself – explicitly allows you to turn an enhancement "off." (The extended capabilities that many enhancements provide might have no effect in certain situations, but they are still *on.*) To be able to pick which enhancements are "on" at any given moment, take the Selectivity enhancement.

Cyclic

Variable

This enhancement is only available for Innate Attacks that inflict burning, corrosion, fatigue, or toxic damage. It represents an attack that persists *on the victim:* acid, disease, liquid fire, poison, etc. (For attacks that linger in the environment, see Persistent.)

A Cyclic attack damages its target normally – but once the target has been exposed, the attack damages him *again* each time a set interval passes! All penetration modifiers (e.g., Contact or Follow-Up) continue to apply; for instance, a Cyclic attack with Follow-Up continues to ignore DR. Worst of all, the victim cannot recover HP or FP lost to a Cyclic attack until the attack stops damaging him!

You must specify a reasonably common set of circumstances that halt any further damage from your attack. For instance, to halt cyclic corrosion or burning damage, the victim might have to wash the acid off or roll on the ground to extinguish the flames, taking one or more seconds and a DX or IQ roll. Fatigue or toxic damage might require drugs or medical care (use the Physician skill). Details are up to the GM.

The base value of Cyclic depends on the damage interval.

Interval	***Modifier***
1 second	+100%
10 seconds	+50%
1 minute	+40%
1 hour	+20%
1 day	+10%

Burning or corrosion attacks shouldn't have intervals longer than 10 seconds. At the GM's option, someone taking damage at one-second intervals might have to make a Fright Check!

Multiply the base value by the number of cycles after the first. The GM should consider limiting large numbers of cycles to attacks that do less than 1d damage.

Cyclic attacks are often Resistible; if so, an extra resistance roll is allowed for each cycle, with a success preventing any further damage. If the attack is Resistible, *halve* the value of Cyclic.

Some Cyclic attacks are contagious. While affected, the victim can inadvertently infect others, per *Disease* (p. 231). This increases the *final* cost of the enhancement, after all other factors: +20% for a "mildly contagious" attack or +50% for a "highly contagious" one.

These factors are cumulative. For instance, a resistible disease with 31 daily cycles would cost +10% × 30 × 1/2 = +150%. If it were highly contagious, it would cost +200%.

Damage Modifiers

Variable

You may give an Innate Attack one or more of these modifiers to further qualify the way it does damage.

Double Blunt Trauma (dbt)

+20%

Available for Innate Attacks that do burning, corrosion, cutting, impaling, or piercing damage. Burning and corrosion attacks enhanced this way inflict 1 HP of blunt trauma injury per 10 points of basic damage resisted by flexible armor. Cutting, impaling, and piercing attacks with this enhancement inflict the same blunt trauma as a crushing attack: 1 HP of blunt trauma injury per 5 points of basic damage resisted by flexible armor.

Double Knockback (dkb)

+20%

This lets a crushing or cutting attack inflict twice as much knockback as usual; see *Knockback* (p. 215).

Explosion (exp)

+50%/level

The attack produces an explosion at the point of impact (on a miss, check for scatter; see p. 221). The target takes damage normally; anything nearby receives "collateral damage" equal to basic damage divided (3 × the distance in yards from the blast). If the attack also has an Armor Divisor, it does *not* apply to this collateral damage.

You can take up to two additional levels of Explosion if you desire a blast that isn't as affected by distance. The second level divides basic damage by twice the distance in yards and is +100%; the third level divides damage by the distance in yards and is +150%.

Explosion is usually limited to crushing and burning attacks, but the GM may permit other combinations.

For more on explosions, see *Explosions* (p. 222).

Fragmentation (frag)

+15% per die

The attack scatters damaging fragments on impact. Decide on the dice of fragmentation damage and note this in brackets after the attack's basic damage. Everyone within 5 yards per die of fragmentation damage is attacked with effective skill 15, modified by range penalties from the point of impact; see *Fragmentation Damage* (p. 222).

Fragments inflict cutting damage. If you add Fragmentation to a burning attack or one with the Incendiary enhancement (below), the fragments are Incendiary at no extra cost. If you apply it to an attack with Follow-Up, penetration indicates the fragments automatically hit the victim but no one else. Fragmentation often accompanies Explosion (above), but this is not required.

Fragmentation costs +15% per die of fragmentation damage. A damage of [2d] or [3d] is typical of a grenade-sized blast. Maximum fragmentation damage is [12d] or the attack's basic damage, whichever is *less.*

Hot Fragments: The fragments inflict burning damage with the modifiers Cyclic (Six 10-second cycles) and Armor Divisor (0.2) *instead* of cutting damage. Cost is unchanged.

Hazard

Variable

You may give an Innate Attack that inflicts fatigue damage *one* of these enhancements: Dehydration, +20%; Drowning, +0%; Freezing, +20%; Missed Sleep, +50%; Starvation, +40%; or Suffocation, +0%. Treat FP lost to the attack identically to FP lost to the relevant hazard for *all* purposes, notably *Recovering from Fatigue* (p. 229).

Traits that protect the target from the hazard in question also shield him from this damage. For instance, a Starvation attack would inflict FP that could only be recovered by eating a meal, but someone with Doesn't Eat or Drink‡ would be immune.

Incendiary (inc)

+10%

An Innate Attack *other* than a burning attack may be Incendiary. This gives the damage a secondary flame effect that can ignite volatile material (fuel, dry tinder, etc.).

Radiation (rad)

+25% or +100%

The attack irradiates the subject. Roll damage normally, but whether or not the attack penetrates DR, it inflicts 1 rad per point of basic damage rolled. See *Radiation* (p. 236) for effects. For a toxic attack, this dosage is *instead* of regular damage, and the enhancement is worth +25%; this is typical of "ordinary" radioactivity. For a burning attack, the radiation dose is *as well as* regular damage, and the enhancement is +100%; use this for particle beams. Other damage types cannot have this enhancement.

Surge (sur)

+20%

The attack produces an electrical surge or pulse that can disable electronics or anything with the Electrical‡ disadvantage.

Extended Duration

Variable

This enhancement increases the normal duration of your ability. "Multiple" applies to the original duration (or changes it to permanent).

Multiple	*Modifier*
3× duration	+20%
10× duration	+40%
30× duration	+60%
100× duration	+80%
300× duration	+100%
1,000× duration	+120%
Permanent*	+150%

* You must specify a reasonable set of conditions that will dispel the effect (or cure it, for abilities such as Affliction and Mind Control). The GM is the judge of what is "reasonable." If there is no way to end the effect, the enhancement is +300%. To keep PCs from granting each other free advantages, the GM may wish to forbid this level of Extended Duration on Afflictions with the Advantage modifier.

To add Extended Duration to an attack, the attack must *either* have Aura‡, Persistent, or Wall‡, *or* specifically allow this enhancement. You can also add Extended Duration to any advantage that has the Ranged‡ enhancement.

If the modified trait has multiple facets with separate durations, you must specify which duration you are extending. For example, a cloud of sleeping gas could have this enhancement to extend the duration of the sleep it induces *or* the length of time the cloud persists; to do both, buy this enhancement twice.

Follow-Up

Variable

Your attack's effects are delivered by a "carrier." Use this to represent poison on a dart, an explosive in an armor-piercing shell, etc. Pick a *different* attack as the carrier. This can be either body weaponry (e.g., Claws or Teeth) or an Innate Attack (usually one that does cutting, impaling, or piercing damage).

A Follow-Up attack need only list its damage amount and type. All other details depend on the carrier attack. The Follow-Up attack only hits if the carrier attack hits. If the carrier attack penetrates the target's DR, DR has *no* effect on the Follow-Up attack's damage or HT rolls.

If the carrier attack is a natural weapon, such as Claws or Teeth, Follow-Up is a +0% enhancement. (*Exception:* On a passive carrier attack such as Spines, Follow-Up is a -50% *limitation.*)

If the carrier attack is an Innate Attack, the cost of Follow-Up depends on the modifiers on the carrier attack. The cost of Follow-Up equals the sum of the costs of whichever of the following modifiers apply to the carrier attack: Always On, Aura‡, Cone, Drifting‡, Emanation, Emergencies Only‡, Extra Recoil, Guided‡, Homing‡, Increased Range, Jet, Limited Use, Malediction, Melee Attack, Preparation Required‡, Rapid Fire, Reduced Range, Takes Extra Time‡, Takes Recharge‡, Unconscious Only‡, Uncontrollable‡, or Unreliable‡. If *none* of these modifiers apply to the carrier attack, Follow-Up costs +0%. Note that the Follow-Up attack itself cannot take *any* of these modifiers. Only its carrier attack may have them.

Follow-Up is a "penetration modifier"; you cannot combine it with other penetration modifiers (although the carrier attack can have them).

Increased Range

+10%/level

You may add this enhancement to any advantage that has a range; e.g., Innate Attack or Scanning Sense‡. Each level increases range as follows:

Range Multiple	*Modifier*
2×	+10%
5×	+20%
10×	+30%
20×	+40%
50×	+50%
100×	+60%

Further levels follow the same "2-5-10" progression.

If applied to a ranged attack, each level increases 1/2D *and* Max. You may increase 1/2D or Max individually at half cost (that is, "Increased 1/2D" and "Increased Max" are +5%/level). However, you cannot increase 1/2D past Max. At most, you can make 1/2D *equal* to Max – this means the attack has *no* 1/2D range. For attacks that already have no 1/2D range, you can increase Max for +5%/level.

Jet

+0%

Your attack is a continuous stream, like a flamethrower. Treat it as a melee weapon with a very long reach rather than as a ranged weapon. Do not apply penalties for target range and speed.

An attack with Jet has no Acc, and has 1/2D 5 and Max 10 instead of its usual range. Increased Range increases range by 100% per level instead of its usual effects.

Jet is incompatible with Area Effect, Aura‡, Cone, Follow-Up, Melee Attack, and Rapid Fire.

Link

+10% or +20%

You can use two or more advantages simultaneously, as if they were a single ability. For +10%, your abilities are permanently linked into a single power, and must be used together – you cannot use them separately. For +20%, you can also use them separately. You must add this enhancement to *all* the abilities you wish to link.

If you link two attacks into one and give them identical Malf., 1/2D, Max, Acc, RoF, Shots, and

Recoil, you can treat them as a *single* attack with one attack roll by separate rolls for damage. This is not the same as the Follow-Up enhancement.

Malediction

Variable

Your attack is not a conventional ranged attack. It lacks Malf., 1/2D, Max, Acc, RoF, Shots, and Recoil statistics, and cannot have any enhancement or limitation that modifies those statistics. Most importantly, the target's DR has *no effect* on the attack's damage, resistance roll, or other effects!

Malediction requires a Concentrate maneuver rather than an Attack maneuver to use. It can target any victim you can see or otherwise clearly perceive. To determine if the attack succeeds, roll against your Will, applying the range penalties detailed below. Your foe may choose to resist; if so, resolve the attack as a Quick Contest of Will. You must *win* to affect the victim.

When enhancing an Affliction, the Quick Contest above *replaces* the usual resistance roll. You roll against Will, but your target rolls against HT – or other attribute, if the attack has Based on (Different Attribute) – modified as usual for the Affliction. For instance, an Affliction that allows a HT-1 roll to resist would result in a Quick Contest of your Will vs. the target's HT-1.

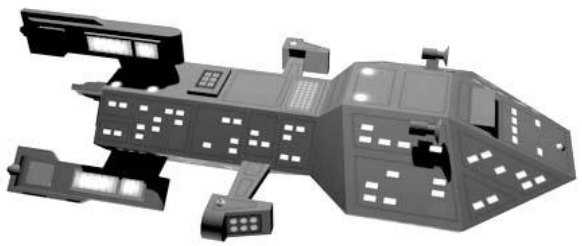
The value of Malediction depends on the range modifiers it uses. If it takes -1 per yard of range, like a Regular spell, it costs +100%. If it uses the range penalties on the *Size and Speed/Range Table* (p. 211), it costs +150%. And if it uses the penalties given under *Long-Distance Modifiers* (p. 105), it costs +200%.

Malediction is a "penetration modifier"; you cannot combine it with other penetration modifiers, nor with modifiers that apply only to conventional ranged attacks.

Persistent

+40%

You may only add this enhancement to an Area Effect attack. This causes the area of effect to remain in place for 10 seconds, continuing to damage (or attack and *possibly* damage, if taken with Bombardment) anyone entering or passing through it. Use Extended Duration to increase the duration.



Kzinti War Destroyer

Rapid Fire

Variable

An Innate Attack's base Rate of Fire (RoF) is 1. Consult the table below to find the cost for a higher RoF:

RoF	*Cost*
2	+40%
3	+50%
4-7	+70%
8-15	+100%
16-30	+150%
31-70	+200%
71-150	+250%
151-300	+300%

Two special options are available for attacks with this enhancement:

Multiple Projectile: Each shot splits into multiple projectiles after you attack, like a shotgun blast or forked lightning. Express this as a multiplier following RoF; for instance, RoF 3×4 means each of three shots fired divides into four individual projectiles. Modifier cost is based on the RoF times the multiplier; e.g., RoF 3×4 costs the same as RoF 12.

Selective Fire: You may designate a RoF 5+ attack as Selective Fire, allowing it to fire as if it had RoF 1-3. This costs an extra +10%.

Reduced Fatigue Cost

+20%/level

You may only take this enhancement for abilities that cost FP, and never in conjunction with the special modifier "Usually On." You can take it any number of times. Each level cuts the cost to use the ability by 1 FP. If you must "maintain" the ability by spending FP on a regular basis, reduce this maintenance cost by a like amount.

Respiratory Agent

+50%

Your attack must be inhaled to have any effect, but it ignores *all* DR. Only Doesn't Breathe and Filter Lungs protect completely – although a victim who makes a Sense roll to notice the attack in time may hold his breath (see *Holding Your Breath,* p. 190). To make your attack less noticeable, take Low Signature‡.

You may only add this enhancement to an Affliction or to an Innate Attack that inflicts toxic or fatigue damage, and you *must* combine it with one of Area Effect, Cone, or Jet. Persistent is common but not required.

Respiratory Agent is a "penetration modifier"; you cannot combine it with other penetration modifiers, such as Follow-Up.

Selective Area

+20%

You may add this enhancement to any Area Effect or Cone attack. It lets you choose which targets within your area are actually affected.

Selectivity

+10%

This enhancement lets you turn a trait's *other* enhancements off and on at will. For instance, if you had an attack with Area Effect, you could turn this enhancement off to affect only one other person. You must specify which enhancements you wish to ignore *before* you activate the ability. The default assumption is that you are always using all of your enhancements.

By allowing you to select which enhancements you use, Selectivity permits you to have multiple versions of the same ability without having to buy the ability multiple times.

Sense-Based

Variable

Your attack is channeled through your victim's senses, allowing it to ignore DR! You must specify the sense(s) affected. Examples include vision, hearing, smell, and exotic senses such as Detect. This is worth +150%, plus an extra +50% per sense after the first; e.g., Vision and Hearing-Based would be +200%.

Your attack only affects someone who is using the targeted sense. For instance, a Vision-Based attack cannot affect a blind subject or someone with his eyes closed, while a Smell-Based attack doesn't work underwater or on a target with a gas mask. Advantages (such as Protected Sense‡) and equipment that protect the sense in question either negate the attack completely or, in the case of attacks that allow a roll to resist (such as Afflictions, Maledictions, and Resistible attacks), give a bonus to the resistance roll.

The most common Sense-Based attack is an Affliction that knocks out the sense it is based on; for instance, Affliction (Blindness; Vision-Based) for a blinding flash. However, Sense-Based attacks can also be deadly, like a banshee's wail or basilisk's gaze.

Sense-Based is a "penetration modifier"; you cannot combine it with other penetration modifiers, such as Follow-Up.

Exception: You *can* combine Sense-Based with Malediction. In conjunction with Malediction, or when added to an ability that already ignores DR (e.g., Mind Control or Mind Reading), Sense-Based becomes a *limitation.* It is worth -20% if it works through one sense, -15% if two senses, or -10% if three senses. If it works through more than three senses, it is not a significant limitation.

Side Effect

Variable

You may only add this enhancement to an Innate Attack, and you cannot combine it with penetration modifiers other than Armor Divisor. If *any* damage penetrates the target's DR, he must make a HT roll, at -1 per 2 points of penetrating damage, or suffer a "side effect."

Choose the side effects from the effects described for Affliction. Valid choices are stunning, Attribute Penalty, Disadvantage, and Incapacitation. The cost of Side Effect is a base +50%, *plus* the cost of the Affliction enhancements. For instance, stunning would be +50%, while Disadvantage (Blindness) would be +100%.

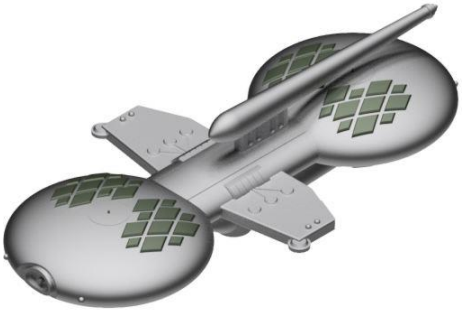
You may specify more than one side effect. If the victim gets a single resistance roll against all of them, treat them as a single Side Effect enhancement, totaling their cost. If the victim must resist each effect individually, take a separate Side Effect enhancement for each effect.

Stunning wears off normally, while other effects last (20 - HT) minutes, minimum 1 minute. If Incapacitation is combined with other effects, the other effects last for *another* (20 - HT) minutes after the Incapacitation wears off.

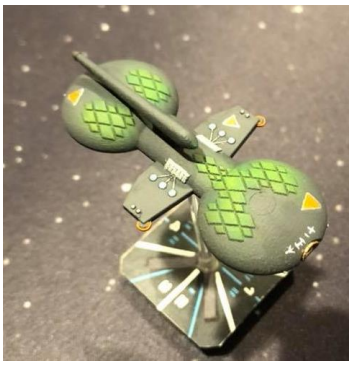
Underwater

+20%

Attacks are assumed to be usable in air or in vacuum, but ineffective in liquid. This enhancement lets an attack work underwater at 1/10 range.



Gorn Allosaurus Buck+ Battlecruiser



LIMITATIONS

You can apply limitations to almost *any* trait (although as with enhancements, skills are normally off-limits). When you apply a limitation to a disadvantage, you reduce its value *as a disadvantage;* e.g., a -10% limitation on a -25-point disadvantage would make it a -22.5-point trait, which rounds to -22 points. Limited disadvantages are worth fewer points because they affect you under more restricted circumstances.

Remember that no matter how many limitations you take, you cannot reduce the cost of a trait by more than 80%. That is, when totaling modifiers, treat net modifiers below -80% as -80%.

Accessibility

Variable

Accessibility is a catch-all limitation you can use to cover any restriction not specifically defined elsewhere. Accessibility limitations fall into two broad categories: those that limit the *targets* your ability can affect and those that limit the *situations* in which it works.

If your ability can only affect certain targets, the limitation depends on how common the target group is. "Only on women," "Only on men," or anything else that covers about half of the population is worth -20%. "Only on Electrical" or "Only on machines" is worth -20% in a technological setting. "Only on sea creatures" is worth -30% – unless the campaign is set on a world mostly covered with water, in which case it isn't worth more than -10%. "Only on aliens" is worth -30% or -40%, depending on the world. "Only on psis" is worth -50% in most settings. "Not on redheads" is identical to "On everyone but redheads," and is worth -10%.

The same yardstick applies to limitations based on the situation. "Only at day" or "Only at night" is worth -20%. "Only in direct sunlight" is worth -30%. "Only in water" is worth -30% on Earth – but more on a desert planet and less on an ocean world. On Earth, "Only during full moon" or "Only during new moon" is worth -40%. And "Useless under stress" is a whopping -60%, since it makes the ability worthless in most adventuring situations!

You can also link situational Accessibility to your actions. The more unusual, difficult, or obnoxious the required action is, the greater the limitation value. Some examples:

Only in altered body form (Invisible, Insubstantial, etc.): *-10%.*

Only while playing trumpet: *-20%.*

Only while flying, Only while swimming, Only in hypnotic trance: *-30%.*

Only by one side of split personality: *-40%.*

In all cases, if the ability is only weakened (half power) instead of becoming useless, *halve* the value of the limitation.

The GM shouldn't allow meaningless Accessibility limitations. For instance, buying a helpful ability with the limitations "Only on friends" gives no cost break. Buying it with "Only on enemies" would be interesting, though! Likewise, the GM should reject any proposed limitation that is already implicit in the ability. "Only while flying" is not an acceptable limitation for Enhanced Move (Air).

Always On

Variable

You cannot switch your advantage off. You may only add this to an ability that can normally be switched off *and* that is inconvenient if you can't turn it off. It is worth -10% if the effects are social or cosmetic, -20% if they are physically inconvenient, and -40% if they are dangerous (to you!). Always On appears as a "special limitation" for most of the traits to which it would apply. The GM can add new costs as appropriate for other abilities.

Armor Divisor

Variable

Your attack can pierce less armor than its base damage would indicate. "Divisor" is the factor by which you divide. "DR Multiplier" is an equivalent calculation – multiply your opponent's DR by this number:

Divisor	*DR Multiplier*	*Modifier*
(0.5)	2	-30%
(0.2)	5	-50%
(0.1)	10	-70%

In addition, if you have *any* level of this limitation, targets that have DR 0 (e.g., bare flesh) get DR 1 against your attack.

Only Innate Attacks and Afflictions can have this limitation. Armor Divisor is a "penetration modifier"; you cannot combine it with other penetration modifiers, such as Contact Agent and Follow-Up.

Blood Agent

-40%

Your attack must reach a mucous membrane (eyes, open mouth, nose, etc.) or an open wound to have any effect *at all.* DR *always* stops it.

This limitation is intended for Afflictions, and for Innate Attacks that inflict fatigue or toxic damage. It is especially appropriate for poisonous spit or spray. In conjunction with Aura‡, it can also represent an attack that is delivered via intimate physical contact.

Exception: If the attack also has Area Effect or Cone, Blood Agent works as described above and also when inhaled (like Respiratory Agent). This lets it ignore *all* DR. Only targets with the Sealed advantage – or with one of Doesn't Breathe or Filter Lungs *and* one of Nictitating Membrane or Protected Vision‡ – are immune. This powerful ability converts Blood Agent

into a +100% *enhancement* when combined with Area Effect or Cone!

This is a "penetration modifier"; you cannot combine it with other penetration modifiers, such as Follow-Up.

Bombardment

Variable

You may only take this limitation in conjunction with Area Effect or Cone. The attack does not automatically hit everyone in the area. Instead, it attacks each potential target in the area at an effective skill, which sets the value of the limitation.

Effective Skill	*Modifier*
14	-5%
12	-10%
10	-15%
8	-20%

Modify effective skill for target size only – not for range or for any other factor. Determine hit location randomly. If the target is under cover, the cover protects normally against the damage.

This limitation is intended for attacks like electrical or ice storms, which could affect some but not all individuals within a given area.

Contact Agent

-30%

Your attack must touch bare skin or porous clothing to have any effect *at all.* DR *always* stops it.

This enhancement is intended for Afflictions, and for Innate Attacks that inflict fatigue or toxic damage. Taken with Aura‡, it can represent a "contagious" attack that spreads via skin contact.

Exception: If the attack also has Area Effect or Cone, Contact Agent lets it ignore *all* DR. Only targets with the Sealed advantage are immune. This powerful ability converts Contact Agent into a +150% *enhancement* when combined with Area Effect or Cone!

This is a "penetration modifier"; you cannot combine it with other penetration modifiers, such as Follow-Up.

Damage Limitations

Variable

You may add the following limitations to an Innate Attack:

No Blunt Trauma (nbt)

-20%

An attack that inflicts crushing, cutting, impaling, or piercing damage normally inflicts blunt trauma (see p. 214). Add this limitation if it does not.

No Knockback (nkb)

-10%

An attack that inflicts crushing or cutting damage normally inflicts knockback (see p. 215). Add this limitation if it does not**.**

No Wounding (nw)

-50%

The attack inflicts basic damage, and may cause knockback and blunt trauma, but its penetrating damage has no wounding effect (HP or FP loss). Apply this limitation to a crushing attack to represent effects such as a mighty gust of wind or jet of water. Use it with impaling, piercing, or cutting attacks that are carriers for Afflictions or Innate Attacks (usually those that inflict fatigue or toxic damage) with the Follow-Up modifier; this represents small poison darts, stings, etc. that can slip through armor without inflicting grievous wounds.

Dissipation

-50%

You may only take this limitation in conjunction with Area Effect or Cone. The further the victim is from the center of the area or the apex of the cone, the less effective your attack is. See *Area-Effect Attacks* (p. 221) for details.

Emanation

-20%

You may only take this limitation in conjunction with Area Effect. It means the effect has no range or Accuracy, but radiates from your body (without affecting *you,* if the effect is a bad one). This is incompatible with Melee Attack and ranged attack modifiers.

Extra Recoil

-10% per +1 Recoil

By default, a ranged attack has Recoil 1, making it virtually Recoilless (see p. 274). You may give an attack with Rapid Fire a higher Recoil (Rcl) as a limitation.

Recoil (Rcl)	*Modifier*
2	-10%
3	-20%
4	-30%
5+	-40%

Limited Use

Variable

You can use your ability only a limited number of times in a 24-hour period. For most advantages, each "use" is 1 minute of activation. For an attack, each "use" gives shots equal to your RoF, with a minimum one shot per use; for instance, three uses of an attack with RoF 2 would give six shots. The value depends on the number of uses you get.

Uses Per Day	*Modifier*
1	-40%
2	-30%
3-4	-20%
5-10	-10%

More than 10 uses per day is not a significant limitation.

Two special options are available for attacks (and optionally, other abilities) that have this enhancement:

Fast Reload: You can replace all your uses in 3 to 5 seconds simply by replenishing ammunition. The GM determines the weight and cost of the ammunition. This halves the value of the limitation; e.g., three or four uses would be worth only -10%.

Slow Reload: As above, except if you have two or more shots (not uses!) you must reload each shot individually (taking 3 or more seconds *per shot*). If you have only one shot, it must take at least 6 seconds to reload – possibly longer, if using this limitation to represent a very slow-firing weapon such as a flintlock. This makes the limitation worth 5% less than usual; e.g., three or four uses would be worth only -15%.

Melee Attack

Variable

Your attack functions as a melee weapon. It has no range, but allows you to parry, use Rapid Strike, Feint, etc. It lacks Malf., 1/2D, Max, Acc, RoF, Shots, and Recoil statistics, and may not have any enhancement that modifies these statistics. Instead, it has a Reach statistic.

Reach	*Modifier*
C	-30%
1 *or* 2	-25%
C, 1, *or* 1, 2 *or* 2,3	-20%
1-4 (like a whip)	-15%

If your attack cannot parry, it is worth an extra -5%.

Mitigator

Variable

You may only apply this limitation to a disadvantage. A particular item or substance – the *mitigator* – temporarily negates your disadvantage. The more effective the mitigator, the fewer points you get for the disadvantage. Use the following guidelines:

Mitigator is *vulnerable,* and easily stolen, broken, or misplaced (e.g., a pair of glasses). -60%.

Mitigator is a drug or other treatment that you must take *daily.* -60%.

Mitigator is a *weekly* treatment. -65%.

Mitigator is a *monthly* treatment. -70%.

This assumes your treatments are available at pharmacies. If you require a special (and possibly expensive) prescription, add +5% to the values above; e.g., -70% becomes -65%. If you can only get your treatments from one specific source, such as an experimental drug program, add +10%; e.g., -70% becomes -60%.

Example 1: Bad Sight is worth -25 points. Glasses cure Bad Sight while worn, but are breakable, for a -60% Mitigator limitation. This reduces Bad Sight to -10 points.

Example 2: Jan has AIDS, and would die in a month without treatment. This level of Terminally Ill is normally worth -100 points. Fortunately, Jan is on an experimental drug plan that is holding him in remission. The treatments are weekly (-65%) but impossible to find outside his program (+10%), for a -55% Mitigator limitation. This reduces Terminally Ill to -45 points. As long as Jan stays with the program, his countdown to death is halted.

Nuisance Effect

Variable

Your ability has a "side effect" that causes you *serious* inconvenience. The GM must approve this limitation and determine its value in each case, and should ruthlessly forbid effects that are abusive or that do not genuinely limit the ability's value. A few guidelines (a given trait can have more than one of these drawbacks):

- Your ability earns a reaction penalty from those around you. Perhaps it makes you look disgusting, or requires you to perform some sort of distressing ritual. *-5% per -1 to reactions (maximum -4).*
- Your ability makes you *obvious,* limiting stealth and attracting enemies. *-5%.*
- Your ability physically inconveniences you – it attracts stinging insects, causes your armor to rust, makes you ravenously hungry, etc. *-5%.*

You cannot take a valuable power as a Nuisance Effect. For instance, "Kills everyone within a mile" is not an acceptable Nuisance Effect! Neither can you claim a limitation for a *harmless* nuisance. If your Terror‡ advantage attracts gerbils instead of frightening them, this is amusing, but not a limitation.

Onset

Variable

You must "stack" this limitation with one of Blood Agent, Contact Agent, Follow-Up, Malediction, or Respiratory Agent. It delays the damage or affliction caused by the attack until some time after exposure. The delay determines the value of the limitation.

Delay	Modifier
1 minute	-10%
1 hour	-20%
1 day	-30%
1 week (or more)	-40%

Delays that fall between two values use the smaller limitation; e.g., 30 minutes is -10%. If you can *control* the onset time, take Delay‡ instead.

A variant limitation is *Exposure Time,* which is only available for attacks with Aura‡ or Persistent. Use it to represent radioactivity, mildly toxic gases, etc. It works just like Onset, except that the victim must be exposed for the *entire period* to suffer the effect (or repeat it, if you continue exposure). This is worth an extra -20%; e.g., 1 minute is -30%.

Reduced Range

-10%/level

You may add this limitation to any advantage that has a range; e.g., Innate Attack or Scanning Sense‡. It comes in three levels, depending on the range divisor.

Range Divisor	Modifier
2	-10%
5	-20%
10	-30%

If applied to a ranged attack that has a 1/2D range, each level reduces both 1/2D *and* Max. You may reduce 1/2D only at half value (that is, "Reduced 1/2D" is -5%/level). You may not reduce Max independently.

Resistible

Variable

This limitation is only available for Innate Attacks that inflict fatigue or toxic damage. You must combine it with one of Blood Agent, Contact Agent, Follow-Up, Respiratory Agent, or Sense-Based. It represents poison, disease, or a similar effect that a sufficiently healthy victim can resist or "shrug off."

The victim gets a HT roll to avoid the effect. A resistance roll against HT-5 is worth -5%. Each +1 to the roll is a worth another -5% (e.g., HT-4 is -10%, and HT+4 is -50%).

If the attack is also Cyclic, the victim rolls before each cycle (including the first). Success means the attack ends without further injury; failure means the target takes damage normally and the attack continues.

Sense-Based

Variable

On an attack with Malediction or an ability that *normally* ignores DR (e.g., Mind Control), this is a limitation. See the Sense-Based enhancement for details.

Temporary Disadvantage

Variable

You may add this limitation to any advantage that can be switched off and on at will, *and* that takes at least one second to switch. When you switch on the advantage, you suffer one or more disabilities until you switch it off again. This limitation is worth -1% per point the temporary disadvantages are worth, to a maximum of -80%

Example: You can use your feet as hands, but can't walk while doing so. This is Extra Arms 2 (20 points) with Temporary Disadvantage: Legless (-30%) for 14 points.

The *point break* due to Temporary Disadvantage cannot exceed 80% of the value of the original disadvantage.

Example: You have Altered Time Rate‡ with Temporary Disadvantage: Hemophilia‡ (-30%) – you *bleed* faster, too! Since Hemophilia is worth -30 points normally, the most it can be worth as a Nuisance Effect is -24 points; therefore it reduces the cost of Altered Time Rate by 24 points (to 76 points) and not by 30 points (to 70 points).

You may only take Temporary Disadvantages that could logically inconvenience you for the period of time the advantage is normally on. In the case of mental disadvantages (Berserk, Lecherousness, etc.), if a failed self-control, roll indicates that you give in to the disadvantage, you will suffer the disadvantage's effects until the GM rules you have regained your composure – which might be long after you deactivate the advantage with this limitation!

You can also use this limitation to remove an advantage temporarily. This is worth -1% per point the negated advantage is worth, and the point break cannot exceed 80% of the deactivated advantage's cost. Only one of the involved advantages can take this limitation – you *cannot* take two advantages, both with this limitation, each of which negates the other when used.



Klingon C8 Dreadnought

DISADVANTAGES

A "disadvantage" is a problem or imperfection that renders you less capable than your attributes, advantages, and skills would indicate. In addition to the traits in this chapter, this includes anything with a negative point cost in Chapter 2: low Status, below-average Wealth, etc.

You are probably wondering, "Why would I want to give my character disadvantages?" There are two good reasons:

1. Each disadvantage has a *negative* cost in character points. Thus, disadvantages *give you extra character points,* which let you improve your character in other ways. But note that disadvantages limit you in proportion to their cost. Be sure to read the disadvantage description in full to know what you are getting into!

2. An imperfection or two makes your character more interesting and realistic, and adds to the fun of roleplaying!

TYPES OF DISADVANTAGES

Like advantages, disadvantages are classified according to how they work in play and who can have them.

Mental disadvantages originate from your mind or soul. They stay with you if your mind ends up in a new body. This category includes the vast majority of "magical," "psionic," and "spiritual" traits.

Physical disadvantages are associated with your body. You can escape them by moving to a new body! If another mind occupies your body, the new owner gains your physical disadvantages.

You can acquire a physical disadvantage during play, most likely due to accident or combat. In this case, you immediately suffer the bad effects of the disadvantage. Unlike starting disadvantages, however, physical handicaps acquired in play do *not* "give back" points with which to buy abilities – they just lower your point value!

Example: If you start out blind, you start with an extra 50 points . . . but if an explosion blinds you during the game, you're just blind and that's that. Reduce your point value by 50 points to reflect your new disadvantage. You *should* not keep the same point total and take 50 points of compensating advantages.

Social disadvantages are associated with your identity. Should it become important to know whether they go with mind or body, the GM's word is final. Note that this category includes below-average Status, Wealth, and so forth from Chapter 2.

Exotic disadvantages are forbidden to normal humans. Nonhumans may acquire such traits from their Species Template, but they still need the GM's permission to take additional exotic disadvantages. These are noted in the text of the disadvantage.

Supernatural disadvantages are the result of divine intervention, magic, psionics, etc. With the GM's permission, anyone might be cursed in this way – but only if supernatural powers exist in the game world.

Mundane disadvantages are everything else. They are inborn, acquired, or self-imposed handicaps that anyone might have.

Screening disadvantages are those disadvantages which normally prevent you from taking an Academy Template; for example, Blindness. This does not apply if this disadvantage came to your character via a Species Template. These are listed before the Academy Templates (p. 76).

The GM is the final judge of which category a disadvantage belongs in. It is possible to interpret certain disadvantages in more than one way!

SELF-CONTROL FOR MENTAL DISADVANTAGES

Many mental disadvantages do not affect you constantly – you may attempt to control your urges. An asterisk (*) appears next to the point cost of any disadvantage that offers a chance to resist. For each disadvantage like this, you must choose a *self-control number:* the number you must roll on 3d to avoid giving in. This modifies point value as follows:

You resist quite rarely (roll of 6 or less): *2 × listed cost.*

You resist fairly often (roll of 9 or less): *1.5 × listed cost.*

You resist quite often (roll of 12 or less): *listed cost.*

You resist almost all the time (roll of 15 or less): *0.5 × listed cost.*

Drop all fractions (e.g., -22.5 points becomes -22 points).

The "default" self-control number is 12: you must roll 12 or less on 3d to avoid giving in to your problem. This lets you use disadvantage costs as written. Choose a self-control number of 15 if you wish to have a tendency toward a disadvantage instead of a full-blown case. A self-control number of 9 will regularly limit your options. A self-control number of 6 can be *crippling* (especially with genuine psychiatric problems).

Note your self-control number in parentheses after the name of the disadvantage on your character sheet. For instance, if you can resist Berserk on a roll of 9 or less, write this as "Berserk (9)."

Self-Control Rolls

In circumstances that are likely to trigger your problem, you may opt to roll 3d against your self-control number to see whether your disadvantage actually affects you. If you roll less than or equal to this number, you resist your disadvantage – this time. Otherwise, you suffer the listed effects. This is called a *self-control roll.*

Like all success rolls, self-control rolls are subject to modifiers. Exceptionally mild or severe stimuli can give bonuses or penalties. Drugs and afflictions can make you more or less likely to give in. Other disadvantages can make you irritable, reducing your odds of resisting. See the disadvantage descriptions for details.

You never *have* to try a self-control roll – you can always give in willingly, and it is good roleplaying to do so. However, there will be times when you really need to resist your urges, and that is what the roll is for. Be aware that if you attempt self-control rolls too often, the GM may penalize you for bad roleplaying by awarding you fewer earned points.

Note that high Will helps you make Fright Checks and resist supernatural emotion control, but it does *not* improve self-control rolls – not even for disadvantages with effects identical to these things. Mental disadvantages represent an aspect of your personality that you cannot simply will (or reason) away. This is part of what makes them disadvantages!

Self-Imposed Mental Disadvantages

Certain mental disadvantages – Code of Honor, Disciplines of Faith‡, Fanaticism, Honesty, Intolerance, Sense of Duty, Trademark‡, and Vow – are not psychiatric problems, but beliefs or codes of conduct. Such "self-imposed mental disadvantages" share two features in the ***SFU*** that distinguish them from other mental disadvantages:

- They can be "bought off" with earned points at *any* time. People really do wake up in the morning and resolve to live their lives differently for no apparent reason!
- They cannot be caused by Afflictions, drugs, brain surgery, and similar "quick and dirty" behavior alteration. Such techniques can create a pacifist or a maniac, but you need Mind Control or prolonged Brainwashing to impose anything as complex as a code of conduct.

"BUYING OFF" DISADVANTAGES

You may use bonus points to "buy off" many disadvantages – whether you started with them or acquired them in play. This costs as many points as the disadvantage originally gave you. If the GM permits, you may buy off leveled disadvantages one level at a time. Likewise, you can buy off those with self-control numbers gradually, by raising the self-control number. In both cases, the point cost is the difference between your former level and your current one.

DISADVANTAGE LIST

Absent-Mindedness

-15 points

You have trouble focusing on anything not of immediate interest. You have -5 on all IQ and IQ-based skill rolls, save those for the task you are currently concentrating on. If no engaging task or topic presents itself, your attention will drift to more interesting matters in five minutes, and you will ignore your immediate surroundings until something catches your attention and brings you back. Once adrift in your own thoughts, you must roll against Perception-5 in order to *notice* any event short of personal physical injury.

You may attempt to rivet your attention on a boring topic through sheer strength of will. To do so, make a Will-5 roll once every five minutes. "Boring topics" include small talk, repetitive manual tasks, guard duty, driving on an empty highway . . .

Absent-minded individuals also tend to forget trivial tasks (like paying the docking fee for the ship) and items (like communicators or universal translators). When it becomes important that you have performed such a task or brought such an item, the GM should call for a roll against IQ-2. On a failure, this detail slipped your attention.

This is the classic disadvantage for eccentric geniuses.

Addiction

Variable

You are addicted to a drug, which you must use daily or suffer withdrawal. The value of this disadvantage depends on the cost, effects, and legality of the drug:

Cost (per day)

Cheap (up to 0.1% of average starting wealth): *-5 points.*

Expensive (up to 0.5% of average starting wealth): *-10 points.*

Very expensive (more than 0.5% of average starting wealth): *-20 points.*

Effects

Incapacitating or hallucinogenic: *-10 points.*

Highly addictive (-5 on withdrawal roll): *-5 points.*

Totally addictive (-10 on withdrawal roll): *-10 points*.

Legality

Illegal: This is a screening disadvantage. *+0 points.*

Legal: *+5 points.*

Examples: Tobacco is cheap, highly addictive, and legal; a chain-smoker has a -5-point Addiction. Heroin is very expensive, incapacitating, totally addictive, and illegal; a heroin addict has a -40-point Addiction.

Non-Chemical Addictions: You can take Addiction to an activity instead of a drug – for instance, telepathic contact or spending time in virtual reality. If this costs money, price the Addiction based on its daily cost. If it is free (e.g., telepathic contact), treat it as "Cheap" if it you can do it almost anywhere (telepathic contact with *anyone*) or as "Expensive" if restrictive conditions apply (telepathic contact with one specific person). Such Addictions almost always cause psychological dependency (see *Withdrawal,* below).

Effects of Drugs

A *stimulating* drug leaves you feeling energized. . . until it wears off. Then you are depressed and irritable. An *incapacitating* drug renders you unconscious (or just blissfully, uselessly drowsy) for about two hours. A *hallucinogenic* drug renders you useless for work or combat, though you might be active and talkative. Some drugs (e.g., tobacco) have none of these effects, while others have unique effects. Side effects are also possible. For detailed rules, see Addictive Drugs‡ (***GURPS Basic Set,*** p. 440).

Withdrawal

Sometimes, voluntarily or otherwise, you must try to give up your Addiction. Addiction to a drug that causes *psychological dependency* is a mental disadvantage; withdrawal from such a drug requires a series of Will rolls, and may result in mental problems. Addiction to a drug that induces *physiological dependency* is a physical disadvantage; withdrawal is a function of your HT, and may cause physical injury. For details, see *Drug Withdrawal.* Should you successfully withdraw from an Addiction, you must immediately buy off this disadvantage.

Minor Addictions

For an Addiction worth only -5 points, the GM may rule that the expense, stigma, and detrimental long-term effects of use are the whole of the disadvantage, and waive the usual withdrawal rules. This is appropriate for such drugs as tobacco and caffeine. If forced to go without, you must make a Will or HT roll as usual, but the only effects on a failure are general anxiety, irritability, or restlessness. This manifests as a temporary -1 to DX, IQ, self-control rolls, or reaction rolls (GM's choice) – not as insanity or injury. Successive failures prolong the duration of the effects; they do not increase the size of the penalty. If you can make 14 successful rolls in succession, you must buy off your Addiction.

It is also possible to create a 0-point Addiction using these rules. Such Addictions are always Minor Addictions, and you may take them as -1-point quirks (see *Quirks*).

Drug Withdrawal

Use these rules when you try to give up an Addiction, either voluntarily or because you are broke, imprisoned, or in a place where your drug just isn't available.

Withdrawal is a painful process that requires a series of daily *withdrawal rolls.* It normally takes 14 successful rolls to shake the habit (thus, it always takes at least two weeks), but the GM is free to vary this. Should you manage to withdraw, you must "buy off" your Addiction disadvantage immediately.

The effects of withdrawal rolls depend on whether the drug is *physiologically* or *psychologically* addictive.

Physiological Dependency: Your body has come to rely on the drug! Make daily withdrawal rolls against HT (maximum 13). Each success puts you a day closer to shaking off your Addiction. The results of failure depend on whether the drug is available. If it is, you must give in and take a dose; if you still want to try to withdraw, you must restart the process from day one. If the drug is not available, you take 1 HP of injury and may continue the process . . . but that day doesn't count toward the 14 successful rolls needed to withdraw. You cannot naturally recover HP lost to withdrawal until you either succeed or abandon the attempt. Note that competent medical care (Physician skill 12+) can heal the lost HP.

Psychological Dependency: You've convinced yourself that you cannot function without the drug. Make withdrawal rolls against Will (maximum 13). Use the physiological dependency rules, except that if you fail a rill and the drug is unavailable, you don't take injury. Instead you gain -1 point of drug-related quirks, chosen by the GM. These vanish if you give in and take a dose of the drug (but then you must restart the process). If you don't give in, these quirks grow into progressively more severe mental disadvantages. If you make 14 successful Will rolls, you withdraw – but you must make one final Will roll. On a failure, you *keep* any quirks or disadvantages incurred along the way.

Appearance

see p. 31

Below-average appearance is a disadvantage, and should be noted as such on your character sheet.

Bad Grip

-5 points/level

You have a penalty on tasks that require a firm grip. Each level (maximum three levels) gives -2 with such tasks. This penalty is *overall* – not per hand. Affected tasks include melee weapon use, climbing, catching things, and anything else the GM deems requires a firm grip (e.g., an Acrobatics roll to catch a trapeze).

This disadvantage is mutually exclusive with No Fine Manipulators.

Bad Sight

-25 points

You have poor vision. This applies to *all* your visual senses: regular vision, Infravision, Ultravision‡, etc. You may be nearsighted or farsighted – your choice.

Nearsighted: You cannot read small print, computer displays, etc., at more than about 10 yards. You are at -6 to Vision rolls to spot items more than one yard away. When making a melee attack, you are at -2 to skill. When making a ranged attack, *double* the actual distance to the target when calculating the range modifier. *-25 points.*

Farsighted: You cannot read text except with great difficulty (triple normal time). You are at -6 Vision rolls to spot items within one yard, and you have -3 to DX on any close manual task, including close combat. *-25 points.*

Special Limitations

Mitigator: At TL5+, you can acquire glasses that compensate totally for Bad Sight *while they are worn.* At TL7+, contact lenses are available. In both cases, remember that accidents can happen . . . and that enemies can deprive you of these items. In the ***SFU,*** if you take Bad Sight, you must take this limitation. -60%.

Bad Temper

-10 points*

You are not in full control of your emotions. Make a self-control roll in any stressful situation. If you fail, you lose your temper and must insult, attack, or otherwise act against the cause of the stress.

Berserk

-10 points*

You tend to rampage out of control when you or a loved one is harmed, making frenzied attacks against whoever or whatever you see as the cause of the trouble. If you also suffer from Bad Temper (above), any stress may trigger Berserk. This is a screening disadvantage.

Make a self-control roll any time you suffer damage over 1/4 your HP in the space of one second, and whenever you witness equivalent harm to a loved one. If you fail, you go berserk. You go berserk automatically if you fail a self-control roll for Bad Temper! You may *deliberately* go berserk by taking the Concentrate maneuver and making a successful Will roll. Once you are berserk, the following rules apply:

- If armed with a hand weapon, you must make an All-Out Attack each turn a foe is in range. If no foe is in range, you must use a Move maneuver to get as close as possible to a foe – and if you can Move and Attack, or end your Move with a slam, you will.
- If the enemy is more than 20 yards away, you may attack with a ranged weapon if you have one, but you may not take the Aim maneuver. If using a phaser (or other beam weapon), you fire at your maximum rate of fire until your phaser is drained or your foe is no more. (For any weapon, you cannot reload or change batteries unless your weapon – and your Fast-Draw skill – lets you reload without thought, meaning it can take no more than one second.) Once the phaser is drained, you must either draw another phaser or charge into melee combat.
- You are immune to stun and shock, and your injuries cause no penalty to your Move score. You make all rolls to remain conscious or alive at +4 to HT. If you don't fail any rolls, you remain alive and madly attacking until you reach -5xHP. Then you fall – dead!
- When you down a foe, you may (if you wish) attempt another self-control roll to see if you snap out of the berserk state. If you fail (or do not roll), you remain berserk and attack the next foe. Treat any friend who attempts to restrain you as a foe! You get to roll again each time you down a foe, and you get one extra roll when no more foes remain. If you are still berserk, you start to attack your friends …

Once you snap out of the berserk state, all your wounds immediately affect you. Roll at normal HT to see whether you remain conscious and alive.

Special Enhancements

Battle Rage: You go berserk in *any* combat situation, regardless of whether you have been injured. To avoid this, you must make a self-control roll when you first enter combat (even a barroom brawl or a boxing match). +50%.

Blindness

-50 points

You cannot see *at all.* In unfamiliar territory, you must travel slowly and carefully, or have a companion or guide animal lead you. Many actions are impossible for you; the GM should use common sense. Note that without some form of technological mitigation, this is a screening disadvantage.

You are at -6 to all combat skills. You *can* use hand weapons, but you *cannot* target a particular hit location. If using a ranged weapon, you can only attack randomly, or engage targets so close that you can hear them. All this assumes you are accustomed to blindness. If you *suddenly* lose your eyesight, you fight at -10, just as if you were in total darkness. In either case, you suffer no *extra* penalties for operating in the dark.

If you have Blindness, you cannot purchase superhuman vision abilities. If you see in a spectrum other than the visible one, you have the 0-point version of Infravision or Ultravision‡ – not Blindness and the 10-point version of one of those advantages. Note that Scanning Sense‡ and Vibration Sense are *not* vision; you may take either of these traits in conjunction with Blindness at the usual point costs.

Bloodlust

-10 points*

You want to see your foes *dead.* In battle, you must go for killing blows, and put in an extra shot to make sure of a downed foe. You must make a self-control roll whenever you need to accept a surrender, evade a sentry, take a prisoner, etc. If you fail, you attempt to kill your foe instead – even if that means breaking the law, compromising stealth, wasting ammo, or violating orders. Out of combat, you never forget that a foe is a foe. This is a screening disadvantage.

This may seem a truly evil trait, but many fictional heroes suffer from it. The hero is not a fiend or sadist; his animosity is limited to "legitimate" enemies, be they criminals, enemy soldiers, of feuding clansmen. He often has a good reason for feeling as he does. On the other hand, a policeman would soon be up on charges, and a crew member on a starship would risk a court-martial.

Bully

-10 points*

You like to push people around whenever you can get away with it. Depending on your personality and position, this might take the form of physical attacks, intellectual harassment, or social "cutting." Make a self-control roll to avoid gross bullying when you know you shouldn't – but to roleplay your character properly, you should bully anybody you can. Since nobody likes a bully, others react to you at -2.

Callous

-5 points

You are merciless, if not cruel. You can decipher others' emotions, but you do so only to manipulate them – you don't *care* about their feelings or pain. This gives you -3 on all Teaching rolls, on Psychology rolls made to help others (as opposed to deduce weaknesses or conduct scientific research), and on any skill roll made to interact with those who have suffered the consequences of your callousness in the past (GM's decision). As well, past victims, and anyone with Empathy, react to you at -1. But ruthlessness has its perks: you get an extra +1 to Interrogation and Intimidation rolls when you use threats or torture.

Cannot Speak

-15 or -25 points

You have a limited capacity for speech. This trait comes in two levels:

Cannot Speak: You can make vocal sounds (bark, growl, trill, etc., as appropriate), but your speech organs are incapable of the subtle modulations required for language. You may still have the Mimicry‡ or Voice advantage, or the Disturbing Voice‡ disadvantage (but *not* Stuttering‡). Most animals have this trait. *-15 points.*

Mute: You cannot vocalize *at all.* All communications with others must be nonverbal: writing, sign language, Morse code, telepathy, etc. Time spent communicating this way counts at *full* value for study of the related skills. No roll is required (or allowed!) when you try to communicate with PCs who don't know your sign language – roleplay this on your own! You cannot have any other voice-related traits. This is a screening disadvantage if it cannot be mitigated in some way that the GM approves. *-25 points.*

Chummy

-5 or -10 points

You work well with others and seek out company. This trait comes in two levels:

Chummy: You react to others at +2 most of the time. When alone, you are unhappy and distracted, and suffer a -1 penalty to IQ-based skills. *-5 points.*

Gregarious: You usually react to others at +4. You are *miserable* when alone, and use IQ-based skills at -2, or at -1 if in a group of four or less. *-10 points.*

Code of Honor

-5 to -15 points

You take pride in a set of principles that you follow at all times. The specifics can vary, but they always involve "honorable" behavior. You will do nearly anything – perhaps even risk death – to avoid the label "dishonorable" (whatever that means).

You must do more than pay lip service to a set of principles to get points for a Code of Honor. You must be a true follower of the Code! This is a disadvantage because it often requires dangerous – if not reckless – behavior. Furthermore, you can often be forced into unfair situations, because your foes know you are honorable.

Code of Honor is not the same as Duty or Sense of Duty. A samurai or British grenadier marches into battle against fearful odds out of duty, not for his personal honor (though of course he would lose honor by fleeing). The risks you take for your honor are solely on your *own* account.

The point value of a particular Code of Honor depends on how much trouble it is liable to get you into and how arbitrary and irrational its requirements are. An informal Code that applies only among your peers is worth -5 points. A formal Code that applies only among peers, or an informal one that applies all the time, is worth -10 points. A formal Code that applies all the time, or that requires suicide if broken, is worth -15 points. The GM has the final say! Some examples:

Code of Honor (Professional): Adhere to the ethics of your profession; always do your job to the best of your ability; support your professional association. This is most suitable for lawyers and physicians (Hippocratic Oath), but dedicated tradesmen, merchants, and so forth may have a similar Code. *-5 points.*

Code of Honor (Obey the Prime Directive): You follow the Prime Directive (p. 302), but if you discover a problem with someone else breaking it, you can pass the word on to Star Fleet. *-5 points.*

Code of Honor (Soldier's): An officer should be tough but fair, lead from the front, and look out for his men; an enlisted man should look out for his buddies and take care of his kit. Every soldier should be willing to fight and die for the honor of his unit, service, and country; follow orders; obey the "rules of war": treat an honorable enemy with respect (a dishonorable enemy deserves to be shot); and wear the uniform with pride. *-10 points.*

Code of Honor (Uphold the Prime Directive): You actively uphold the Prime Directive (p. 302). You will fight to defend those under its protection. *-10 points*

Cold-Blooded

-5 or -10 points

Your body temperature fluctuates with the temperature of the environment. You are less susceptible to damage from high or low body temperature (+2 HT to resist the effects of temperature), and require only 1/3 the food needed by a warm-blooded being of equal mass, but you tend to "stiffen up" in cold weather. This is an exotic disadvantage that requires the GM's permission to add.

After 30 minutes in cold conditions (or one hour if you have any level of Temperature Tolerance), you get -1 to Basic Speed and DX per 10° below your "threshold temperature" (see below). At temperatures below 32°, you must roll vs. HT or take 1 HP of damage. Warm clothing gives +2 to this roll.

You regain lost Basic Speed and DX at the rate of one point of each per hour once you return to a warm climate. Double this rate in an exceptionally warm environment.

Point value depends on your "threshold temperature":

You "stiffen up" below 50°: *-5 points.*
You "stiffen up" below 65°: *-10 points.*

Combat Paralysis

-15 points

You tend to "freeze up" in combat situations, and receive -2 to all Fright Checks. This has *nothing* to do with Cowardice – you may be brave, but your body betrays you.

In any situation in which personal harm seems imminent, make a HT roll. Do not roll until the instant you need to fight, run, pull the trigger, or whatever. Any roll over 13 is a failure, even if you have HT 14+. On a success, you can act normally. On a failure, you are mentally stunned (p. 215). Make another HT roll every second, at a cumulative +1 per turn after the first, to break the freeze. A quick slap from a friend gives +1 to your cumulative roll.

Once you unfreeze, you will not freeze again until the immediate danger is over. Then, in the next dangerous situation, you may freeze once again.

This trait is the opposite of Combat Reflexes. You cannot have both.

Compulsive Behavior

-5 to -15 points*

You have a habit – often a vice – that wastes a good deal of your time or money. You *must* indulge at least once per day, if at all possible, and do so *any* time you have the opportunity unless you can make a self-control roll. You seek to avoid any situation where you know you will be unable to indulge for more than a day. You must make a self-control roll to enter into such a situation; if you succeed (or are forced into the situation), you suffer from Bad Temper the whole time, with the same self-control roll as your Compulsive Behavior. It's bad roleplaying to try to avoid your compulsion regularly!

The point value of this disadvantage depends on how much your habit costs and how much trouble it is likely to get you into. The GM is the final judge. For example, Compulsive Gambling and Compulsive Generosity are -5-point disadvantages, but Compulsive Lying is a -15-point disadvantage.

Compulsive Behaviors can be a screening disadvantage. If your compulsion is minor, you can usually convince the board that you can function in one of the services. If your compulsion is major (-10 points), only rarely will the board rule in your favor. Severe compulsions (-15 points) will keep you out of the academies.

Cowardice

-10 points

You are extremely careful about your physical well-being. Make a self-control roll any time you are called on to risk physical danger. Roll at -5 if you must risk *death.* If you fail, you must refuse to endanger yourself unless threatened with *greater* danger! This is a screening disadvantage.

Cowardice gives a penalty to Fright Checks whenever physical danger is involved:

Self-Control Number	*Fright Check Penalty*
6	-4
9	-3
12	-2
15	-1

In some times and places, soldiers, police, etc. react to you at a similar penalty if they know you are a coward.

Curious

-5 points*

You are naturally very inquisitive. This is not the curiosity that affects *all* PCs ("What's in that cave? Where did the flying saucer come from?"), but the *real* thing ("What happens if I push *this* button?").

Make a self-control roll when presented with an interesting item or situation. If you fail, you examine it – push buttons, pull levers, open doors, unwrap presents, etc. – even if you *know* it could be dangerous. Good roleplayers won't try to make this roll very often . . .

In general, you do everything in your power to investigate *any* situation with which you aren't 100% familiar. When faced with a *real* mystery, you simply cannot turn your back on it. You try to rationalize your curiosity to others who try to talk you out of it. Common Sense doesn't help – you know you are taking a risk, but you're curious anyway!

Deafness

-20 points

You cannot hear *anything.* You must receive information in writing (if you are literate) or sign language. Note that without some form of technological mitigation, this is a screening disadvantage. However, time you spend communicating this way counts at *full* value for study of the skills used (Gesture‡, Lip-Reading‡, etc).

Delusions

-5 to -15 points

You believe something that simply is not true. This may cause others to consider you insane. And they may be right! If you suffer from a Delusion, you *must* roleplay your belief at all times. The point value of the Delusion depends on its nature.

A *Minor Delusion* affects your behavior, and anyone around you will soon notice it (and react at -1), but it does not keep you from functioning more-or-less normally. *-5 points.*

A *Major Delusion strongly* affects your behavior, but does not keep you from living a fairly normal life. Others will react to you at -2. *-10 points.*

A *Severe Delusion* affects your behavior so much that it may keep you from functioning in the everyday world. Others react to you at -3, but they are more likely to fear or pity you than to attack. *-15 points.*

Delusions can be a screening disadvantage. If your delusion is minor, you can usually convince the board that you can function in one of the services. If your delusion is major, only rarely will the board rule in your favor. Severe delusions will keep you out of the academies.

Dependency

Variable

You must regularly ingest a substance (e.g., a drug or magic potion), touch or carry an object (e.g., a holy shrine or magical amulet), or spend time in an environment (e.g., your coffin or your home country, planet, or plane) in order to survive. If you fail to do so, you start to lose HP and will eventually die. This is an exotic disadvantage that requires the GM's permission to add. Furthermore, this is a screening disadvantage. Point value depends on the rarity of the item you depend on:

Rare (cannot be bought; must be found or made): *-30 points.*

Occasional (very expensive or hard to find): *-20 points.*

Common (expensive, somewhat hard to find): *-10 points.*

Very Common (available almost anywhere): *-5 points.*

Add -5 points to these values for items that are *illegal* in your game world. Apply a multiplier based on the frequency with which you must receive the item:

Constantly: You must carry and use the substance at all times – for example, an exotic atmosphere. Lose 1 HP per minute without the substance. ×*5.*

Hourly: Lose 1 HP per 10 minutes after missing an hourly dose. ×*4.*

Daily: Lose 1 HP per hour after missing a daily dose. ×*3.*

Weekly: Lose 1 HP per six hours after missing a weekly dose. ×*2.*

Monthly: Lose 1 HP per day after missing a monthly dose. ×*1.*

Seasonally: Lose 1 HP per three days after missing a seasonal dose (a "season" is three months for this purpose). ×*1/3* (drop all fractions).

Yearly: Lose 1 HP per two weeks after missing a yearly dose. ×*1/10* (drop all fractions).

If you need to touch an object or spend time in an environment, you must do so for time equal to your damage interval in order to avoid damage. For instance, to avoid losing 1 HP per hour to a daily Dependency on rest in your coffin, you must spend at least one hour per day in your coffin. To avoid losing 1 HP every two weeks to a yearly Dependency on

visiting your home planet, you must visit your home planet for at least two weeks per year.

With the GM's permission, normal humans may take this disadvantage to represent the special requirements of certain chronic illnesses.

Special Enhancements

Aging: You age unnaturally without the item you depend on. For each HP lost, you also age two years (even if you are normally Unaging‡). +30%.

Dependents

Variable

A "Dependent" is an NPC for whom you are responsible; e.g., your child, kid brother, or spouse. You *must* take care of your Dependents. Furthermore, your foes can strike at *you* through them. (If you have both an Enemy and a Dependent, and the dice indicate that both appear, then the GM can build an entire adventure around this theme!)

If your Dependent ends up kidnapped or otherwise in danger during play, you *must* go to the rescue as soon as possible. If you don't go to his aid immediately, the GM can deny you bonus character points for "acting out of character." Furthermore, you never earn any character points for a game session in which your Dependent is killed or badly hurt.

Three factors determine the disadvantage value of a Dependent: his *competence,* his *importance* (to you!), and his *frequency of appearance.*

Competence

Specify the number of points your Dependent is built on. The more points you use to "build" your Dependent, the more competent he will be, and the *fewer* points he will be worth as a disadvantage. "Point Total" is the Dependent's point total as a fraction of the PC's, except for the last line, which is absolute; "Cost" is the number of character points the disadvantage is worth.

Point Total	***Cost***
No more than 100%	-1 point
Mo more than 75%	-2 points
No more than 50%	-5 points
No more than 25%	-10 points
0 or fewer points	-15 points

The *same person* can be both a Dependent and an Ally (p. 82)! Add the cost of Ally and Dependent together, and treat the combination as a single trait: an advantage if the total point cost is positive, a disadvantage if it is negative. You must use the same point total for him in both cases, but frequency of appearance can differ. Roll separately for his appearance as a Dependent and as an Ally. If he appears as a Dependent, he shows up in a way that causes you trouble (e.g., he's captured). If he appears as an Ally, he manages to be helpful and take care of himself. If he appears as both, he is helpful *and* troublesome at the same time; for instance, he uses his skills to assist you, but also wanders off, is singled out by the enemy, or otherwise causes problems equal to the assistance he offers.

Importance

The more important your Dependent is to you, the more you multiply his intrinsic "nuisance value" and worth in points.

Employer or acquaintance: You feel a responsibility toward this person, but you may weigh risks to him in a rational fashion. ×*1/2.*

Friend: You must always try to protect this person. You may only risk harm to him if something very important (such as the safety of many other people) is at stake. ×*1.*

Loved one: The Dependent is a relative or a lover. You may not put *anything* before his safety! ×*2.*

Frequency of Appearance

Choose a frequency of appearance, as explained under *Frequency of Appearance* (p. 83). This should fit the "story" behind the Dependent. If the Dependent were your infant child, for instance, it would be odd for him to appear "quite rarely"!

Multiple Dependents

You cannot earn points for more than two Dependents. However, if you have a *group* of Dependents, you may count the entire group as your two Dependents. Work out the value of an average member of the group as a Dependent, and then claim twice this point value.

Example: A vigilante who is a schoolteacher by day could have "generic dependents": all pupils. They are young (-10 points), around "quite often" (×2), and count as "friends" (×1), for -20 points each. However, the two-Dependent limit lets the hero claim -40 points' worth of Dependents. (And if one gets hurt, there are always others.)

Dependents in Play

As you earn points, the GM will scale your Dependent's abilities proportionally to keep his point total a fixed percentage of your own. Thus, his value as a disadvantage will not change. Children grow up, adults earn money, and everyone learns new skills. Dependents who spend a lot of time around you might become adventurers in their own right. You are free to suggest reasonable improvements for your Dependents, but the GM's word is final.

If your Dependent is killed, or so seriously injured that the GM decides he is effectively out of the campaign, you *must* make up the bonus points you got for him. You have three options: buy off the amount by spending earned character points, take a new disadvantage (e.g., Chronic Depression‡), or get a new Dependent. New Dependents are usually inappropriate,

but a mental disability brought on by the loss is a good solution. (Ever since the octopus got Amy, you've been afraid of the ocean . . .)

Examples of Dependents

- For anyone: elderly relatives, teachers, friends, children, younger brothers or sisters, lovers, husbands or wives.
- For crimefighters: young sidekicks, reporters, or wards.
- For ship captains (ocean- or space-going): ensigns or cabin boys.
- For soldiers: orphans or new recruits.
- For criminals or mad scientists: incompetent henchmen.

Duty

Variable

If your occupation and social situation saddle you with a significant personal obligation toward others, and occasionally require you to obey hazardous orders, you have a "Duty." Duty most often accompanies Rank (p. 37), a Patron (p. 98) or one of the traits discussed under *Privilege* (p. 38).

A particularly arduous job might qualify as a Duty, but most ordinary jobs would not. A wholly self-imposed feeling of duty is not a Duty, either (but it can still be a disadvantage; see *Sense of Duty*). Finally, you cannot claim points for a Duty toward Dependents; the points you get for Dependents *already* reflect your obligations in the regard.

The GM may restrict the Duties allowed in a campaign, or even forbid them entirely, if he feels they would unduly disrupt the flow of the adventure.

If you have a Duty, the GM rolls at the beginning of each adventure to see whether it comes into play. Being "called to duty" could delay your plans . . . or be the *reason* for the adventure! Alternatively, your master might give you a secret agenda to pursue, or his associates might harass you while you are officially "on leave." If you try to avoid your Duty, your GM is within his rights to penalize you for bad roleplaying.

The basic point cost of a Duty depends on the frequency with which comes up in play:

Almost all the time (roll of 15 or less): *-15 points.* At this level, the GM may rule that you are *always* on duty.

Quite often (roll of 12 or less): *-10 points.*

Fairly often (roll of 9 or less): *-5 points.*

Quite rarely (roll of 6 or less): *-2 points.*

These costs are for an occasionally hazardous Duty imposed through normal social means. If this does not describe your Duty, you should modify the cost:

Extremely Hazardous: You are *always* at risk of death or serious injury when your Duty comes up. There are significant penalties if you refuse to take these risks: dismissal in disgrace, imprisonment, perhaps even death. The GM has the final say as to whether a given Duty is "extremely hazardous" in his campaign. *-5 points.*

Involuntary: Your Duty is enforced by threats to you or your loved ones, or is imposed by exotic mind control, a curse, etc. This is unrelated to how hazardous the Duty is when you carry it out – the danger here lies in what will happen if you ***don't*** carry it out! A Duty can be Involuntary *and* either Extremely Hazardous or Nonhazardous. *-5 points.*

Nonhazardous: Your Duty never *requires* you to risk your life. This option is mutually exclusive with Extremely Hazardous. *+5 points.* (If this raises the cost of your Duty to 0 points or more, the obligation is too trivial to qualify as a Duty.)

Examples

Example 1: A governor is indebted to the Orion Pirate crimelord who got him elected. His benefactor rarely calls on him for favors (-2 points), but since the governor faces blackmail or violence if he refuses to comply, his Duty is Involuntary. Duty (Crimelord, 6 or less; Involuntary) is worth -7 points.

Example 2: A Prime Team member is always on duty (-15 points). He might see only a handful of combat missions in his whole career, but these will be deadly. And his daily routine calls for him to do hazardous training. A Prime Team member has Duty (Star Fleet, 15 or less; Extremely Hazardous), for -20 points.

Enemies

Variable

An "Enemy" is an NPC, group of NPCs, or organization that actively works against you, personally, on your adventures. Some Enemies want to kill you . . . others have more devious goals.

Determine the nature of your Enemy when you create your character, and explain to the GM why the Enemy is after you. The GM is free to fill in additional details as he sees fit.

Three factors determine the disadvantage value of an Enemy: its *power,* its *intent,* and its *frequency of appearance.*

Power

The more powerful the Enemy, the more points it is worth as a disadvantage. The GM sets this value. Note that when your Enemy is an organization, the point value is based on the number of individuals who are after *you* – not on the total size of the group!

One person, less powerful than the PC (built on about 50% of the PC's starting points). *-5 points.*

One person, equal in power to the PC (built on about 100% of the PC's starting points), or a small group of less-powerful people (3 to 5 people). *Examples:* A mad scientist, or the four brothers of the man you killed in a duel. *-10 points.*

One person, more powerful than the PC (built on at least 150% of the PC's starting points), or a medium-sized group of less-powerful people (6 to 20 people). *Examples:* a single superhuman or a city police department (which numbers in the hundreds, but they're not all after you at once). *-20 points.*

A large group of less-powerful people (21 to 1,000 people), or a medium-sized group that includes some formidable or superhuman individuals. *Examples:* the FBI or the Mafia. *-30 points.*

An entire government, most of the Orion Pirate cartels, or some other utterly formidable group. *-40 points.*

Special Cases

There are two special cases for which you should adjust the costs given above *before* multiplying for intent and frequency of appearance:

Evil Twin: Your Enemy looks and sounds like you, and perhaps even uses your name, but acts completely opposite. Often, others will think you suffer from Split Personality‡, and react appropriately (-3 to reactions). You might never meet your Evil Twin, but you *will* hear about him – usually when you're taking the blame for something you didn't do. Normally, an Evil Twin has exactly the same skills and abilities as you, but his mental disadvantages are opposite or skewed. This makes him an even match: a -10-point Enemy. If he is more capable than you, he is worth extra points, because he is better equipped to make you look insane, and you are less able to predict and thwart his actions.

Evil Twin is more skilled than you *or* possesses abilities that you do not (GM decides): *-5 points.*

Evil Twin is more skilled than you *and* possesses abilities that you do not (GM decides): *-10 points.*

Unknown: You know you have an Enemy, but you have no idea who it is. Tell the GM the power level of your Enemy. He will create the Enemy in secret and give you *no details whatsoever!* The advantage of surprise increases your Enemy's effective power level, and hence its disadvantage value. *-5 points.*

Intent

The more unpleasant the Enemy's intentions, the more you multiply its worth in points.

Watcher: Your Enemy stalks you or spies on you. This is annoying, and makes it hard to keep secrets, but it is rarely more than a minor inconvenience. *Examples:* an aggressive journalist dogging a politician, detectives shadowing a suspected criminal. ×1/4.

Rival: Your Enemy wishes to upstage or inconvenience you, or plays cruel practical jokes on you (this is typical of most Evil Twins), but stops short of anything that would do lasting harm. *Examples:* a politician's bitter political rival, detectives harassing a suspected criminal. ×1/2.

Hunter: The Enemy intends to arrest, bankrupt, injure, or otherwise harm you in some lasting way – or simply wants to kill you. *Examples:* an assassin gunning for a politician, detectives out to arrest a suspected criminal. ×1.

Frequency of Appearance

Choose a frequency of appearance, as explained under *Frequency of Appearance* (p. 83). Roll at the beginning of each adventure, or at the start of each *session* of a continuing adventure.

Limits on Enemies

You may not take more than two Enemies, or claim more than -60 points in Enemies. (If the whole U.S. government is out to get you, the fact that your old college professor has lost his mind, and is *also* after you, pales to insignificance.)

Enemies in Play

If the dice indicate that an Enemy should show up, the GM must decide how and where the Enemy becomes involved. If an Enemy is very powerful, or if a number of *different* Enemies show up at the same time, this may influence the whole adventure.

If you take an extremely powerful Enemy, you are likely to be jailed or killed before long. So it goes. You can get a 60-point bonus by taking Enemy (FBI, 12 or less; Hunter), but your every adventure will be that of a hunted criminal. Even with an extra 60 points, your career may be short.

If you start with a *weak* Enemy, or play cleverly, you might manage to eliminate your foe or permanently change his attitude toward you. But as the saying goes, "There ain't no such thing as a free lunch." If you get rid of an Enemy, you have three choices:

1. Pay enough character points to buy off the original bonus you got for that Enemy.
2. Take a disadvantage to make up for the point bonus. For instance, you might have been kicked in the head during the final battle, leaving you partially deaf. Or a giant spider-like alien might have attacked you, leaving you with arachnophobia. The new disadvantage should have the same point cost as your former Enemy (or less, if you want to buy off *part* of the disadvantage). If you cannot think of a good substitute disadvantage, the GM will be more than happy to supply one!
3. Take a new Enemy of equal value. You might have destroyed the fiendish Pirate Diablo – but his brother is continuing his evil work.

Extra Sleep

-2 points/level

You need more sleep than most people. A normal human requires 8 hours of sleep per night. Each level (maximum of four levels; four levels is a screening disadvantage) means you need one additional hour of sleep. Thus, you must go to bed early or sleep in for a

few hours each day. This gives you less time each day in which to study or work on other projects.

Fanaticism

-15 points

You believe so strongly in a country, organization, philosophy, or religion that you put it ahead of *everything* else. You might even be willing to die for it! If the object of your Fanaticism demands obedience to a code of behavior or loyalty to a leader, you oblige willingly and unquestioningly. You *must* roleplay your unwavering dedication.

Fanaticism does not make you mindless or evil. A glaring priest of Set, brandishing his bloody dagger, is a fanatic. But so is a kamikaze pilot, exchanging himself for an aircraft carrier. And so is a patriot who says, "Give me liberty or give me death!" Fanaticism is a state of mind; it is *what* you are fanatic about that makes the difference.

Extreme Fanaticism: This is an advanced case of Fanaticism. You get +3 on Will rolls to resist Brainwashing, Interrogation, and supernatural mind control in any situation where failure to resist would lead to betrayal of your cult or organization. On the other hand, you will not hesitate to die for your cause, and will undertake suicide missions "matter-of-factly." This is still worth -15 points. Your willingness to die is offset by the significant bonus to Will (which will apply a good deal of the time, if you are roleplaying properly).

Fat

see p. 29

Fearfulness

-2 points/level

You are nervous and timid. Subtract your Fearfulness from your Will whenever you make a Fright Check, and whenever you must resist the Intimidation skill or any power that causes fear. As well, add your Fearfulness level to all Intimidation rolls made against you.

You may not reduce your Will roll below 3. For instance, if you have Will 11, you are limited to Fearfulness 8.

This trait is the opposite of Fearlessness; you cannot have both.

Fragile

Variable

You are susceptible to wounding effects that do not apply to normal humans. Attacks do not injure you any more than usual (that's Vulnerability), but enough penetrating damage can trigger results more catastrophic than stunning, unconsciousness, or bleeding. This is an exotic disadvantage that requires the GM's permission to add. In addition, if the fragility is to commonly encountered situations or items, it can be a screening disadvantage. Possibilities include:

Brittle: You are brittle (like a creature of ice or crystal) or rotten (like a decaying undead monster). Whenever an injury cripples one of your limbs or extremities, it *breaks off.* If you can make a HT roll, it falls off in one piece; otherwise, it shatters or liquefies irrecoverably. Furthermore, should you fail any HT roll to avoid death, you are instantly destroyed – you shatter, melt, decay to goo, etc., and instantly go to -10×HP. *-15 points.*

Combustible: Your body burns more easily than flesh. Perhaps it is dry, resinous, or made of wood. Make a HT roll to avoid catching fire whenever you receive a major wound from a burning or explosive attack. You catch fire *automatically* if such an attack inflicts 10+ HP of injury. Once aflame, you suffer 1d-1 injury per second until you extinguish the fire by immersion in water, rolling on the ground (takes 3 seconds), etc. *-5 points.*

Explosive: Your body contains explosives, compressed gas, or something else unstable. On any critical failure on the HT roll for a major wound, you explode! You also explode if you fail any HT roll to avoid death by 3+. Treat this as a 6d×(HP/10) crushing explosion. The blast instantly reduces you to -10×HP, regardless of the damage it *inflicts. -15 points.*

Flammable: Your body contains something highly flammable: gasoline, hydrogen gas, etc. Make a HT roll to avoid catching fire, with effects as per Combustible, after a major wound from *any* kind of attack. Roll at -3 for a burning or explosive attack, -3 if the attack struck the vitals, and -6 if both. Once you are burning, a critical failure on any HT roll to avoid death means you explode as described for Explosive. You may be Combustible as well. If so, any burning or explosive attack that inflicts either a major wound or 10+ HP of injury *automatically* sets you ablaze. *-10 points.*

Unnatural: You are summoned, conjured, or a magical or weird-science "construct" (e.g., demon, golem, or undead). You *automatically* fail the HT roll to stay alive if reduced to –HP or below, as that much damage severs your ties with the force that animates you. *-50 points.*

It sometimes makes sense to take more than one of the above (in particular, Explosive and Flammable often occur together). The GM must personally approve any combination of Fragile with Injury Tolerance, as these traits are in many ways opposites.

Gigantism

see p. 31

Gluttony

-5 points*

You are overly fond of good food and drink. Given the chance, you must always burden yourself with extra provisions. You should never willingly miss a meal. Make a self-control roll when presented with a tempting morsel or good wine that, for some reason, you

should resist. If you fail, you partake – regardless of the consequences. This is a screening disadvantage.

Greed

-15 points*

You lust for wealth. Make a self-control roll any time riches are offered – as payment for fair work, gains from adventure, spoils of crime, or just bait. If you fail, you do whatever it takes to get the payoff. The GM may modify this roll if the money involved is small relative to your own wealth. Small sums do not tempt you much if you are rich, but if you are *poor,* you get -5 or more on your self-control roll if a rich prize is in the offing. If you have Honesty, your self-control roll is at +5 for a shady deal and +10 for outright crime. However, it is almost a foregone conclusion that you will eventually do something illegal. This is a screening disadvantage.

Gregarious

see *Chummy*

Hard of Hearing

-10 points

You are not deaf, but you have some hearing loss. You are at -4 on any Hearing roll, and on any skill roll where it is important that you understand someone (if you are the one talking, this disadvantage doesn't affect you).

Special Limitations

Mitigator: In the ***SFU*** you can acquire aids that compensate totally for Hard of Hearing *while they are worn.* Remember that accidents can happen . . . and that enemies can deprive you of these items. In the ***SFU,*** if you take Hard of Hearing, you must take this limitation. -60%

Hidebound

-5 points

You find it difficult to come up with an original thought. You have a -2 penalty on any task that requires creativity or invention, including most rolls against Artist‡ skill, all Engineer rolls for new inventions, and all skill rolls made to use the Gadgeteer‡ advantage.

Honesty

-10 points*

You *must* obey the law, and do your best to get others to do so as well. In an area with little or no law, you do not "go wild" – you act as though the laws of your own home were in force. You also assume that others are honest unless you *know* otherwise (make an IQ roll to realize someone might be dishonest if you haven't seen proof).

This is a disadvantage, because if often limits your options. Make a self-control roll when faced with the "need" to break unreasonable laws; if you fail, you *must* obey the law, whatever the consequences. If you manage to resist your urges and break the law, make a second self-control roll afterward. If you fail, you must turn yourself in to the authorities!

You *may* fight (or even start a fight, if you do it in a legal way). You may even kill in a legal duel or in self-defense – but you may never *murder.* You may steal if there is great need, but only as a last resort, and you must attempt to pay your victims back later. If you are jailed for a crime you did not commit, but treated fairly and assured of a trial, you will not try to escape.

You always keep your word. (In a war, you may act "dishonestly" against the enemy, but you will not be happy about it!) However, you *are* allowed to lie if it does not involve breaking the law.

Honesty has its rewards, of course. If you stay alive and in one place long enough for your honesty to become known, the GM should give you +1 on any noncombat reaction roll – or +3 if a question of trust or honor is involved. This is essentially a free Reputation (p. 36).

Horizontal

-10 points

You have a horizontal posture, like a cat. You can stand on your hind legs for short periods, but find this very uncomfortable. You can use one hand (if you *have* hands) while standing on your other limbs, or two hands while sitting on your haunches; in both cases, your ground Move is 0 while doing so. You can carry but not use an object in one hand if moving at half Move. If you are human-sized, you take up two hexes on a battle map. This is an exotic disadvantage that requires the GM's permission to add.

A horizontal build does not let you put your full weight behind a kick. As a result, your thrusting damage is at -1 *per die* when you kick. Ignore this penalty if you have Claws – that trait includes the necessary adaptations to strike at full power. The penalty *does* apply if you have Hooves, however.

Do not take this disadvantage if you are Aerial or Aquatic (see No Legs). If you are fully adapted to a three-dimensional environment, body posture is irrelevant.

Impulsiveness

-10 points*

You hate talk and debate. You prefer action! When you are alone, you act first and think later. In a group, when your friends want to stop and discuss something, you should put in your two cents' worth quickly – if at all – and then do *something*. Roleplay it! Make a self-control roll whenever it would be wise to wait and ponder. If you fail, you *must* act.

Increased Consumption

-10 points/level

One "meal" keeps you going for a much shorter period of time than it would a normal human. This is suitable for small creatures that must eat often.

Increased Consumption 1: You must eat six meals a day.

Increased Consumption 2: You must eat 12 meals a day.

Increased Consumption 3: You must eat 24 meals a day.

. . . and so on, doubling consumption and halving endurance for each additional level. A single level of this trait is appropriate for normal humans who have a build of Overweight or heavier (see *Build,* p. 29) or the Gluttony disadvantage.

Increased Life Support

Variable

Your environmental requirements in a life-support situation are greater than those of a normal human. This is an exotic disadvantage that requires the GM's permission to add. Some examples:

Extreme Heat/Cold: You require a temperature above 200° or below 0°. *-10 points.*

Massive: You require more than a ton of additional weight in order to survive aboard a spacecraft or a submarine, or in any other setting where resources and space are limited. If you can wear an environment suit, this always weighs at least a ton. *-10 points.*

Pressurized: You require a separate pressurized compartment to survive. *-10 points.*

Radioactive: You are radioactive or require a radioactive environment. *-10 points.*

The GM may allow other kinds of Increased Life Support. These should be worth no more than -10 points apiece unless they are *extremely* exotic. Add together the value of multiple special requirements, but note that the total disadvantage value cannot exceed -40 points.

Increased Life Support represents the *logistical* inconvenience of special life-support requirements, while Dependency, Maintenance‡, and Restricted Diet‡ all reflect the *health* effects of doing without such requirements. The same requirement can qualify in both categories if it has consequences for both health and logistics. But note that a Dependency you can satisfy with a one-ounce inhaler of a drug does not let you claim Increased Life Support for a pressurized cabin full of the stuff! The GM's word is final.

With the GM's permission, normal humans may take this disadvantage to represent the special requirements of certain chronic illnesses.

Incurious

-5 points*

You hardly ever notice things unrelated to the business at hand. Make a self-control roll when confronted with something strange. If you fail, you *ignore* it! You react at -1 to new things.

Intolerance

Variable

You dislike and distrust some (or all) people who are different from you. You may be prejudiced on the basis of class, ethnicity, nationality, religion, sex, or species. Victims of your Intolerance will react to you at -1 to -5 (GM's decision). Point value depends on the *scope* of your Intolerance.

If you are thoroughly intolerant, you react at -3 toward *anyone* not of your own class, ethnicity, nationality, religion, or species (pick one). On a "Good" reaction, you tolerate the person and are as civil as possible (but are stiff and cold toward him). On a "Neutral" reaction, you still tolerate him, but make it plain in words and deeds that you don't care to be around him and consider him inferior or offensive. On any worse reaction, you attack or refuse to associate with the victim. Total Intolerance of this kind is worth -10 points.

Intolerance directed at only one *specific* class, ethnicity, nationality, religion, sex, or species is worth from -5 points for a commonly encountered victim to -1 point (a nasty quirk) for a rare victim.

Invertebrate

-20 points

You have no spine, exoskeleton, or other natural body support. This is an exotic disadvantage that requires the GM's permission to add. Use your full Basic Lift for the purpose of pushing, but only 1/4 your BL to calculate the weight you can lift, carry, or pull. This trait has a small side benefit, however: you can squeeze through much smaller openings than your size might suggest!

Note that this trait differs somewhat from the biological term "invertebrate."

Jealousy

-10 points

You react poorly toward those who seem smarter, more attractive, or better off than you! You resist any plan proposed by a "rival," and *hate* it if someone else is in the limelight. (Jealousy goes well with Megalomania‡.) If an NPC is jealous, the GM will apply a -2 to -4 reaction penalty toward the victim(s) of his jealousy.

Lame

-10 to -30 points

This disadvantage assumes that you are a member of a species with legs. If your *entire species* is legless, see *No Legs*. This is a screening disadvantage.

You have some degree of impaired mobility:

Crippled Legs: You have all of your legs, but some of them are damaged. For a human, this means one bad leg. You are at -3 to use any skill that requires the use of your legs, including all Melee Weapon and unarmed combat skills (but not *ranged* combat skills). You *must* reduce your Basic Move to half your Basic Speed (round down), but you get full points for this (see *Basic Move,* p. 28). *-10 points*.

Missing Legs: You have lost some, but not all, of your legs. For a human, this means you have one leg. You are at -6 to use any skill that requires the use of your legs. Using crutches or a peg leg, you can stand up and walk slowly. You *must* reduce Basic Move to 2, but you get full points for this. You can still kick, but between the standard -2 for a kick and the -6 for this disadvantage, you do so at DX-8! Without your crutches or peg leg, you cannot stand, walk, or kick. *-20 points*.

Legless: You are missing *all* of your legs, no matter how many you started out with. You are at -6 to use any skill that requires the use of your legs, and you cannot stand, kick, or walk at all. You *must* reduce Basic Move to 0, but you get full points for this. *-30 points*.

Paraplegic: You have all of your legs, but they are paralyzed. The effects and point value are identical to Legless. Unlike a Legless character, you can be struck in the legs for damage. This is balanced by the fact that it isn't inconceivable that you could regain the use of your legs (a Legless character is out of luck). *-30 points*.

Technological Assistance

A muscle-powered wheelchair or wheeled platform has ground Move equal to 1/4 your ST (round down), but cannot pass through narrow doorways, negotiate staircases or steep curbs, enter most vehicles, etc.

If you have advanced prosthetics that cancel this disadvantage while worn, apply a Mitigator limitation to Lame and any reduced Basic Move. If surgery or ultra-tech replacement parts eliminate this disadvantage completely, you must pay back the points you received for Lame and reduced Basic Move.

Laziness

-10 points

You are violently averse to labor. Your chances of getting a raise or promotion in *any* job are halved. If you are self-employed, halve your monthly pay (see *Jobs,* p. 516). You must avoid work – especially hard work – at all costs. Roleplay it! This is a screening disadvantage.

Lecherousness

-15 points*

You have an unusually strong desire for romance. Make a self-control roll whenever you have more than the briefest contact with an appealing member of the sex you find attractive – at -5 if this person is Handsome/Beautiful, or at -10 if Very Handsome/Very Beautiful. If you fail, you must make a "pass," using whatever wiles and skills you can bring to bear. You must then suffer the consequences of your actions, successful or not: physical retribution, jail, communicable disease, or (possibly) an adoring new friend. This is a screening disadvantage.

Unless the object of your affection is Very Handsome/Very Beautiful, you need not roll more than once a day to avoid making a pass. If someone turns you down very firmly (e.g., a black eye, or an arrest for sexual harassment) the GM may give you a bonus to future self-control rolls regarding that individual . . .

Note that you are likely to change your standards of attractiveness if no truly attractive members of the appropriate sex are available!

Legless

see *Lame*

Light Sleeper

-5 points

You do not sleep as soundly or as easily as most people. Whenever you must sleep in an uncomfortable place, or whenever there is more than the slightest noise, you must make a HT roll in order to fall asleep. On a failure, you can try again after one hour, but you will suffer all the usual effects of one hour of missed sleep (see *Missed Sleep,* p. 228).

You usually wake up if there is activity going on around you (but you are stunned unless you have Combat Reflexes). If you wish to continue sleeping, you must *fail* a Sense roll. If you wake up, you must make HT rolls to get back to asleep, as above. This can occasionally be to your advantage, but the most likely effect is that you miss sleep whenever inconsiderate companions trade watches or return from a night on the town.

Loner

-5 points*

You require a great deal of "personal space." Make a self-control roll whenever anyone lingers nearby, watches over your shoulder, etc. If you fail, you lash out at that person just as if you had Bad Temper. Loner NPCs always react to others at a penalty.

Self-Control Number	***Reaction Penalty***
6	-4
9	-3
12	-2
15	-1

Low Pain Threshold

-10 points

You are very sensitive to pain of all kinds. *Double* the shock from any injury; e.g., if you take 2 HP of damage, you are at -4 to DX on your next turn. You roll at -4 to resist knockdown, stunning, and physical torture. Whenever you take a wound that does more than 1 HP of damage, you must make a Will roll to avoid crying out. This can give away your presence, and may earn you a -1 reaction from "macho" individuals.

Low TL

see p. 33

Miserliness

-10 points*

You are preoccupied with conserving your wealth. You must always hunt for the best deal possible. Make a self-control roll any time you are called on to spend money. If the expenditure is large, this roll may be at -5 or worse (GM's decision). If you fail, you refuse to spend the money. If you absolutely *must* spend the money, you should haggle and complain interminably. Note that you may have both Greed and Miserliness!

Mistaken Identity

see p. 32

Mute

see *Cannot Speak*

No Fine Manipulators

-30 or -50 points

Your body lacks hands and possibly limbs. This is an exotic disadvantage that requires the GM's permission to add. Point value depends on the extent of your limitation:

No Fine Manipulators: You have no body part more agile than paws or hooves. You cannot use your limbs to make repairs, pick locks, tie knots, wield weapons, etc., or even to grasp firmly. You may only select this trait if you have *nothing* approaching the human hand in terms of overall versatility. If you have a beak, tongue, prehensile tail, etc. that is as good as a hand, you do not have No Fine Manipulators! *-30 points.*

No Manipulators: You have *no* limbs. The only way for you to manipulate objects is to push them around with your body or head. You can still move, and are capable of rolling, wriggling, bouncing, etc. at your Basic Move unless you buy it down to 0. *-50 points.*

Note that this trait is limited to nonhumans. Either level qualifies you to buy ST and DX with the -40% No Fine Manipulators limitation.

No Legs

Variable

This disadvantage assumes that your species lacks legs. If your species has legs, but you are missing yours, see *Lame*.

You are a member of a legless species. There are several different forms of this trait, but in all cases, you cannot kick, cannot be struck in the legs in combat, and need not wear leg armor. The point costs below assume that the benefit of having no legs for foes to target in combat balances the drawback of being unable to kick.

Aerial: You cannot move on land, but you can hover, glide, or fly. You *must* purchase the Flight advantage. Calculate Basic Speed as usual and use twice this value to determine your basic *air* Move, as described for Flight. Your *ground* Move is 0. *0 points.*

Aquatic: You cannot move on land, but you are adapted to movement on or in water, like a ship or a fish. Calculate Basic Move and use this as your basic *water* Move. Your *ground* Move is 0. You suffer no skill penalties for working in or under water. *0 points.* If your mobility depends on fins, masts, paddles, or sails that you can't armor, *or* you can't dive: *-5 points.* If both: *-10 points.*

Bounces, Rolls, or Slithers: You move on land without using legs, like a snake or a wheel-form robot. Work out Basic Move and use it as your ground Move, just as a legged character would. *0 points.*

Semi-Aquatic: You "walk" on flippers, like a seal. Use Basic Move as your basic *water* Move and 1/5 this as your *ground* Move – that is, reverse the normal relationship between ground and water Move. You suffer standard skill penalties in the water. *0 points.*

Sessile: Your base is anchored where you sit, like a tree or a building. You can't move under your own power in *any* environment, and lack the option of using a moving platform (although you can *be* moved, with considerable effort). Your Basic Move is automatically 0, and you get no extra points for this. You can still have manipulators. If so, you wield weapons at no DX penalty, because unlike those with the Lame disadvantage, you have a very stable base! *-50 points.*

Tracked or Wheeled: You have tracks or wheels *instead* of legs. Specify how many – one to four, or any higher *even* number. If using hit locations, treat each track or wheel as if it were a leg. You can neither jump nor negotiate obstacles that require arms and legs working together (e.g., a ladder or rope). You always leave a visible trail (giving others a Tracking bonus: +1 for Wheeled, +2 for Tracked). Tracks are also *noisy* (+2 to all Hearing rolls to detect you), but let you handle rough terrain more easily. Tracked and Wheeled do *not* reduce Move; in fact, you may buy up to three levels of Enhanced Move (Ground). This disadvantage usually accompanies the Machine meta-trait[‡]. *-20 points.*

No Manipulators

see *No Fine Manipulators*

No Sense of Humor

-10 points

You never get any jokes; you think everyone is earnestly serious at all times. Likewise, you never joke, and you *are* earnestly serious at all times. Others react at -2 to you in any situation where this disadvantage becomes evident.

Obsession

-5 or -10 points*

Your entire life revolves around a single goal. Unlike Compulsive Behavior‡, this is not a daily habit, but an overpowering fixation that motivates all of your actions. And unlike Fanaticism, this does not necessarily imply a set of philosophical beliefs.

You must rationalize *all* of your actions as an attempt to reach your goal. Make a self-control roll whenever it would be wise to deviate from your goal. If you fail, you continue to pursue your Obsession, regardless of the consequences.

Point cost depends on the time needed to realize your goal. A short-term goal (e.g., assassinating someone) is worth -5 points, while a long-term goal (e.g., becoming President) is worth -10 points. In both cases, modify the base cost to reflect your self-control number. If your Obsession causes others to react badly, take Odious Personal Habit (p. 32) or Delusions as well.

Should you ever reach your goal, you must either substitute a new goal or buy off your Obsession.

Odious Personal Habit

see p. 32

One Arm

-20 points

You have only one arm. You cannot use two-handed weapons, wield two weapons at once (or a weapon and a shield), or perform any task that *requires* two arms. You get -4 on tasks that are *possible* with one arm but that are usually executed with two (e.g., most Climbing and Wrestling rolls). You have no penalty on tasks that require only one arm. In all cases, the GM's ruling is final. When in doubt, try a quick reality check if possible!

If you originally had two arms, assume that you lost the left arm if you were right-handed, or vice versa.

If you are a nonhuman who only had one arm to begin with, your "arm" need not be an arm at all – it can be *any* appendage capable of fine manipulation. For instance, a parrot that used its beak and tongue would have One Arm (and *not* No Fine Manipulators).

If you have advanced prosthetics that cancel One Arm while worn, apply a Mitigator limitation. Should you ever eliminate One Arm completely through surgery or an ultra-tech replacement limb, you must pay back the points you received for it.

Overconfidence

-5 points*

You believe that you are far more powerful, intelligent, or competent than you really are. You may be proud and boastful or just quietly determined, but you must roleplay this trait.

You must make a self-control roll any time the GM feels you show an unreasonable degree of caution. If you fail, you *must* go ahead as though you were able to handle the situation! Caution is not an option.

You receive +2 on all reaction rolls from young or naive individuals (who believe you are as good as you say you are), but -2 on reactions from experienced NPCs.

Overconfidence is like Megalomania‡ on a smaller scale. Robin Hood was overconfident – he challenged strangers to quarterstaff duels. Hitler was a megalomaniac – he invaded Russia! Heroes are rarely megalomaniacal but often overconfident.

Overweight

see p. 29

Pacifism

Variable

You are opposed to violence. This can take several forms. Choose *one* of the following:

Reluctant Killer: You are psychologically unprepared to kill *people.* Whenever you make a deadly attack (e.g., with a knife or a gun) against an obvious person whose face is visible to you, you are at -4 to hit and may not Aim. If you cannot see the foe's face (due to a mask, darkness, or distance, or because you attacked from behind), the penalty is only -2, save in close combat. You have no penalty to attack a vehicle (even an occupied one), an opponent you do not believe is a *person* (including things with Horrific or Monstrous appearance), or a target you can't actually see (e.g., a set of map coordinates or a blip on a radar screen). If you kill a recognizable person, the effect on you is the same as for Cannot Kill (see below). You have no problem with your *allies* killing; you may even supply ammo, loaded weapons, and encouragement! You just can't do the killing yourself. *-5 points.*

Cannot Harm Innocents: You may fight – you may even *start* fights – but you may only use deadly force on a foe that is attempting to do you serious harm. Capture is not "serious harm" unless you are already under penalty of death or have a Code of Honor that would require suicide if captured. You never intentionally do anything that causes, or even threatens to cause, injury to the uninvolved – particularly if they are "ordinary folks." This trait is especially appropriate for crimefighters, etc. *-10 points.*

Cannot Kill: You may fight – you may even *start* fights – but you may never do anything that seems likely to kill another. This includes abandoning a wounded foe to die "on his own"! You must do your best to keep your companions from killing, too. If you *do* kill someone (or feel responsible for a death), you immediately suffer a nervous breakdown. Roll 3d and be totally morose and useless (roleplay it!) for that many days. During this time, you must make a Will roll to offer any sort of violence toward *anyone,* for *any* reason. *-15 points.*

Self-Defense Only: You only fight to defend yourself or those in your care, using only as much force as necessary (no preemptive strikes allowed!). You must do your best to discourage others from starting fights. *-15 points.*

Total Nonviolence: You will not lift a hand against another intelligent creature, for any reason. You must do your nonviolent best to discourage violent behavior in others, too. You are free to defend yourself against attacks by animals, mosquitoes, etc. *-30 points.*

Phobias

Variable*

You are afraid of a specific item, creature, or circumstance. Many fears are reasonable, but a Phobia is an unreasonable, unreasoning, morbid fear. The point value depends on how common the object of your fear is – fear of darkness is far more troublesome than fear of left-handed plumbers. Phobias regarding commonly encountered items, creatures, and circumstances in the service are screening disadvantages.

Make a self-control roll whenever you are exposed to the object of your Phobia. If you fail, roll 3d, add the amount by which you failed your self-control roll, and look up the result on the *Fright Check Table* (p. 201). For instance, if your self-control number is 9 but you rolled a 13, roll 3d+4 on the table. The result from the table affects you immediately!

If you succeed, you have successfully mastered your Phobia (for now), but you are still shaken, and have a penalty to all DX, IQ, and skill rolls while the cause of your fear persists. The penalty depends on your self-control number:

Self-Control Number	***Penalty***
6	-4
9	-3
12	-2
15	-1

You must roll again every 10 minutes to see if the fear overcomes you.

Even the mere *threat* of the feared object requires a self-control roll, although this is at +4. If your enemies actually inflict the feared object on you, you must make an unmodified self-control roll, as described above. If you fail, you might break down, depending on the Fright Check results, but you won't necessarily talk. Some people can panic and fall apart, but still refuse to talk – just as some people do not talk under torture.

A phobic situation is by definition stressful. If you have other mental disadvantages that are triggered by stress, you are likely to have these reactions if you fail to resist a Phobia.

Some common phobias:

Being Alone (Autophobia): You cannot stand to be alone, and do anything in your power to avoid it. *-15 points.**

Blood (Hemophobia): The sight of blood gives you the screaming willies! You need to make a self-control roll during most combats . . . *-10 points.**

Cats (Ailurophobia): *-5 points.**

Crowds (Demophobia): Any group of over a dozen people sets off this fear unless they are all well known to you. The self-control roll is at -1 for over 25 people, -2 for a crowd of 100 or more, -3 for 1,000, -4 for 10,000, and so on. *-15 points.**

Darkness (Scotophobia): A common fear, but crippling. You should avoid being underground if possible; if something happens to your flashlight or torch, you might well lose your mind before you can relight it. *-15 points.**

Death and the Dead (Necrophobia): You are terrified by the idea of death. Make a self-control roll in the presence of any dead body (animals don't count, but *portions* of human bodies do). Roll at -4 if the body is that of someone you know, or -6 if the body is unnaturally animated in some way. A ghost (or apparent ghost) also requires a roll at -6. *-10 points.**

Dirt (Mysophobia): You are deathly afraid of infection, or just of dirt and filth. Make a self-control roll when you must do something that might get you dirty. Roll at -5 to eat any unaccustomed food. You should act as "finicky" as possible. *-10 points.**

Dogs (Cynophobia): This includes *all* canines: foxes, wolves, coyotes, wild dogs, etc. *-5 points.**

Enclosed Spaces (Claustrophobia): A common, crippling fear. You are uncomfortable any time you can't see the sky – or at least a very high ceiling. In a small room or vehicle, you feel the walls closing in on you . . . You need *air!* This is a dangerous fear for someone who plans to go underground. *-15 points.**

Fire (Pyrophobia): Even a burning cigarette bothers you if it comes within five yards. *-5 points.**

Heights (Acrophobia): You may not voluntarily go more than 15 feet above ground, unless you are inside a building and away from windows. If there is some chance of an actual fall, self-control rolls are at -5. *-10 points.**

Insects (Entomophobia): You are afraid of all "bugs." Large or poisonous ones give -3 to self-control rolls. Very large ones, or large numbers, give -6. Avoid hills of giant ants. *-10 points.**

Loud Noises (Brontophobia): You avoid any situation where loud noises are likely. A sudden loud noise requires an immediate self-control roll. A thunderstorm is a traumatic experience for you! *-10 points.**

Machinery (Technophobia): You can never learn to repair any sort of machine and refuse to learn to use anything more complicated than a crossbow or bicycle. Any highly technological environment calls for a self-control roll; dealings with robots or computers require a roll at -3, and hostility from intelligent machines requires a roll at -6. *-5 points at TL4 or below, -15 points at TL5 or above.**

Monsters (Teratophobia): Any "unnatural" creature sets off this fear. You have -1 to -4 on the self-control roll if the monster seems very large or dangerous, or if there are a lot of them. Note that the definition of "monster" depends on experience. An American Indian would consider an elephant monstrous, while an African pygmy would not! *-15 points.**

Number 13 (Triskaidekaphobia): You must make a self-control roll whenever you have to deal with the number 13 – visit the 13th floor, buy something for $13.00, etc. Roll at -5 if Friday the 13th is involved! *-5 points.**

Oceans (Thalassophobia): You are afraid of any large body of water. Ocean travel, or even air travel over the ocean, is basically impossible for you, and encounters with aquatic monsters are also upsetting. *-10 points.**

Open Spaces (Agoraphobia): You are uncomfortable whenever you are outside, and actually become frightened when there are no walls within 50 feet. *-10 points.**

Psionic Powers (Psionophobia): You are afraid of those with known psionic powers. An actual exhibition of power in your presence requires a self-control roll. You do not voluntarily allow anyone to use a psionic power on you. The power does not have to be real – all that matters is that *you* believe it is! In the ***SFU*** this is worth *-15 points.**

Reptiles (Herpetophobia): You come unglued at the thought of reptiles, amphibians, and similar scaly slimies. A very large reptile, or a poisonous one, gives -2 to self-control rolls; a horde of reptiles (such as a snake pit) gives -4. *-10 points.**

Sharp Things (Aichmophobia): You are afraid of anything pointed. Swords, spears, knives, and hypodermic needles all give you fits. Trying to use a sharp weapon, or being threatened with one, requires a self-control roll at -2. *-15 points at TL5 or below,-10 at TL6 or above.**

Spiders (Arachnophobia): *-5 points.**

Strange and Unknown Things (Xenophobia): You are upset by any sort of strange circumstances, and in particular by strange *people*. Make a self-control roll when surrounded by people of another race or nationality; roll at -3 if the people are not of your species. If you lose control, you might well attack strangers out of fear. *-15 points.**

Sun (Heliophobia): *-15 points.**

Weapons (Hoplophobia): The presence of any sort of weaponry is stressful. Trying to use a weapon, or being threatened with one, requires a self-control roll at -2. *-20 points.**

Post-Combat Shakes

-5 points*

You are shaken and sickened by combat, but only *after* it's over. Make a self-control roll at the end of any battle. It is up to the GM to determine when a battle has truly ended, and he may apply a penalty if the combat was particularly dangerous or gruesome. If you fail, roll 3d, add the amount by which you failed your self-control roll, and look up the result on the *Fright Check Table* (p. 201). For instance, if your self-control number is 12 but you rolled a 14, roll 3d+2 on the table. The result from the table affects you immediately!

Reputation

see p. 36

A negative reputation counts as a disadvantage. Note it as such on your character sheet!

Sadism

-15 points*

You delight in cruelty . . . mental, physical, or both. Make a self-control roll whenever you have an opportunity to indulge your desires and know you shouldn't (e.g., because the prisoner is one who should be released unharmed). If you fail, you cannot restrain yourself. Those who become aware of your problem react at -3 unless they are from a culture that holds life in little esteem.

This is a particularly "evil" trait, more appropriate to villainous NPCs than to heroic PCs. This is a screening disadvantage. The GM may completely prohibit Sadism if he does not want anyone roleplaying it in his campaign. It is possible, though despicable, to possess both Bully *and* Sadism.

Secret

-5 to -30 points

A Secret is an aspect of your life or your past that you must keep hidden. Revelation would result in lasting negative consequences. The point value depends on the severity of those consequences:

Serious Embarrassment: If this information gets around, you can forget about ever getting a promotion, getting elected, or marrying well. Alternatively, revelation of your Secret might simply attract unwelcome public attention. *-5 points.*

Utter Rejection: If your Secret is revealed, it will change your whole life. Perhaps you will lose your job and be rejected by friends and loved ones. Perhaps admirers, cultists, long-lost relatives, or the press will harass you. *-10 points.*

Imprisonment or Exile: If the authorities uncover your Secret, you'll have to flee, or be imprisoned for a long time (GM's discretion). *-20 points.*

Possible Death: Your Secret is so terrible that you might be executed by the authorities, lynched by a

mob, or assassinated (by the Mafia, CIA, etc.) were it revealed. You would be a hunted man. *-30 points.*

Frequency of Appearance

In general, a Secret appears in a particular game session if the GM rolls a 6 or less on 3d before the adventure begins. However, as for all other disadvantages of this type, the GM need not feel constrained by the appearance roll. If he thinks that the Secret should come into play, it does!

When a Secret appears in play, it is not automatically made public. The GM will give you a chance to prevent your Secret from being revealed. This might require you to cave in to blackmail or extortion, steal incriminating documents, or even silence the person who knows the Secret. Regardless of the solution, however, it's only temporary – the Secret will appear again and again until either you buy it off with earned character points or it is finally revealed.

Effects of Revelation

If a Secret is made public, there is an immediate negative effect ranging from serious embarrassment to possible death, depending on the severity of the Secret (see above). There is also a lasting effect: you suddenly acquire new, permanent disadvantages – or lose advantages – worth points equal to *twice* what the Secret was worth! These new disadvantages replace the Secret on your character sheet, and reduce your point value accordingly.

The GM chooses the new disadvantages and lost advantages, which should always be appropriate to the Secret. Most Secrets turn into Enemies, negative Reputations (p. 36), and Social Stigmas, or reduce or remove advantages described under *Wealth and Influence* (pp. 35-38). Some could even turn into mental or physical disadvantages.

Example: A low-level Federation police officer has a -20-point Secret: on the sly, he is on the payroll of Orion Pirates. When he is finally caught and brought to justice, his Secret is revealed and immediately replaced with *-40* points in disadvantages and lost advantages! The GM rules that he is stripped of his 5-point Legal Enforcement Powers (-5 points), gains Social Stigma (Criminal Record) (-5 points), and is punished by being forced to pay reparations that reduce his Wealth from Average to Struggling (-10 points) In addition, the Orion Pirate captain he ratted out is now an Enemy (-20 points).

Self-Destruct

-10 points

As soon as you reach your aging threshold (age 50 for a normal human), your organs and immune system begin to fail. You start to age rapidly, making aging rolls every *day* at -3 to HT. This is an exotic disadvantage that requires the GM's permission to add.

Selfish

-5 points*

You are self-important and status-conscious, and spend much of your time striving for social dominance. Make a self-control roll whenever you experience a clear social slight or "snub." On a failure, you lash out at the offending party just as if you had Bad Temper – likely resulting in a bad reaction (-3 to the target's reactions toward you) and putting you in an awkward social situation.

Selfish NPCs react to perceived slights at a penalty:

Self-Control Number	*Penalty*
6	-5
9	-4
12	-3
15	-2

Selfless

-5 points*

You are altruistic and self-sacrificing, and put little importance on personal fame and wealth. You must make a self-control roll to put your needs – even survival – before those of someone else. A Selfless *species* will have a "hive mentality."

Semi-Upright

-5 points

You have a semi-upright posture, like a chimpanzee. You can stand up more-or-less comfortably, allowing you to use your forelimbs to bash enemies, hold babies, or even manipulate objects. You can manage a clumsy gait while upright (-40% to Move), but you must use all of your limbs to run at full Move. If you have DX 12 or more, you can carry a small object or two while walking. This is an exotic disadvantage that requires the GM's permission to add.

Sense of Duty

-2 to -20 points

You feel a strong sense of commitment toward a particular class of people. You will never betray them, abandon them when they're in trouble, or let them suffer or go hungry if you can help. This is different from a Duty, which is imposed upon you. A Sense of Duty always comes from within.

If you are *known* to have a Sense of Duty, the GM will adjust the reactions of others by +2 when rolling to see whether they trust you in a dangerous situation. However, if you go against your Sense of Duty by acting against the interests of those you are supposed to be looking out for, the GM will penalize you for bad roleplaying.

The GM will assign a point value to your Sense of Duty based on the size of the group you feel compelled to aid:

Individual (the President, your wingman, etc.): *-2 points.*

Small Group (e.g., your close friends, crewmates, or squad): *-5 points.*

Large Group (e.g., a nation or religion, or everyone you know personally): *-10 points.*

Entire Species (all humanity, all Klingons, etc.): *-15 points.*

Every Living Being: -20 points.

You cannot claim points for a Sense of Duty toward Allies, Dependents, or Patrons. The point costs of these traits *already* take such a bond into account.

You *can* take a Sense of Duty toward adventuring companions. If you do, you must share equipment with and render aid to the other members of your adventuring party, and go along with majority decisions. The GM might make this mandatory in games where the party *needs* to get along. This gives everyone a "free" 5 points to spend ... but if you start backstabbing, running off on your own, etc., the GM is free to overrule your actions and point to these bonus points as the reason why.

Short Attention Span

-10 points*

You find it difficult to concentrate on a single task for longer than a few minutes. Make a self-control roll whenever you must maintain interest in something for an extended period of time, or whenever a distraction is offered. If you fail, you *automatically* fail at the task at hand. The GM might give you a small bonus to the self-control roll in situations where concentration is crucial, such as when your survival is at stake.

Short Lifespan

-10 points/level

Your lifespan is *much* shorter than the human norm. Each level of this disadvantage halves your lifespan (round down). This affects the age at which you reach maturity, the ages at which aging rolls begin and increase in frequency, and the interval between aging rolls; see the table (below). No more than four levels are possible. This is an exotic disadvantage that requires the GM's permission to add. If the level is such that you cannot serve at least five years, it becomes a screening disadvantage. Short Lifespan is often found in conjunction with Self-Destruct.

Shyness

-5, -10, or -20 points

You are uncomfortable around strangers. Roleplay it! This disadvantage comes in three levels; you can buy it off one level at a time.

Mild: You are uneasy with strangers, especially assertive or attractive ones. You have -1 on skills that require you to deal with people, including Acting, Carousing, Diplomacy, Fast-Talk, Intimidation, Leadership, Merchant, Panhandling‡, Performance‡, Politics, Public Speaking, Savoir-Faire, Sex Appeal, Streetwise, and Teaching. *-5 points.*

Severe: You are very uncomfortable around strangers, and tend to be quiet even among friends. -2 the skills listed above. *-10 points.*

Crippling: You avoid strangers whenever possible. You may not learn the skills listed above at all, and are at -4 on default rolls on such skills. *-20 points.*

Sleepy

Variable

This is a species trait. Members of the species need to sleep more than the human norm of 1/3 of the time. Point value depends on the fraction of the time they must spend asleep:

Time Spent Asleep	*Cost*
1/2 of the time	-8 points
2/3 of the time	-16 points
3/4 of the time	-20 points
7/8 of the time	-26 points

The species' precise schedule is a "special effect." For instance, a species that sleeps 3/4 of the time might be awake and active for three days straight and then sleep for a full nine days.

This trait can also represent *hibernation.* For instance, if a species is awake and active on a human schedule for six months and then hibernates for two months straight, then *on the average,* that's equivalent to sleeping half the time.

Level	*Maturity*	*Aging [Frequency of Aging Rolls]*		
0 (Human)	18 years	50 years [1 year]	70 years [6 months]	90 years [3 months]
1	9 years	25 years [6 months]	35 years [3 months]	45 years [45 days]
2	4 years	12 years [3 months]	17 years [45 days]	22 years [22 days]
3	2 years	6 years [45 days]	8 years [22 days]	11 years [11 days]
4	1 year	3 years [22 days]	4 years [11 days]	5 years [5 days]

Social Stigma

-5 to -20 points

You belong to a race, class, sex, species, or other group that your society deems inferior. To be worth points, this must be obvious from your physical appearance (a visible brand, tattoo, or magical mark counts), dress, manner, or speech; *or* easily learned by anyone who cares to check up on you (only valid in societies with free and easy access to information); *or* the result of public denouncement (e.g., by a powerful leader or media figure) that ensures that everyone you meet knows that you, personally, belong to the disdained group.

A Social Stigma gives you a reaction penalty (-1 per -5 points of Social Stigma), restricts your social mobility, or both. Examples include:

Criminal Record: You have been convicted of a crime that your society considers serious. You may be prohibited from legally acquiring certain items (e.g., weapons), taking certain kinds of employment, receiving security clearances, or even traveling outside your country. Many noncriminals who learn of your past react at -1; police, judges, vigilantes, and other law-and-order types usually react at -2. If you are also *wanted,* take an appropriate Enemy. *-5 points.*

Disowned: Your family has publicly snubbed you. This is only worth points in settings where family ties play a significant social role, and never applies to those who *voluntarily* part ways with their family. This Social Stigma comes in two levels:

- You would normally be an heir in your culture, but someone else has been named in your stead. This is embarrassing, but you may still count yourself as part of the family. This gives -1 on reaction rolls. *-5 points.*
- The head of your family – or your entire *clan* – has wholly and publicly disowned you. This gives -2 on reaction rolls. *-10 points.*

Ignorant: You have not learned a skill required of all responsible adults in your society (that is, you have no points in the skill). Others look down upon you as a slacker or a fool. This gives -1 on reactions for each "expected" skill you lack, up to a maximum of four skills. This is only worth points in highly structured societies, or in primitive ones where individuals depend on one another for survival. *-5 points/skill.*

Minor: You are underage by your culture's standards. You suffer -2 on reaction rolls whenever you try to deal with others as an adult; they might like you, but they do not fully respect you. You might also be barred from nightclubs, vehicle operation, war parties, guild membership, etc., depending on the culture and setting. You must buy off this trait when you reach "legal age" (usually 18) for your time and place. *-5 points.*

Minority Group: You are a member of a minority that the dominant culture around you regards as "barbarians" or "inferior." You get -2 on all reaction rolls made by anyone except your own kind. In an area, profession, or situation where your minority is *especially* rare, you get +2 on reaction rolls made by your own kind. *-10 points.*

Monster: You are a large carnivore, abomination, or other being that is hated or feared regardless of *actual* appearance or disposition. This gives you -3 on all reaction rolls, and you are liable to be hunted on sight. However, you get +3 to Intimidation rolls in situations where you have the upper hand (GM's opinion). *Examples:* a bear or a vampire. *-15 points.*

Second-Class Citizen: You belong to a group that receives fewer rights and privileges than "full citizens." This gives -1 on all reaction rolls except from others of your own kind. *Examples:* a woman in 19th-century America, or members of some religions. *-5 points.*

Subjugated: You are a member of a slave nation, race, or species. Within the overlords' culture, you have *no* rights, and suffer the negative effects of Second-Class Citizen *and* Valuable Property. If you manage to escape to freedom, you acquire the entire overlord nation or species as an Enemy. *-20 points.*

Uneducated: You are from a class, race, subculture, or species that lacks a cultural repository of wisdom, eschews formal schooling, and takes a dim view of activities that do not relate directly to survival or procreation. You receive -1 to reactions from more sophisticated folk in any situation where your lack of schooling would be apparent, and you may not start with any "book learned" skills (GM's discretion; most IQ/Hard skills qualify). You may buy off this trait once you have lived in "civilized" parts for long enough (GM's decision). *-5 points.*

Valuable Property: Your society regards you as somebody's property rather than as a "legal person." This takes the form of limited freedom or lack of intellectual respect more than as a reaction modifier. *Examples:* a woman in 18th-century America or 16th-century Japan. *-10 points.*

Social Stigmas *must* bind those who take them. For example, a medieval Japanese lady must pay for her 10-point bonus by giving up her freedom of movement in many cases, and must defer to older male relatives when they are present. A black slave in 19th-century America is allowed to learn very little and own almost no property, and has little freedom of any kind unless he manages to escape. (If he does escape, he has traded his Social Stigma for a powerful Enemy!)

It is possible to have multiple Social Stigmas, provided they do not significantly overlap (GM's decision). For instance, a teenager who drops out of school and joins a street gang could believably end up with Minor, Uneducated, *and* Criminal Record.

Space Sickness

-10 points

You are miserable in free fall. You can never learn Free Fall skill; you must always roll at default. In addition, you are at -4 on your HT roll to avoid "space adaptation syndrome" (see p. 233) – and if you fail the

first HT roll, the only way for you to recover is to return to normal gravity. This is a screening disadvantage.

Squeamish

-10 points*

You dislike "yucky stuff": little bugs and crawly things, blood and dead bodies, slime, etc. When exposed to such things, you react just as if you had a Phobia. Note that you do *not* suffer from the standard fears of insects, reptiles, dirt, and the dead! What bothers you isn't huge bugs or reptiles, ordinary "clean" dirt, and ghosts; it's nasty creepy things, filth, and bits of grue.

Status

see p. 36

Status below 0 is a disadvantage. Almost everyone reacts negatively to you!

Stubbornness

-5 points

You always want your own way. Make yourself generally hard to get along with – roleplay it! Your friends may have to make a lot of Fast-Talk rolls to get you to go along with perfectly reasonable plans. Others react to you at -1.

Susceptible

Variable

You are extremely sensitive to a particular class of noxious items or substances; e.g., disease or poison. You have a penalty to all HT rolls to resist the negative effects of these things. You do not suffer extra damage, however; for that, see Vulnerability.

If you are exposed to trace quantities of an item to which you are Susceptible – a dose so tiny that it would not affect most people – you must roll against HT+1, modified by your usual penalty for this disadvantage. If you fail, you suffer *half* the effects (fatigue, injury, attribute loss, period of incapacitation, etc.) you would suffer from a full dose. For instance, Susceptible to Poison would require a roll if you ingested highly diluted industrial waste in drinking water, while Susceptible to Disease would require a roll if you received a "live" vaccine (one that contains weakened microbes). Should there be any doubt as to exposure or effects, the GM's decision is final.

Point cost depends on the item's rarity *in the environment:*

Very Common (e.g., Disease, Poison): *-4 points/-1 to HT rolls.*

Common (e.g., Bacteria, Gases): *-2 points/-1 to HT rolls.*

Occasional (e.g., Intestinal Disease, Ingested Poison): *-1 point/-1 to HT rolls.*

You may not take more than five levels of Susceptible to a given item, or more than two separate Susceptible disadvantages, without the GM's permission. You cannot take more levels of Susceptible than would reduce your effective HT to 3. For instance, if your HT is 7, you are limited to four levels of Susceptible. If you have any form of Resistant that protects against a given item, you cannot also be Susceptible to that item.

This trait can simulate many common health problems. Use Susceptible to Disease for a weak immune system, Susceptible to Ingested Poison for a tendency not to vomit up noxious substances (a "weak vomit reflex"), etc.

Truthfulness

-5 points*

You hate to tell a lie – or you are just very bad at it. Make a self-control roll whenever you must keep silent about an uncomfortable truth (lying by omission). Roll at -5 if you actually have to *tell* a falsehood! If you fail, you blurt out the truth, or stumble so much that your lie is obvious. You have a permanent -5 to Fast Talk skill, and your Acting skill is at -5 when your purpose is to deceive.

Unfit

-5 or -15 points

You have worse cardiovascular health than your HT alone would indicate. This is a screening disadvantage. This comes in two levels:

Unfit: You get -1 to all HT rolls to remain conscious, avoid death, resist disease or poison, etc. This does *not* reduce your HT attribute or HT-based skills! As well, you lose FP at twice the normal rate. *-5 points.*

Very Unfit: As above, but the penalty to HT rolls is -2. In addition, you recover FP at only half the normal rate. You may not purchase any level of Resistant. *-15 points.*

In both cases, this disadvantage applies only to FP lost to exertion, heat, etc. It has no effect on FP "spent" to power psi.

Unnatural Features

see p. 32

Unusual Biochemistry

-5 points

You can subsist on human food, but your biochemistry is sufficiently different from that of humans that drugs intended for humans don't work or have unpredictable effects. Drugs that are specific to your biochemistry work normally, but cost 10 times as much as usual. This is an exotic disadvantage that requires the GM's permission to add.

When you receive a drug intended for humans, roll 1d:

1-3 – Normal effect.

4-5 – Normal effect, plus an additional harmful effect of the GM's choosing: lose 1d FP (sickness and nausea), suffer an amplified version of the drug's usual negative side effects, etc.

6 – No effect at all.

Very Fat

see p. 29

Very Unfit

see *Unfit*

Vow

-5 to -15 points

You have sworn an oath to do (or not to do) something. Whatever the oath, you take it seriously; if you didn't, it would not be a disadvantage. This trait is especially appropriate for knights, holy men, and fanatics.

The point value of a Vow should be directly related to the inconvenience it causes you. The GM is the final judge. Some examples:

Minor Vow: Silence during daylight hours; vegetarianism; chastity (yes, for game purposes, this is *minor*). *-5 points.*

Major Vow: Use no edged weapons; keep silence at all times; never sleep indoors; own no more than your horse can carry. *-10 points.*

Great Vow: Never refuse any request for aid; always fight with the wrong hand; hunt a given foe until you destroy him; challenge every knight you meet to combat. *-15 points.*

Note that if you could represent your Vow using another disadvantage, you only get points for one of the two disadvantages (your choice). No one may get points for Vow (Poverty) *and* Wealth (Dead Broke), Vow (Never kill) *and* Pacifism (Cannot Kill), etc.

Many Vows end after a specified period of time. You must buy off such a Vow when it ends. Vows for a period of less than a year are frivolous! If you want to end a Vow before its stated time, the GM may exact a penalty; for instance, in a medieval world, you might have to undertake a quest by way of penance.

Vulnerability

Variable

You take extra damage from a particular attack form. Whenever this type of attack hits you, the GM applies a special wounding multiplier to damage that penetrates your DR. Regular wounding multipliers (for cutting, impaling, etc.) *further* multiply the damage. This is an exotic disadvantage that requires the GM's permission to add.

Point value depends on the wounding multiplier and the rarity of the attack:

Vulnerability Table

Rarity of Attack	***Wounding Multiplier***		
	×2	***×3***	***×4***
Rare	-10 points	-15 points	-20 points
Occasional	-20 points	-30 points	-40 points
Common	-30 points	-45 points	-60 points
Very Common	-40 points	-60 points	-80 points

Use the categories under *Limited Defenses* (p. 87) to assess rarity. The GM has the final say on the rarity of a given attack form. You may not take more than two types of Vulnerability without GM permission.

You cannot have Vulnerability to anything against which you have a specific defense: Resistant, Damage Resistance limited to work only against that attack form, etc. You can have both Vulnerability and Supernatural Durability‡, but this reduces the utility of Supernatural Durability.

Special Limitations

Fatigue Only: You are vulnerable to an attack that drains FP instead of HP, or to some form of mundane fatigue loss (e.g., ×2 FP from hot weather). -50%.

Weakness

Variable

You suffer injury merely by being in the presence of a particular substance or condition (which cannot be a food item or something equally easy to avoid). This injury comes off your HP *directly,* regardless of your DR or defensive advantages. This is an exotic disadvantage that requires the GM's permission to add. If the Weakness is to something commonly encountered in the service, it becomes a screening disadvantage. The more quickly you take damage, the more points your Weakness is worth:

Frequency of Damage	***Value***
1d per minute	-20 points
1d per 5 minutes	-10 points
1d per 30 minutes	-5 points

Multiply the base value to reflect the rarity of the damaging substance or condition:

Rare (e.g., exotic radiation or minerals): *×1/2.*

Occasional (e.g., microwave radiation, intense normal cold, airborne pollen): *×1.*

Common (e.g., smoke, nearby magic, horses, loud noises): *×2.*

Very Common (e.g., sunlight, living plants): *×3.*

Example: An anaerobic organism takes 1d per minute from oxygen. The base value of a Weakness that inflicts 1d per minute is -20 points. Since oxygen is "Very Common," final cost is -60 points.

You may not take more than two types of Weakness without GM permission.

Special Limitations

Fatigue Only: Your Weakness drains FP instead of HP. -50%.

Variable: Your Weakness is sensitive to received intensity. You may specify one relatively common class of barriers that halves the rate at which you take damage (e.g., heavy clothing or sunscreen, for sunlight). On the other hand, intense sources (GM's decision) *double* the rate at which you suffer harm! -40%.

Wealth

see p. 35

Below-average levels of Wealth are a disadvantage: be sure to note them on your character sheet.

Workaholic

-5 points

You tend to drive yourself past your limits, and find it hard to relax and turn away from your work. You always work at least half again as long as a normal working day. This often results in missed sleep (see *Missed Sleep,* p. 228). Most people regard you with respect at first (+1 to reaction rolls), but you eventually suffer -1 or -2 to reactions – especially from friends and loved ones who rarely get to spend time with you.

Xenophilia

-10 points*

You are instinctively fascinated and attracted by strangers and aliens, no matter how dangerous or frightening they appear to be. Make a self-control roll whenever you meet someone (or some*thing*) like this. If you fail, you assume that this person is interested in interacting with you socially. A xenophile finds himself offering drinks to glaring foreign soldiers, making passes at cute vampires, and shaking tentacles with Things Man Was Not Meant To Know while his companions are pointing weapons or running the other way . . . As partial compensation, you get a bonus to Fright Checks when meeting strange creatures

Self-Control Number	***Bonus***
6	+4
9	+3
12	+2
15	+1

NPCs with this trait will react to exotic PCs at a similar bonus.

QUIRKS

A "quirk" is a minor feature that sets you aside from others. It has a negative point value, but it is not *necessarily* a disadvantage. For instance, a major trait like Greed is a disadvantage. But if you insist on being paid in gold, that's a quirk.

You may take up to five quirks at -1 point apiece ... and if you do, you will have five more points to spend. You can also "buy off" a quirk later on by *paying* 1 point, but as a rule, you shouldn't do that. Quirks might have a small cost, but they are a big part of what makes a character seem "real"!

Players are encouraged to invent new Quirks . . . which must be approved by their GM, of course.

MENTAL QUIRKS

Mental quirks are minor personality traits. They are a contract between you and the GM: "I agree to roleplay these character foibles. In return, you agree to give me a few extra points to spend." However, you *must* roleplay them. If you take the quirk "Dislikes heights," but blithely climb trees and cliffs whenever you need to, the GM will penalize you for bad roleplaying. The points you lose this way will cost you much more than you earned for taking the quirk. So don't choose a quirk you aren't willing to roleplay!

This doesn't mean the GM should be inflexible about mental quirks. A player should be allowed to *change* a quirk if something happens during play to justify a noticeable change in his character's personality. The GM should also allow players to leave a few of their five "quirk slots" open during character creation and fill them in after the first couple of play sessions. The most interesting quirks often emerge as the *result* of roleplaying!

To qualify as a mental quirk, a personality trait must meet one of two criteria:

- It requires a specific action, behavior, or choice on your part from time to time. This need not take hours, or be especially inconvenient, but it must be something that you can act out in the course of the game; it *cannot* be totally passive.
- It gives you a *small* penalty very occasionally, or to a narrow set of actions. Negotiate the game effects with the GM. You may take almost any mundane mental disadvantage at quirk level, in which case the rules for that disadvantage are used as guidelines, although the effects will be much less severe.

Example: "Wears black when off duty" is not a valid quirk – it is completely passive, and there are no negative side effects. "Dresses like an Orion Slave Girl" *is* a permissible quirk if the player and GM agree that it brings too many negative reactions or unwanted attention.

Attentive

You tend to stick to one task until it's done. You get a +1 bonus when working on lengthy tasks, but -3 to *notice* any important interruption!

Broad-Minded

A trivial form of Xenophilia. You get along well with other races and species, and strange looks rarely bother you.

Careful

A quirk-level version of Cowardice. You are naturally cautious, always on the lookout for danger. You dedicate extra time and money to preparations before venturing into a dangerous situation.

Chauvinistic

An extremely low level of Intolerance. You are always aware of differences in sex, skin color, etc. even if you do not actually react poorly to others. Thin-skinned individuals might occasionally react to you at -1 as a result.

Code of Honor

You may take a minor Code of Honor as a quirk. For instance, you might insist on exhibiting "gentlemanly" behavior toward all females, or spurning "chauvinistic" behavior from all males.

Congenial

This is a milder version of Chummy. You like company and you work well with others. You always choose group action over individual action.

Delusions

You may take a completely trivial Delusion as a quirk. This does not affect your everyday behavior, and is unlikely to be noticed by casual acquaintances, but you must *believe* it! *Examples:* "The Hydrans have spies on Earth disguised as trashcans." "Star Fleet controls the Youth Scouts." "Socks cause diseases of the feet."

Dislikes

You can have any the listed Phobias at the level of a mere "dislike." If you dislike something, you must avoid it whenever possible, but it does not actually *harm* you as a Phobia would. Dislikes don't *have* to be watered-down Phobias. There is a whole world full of things to dislike: carrots, cats, neckties, violence, communicators, transporters, income tax . . .

Distractible

Quirk-level Short Attention Span. You are easily distracted, and don't do well on long-term projects. You are at -1 when rolling to accomplish long tasks.

Dreamer

You have a -1 on any long task, because you tend to spend time thinking of better ways to do it, rather than working.

Dull

You are not quite Hidebound, but you tend to stick with tried and true methods.

Habits or Expressions

Saying "Jehoshaphat!" or "Bless my collar-button" constantly. .. or carrying a silver piece that you flip into the air ... or never sitting with your back to the door.

Humble

A weak form of Selfless. You tend to put the concerns of others, or of the group, before your own.

Imaginative

You are a font of ideas, and are more than willing to share them with others! They may or may not be *good* ideas, of course . . .

Incompetence

You are *inept* at one specific skill. You cannot learn that skill, and your default is at an extra -4. You cannot be incompetent in a single specialty of a skill; if you are incompetent with Guns, for instance, you are incompetent with *all* guns. The GM may disallow Incompetence if the skill would be irrelevant to a given character, or is unlikely to play a role in the campaign.

Likes

If you like something, you will seek it out whenever possible. Gadgets, kittens, shiny knives, ceramic owls, fine art . . . whatever. This is not a compulsion – just a preference.

Minor Addiction

You may take Addiction as a quirk, if you are addicted to a drug that causes psychological dependency and works out to 0 points under the Addiction rules.

Nosy

A lesser version of Curious. You are always poking your nose into corners and everyone else's business (which is likely to result in a small reaction penalty once in a while).

Proud

This is Selfish at quirk level. Individual success, wealth, or social standing concerns you greatly. NPCs with this quirk react at -1 to orders, insults, or social slights.

Staid

You may take this very low level of Incurious as a quirk. You are likely to ignore matters that don't immediately affect you.

Uncongenial

A lesser version of Loner. You prefer to be alone. You always choose individual action over group action.

Vow

A trivial Vow – e.g., never drink alcohol, treat all ladies with courtesy, or pay 10% of your income to your church – is a quirk.

PHYSICAL QUIRKS

Physical quirks are physical disadvantages that are only mildly or rarely limiting. They do not require roleplaying, but they give specific, *minor* penalties in play.

Unlike mental quirks, you cannot normally change physical quirks – that would make no more sense than exchanging One Eye for One Hand, under most circumstances. Also, you must define physical quirks when you create your character; you cannot use them to fill open "quirk slots" once the campaign begins.

Acceleration Weakness

You are susceptible to the bad effects of extreme acceleration, and get -3 to HT rolls to avoid them.

Cannot Float

You always sink in water.

Distinctive Features

You have a physical feature – e.g., "Brilliant blue hair" – that makes you stand out in a crowd. This gives -1 to your Disguise and Shadowing skills, and +1 to others' attempts to identify or follow you. Some Distinctive Features may stem from full-blown disadvantages. For instance, an albino (someone with no natural body pigment, resulting in pink eyes and pink-white hair and skin) would also have Weakness (Sunlight).

Minor Addiction

You may take Addiction as a quirk, if you are addicted to a drug that causes physiological dependency and works out to 0 points under the Addiction rules.

Minor Handicaps

You may take most mundane physical disadvantages at quirk level; for instance, you could use a watered-down version of Lame for a "bum knee." Difficulties rarely crop up, but are genuinely inconvenient when they do. If you have this kind of handicap, the GM may give you -1 to attribute, skill, or reaction rolls, as appropriate, in situations where it would logically interfere.

Nervous Stomach

You have -3 to HT rolls to avoid illness (typically in the form of attribute penalties or vomiting) brought on by rich or spicy food, strong drink, etc.

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ADB, Inc.'s page on Facebook is up and running, and we're finding a lot of new faces who haven't been around the BBS or Forum. We have pictures up of ADB, Inc. staff, links to many of our videos, snippets of information, and interaction with our fans. Jean Sexton is the main voice you will hear on our page on Facebook. If she doesn't know an answer, she'll ask one of the Steves and ferry the answer back.

All that is left is for you to "like" the page for Amarillo Design Bureau, Inc. if you haven't done so already. Here's the link:

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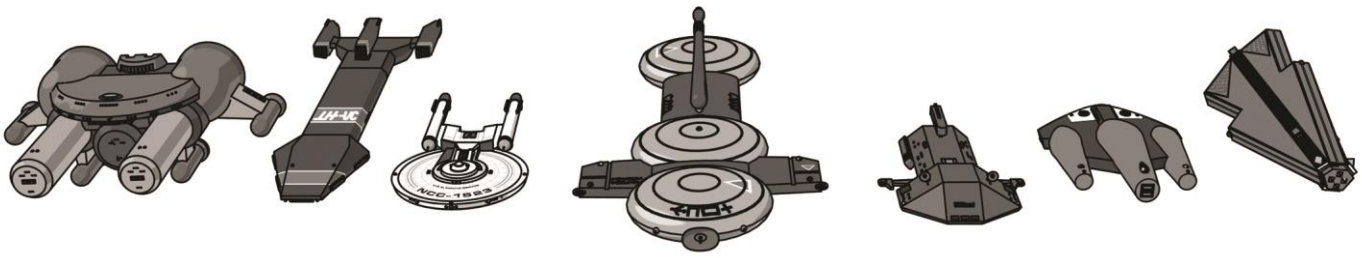
Many people on our page on Facebook have not been on our BBS, so perhaps our new outpost on Facebook will become the place for those who want to keep up with current events without the intense atmosphere (and flood of information) found on the BBS. If you are very busy on a given day, checking our page on Facebook would tell you quickly if something important has been announced. The page also has its own art galleries, plus a place where you can post a review of our products. It also has discussions where you can link up with fellow gamers.

We've also added a Twitter feed which you can follow at

https://twitter.com/ADBInc_Amarillo.

Be sure to follow us for a quick look at what is going on!

We hope to see you there! For Facebook users, be sure to add us to an interest group to see all of our posts.





A "skill" is a particular kind of knowledge; for instance, judo, physics, or auto mechanics. Every skill is separate, though some skills help you to learn others. Just as in real life, you start your career with some skills and can learn more if you spend time training.

A number called "skill level" measures your ability with each of your skills: the higher the number, the greater your skill. For instance, "Shortsword-17" means a skill level of 17 with the shortsword. When you try to do something, you (or the GM) roll 3d against the appropriate skill, modified for that particular situation. If the number you roll is *less than or equal to* your modified score for that skill, you succeed! But a roll of 17 or 18 is an automatic failure. For more on skill rolls, see Chapter 5.

Each skill is qualified in several ways to indicate what basic attribute represents talent with that skill, how easy the skill is to learn, any special restrictions on who can learn the skill, and whether the skill is broad or narrow in focus.

NOTE TO PLAYERS

The selection of skills in this chapter is taken from ***GURPS 4th Edition.*** We have chosen the ones we feel are best suited for the ***Star Fleet Universe*** and think you can play with just these; however, more are included in ***GURPS Basic Set Characters.*** When we reference one of these skills, it will be marked with a ‡ symbol. Most references to magic and the supernatural have been omitted as not germane to the ***Star Fleet Universe.***

CONTROLLING ATTRIBUTE

Each skill is based on one of the four basic attributes or, more rarely, on Perception or Will. Your skill level is calculated directly from this "controlling attribute": the higher your attribute score, the more effective you are with *every* skill based on it! If your character concept calls for *many* skills based on a given attribute, you should consider starting with a high level in that attribute, as this will be most cost-effective in the long run.

ST-based skills depend wholly on brawn, and are very rare. ST determines the power you can bring to bear with DX-based skills far more often than it affects skill levels directly.

DX-based skills rely on coordination, reflexes, and steady hands. This is representative of athletic and combat skills, and most vehicle operation skills.

IQ-based skills require knowledge, creativity, and reasoning ability. This includes all artistic, scientific, and social skills.

HT-based skills are governed by physical fitness. This includes any activity influenced by hygiene, posture, or lung capacity.

Perception-based skills involve spotting subtle differences. This is typical of skills used to detect clues and hidden objects.

Will-based skills hinge on mental focus and clarity of thought. Most allow one to resist mental attacks, bring about an altered mental state, or focus "inner strength."

DIFFICULTY LEVEL

Some fields demand more study and practice than others. ***GURPS*** uses four "difficulty levels" to rate the effort required to learn and improve a skill. The more difficult the skill, the more points you must spend to buy it at a given skill level.

Easy skills are things that *anyone* could do reasonably well after a short learning period – whether because they are second nature to most people or because there isn't a whole lot to learn.

Average skills include most combat skills, mundane job skills, and the practical social and survival skills that ordinary people use daily. This is the most common difficulty level.

Hard skills require intensive formal study. This is typical of most "academic" skills, and complex athletic and combat skills that require *years* of training.

Very Hard skills have prodigious scope, or are alien, counterintuitive, or *deliberately* shrouded in secrecy. The most fundamental of sciences are Very Hard.

TECHNOLOGICAL SKILLS

Certain skills are different at each tech level (see *Technology Level,* p. 33). These "technological skills" are designated by "/TL." This means that when you learn the skill, you must learn it at a specific tech level (TL). Always note the TL when you write down such a skill; e.g., "Surgery/TL4" for the TL4 version of Surgery

skill. Surgery/TL4 (cut his arm off with an axe) is nothing like Surgery/TL9 (graft on a cloned replacement arm)!

You learn technological skills at your personal TL. You may also choose skills from a *lower* TL. You can only learn skills from a *higher* TL in play – and only if you have a teacher *and* the skill is not based on IQ. To learn IQ-based technological skills from a higher TL, you must first raise your personal TL.

Technological skills rely on language, tool use, or both. This means that only sapient characters – those with IQ 6 or higher – may learn them.

Tech-Level Modifiers

Technological skills work best with the specific artifacts and techniques of their own TL. When you work with equipment or concepts of a TL different from that of your skill, you suffer a penalty to your skill roll.

IQ-Based Technological Skills

IQ-based technological skills represent a studied technical understanding of the *specific* methods and tools common at a particular TL. There is a penalty to your skill roll when you use these skills with the equipment of a higher TL (which relies on scientific and engineering principles unknown to you) or a lower TL (which depends on principles that were, at best, a "historical footnote" during your training.

Equipment's TL	***Skill Penalty***
Skill's TL +4 or more	Impossible!
Skill's TL +3	-15
Skill's TL +2	-10
Skill's TL +1	-5
Skill's TL	0
Skill's TL -1	-1
Skill's TL -2	-3
Skill's TL -3	-5
Skill's TL -4	-7
Per extra -1 to TL	-2

Other Technological Skills

Technological skills based on attributes other than IQ let you *use* technology; they do not assume any real understanding of the science or engineering behind the tools. For instance, a TL5 gunslinger accustomed to firing a Colt Peacemaker might find a TL7 Colt Python a bit strange, but he would have little difficulty shooting it.

For skills like this, apply a flat penalty of -1 per TL of difference between the skill and the equipment. For instance, a TL5 gunman would be at -2 to shoot a TL7 revolver. It is irrelevant whether the equipment is more or less advanced – a TL7 policeman would be at -2 to fire a TL5 revolver, too.

PREREQUISITES

Some skills have other skills as prerequisites. This is the case when an advanced skill is based on, and in some ways an outgrowth of, a basic one. To study the advanced skill, *you must have at least one point in the prerequisite skill.*

Certain skills also require that you know a prerequisite skill at a minimum skill level. Where this is the case, you must spend the points required to learn the prerequisite skill at the specified level before you can learn the advanced skill.

A few skills have advantages as prerequisites. In order to learn such a skill, you *must* possess the required advantage. If you do not have the advantage, and cannot acquire it in play, you can *never* learn that skill.

Grouped Skills

A set of distantly related skills that use identical rules may appear under a single heading to avoid repetition. If a skill description does not say that you must specialize, and indicates that it represents a *collection* of skills, then the subentries represent stand-alone skills – not specialties. Use only the name of the relevant subentry when you refer to such skills.

Example: Hand-to-hand weapon skills are grouped under *Melee Weapon,* but if you learn to use a shortsword, write "Shortsword," not "Melee Weapon (Shortsword)."

SPECIALTIES

An entry on the skill list may represent an entire category of closely related skills that share a single skill name. Examples include Armoury and Survival. Skills like this are marked with a dagger (†). The skills within such a category are called "specialties." When you buy a general skill of this kind, you *must* specify which specialty you are learning. On your character sheet, note the name of the specialty in parentheses after the general skill name; e.g., "Armoury (Small Arms)" or "Survival (Arctic)."

You may learn skills like this any number of times, with a different specialty each time, because *each specialty is a different skill.* There is usually a favorable "default" between specialties (see *Skill Defaults,* p. 150) which may let you purchase additional specialties more cheaply.

Optional Specialties

Many IQ-based skills – notably "academic" skills such as Literature‡ and Physics – have countless subfields but do not *require* you to select a specialty. As written, if you learn a skill like this, you are a generalist, knowledgeable about every aspect of the skill.

However, you may *opt* to specialize in a single, narrow area. You may only do this with an Average or harder IQ-based skill, and only if the GM agrees that the chosen subfield is logical given the skill and your TL.

When you choose an optional specialty, write down the skill and its specialty just as if you were selecting a required specialty. You learn the specialized skill as if it were one level easier. Unless otherwise noted, prerequisites are unchanged. The general skill defaults to the specialized one at -2; roll against this whenever you must answer questions outside your field. Any skill that defaults to the general skill also defaults to all of its optional specialties, but at an additional -2.

Example: Chemistry is IQ/Hard and does not *require* a specialty. You could learn the *optional* specialty Chemistry (Analytical) as if it were one level easier, or IQ/Average. Your general Chemistry skill would default to Chemistry (Analytical)-2. Metallurgy, which normally defaults to Chemistry-5, would default to Chemistry (Analytical)-7.

Familiarity

Any skill used to operate equipment – e.g., Beam Weapons/TL11 (Pistol) or Driving/TL7 (Automobile) – takes a penalty when you are faced with an unfamiliar *type* of item. For instance, if you were trained on a phaser pistol, a disruptor pistol would be "unfamiliar." Assume that an unfamiliar piece of equipment gives -2 to skill except where an individual skill description specifies otherwise.

In general, if you have the skill to use a piece of equipment, you are considered *familiar* with a new make or model after you have had eight hours of practice with it. Some skills require more or less practice than this, so be sure to read the skill description.

There is no limit to the number of types of gun, car, plane, etc. you can become familiar with. Each of these items is called a "familiarity." If you have at least six familiarities for a given skill, the GM may roll against your skill when you pick up a new piece of equipment. On a success, you are already familiar with something similar and may use the new device at no penalty. The GM may also rule that a new item is so similar to a known one that it is familiar – for instance, two similar models of Colt revolver should be considered identical.

Equipment from another tech level will usually be unfamiliar. This gives both TL *and* familiarity modifiers. Practice can eliminate unfamiliarity penalties, but to shed TL penalties, you must relearn the operation skill at the equipment's TL. *Exception:* Improved or obsolete versions of items with which you are already familiar do *not* give unfamiliarity penalties.

Familiarity for Beginning Characters

Starting characters may specify two familiarities per point spent on a skill. For instance, if you have four points in Guns (Pistol), you can be familiar with up to eight handguns.

Both specialization and familiarity come into play with many skills, but they are not the same thing. Driving (Automobile) is a *specialty* of Driving: it is a separate skill from Driving (Locomotive), and to know both, you must pay points for both. "Volkswagen Bug" is a *familiarity* of Driving (Automobile): you can select it for free as one of your starting familiarities.

BUYING SKILLS

In order to learn or improve a skill, you must spend character points. When you spend points on a skill, you are getting training to bring that skill up to a useful level. Skills are easy to learn at first – a little training goes a long way! But added improvement costs more.

The point cost of a skill depends on two things: its difficulty and the final skill level you wish to attain. Use the *Skill Cost Table* (on the next page) to calculate a skill's point cost.

The first column shows the skill level you are trying to attain, *relative to the skill's controlling attribute* – DX for DX-based skills, IQ for IQ-based skills, and so forth. For instance, if your DX were 12, a level of "Attribute-1" would be DX-1, or 11; "Attribute+0" would be DX, or 12; and "Attribute+1" would be DX+1, or 13.

The next four columns show the character point costs to learn skills of different difficulties – *Easy, Average, Hard,* and *Very Hard* – at the desired skill level. Harder skills cost more points to learn!

Example: A Klingon warrior with DX 14 wishes to learn Shortsword (DX/Average) at level 17. Since skill 17 is equal to his DX+3, he goes to the "Attribute+3" row. Then he reads along the row to the "Average" column to find the point cost: 12 points.

There is no limit (except lifespan) to the amount of improvement possible with any skill. However, the useful maximum for most skills is between 20 and 30. Problems to challenge a greater skill are rare!

Skill Cost Table

Your Final	Difficulty of Skill			
Skill Level	Easy	Average	Hard	Very Hard
Attribute-3	–	–	–	1
Attribute-2	–	–	1	2
Attribute-1	–	1	2	4
Attribute+0	1	2	4	8
Attribute+1	2	4	8	12
Attribute+2	4	8	12	16
Attribute+3	8	12	16	20
Attribute+4	12	16	20	24
Attribute+5	16	20	24	28
Extra -1	+4	+4	+4	+4

IMPROVING YOUR SKILLS

There are two direct ways to increase your skills in play: spend the bonus points you earn for successful adventuring on new or better skills, or dedicate game time to study, which gives you points you can use to add or improve the skills you studied. In either case, *the cost to improve a skill is the* ***difference*** *between the cost of the desired skill level and the cost of your current skill level.* For more information, see Chapter 6.

Free Increases in Skills

There is one way to increase many skills at once: pay the points to improve an attribute (see Chapter 6). If you do this, *all* your skills based on that attribute go up by the same amount, at no extra cost. For instance, if you raise DX by one level, all of your DX-based skills also go up by one level. Further improvements are based on the new DX value.

You can also base skills on "defaults" from other skills; see *Skill Defaults* (p. 150). Any skill bought up from such a default is likely to enjoy a free increase when you raise the skill to which it defaults.

MEANING OF SKILL LEVELS

So you have Astronomy-9, Savoir-Faire-22, and Shortsword-13. What does that *mean*? What is good, bad, and average? That's very important when you create a character. It's also important if you're converting characters from another system into ***GURPS,*** or vice versa. There are two equally valid – but *different* – ways to make skill-level comparisons.

PROBABILITY OF SUCCESS

The easiest way to get a feel for your skill levels is to look at your odds of success. To use a skill, you must roll 3d against your skill level. This is called a "success roll" (see Chapter 5). For instance, if your skill is 13, you must roll 13 or less on 3d to succeed. The table below shows the *probability of success* at each skill level – that is, your chance of rolling less than or equal to a given number on 3d. Note that skill levels can be over 18, but a roll of 17 or 18 is automatically a failure. *Nobody* succeeds 100% of the time!

Skill Level	Probability of Success	Skill Level	Probability of Success
3	0.5%	10	50%
4	1.9%	11	62.5%
5	4.6%	12	74.1%
6	9.3%	13	83.8%
7	16.2%	14	90.7%
8	25.9%	15	95.4%
9	37.5%	16+	98.1%

Base Skill vs. Effective Skill

Your unmodified skill level is called your *base skill.* It measures your odds of success at an "average" task *under adventuring conditions* – in other words, in a stressful situation where the consequences of failure are significant. Some examples:

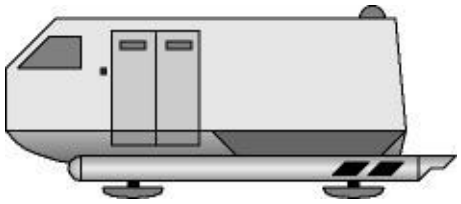
- Battles and chase scenes.
- Races against the clock.
- Situations where your health, freedom, finances, or equipment is at risk.

The GM may modify your skill level to reflect the difficulty of a task. Your final skill level, after applying all modifiers for the task at hand, is your *effective skill* for that task.

In nonadventuring situations when you have lots of time to prepare and face minimal risk, the GM may give you +4 or more to skill. (The GM might even declare such actions successful instead of wasting time on a skill roll; see *When to Roll,* p. 183). Ordinary people *almost always* receive this bonus at mundane tasks, even if they are working from default skill!

Example: A shuttlecraft pilot has Piloting-12 – normally a 74% chance of success. For day-to-day flying, however, he rolls at +4. This makes his effective skill 16, for a 98% chance of success.

On the other hand, especially tough adventuring situations can result in penalties. See *Culture* (p. 33), *Language* (p. 33), *Tech-Level Modifiers* (p. 146), *Familiarity* (p. 147), *Equipment Modifiers* (p. 186), and *Task Difficulty* (p. 184) for some common modifiers. Be sure to take these factors into account when buying your skills.



RELATIVE SKILL LEVEL

Skill level reflects a combination of talent and training. For instance, a DX 17 warrior has a lot of raw talent. He could quickly learn Shortsword-17, as this is only DX level for him. A DX 10 fighter would need considerably more practice to become that skilled, as Shortsword-17 is DX+7 level for him.

Such details are often unimportant; two warriors with Shortsword-17 are equally good at smiting foes, regardless of whether their skill is due to talent or training. However, there are times when you need (or want) to know the difference.

It is easy to compare talent – just look at the controlling attribute for the skill. In the example above, the DX 17 swordsman is clearly more talented than the DX 10 fighter.

To compare training, you must look at *relative skill level.* You can calculate it quickly by subtracting controlling attribute from skill level. In our example, the DX 17 warrior has a relative skill level of 0, while the DX 10 fighter has a relative skill level of +7, and is better trained.

Relative skill level becomes important when using the next two rules; therefore, you might opt to note it in parentheses after your skill level; e.g., "Shortsword-17 (+7)."

Using Skills with Other Attributes

The GM will sometimes find it useful to ask for a skill roll based on an attribute other than the controlling one for a skill. This is realistic; few skills really depend *just* on brains, *just* on agility, etc. To make a roll like this, simply add the *relative* skill level to the attribute you wish to use and make a success roll against the total.

Example: A warrior with DX 10, IQ 14, and Shortsword-17 has a relative skill level of +7 in Shortsword. If the GM asked for an IQ-based Shortsword roll, the swordsman would roll against 14 + 7 = 21 instead of his Shortsword skill of 17.

Some skill descriptions present situations where skill rolls using other attributes would be appropriate. The GM is encouraged to dream up more! A few examples:

- DX-based rolls against IQ-based repair skills to reach into tight corners; ST-based rolls against these skills to manhandle engine blocks and other heavy parts into place.
- IQ-based rolls against DX-based combat skills to feint an opponent, formulate tactics, or perform minor maintenance on weapons; ST-based rolls against these skills to disarm someone using brute strength rather than finesse.
- IQ-based rolls against DX-based vehicle-operation skills to recall traffic regulations, remember to change the oil, or identify the make and model of a vehicle; HT-based rolls against these skills to stay awake at the wheel.

Choosing Your Skill Levels

Gauging what skill levels you need to survive is no easy task. Determining how much skill is *realistic* can be tricky as well. When creating a PC (or an NPC), bear the following guidelines in mind.

Ordinary Folks

For an "average" person, it is reasonable to assume attributes between 9 and 11, and from 20 to 40 points in "life skills" (varying with education and dedication). Most people spread these points fairly evenly over roughly a dozen skills. This will result in skill levels between 8 and 13. Skills used to earn a living tend toward the upper end of this range (12 or 13), while little-used skills and those originating from long-forgotten college courses are at the lower end (8 or 9).

Experts

Once your skill level reaches 14, additional levels of skill don't improve your odds of success much. Furthermore, it can cost a lot of points to acquire higher skill levels. If you are an adventurer, though, the investment is worthwhile, to help you overcome the penalties for difficult tasks. For instance, if you have Lockpicking-23, ordinary locks are no easier for you – you fail on a 17 or 18, no matter what. But when you run into a *hard* lock that gives -6 to skill, your effective skill is 17 and you *still* only fail on a 17 or 18! Most prime team members are experts at two or more skills.

Masters

If you are a "master" in your field, you might be tempted to increase your skill levels *ad infinitum.* However, a true master has a detailed understanding of every aspect of his calling, best represented by stopping at a masterful level (20 to 25) in the "main" skill and branching out into several "subsidiary" skills. An extreme level (anything over 25) in one skill tends to be excessive and unbelievable – and is frequently *less useful* than a lesser level combined with one or more subsidiary skills.

Masters should also consider putting some points into advantages that negate skill penalties for adverse conditions. For instance, a prime team member who is a master in a combat skill might buy Combat Reflexes (improving his chances of defending himself), extending his capabilities in ways that high skill alone cannot.

To encourage players to develop their characters laterally instead of sinking all their points into just one or two skills, the GM might wish to consider limiting PCs to skill levels somewhere in the 20-25 range.

Your relative skill level will sometimes modify ST for a specific task (e.g., kicking in doors). Only modify ST if your relative skill level is *positive* – you get a bonus for high skill, but you never get a penalty for low skill.

Using Skills without Attributes

The GM might occasionally want two people with identical training to have similar odds of success *regardless* of their attributes, in a situation where training really does matter more than innate talent. In this case, just add relative skill level to a flat number – usually 10 – and roll against the result.

Example: Two accountants are vying for a promotion. One is talented, with IQ 14 and Accounting-18 (+4). The other is dull but experienced, with IQ 8 and Accounting-15 (+7). The GM decides to handle this as a Quick Contest: each accountant must attempt his Accounting roll, and the one who succeeds by the most will get the promotion. However, the boss cares about seniority above all, so the GM applies relative skill level – which reflects experience – to a flat base of 10. This leaves IQ out of the picture! The talented accountant rolls against 10 + 4 = 14, while his rival rolls against 10 + 7 = 17. Sometimes, life isn't fair . . .

SKILL DEFAULTS: USING SKILLS YOU DON'T KNOW

Most skills have a "default level": the level at which you use the skill if you have *no* training. A skill has a default level if it is something that everybody can do . . . a little bit. As a general rule, a skill defaults to its controlling attribute at -4 if Easy, -5 if Average, or -6 if Hard. There are exceptions to this, but not many.

Example: The "default" for Broadsword (DX/Average) is DX-5. If your DX is 11, and you have to swing a broadsword without training, then your "default" skill at Broadsword is 11 - 5 = 6. You need a roll of 6 or less to hit.

Some skills have no default level. For instance, Alchemy‡, Hypnotism‡, and Karate are complex enough that you cannot use them *at all* without training.

Regardless of your default skill level, you do not get the special benefits of a skill – especially combat bonuses such as improved damage, special defenses, and unpenalized off-hand use – when you use a skill at default. To enjoy these benefits, you must spend *at least one point* on the skill.

The Rule of 20

If a skill defaults to a basic attribute that is higher than 20, treat that attribute as 20 when figuring default skill.

Who Gets a Default?

Only individuals from a society where a skill is known may attempt a default roll against that skill. For instance, the default for Scuba skill assumes you are from a world where scuba gear exists and where most people would have *some* idea – if only from TV – of how to use it. A medieval knight transported to the 21st century would not get a default roll to use scuba gear the first time he saw it!

Defaulting to Other Skills

Some skills default to *another* skill instead of or as well as an attribute.

Example: Broadsword defaults to Shortsword-2, because the two skills are very similar. A Shortsword skill of 13 gives you a "default" Broadsword skill of 11.

Double Defaults

A skill can't default to another skill known only by default. If Skill A defaults to Skill B-5, and Skill B defaults to IQ-5, does Skill A default to IQ-10? No.

Improving Skills from Default

If your default level in a skill is high enough that you would normally have to pay points for that level, you may improve the skill past its default level by paying only the *difference* in point costs between your new level and your default level.

Example: Suppose you have DX 12 and Shortsword at 13. Since Broadsword defaults to Shortsword-2, your default Broadsword skill is 11. Skill 11 is equal to DX-1 for you. This would have cost 1 point had you bought it directly. The next level (DX) costs 2 points. The difference is 1 point; to raise your Broadsword skill from its default level of 11 (DX-1) to 12 (DX), you need only pay 1 character point. You do not have to pay the full 2 points for DX level!

If you increase a skill, skills that default to it go up as well. However, if you have spent points to improve these defaults, you may not see an increase when you raise the skill to which they default. This is best illustrated with our running example:

Example: Suppose you spend the point to raise Broadsword to 12 (DX). Now you spend 4 more points on Shortsword, improving that skill from 13 to 14 (from DX+1 to DX+2). Does your Broadsword skill also go up a level? No. Your new default from Shortsword is now 12 (Shortsword at 14, minus 2), but to go from level 12 to level 13 (from DX to DX+1) with Broadsword costs 2 points, and you've only spent 1 point on Broadsword. Keep track of that point, though. When you spend one more point on Broadsword, it goes up a level, too.

When two skills default to one another and you have improved both, you may switch the "direction" of your default if this would give you better skill levels. Redistribute the points spent on both skills as needed. You may never decrease either skill level this way, however; you must always spend enough points to keep each skill at its current level.

Example: Keeping Shortsword at 14, you spend a total of 22 points on Broadsword, improving your skill from its default of 12 (DX) to 18 (DX+6). You'd like to default Shortsword from Broadsword now, rather than vice versa. Taking the 8 points you spent on Shortsword and the 22 points you spent on Broadsword, you have 30 points to work with. First, buy Broadsword at 18 (DX+6) for 24 points. Then default Shortsword from Broadsword, getting 16 (that is, Broadsword-2). Finally, spend the remaining 6 points on Shortsword. This will be enough to raise Shortsword skill to 17 (and 2 more points will make that 18).

This feels like an abstract number shuffle, but it works. You're no better off than if you had started out with Broadsword skill, and you aren't penalized for learning Shortsword first.

SKILL LIST

The skill list is sorted alphabetically by skill name. Each entry gives the following information:

Name: The skill's name. Technological skills are noted as such; e.g., "Machinist/TL." Skills marked with a dagger (†) *require* you to choose a specialty (see *Specialties,* p. 146).

Type: The skill's controlling attribute and difficulty level; e.g., "IQ/Average."

Defaults: The attributes or other skills to which the skill defaults if you have not studied it. Where there is more than one possible default, use the most favorable. Some skills have *no* default – you *cannot* attempt to use these skills if you don't know them.

Prerequisites: Traits you must possess before you can spend points on the skill. If the prerequisite is another skill, you must have at least one point in that skill. Not all skills have prerequisites.

Description: An explanation of what the skill is for and how it works in play.

Modifiers: A list of common bonuses and penalties for use of the skill. The GM decides whether a particular modifier applies in a given situation. If an advantage or disadvantage *permanently* modifies base skill level rather than simply giving a bonus or a penalty for a specific task, add this permanent modifier to the skill level listed on your character sheet.

Accounting

IQ/Hard

Defaults: IQ-6, Finance-4, Mathematics (Statistics)-5, or Merchant-5.

This is the ability to keep books of account, to examine the condition of a business, etc. A successful Accounting roll (requires at least two hours of study, and possibly months to audit a large corporation) can tell you whether financial records are correct, and possibly reveal evidence of forgery, tampering, and similar criminal activity.

Modifiers: The time modifiers under *Time Spent* (p. 185) often apply; the Talents (p.103) of Business Acumen and Mathematical Ability *both* provide a bonus.

Acrobatics

DX/Hard

Default: DX-6.

This is the ability to perform gymnastic stunts, roll, take falls, etc. This can be handy on an adventure, as tightrope walking, human pyramids, and trapeze swinging all have useful applications. Each trick requires a separate skill roll, at whatever penalties the GM sees fit. If you are performing stunts on a moving vehicle or mount, roll against the *lower* of Acrobatics and the appropriate Driving or Riding skill.

You may substitute an Acrobatics roll for a DX roll in any attempt to jump, roll, avoid falling down, etc. As well, you may attempt an Acrobatic Dodge in combat – a jump or roll that avoids an attack in a flashy way (see *Acrobatic Dodge,* p. 212). Finally, a successful Acrobatics roll will reduce the effective distance of any fall by five yards (see *Falling,* p. 233).

Two special versions of Acrobatics are also available:

Aerobatics: The ability to execute tight turns, loops, power dives, etc. in flight. You must be able to fly to learn this skill – although *how* you fly (wings, jet pack, etc.) is irrelevant. Natural fliers might find flight to be as effortless as humans find walking, but they must still learn Aerobatics in order to engage in complex acrobatics. Add +2 to skill if you have 3D Spatial Sense.

Aquabatics: The ability to engage in underwater acrobatics. *Prerequisites:* Swimming, *or* the Amphibious advantage or the Aquatic disadvantage (p. 133).

Acrobatics, Aerobatics, and Aquabatics default to one another at -4. Add +1 to these three skills if you have Perfect Balance.

Acting

IQ/Average

Defaults: IQ-5, Performance‡-2, or Public Speaking-5.

This is the ability to counterfeit moods, emotions, and voices, and to lie convincingly over a period of time. A successful Acting roll lets you pretend to feel

something that you do not. The GM may require an Acting roll whenever you try to fool someone, play dead in combat, etc.

Impersonation is a special type of acting. To impersonate someone, you must first successfully disguise yourself (see *Disguise,* p. 187) – unless your victims cannot see you! (Note that on high-tech worlds, it may be difficult to pass yourself off as someone due to security checks based on DNA.)

Note that Acting is *not* the same Fast-Talk (the art of the "quick con") or Performance‡ (the skill of screen and stage acting).

Modifiers: +1 for every point of IQ you have over the person you are trying to fool (or the smartest one in the group), or -1 for every point of difference if your victim is smarter than you; -3 for Low Empathy‡; -1 to -4 for Shyness; -5 for Truthfulness, but only if you are trying to deceive someone. *For impersonation only:* -5 if you are not well acquainted with your subject; -5 if those you wish to fool are acquaintances of the subject (-10 for *close* acquaintances).

Administration

IQ/Average

Defaults: IQ-5 or Merchant-3.

This is the skill of running a large organization. It is often a prerequisite for high Rank (p. 37). A successful Administration roll gives you a +2 reaction bonus when dealing with a bureaucrat, and allows you to predict the best way to go about dealing with a bureaucracy.

Aerobatics

see *Acrobatics*

Airshipman/TL

see *Crewman*

Anthropology†

IQ/Hard

Defaults: IQ-6, Paleontology (Paleo-anthropology)‡-2, or Sociology-3.

This is the science of evolution and culture. An anthropologist is knowledgeable in the ways of primitive (and not-so-primitive) societies. An Anthropology roll might explain, or even predict, unusual rituals and folk customs. This skill requires specialization by species (if left unspecified, assume the anthropologist's *own* species). Specialties usually default to one another at -2 to -5, although there may be no default for completely alien species.

Aquabatics

see *Acrobatics*

Archaeology

IQ/Hard

Default: IQ-6.

This is the study of ancient civilizations. An archaeologist is at home with excavations, old potsherds, inscriptions, etc. An Archaeology roll lets you answer questions about ancient history, or identify artifacts and dead languages.

Area Knowledge†

IQ/Easy

Defaults: IQ-4 or Geography (Regional)-3*

* You have an IQ default only for Area Knowledge of a place where you live or once lived. Geography only gives a default for Area Knowledge of the specialty region.

This skill represents familiarity with the people, places, and politics of a given region. You usually have Area Knowledge only for the area you consider your "home base," whether that's a single farm or a solar system. If information about other areas is available, the GM may allow you to learn additional Area Knowledge skills.

The GM should not require Area Knowledge rolls for ordinary situations; e.g., to find the blacksmith, tavern, or your own home. But he could require a roll to locate a smith to shoe your horse at 3 a.m., or to find the best ambush spot along a stretch of road. "Secret" or obscure information might give a penalty, require a Hidden Lore‡ skill, or simply be unavailable – GM's decision. For instance, Area Knowledge of the capital city of Vulcan gives you the location of the Lyran Embassy, but not the Klingon General Bureau's current safe house.

The information covered by Area Knowledge often overlaps such skills as Current Affairs‡, Geography, Naturalist, and Streetwise. The difference is that Area Knowledge works for a single area: you know the habits of *this* tiger or gang boss, but have no special insight into tigers or gangs in general.

You can learn Area Knowledge for any sort of area. The larger the territory, the less "personal" and more general your knowledge becomes. Almost everyone will have Area Knowledge of *some* type. The "canonical" area classes are:

Neighborhood: For an urban area: the residents and buildings of a few city blocks. For a rural area: the inhabitants, trails, streams, hiding places, ambush sites, flora, and fauna of a few hundred acres.

Village or Town: All important citizens and businesses, and most unimportant ones; all public buildings and most houses.

City: All important businesses, streets, citizens, leaders, etc.

Barony, County, Duchy, or Small Nation: General nature of its settlements and towns, political allegiances, leaders, and most citizens of Status 5+.

Large Nation: Location of its major cities and important sites; awareness of its major customs, ethnic groups, and languages (but not necessarily expertise); names of folk of Status 6+; and a general understanding of the economic and political situation.

Planet: As for a large nation, but more general; knowledge of people of Status 7+ only.

Empire: Location of major planets; familiarity with all *known* species (but not necessarily expertise); knowledge of people of Status 7+; general understanding of the economic and political situation.

Galaxy Octant: Location of the capitals of interplanetary empires and the homeworlds of major species; general awareness of all *major* species; knowledge of individuals of Status 8; general understanding of relations between interplanetary empires.

Your IQ-4 default applies to *any* of these classes, as long as you have lived in the area. Defaults are limited by "common knowledge" at your tech level! A TL0 hunter would have a default for every level up to "Village or Town," while a TL8 student would have defaults up to "Planet" level. You must live in an interplanetary or interstellar empire to have defaults for levels above "Planet."

Geographical and Temporal Scope

Skills such as Area Knowledge, Current Affairs (Regional)‡, Geography (Regional), and History require specialization to specific places and times. In reality, this kind of knowledge is never "clear cut," and tends to spill over into related areas. The following penalties apply when you wish to use such a skill outside your specialty.

Distance

For an area far from your "stomping grounds," use the penalties under *Long-Distance Modifiers* (p. 105). However, the speed at which knowledge propagates increases as progressively more powerful tools for managing information appear: printing press, telephone, television, computers, faster-than-light radio, etc. To reflect this, at TL5 and above, the GM may choose to roll 3d against TL+1 (e.g., 9 or less at TL8) to determine whether you are familiar with the distant region from TV, the Internet, etc. On a success, you may *ignore* all distance penalties. (The GM might also wish to use this rule to determine whether a character's Reputation is known far from home in a high-tech setting.)

Time

Time is usually only a concern for History skill – but it could also apply to Area Knowledge skill in a time-travel situation, or if someone has been away from home for a *long* time. Use the Long-Distance Modifiers once again, substituting *years* for *miles*. For each point of tech-level difference, *double* the time modifier (a two-TL difference would be ×4, etc.). This is because societies change drastically on all levels when technology increases.

Area Class

"Area classes" are defined under Area Knowledge skill: Neighborhood; Village or Town; City; Barony, County, Duchy, or Small Nation; Large Nation; Planet; Empire; and Galaxy Octant. Area class becomes important in campaigns that involve a lot of travel. We assume here that the smaller areas are contained within the larger ones.

If you have specialized in a *larger* area and want information about a *smaller* area within it, the penalty is -2 for one class of difference, -4 for two, -8 for three, and so on, doubling each time.

If you have specialized in a *smaller* area and want information about a specific locale within the *larger* area containing it, the most appropriate solution is usually to use the distance penalties described above. However, questions having to do with the *entire* large area use a flat -2 per difference in levels.

Example: Someone with Area Knowledge (Earth) would be at -8 – due to three classes of difference – to know the mayor of Los Angeles. However, someone with Area Knowledge (Los Angeles) would be at -4 to know the location of Mount Rushmore. The same person would be at -10 to know the location of the Library of Congress in Washington, D.C.; the Library of Congress has more to do with Washington than with the United States as a whole, and it's more appropriate to resolve the question by considering distance.

Armoury/TL†

IQ/Average

Defaults: IQ-5 or Engineer (same)-4.

This is the ability to build, modify, and repair a specific class of weapons or armor. (It does not include skill at design; for that, see *Engineer.*) A successful roll lets you find a problem, if it isn't obvious; a second roll lets you repair it. Time required is up to the GM. You *must* specialize in one of the following fields:

Body Armor: Any kind of unpowered personal armor (but *not* shields). Also defaults to Smith (Bronze)‡-3 at TL1, to Smith (Iron)‡-3 at TL2-4, and to Machinist-3 at TL5+.

Force Shields: Any kind of force screen or deflector – be it personal or vehicular. This is the same skill as Electronics Repair (Force Shields).

Heavy Weapons: All weapons used with the Artillery and Gunner skills.

Melee Weapons: Any weapon used with a Melee Weapon or Thrown Weapon skill, as well as all kinds of shields. Also defaults to Smith (Bronze)‡-3 at TL1, to Smith (Iron)‡-3 at TL2-4, and to Machinist-3 at TL5+.

Missile Weapons: Man-portable, pre-gunpowder projectile weapons of all kinds – bows, crossbows, slings, etc.

Small Arms: All weapons used with the Beam Weapons and Guns skills. Also defaults to Machinist-5 at TL5+.

Vehicular Armor: All kinds of armored vehicle hulls.

Most specialties default to one another at -4 – but above TL4, there is *no* default between Armoury specialties dealing with armor and Armoury specialties dealing with weapons. The technologies covered by each specialty vary with TL. For instance, Armoury (Small Arms) covers black-powder small arms at TL4, repeating small arms that fire cartridges at TL6, "smart" infantry weapons at TL8, and phasers at TL10.

The GM should strictly enforce penalties for unfamiliarity. Armoury/TL10 (Small Arms) might cover both beam weapons and portable railguns, but going from one to the other gives you -2 to skill until you familiarize yourself with all the differences.

Modifiers: -2 for an unfamiliar item within your specialty (e.g., plate armor when you're used to mail); equipment modifiers (p. 186).

Artillery/TL†

IQ/Average

Default: IQ-5.

This is the ability to use a heavy weapon, such as a mortar or a howitzer, for *indirect* fire – that is, to put fire onto a target area via a high ballistic arc or similar path. For *direct* fire, use Gunner skill. You *must* specialize by weapon type. The available specialties vary by TL, but include one or more of:

Beams: Any kind of heavy energy weapon that is fired from orbit, bounced off a mirror, or otherwise used against targets you cannot see.

Bombs: All kinds of unpowered, free-falling munitions.

Cannon: Any kind of heavy projectile weapon – bombard, howitzer, naval gun, etc.

Catapult: Any kind of indirect-fire mechanical siege engine, such as a trebuchet.

Guided Missile: Any kind of seeking or remotely piloted missile.

Torpedoes: Any kind of powered underwater projectile.

There is *no* default between specialties, some of which cover weapons that bear little or no resemblance to true artillery. Artillery is a single skill only because all the weapons it covers use the same rules. The weapons covered by each specialty will vary by TL.

Familiarity is crucial here! Artillery (Cannon) covers both 81mm infantry mortars and 406mm naval guns, but going from one to the other will give -2 for weapon type (81mm vs. 406mm), -2 for fire-control (visual spotting vs. fire-direction center), and -2 for mount (bipod vs. naval turret), for a total of -6 to skill until you familiarize yourself with all the differences.

Note that Forward Observer skill is generally required to designate targets for Artillery skill.

Modifiers: All relevant combat modifiers; -2 for an unfamiliar fire-control system (e.g., map coordinates when you're used to satellite imagery) or mount (e.g., a naval turret when you're used to emplaced guns), or for an unfamiliar weapon of a known type (e.g., 155mm when you are used to 203mm); -4 or more for a weapon in bad repair.

Astronomy/TL

IQ/Hard

Default: IQ-6.
Prerequisite: Mathematics (Applied).

This is the study of stars and other extraplanetary objects. An astronomer could answer questions about the Sun, the planets of the solar system, etc.

Autohypnosis

Will/Hard

Default: Meditation‡-4.

This skill allows you to tap reserves of inner strength by entering a trancelike state. It requires a concentration period of (20 - skill) seconds, minimum one second. You cannot talk or move during the initiation of the trance state. A successful skill roll allows you to do one of the following:

Improve Concentration. You get +2 to skill to perform a specific, lengthy mental task (e.g., break a code

or write a computer program), but -2 to all unrelated IQ, Perception, and skill rolls. The task must be a relatively sedate one, done in a quiet place (library, lab, monastery, or placid wilderness).

Increase Will. You get +2 to Will (+5 on a critical success) for one hour. This applies to all attempts to resist interrogation, torture, or psionic attack. This roll is at -2.

Negate Pain/Fatigue. Cancels the negative effects of being reduced to 1/3 or less of your FP or HP (but not the fatigue or injury itself). This roll is at -4, and you may only make one attempt per hour.

Beam Weapons/TL†

DX/Easy

Default: DX-4.

This is the ability to use beam small arms. You *must* specialize by weapon type:

Pistol: Any handgun that fires an energy or particle beam.

Rifle: Any long arm that fires an energy or particle beam.

These specialties default to one another at -4. Treat specific beam types (phaser, laser, stunner, etc.) as familiarities. Other modifiers are as per *Guns.* The Pistol and Rifle specialties of Beam Weapons default to the similarly named Guns specialties at -4, and vice versa.

See *Artillery* and *Gunner* for heavier beam weapons.

Biology/TL†

IQ/Very Hard

Defaults: IQ-6 or Naturalist-6.

This is the scientific study of the structure, behavior, and habitats of living organisms. You *must* specialize in the life of a particular planet type (see box). If you do not specify a planet type, your native planet type is assumed. The IQ default applies only to the planet type you grew up on. The default between different planet-type specialties is -4.

At TL6+, most biologists have an *optional* specialty as well. The most common options are biochemistry, botany, ecology, genetics, marine biology, microbiology, and zoology, but more obscure specialties are possible.



PLANET TYPES

Biology, Geology, and Meteorology require you to specialize by "planet type," as does the "Physical" specialty of Geography. If you do not specify a planet type, your native planet type is assumed – for example, Class-M if you are human, or Class-K if you are a Vulcan. Unless otherwise specified, all planet-type specialties for a given skill default to one another at -4. For the standard planetary classes, see p. 290.

Boxing

DX/Average

Defaults: None.

This is the skill of trained punching. Roll against Boxing to hit with a punch. Boxing does *not* improve kicking ability – use Brawling or Karate for that.

Boxing improves damage: if you know Boxing at DX+1 level, add +1 *per die* to basic thrust damage when you calculate punching damage. Add +2 per die if you know Boxing at DX+2 or better!

When you defend with bare hands, Boxing allows you to parry two *different* attacks per turn, one with each hand. Your Parry score is (skill/2) + 3, rounded down. Boxing parries are at -2 vs. kicks and -3 vs. weapons other than thrusting attacks. Boxing also gives an improved retreating bonus when you parry; see *Retreat* (p. 213). For more on barehanded parries, see *Parrying Unarmed* (p. 212).

Brainwashing/TL

IQ/Hard

Defaults: Special.
Prerequisite: Psychology.

This is the "black art" of technological personality alteration and mind control. Only intelligence, military, and security services teach it – and only to individuals with suitable Rank or Security Clearance. Even then, it is rare outside police states (except perhaps during wartime).

Brainwashing encompasses many techniques – some proven, others little better than witchcraft. Depending on the setting, these might include drugs, electroshock, hypnotism, sensory deprivation, sleep deprivation, social pressure, subliminal messages, or surgery . . . and most likely a combination of several of these.

Regardless of the techniques employed, brainwashing is handled as a Regular Contest (*not* a Quick Contest) between Brainwashing skill and the victim's Will. Roll once per day. Obviously, the brainwasher has a tremendous advantage: even if the victim wins *this* time, it is only a matter of time before he slips.

Results depend on how effective the GM deems brainwashing to be, but might include insanity, personality alteration, or suggestions that can be triggered by future events. In game terms, the victim can acquire almost any *mental* quirk or disadvantage.

In settings where neural interfaces exist, it might be possible to "hack" the victim's brain using a computer. This takes only a *fraction of a second* per attempt! Brain Hacking should be treated as its own skill, with Computer Hacking instead of Psychology as a prerequisite.

This skill normally has no default. However, GMs who wish to explore the gory details can specify the techniques used in their campaign and have Brainwashing default to one or more of Electronics Operation (Medical)-6, Hypnotism‡-6, Interrogation-6, Pharmacy-6, Psychology-6, or Surgery-6, as appropriate.

Brawling

DX/Easy

Defaults: None.

This is the skill of "unscientific" unarmed combat. Roll against Brawling to hit with a punch, or Brawling-2 to hit with a kick. Brawling can also replace DX when you attack with teeth, claws, horns, or other "natural weapons."

Brawling improves damage: if you know Brawling at DX+2 level or better, add +1 *per die* to basic thrust damage when you calculate damage with Brawling attacks – punches, kicks, claws, bites, etc.

Brawling includes the ability to use the blackjack or sap. An attack with such a fist load is considered a punch at +1 to damage.

When you defend with bare hands, Brawling allows you to parry two *different* attacks per turn, one with each hand. Your Parry score is (skill/2) + 3, rounded down. Brawling parries are at -3 vs. weapons other than thrusting attacks. For more on barehanded parries, see *Parrying Unarmed* (p. 212).

Breath Control

HT/Hard

Defaults: None.

This is the ability to breathe at maximum efficiency. On a successful skill roll, you can increase the time you can hold your breath for any reason (e.g., underwater) by 50%, or regain one FP in only two minutes.

Camouflage

IQ/Easy

Defaults: IQ-4 or Survival-2.

This is the ability to use natural materials, special fabrics and paints, etc. to hide yourself, your position, or your equipment. To see through your camouflage, an observer must win a Quick Contest of Vision or Observation skill vs. your Camouflage skill.

Depending on the circumstances, successful camouflage might hide its subject entirely or merely blur its outlines to make it harder to hit (-1 to attacker's skill). Camouflage will not improve your Stealth roll, but if you fail a Stealth roll while camouflaged, those who *heard* you must still see through your camouflage to *see* you.

Modifiers: Equipment modifiers (p. 186). Apply a *penalty* equal to the Size Modifier of a large object (e.g., -5 for a shuttlecraft with SM +5). This makes it difficult to camouflage large objects, but remember that distant observers suffer large Vision penalties for range – see *Vision* (p. 195).

Carousing

HT/Easy

Default: HT-4.

This is the skill of socializing, partying, etc. A successful Carousing roll, under the right circumstances, gives you a +2 bonus on a request for aid or information, or just on a general reaction. A failed roll means you made a fool of yourself in some way; you get a -2 penalty on any reaction roll made by those you caroused with. If you do your carousing in the wrong places, a failed roll can have other dangers!

Modifiers: Up to +3 for buying drinks or other entertainment for your fellow carousers; -3 for Killjoy‡; -3 for Low Empathy‡; -1 to -4 for Shyness.

Cartography/TL

IQ/Average

Defaults: IQ-5, Geography (any) -2, Mathematics (Surveying)-2, or Navigation (any)-4.

This is the ability to create and interpret maps and charts. Roll against this skill to map any location as you move through it. At TL7+, this skill includes knowledge of computer mapping techniques and generating maps from sensor information.

Chemistry/TL

IQ/Hard

Default: IQ-6.

This is the study of matter. A chemist can identify elements and simple compounds (but not necessarily drugs, magical substances, etc.). Given proper equipment, he could conduct complex analyses and syntheses.



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Climbing

DX/Average

Default: DX-5.

This is the ability to climb mountains, rock walls, trees, the sides of buildings, etc. See *Climbing* (p. 189) for details.

Modifiers: +2 for Brachiator; +3 for Flexibility *or* +5 for Double-Jointed; +1 for Perfect Balance; a penalty equal to encumbrance level (e.g., -1 for Light encumbrance).

Computer Hacking

In the ***SFU,*** "hackers" should learn a combination of Computer Operation (to exploit OS loopholes and run intrusion software), Computer Programming (to *write* intrusion software), Cryptography, Electronics Operation (Communications or Surveillance), Electronics Repair (Computers), Fast-Talk (to convince legitimate users to reveal passwords), and Research (to find documented security holes)

Computer Operation/TL

IQ/Easy

Default: IQ-4.

This is the ability to use a computer. It is the only computer skill needed by most end users. Learn Computer Programming to write software and Electronics Repair (Computers) to troubleshoot hardware.

Modifiers: -2 or more for an unfamiliar computer, operating system, or program.

Computer Programming/TL

IQ/Hard

Defaults: None.

This is the ability to write and debug computer software. A successful roll lets you find a bug in a program, determine a program's purpose by examining the code, answer a question about computer programming, or write a new program (time required is up to the GM).

In the ***SFU,*** those who wish to work with artificial intelligence (AI) must learn Computer Programming (AI). There is no default between this skill and regular Computer Programming. When using Detect Lies, Fast-Talk, Psychology, Teaching, and similar "social" skills on an AI, roll against the *lower* of Computer Programming (AI) and the relevant skill.

Modifiers: -2 or more for an unfamiliar programming language (see *Familiarity,* p. 147). The time modifiers under *Time Spent* (p. 185) will often apply. When writing a program that deals with a specialized field of knowledge, the GM may require a roll against the *lower* of Computer Programming and your skill in that field (e.g., a Mathematics specialty for a complex mathematical program).

Cooking

IQ/Average

Defaults: IQ-5 or Housekeeping‡-5.

This is the skill of being a chef – you do not need it to heat water and open boxes, or to cook rat-on-a-stick over your campfire. A successful skill roll allows you to prepare a pleasing meal. Many chefs have an *optional* specialty, such as baking, beverage making, or a particular variety of ethnic cuisine (e.g., Chinese or Vulcan).

Crewman/TL†

IQ/Easy

Default: IQ-4.

This is the ability to serve as *crew* aboard a specific type of large vehicle. It includes familiarity with "shipboard life," knowledge of safety measures, and training in damage control (the use of emergency equipment to control flooding, fight fires, patch the hull, and so forth). Make a skill roll for basic map or chart reading, practical meteorology, or to recall laws and regulations that pertain to your vehicle.

The *average* Crewman skill of an entire crew can be used as a measure of overall crew quality. The GM rolls against average skill whenever the vehicle arrives or departs, in unfavorable conditions, or in battle. Failure and critical failure results depend on the circumstances.

There is a separate skill for each class of vessel:

Airshipman/TL: The skill of handling ballast, gas valves, mooring lines, etc. on a blimp, zeppelin, or other large airship.

Seamanship/TL: The skill of operating anchors, hatches, mooring lines, pumps, sails, windlasses, etc. aboard a large surface ship (but *not* a submarine).

Spacer/TL: The skill of working with airlocks, docking clamps, hull patches, pressure doors, etc. on a large spacecraft or space base.

Submariner/TL: The skill of handling pressure doors, pumps, valves, etc. aboard a submarine or in an undersea base.

Criminology/TL

IQ/Average

Defaults: IQ-5 or Psychology-4.

This is the study of crime and the criminal mind. A successful skill roll allows you to find and interpret clues, guess how criminals might behave, etc. Though this skill does not actually default to Streetwise, the GM might allow a Streetwise roll *instead* in certain situations – especially to predict or outguess a criminal.

Cryptography/TL

IQ/Hard

Default: Mathematics (Cryptology)-5.

This is the ability to create and defeat encryption systems, codes, and ciphers. It is of use in wartime, espionage, and even business dealings. It covers all the techniques of your TL, which can range from unsophisticated substitution ciphers to state-of-the-art tactical encryption schemes. Knowledge of a *specific* system, code, or cipher depends on your Security Clearance (p. 102) and allegiances (national, administrative, or both). In many settings, some level of Security Clearance is a prerequisite to learning this skill *at all.*

Treat an attempt to break an unknown code as a Quick Contest of Cryptography skill between the codebreaker and code-maker. The codebreaker must *win* to break the code. Repeated attempts are possible, but each attempt takes a day. The codemaker rolls only once, when he first creates the code.

Those with Cryptography skill may take an *optional* specialty (p. 146) in making or breaking codes. (The codebreaking specialty is often called "cryptanalysis.")

Cryptography normally has *no* IQ default, with two exceptions. Anyone can devise a trivial code or cipher by making an IQ-5 roll. This won't stall a professional for long, of course. Likewise, anyone can make an IQ-5 roll to attempt to break such a trivial code (but *not* a code devised by someone with Cryptography skill), using the Quick Contest system described above.

Modifiers: Mathematical Ability. A computer with appropriate software gives a bonus (provided you know Computer Operation skill): +1 for a home computer, +2 for a minicomputer, +3 or +4 for a mainframe, and +5 or more for a supercomputer. The *codebreaker* is at +5 if he has a sample of the code with translation, and -5 if the message to be decoded is shorter than 25 words. The *codemaker* receives a bonus for the time taken to create the code: consult the *Size and Speed/Range Table* (p. 211), look up the time in days in the Range/Speed column (substituting "days" for "yards"), and use the corresponding bonus.

Detect Lies

Per/Hard

Defaults: Perception-6, Body Language‡-4, or Psychology-4.

This is the ability to tell when someone is lying to you. It is not the same as Interrogation; Detect Lies works in a casual or social situation. When you ask to use this skill, the GM rolls a Quick Contest of your Detect Lies skill vs. your subject's IQ (or Fast-Talk or Acting skill). If you win, the GM tells you whether the subject is lying. If you lose, the GM may lie to you about whether you were lied to . . . or just say, "You can't tell."

Modifiers: +1 for Sensitive or +3 for Empathy, or -3 for Low Empathy‡; +4 if your subject is Easy to Read‡. If the subject is of a different species, the GM may assess a penalty.

Diagnosis/TL

IQ/Hard

Defaults: IQ-6, First Aid-8, Physician-4, or Veterinary-5.

This is the ability to tell what is wrong with a sick or injured person, or what killed a dead person. A successful roll gives some information about the patient's problem – *limited to realistic knowledge for your tech level.* It might not determine the exact problem (if the GM feels the cause is totally beyond your experience, for instance), but it always gives hints, rule out impossibilities, etc. No Diagnosis roll is required for *obvious* things, like open wounds and missing limbs! In the ***SFU,*** you must specialize by species (*Interspecies Medicine,* p. 228).

Modifiers: Equipment modifiers (p. 186); *Interspecies Medicine* modifiers (p. 228), -5 for internal injuries; -5 or more for a rare disease.

Diplomacy

IQ/Hard

Defaults: IQ-6 or Politics-6.

This is the skill of negotiating, compromising, and getting along with others. You may substitute a Diplomacy roll for any reaction roll in a noncombat situation, as described under *Influence Rolls* (p. 197).

Unlike other Influence skills, Diplomacy never gives a worse result than if you had tried an ordinary reaction roll. Failure with Fast-Talk or Sex Appeal alienates the subject, but Diplomacy is usually safe.

A successful roll also allows you to predict the possible outcome of a course of action when you are negotiating, or to choose the best approach to take.

If you know Diplomacy at level 20 or better, you get a +2 bonus on all reaction rolls!

Modifiers: +2 for Voice; -3 for Low Empathy‡; -1 for Oblivious‡; -1 to -4 for Shyness; -2 for Stuttering‡.

Disguise/TL†

IQ/Average

Defaults: IQ-5 or Makeup‡-3.

This is the art of altering your appearance using clothing, makeup, and prosthetics. You do not need this skill to don a quick disguise – e.g., to put on a lab coat when you enter a laboratory – but such disguises only fool the inattentive! A *good* disguise requires a Disguise roll and 30 minutes to an hour of preparation.

Roll a Quick Contest of Disguise skill vs. the Perception of *each person* your disguise must fool. Individuals with Criminology or Observation skill may substitute those skills for Perception when rolling to pene-

trate a disguise. The GM may allow other skills to be of use – for instance, Physician skill might help spot a rubber nose.

When combining Acting with Disguise (that is, when you must change your face *and* your personality), you need only make one roll for each person or group – but it must be the *harder* of the two rolls.

You *must* specialize by species – Disguise (Human) is nothing like Disguise (Hilidarian). Disguise specialized in your own species is the most common form; just list this as "Disguise" on your character sheet. Disguise skills for physically similar species default to one another at -2 to -4.

Modifiers: Equipment modifiers (p. 186). +4 for Elastic Skin‡. You are at -1 to -5 to disguise yourself as someone very different from you (GM's discretion). Distinctive appearance also gives a penalty – see *Build* (p. 29), *Unnatural Features* (p. 32), and specific disadvantages (e.g., Hunchback‡) for details. Differences in Size Modifier usually make Disguise *impossible*.

You can also learn Disguise (Animals) to deceive nonsapient creatures. This involves wearing animal skins, smearing your body with musk or dung, etc. There is no default between this and other Disguise specialties. Use the following modifiers *instead* of those given above.

Modifiers: +2 if approaching from downwind; -1 for each animal over one of the same type being approached (-1 for every *10* in the case of herd animals); -1 to -3 if the skins are old or in poor condition. Make a Naturalist roll to recall the habits of the animal being imitated; success gives +1 to +3, while failure gives -1 to -3.

Driving/TL†

DX/Average

Defaults: DX-5 or IQ-5.

This is the ability to drive a specific type of ground vehicle.

Make an IQ-based Driving roll for basic map reading, to diagnose simple malfunctions, or to recall rules of the road.

You *must* specialize:

Automobile: Any vehicle with three or more wheels that weighs less than 5 tons and does not move on rails. *Defaults:* Heavy Wheeled-2 or other Driving at -4.

Construction Equipment: Any kind of bulldozer, crane, plow, etc. *Default:* other Driving at -5.

Halftrack: Any vehicle that moves on tracks *and* either wheels or skids. *Defaults:* Tracked-2 or other Driving at -4.

Heavy Wheeled: Any vehicle with three or more wheels that weighs 5 tons or more and does not move on rails. *Defaults:* Automobile-2 or other Driving at -4.

Hovercraft: Any kind of air-cushion vehicle. *Default:* other Driving at -5.

Locomotive: Any vehicle that moves on conventional or maglev rails. *Default:* other Driving at -5.

Motorcycle: Any powered one- or two-wheeled vehicle, including those with sidecars. Large motorcycles often have a Minimum ST, just like a weapon. *Default:* Bicycling‡-4.

Tracked: Any vehicle that moves on tracks. *Defaults:* Halftrack-2 or other Driving at -4.

Note that the ability to "drive" a team of animals is not Driving, but Teamster‡.

Modifiers: -2 or more for bad driving conditions; -2 or more for a vehicle in bad repair; -2 for an unfamiliar control system (e.g., an automatic when you are used to a manual); -4 or more for a vehicle of an unfamiliar type within your specialty (e.g., a race car when you are used to stock cars).

Economics

IQ/Hard

Defaults: IQ-6, Finance-3, Market Analysis‡-5, or Merchant-6.

This is the study of the *theory* of money, markets, and financial systems. It is mainly an academic skill, but a successful skill roll allows you to predict the economic impact of events in the game world: the assassination of a political figure, the demolition of a power plant, the introduction of a new invention, etc. Adventurers with intelligence and military backgrounds frequently have some training in this skill.

Electrician/TL

IQ/Average

Defaults: IQ-5 or Engineer (Electrical)-3.

This is the skill of building, maintaining, and repairing electrical systems. Make a skill roll to diagnose an electrical fault, wire a building or vehicle, etc. Adventuring uses include damage control in combat (e.g., to restore power to a damaged vehicle system) and cutting the power to a building prior to clandestine activities.

Note that *electrical* and *electronic* systems are not the same thing. The equivalent skill for electronics is Electronics Repair.

Modifiers: Equipment modifiers (p. 186).

Electronics Operation/TL†

IQ/Average

Defaults: IQ-5, Electronics Repair (same)-5, or Engineer (Electronics)-5.

This skill lets you use all electronic equipment *within a known specialty.* Make a skill roll in an emergency situation or for "abnormal" use of equipment –

not for ordinary, everyday use. (*Exception:* Unskilled users must always attempt their default roll!)

You *must* specialize:

Communications (Comm): All forms of electronic communications technology: radios, satellite uplinks, laser communicators, etc. Includes knowledge of any standard, current communications codes appropriate to your background. These do not require a skill roll – although attempts to understand or use an unfamiliar code *do* require a roll. At TL5-7, this includes telegraphy: you can send or receive 2 words per minute (wpm) per point of skill at TL5, 3 wpm per point of skill at TL6-7.

Electronic Warfare (EW): All signals-intelligence and jamming equipment, including electronic counter-measures (ECM) and electronic counter-counter-measures (ECCM). Only intelligence agencies and the military teach this specialty – and only to individuals with suitable Military Rank (p. 37) or Security Clearance (p. 102).

Force Shields: Portable, vehicular, base, and starship force shields and deflectors.

Media: All forms of audio, film, trivideo, and video editing equipment. Treat different media as mutually unfamiliar technologies.

Medical: All manner of electronic diagnostic and life-support equipment.

Psychotronics: Psionic technology, such as the Klingon mindsifter.

Scientific: Laboratory electronics and survey gear. You are automatically familiar with the equipment used with any scientific skill on which you have spent at least one point.

Security Systems: Both operating and circumventing all forms of alarms, security sensors, and area-surveillance technology.

Sensors: Most forms of long-range detection gear, from air-defense radar to starship sensor suites. Certain highly specialized sensors (such as sonar and tricorders, below) have their own specialties.

Sonar: All types of acoustic detection and ranging gear (normally used underwater).

Surveillance: All forms of concealable or remote surveillance gear: "bugs," hidden cameras, long-range microphones, wiretaps, etc.

Tractor Beams: Any form of tractor beam (p. 263).

Transporter: All matter transporters. Critical failures can be disastrous, especially when transmitting living beings!

Tricorder: The ability to operate tricorders and universal translators.

These specialties default to one another at -4. The technologies covered by a particular specialty vary with TL. For instance, Electronics Operation (Comm) covers telegraphs at TL5, telephones and radios at TL6, and digital communications systems at TL8 . . . and might cover faster-than-light or telepathic communicators at higher TLs.

Familiarity (p. 147) is crucial here! Electronics Operation/TL8 (Sensors) covers both thermographs on fighter jets and ground-penetrating radars on satellites, but going from one to the other gives you -2 for type (thermograph to radar) and -2 for implementation (jet to satellite), for a net -4 to skill until you familiarize yourself with all the differences.

Modifiers: Equipment modifiers (p. 186); -2 for an unfamiliar technology of a known type (e.g., radar when you are used to thermograph) or an unfamiliar implementation of a familiar technology (e.g., air-defense radar when you are used to weather radar); -1 to -10 if you have been away from the field for a long time (this varies by field) and have not had a chance to become familiar with the changes.

Electronics Repair/TL†

IQ/Average

Defaults: IQ-5, Electronics Operation (same)-3, or Engineer (Electronics)-3.

This is the ability to diagnose and repair known types of electronic equipment. Time required for each attempt is up to the GM. You *must* specialize in one of the areas listed under Electronics Operation (above), or in Computers (Electronics Repair (Computers) defaults to Computer Operation-5). These specialties default to one another at -4.

Modifiers: Equipment modifiers (p. 186); -2 without plans or schematics; -2 for an unfamiliar technology or implementation (just as for Electronics Operation); -4 to *modify* a device away from its intended purpose.

Engineer/TL†

IQ/Hard

Defaults: Special.

Prerequisites: Mathematics (Applied) at TL5+, plus others as noted.

This is the ability to design and build technological devices and systems. A successful roll lets you design a new system, diagnose a glitch, identify the purpose of a strange device, or improvise a gadget to solve a problem. Time required for each attempt is up to the GM.

Note that engineers are *designers* and *inventors;* they are not necessarily skilled at the routine operation or maintenance of the things they design! For instance, Engineer (Small Arms) lets you design a new assault rifle, but you need Armoury skill to maintain it and Guns skill to shoot it. You *must* specialize:

Artillery: Designing whatever passes for artillery at your TL, from trebuchets to smart missiles. *Default:* Armoury (Heavy Weapons)-6.

Civil: Planning highways, aqueducts, buildings, etc. *Default:* Architecture‡-6.

Combat: Building or removing fortifications, trenches, etc. *Default:* Explosives (Demolition)-6.

Electrical: Designing electrical systems, such as power cells and transmission lines. *Default:* Electrician-6.

Electronics: Designing and building electronic apparatus, from computers to starship sensor arrays. (The specific technologies involved – vacuum tubes, transistors, photonics, etc. – will depend on the tech level.) *Default:* Electronics Repair (any)-6.

Psychotronics: Designing psionic technology, such as telepathic shields, Klingon mindsifters, and amplifiers. *Default:* Electronics Operation (Psychotronics)-6.

Robotics: Designing robotics and cybernetics. *Default:* Mechanic (Robotics)-6.

Small Arms: Designing personal firearms, such as guns and portable rocket launchers. *Default:* Armoury (Small Arms)-6.

Vehicle Type: Designing a single, broad class of vehicle. Examples include Engineer (Automobiles), Engineer (Ships), and Engineer (Starships). *Default:* Mechanic (same vehicle type)-6.

Engineer specialties normally default to one another at -4.

Modifiers: Equipment modifiers (p. 186). Up to +5 to build a gadget if you can give the GM a good description of what you want it to do.

Environment Suit/TL

DX/Average

Defaults: DX-5 and others.

This is training in the use of a specific class of protective suit designed to shield the wearer from environmental or battlefield hazards.

Roll against Environment Suit skill to get into or out of your suit *quickly.* A successful roll halves the time required. To activate a specific subsystem of a suit, or to gauge whether a suit is in good repair, make an IQ-based skill roll instead.

When rolling against DX or any DX-based skill while suited up, use the *lower* of your Environment Suit skill and your actual skill level. For instance, if you have DX 14, Stealth-15, and Vacc Suit-13, you will function at DX 13 and Stealth-13 while wearing a spacesuit. Particularly ungainly suits might give -1 or more to DX on top of this, regardless of skill level. On the other hand, some sleek, ultra-tech suits might not limit skills *at all!*

However, Environment Suit is *strictly* the skill of donning and operating the suit. Familiarity with and knowledge of dangerous environments is covered by other skills: Free Fall, Hazardous Materials, Survival, etc.

Each suit type requires its own skill. Examples include:

NBC Suit/TL: All forms of hazardous materials ("HazMat") gear – including sealed, unpowered body armor that can be buttoned down against nuclear-biological-chemical (NBC) threats. Without this skill, you run the risk of misusing the equipment and being exposed to contamination. To *improvise* NBC gear, make an IQ-based skill roll at -5 to -15 to skill.

Vacc Suit/TL: Any kind of spacesuit. In addition to true vacuum suits, this includes suits intended for use in high-pressure, corrosive, and poisonous atmospheres.

NBC Suit and Vacc Suit default to the other at -2.

Note that unpowered, unsealed body armor *never* requires an Environment Suit skill.

Escape

DX/Hard

Default: DX-6.

This is the ability to slip out of ropes, handcuffs, and similar restraints. The first attempt to escape takes one minute; each subsequent attempt takes 10 minutes.

The GM may apply a penalty for particularly secure bonds. For instance, modern police handcuffs would give -5 to Escape. You suffer only *half* these penalties if you dislocate the restrained limb (usually an arm). This requires (20 - skill) minutes of concentration, minimum one minute and a Will roll. However, if you fail your Escape roll by 3 or more when dislocating a limb, the limb suffers 1d damage. On a critical failure, you automatically take enough damage to cripple the limb!

Modifiers: +3 for Flexibility *or* +5 for Double-Jointed; any bonus for Slippery‡.

Expert Skill†

IQ/Hard

Defaults: None.

An Expert Skill represents cross-disciplinary knowledge of a single, narrow theme. When answering factual questions *on that theme,* you may substitute a roll against your Expert Skill for any IQ-based roll against any skill that has a default. Expert Skills do not exempt you from Cultural Familiarity (p. 33) or Language (p. 33) requirements, and never provide the ability to do practical tasks. Experts sometimes complement Expert Skills with related Area Knowledge skills, but you must learn these separately.

You *must* specialize by theme, and the GM is free to forbid any theme he feels is too broad. Some examples:

Epidemiology: The study of the spread of disease. Can serve as Biology, Diagnosis, Forensics, Geography, or Mathematics when deducing how a disease was spread.

Hydrology: The study of a planet's water. Can be used in place of Biology, Chemistry, Geography, Geology, or Meteorology to answer questions about precipitation, flooding, irrigation, etc.

Military Science: General expertise on military capabilities. Can substitute for Artillery, Armoury, Strategy, or Tactics to answer questions about – but not *use* – weapons or strategies.

Political Science: The academic study of politics. Can substitute for Geography, History, Law, Politics, or Sociology when performing political analysis.

Xenology: General knowledge of the *known* species in your setting. Can substitute for Anthropology, History, Physiology, or Psychology to identify a member of a species different from your own, or to answer general questions about the species and its culture.

Explosives/TL†

IQ/Average

Defaults: IQ-5 and others.

This is the skill of working with explosives and incendiaries.

You *must* specialize:

Demolition: The ability to prepare and set explosives in order to blow things up. Make a roll whenever you use explosives in this way. A failure indicates an error. The gravity of the error depends on the amount by which you failed; a badly failed roll in close quarters can *blow you up!* Time required varies – it takes only a couple of seconds to set a prepared charge, but it might take *hours* to demolish a large bridge or a skyscraper. When setting an explosive trap, use this skill rather than Traps. Rolls to set a "trap" fuse (e.g., a land mine) instead of a timed fuse are at -2. *Defaults:* Engineer (Combat) or (Mining)‡ at -3.

Explosive Ordnance Disposal (EOD): The ability to disarm and dispose of bombs and other explosives. When disarming a trap, roll a Quick Contest of your Explosives (EOD) skill vs. the Explosives (Demolition) skill of the person who created the device. A failure (or even a critical failure) does not necessarily mean an explosion – the GM can be much more creative than that! Sudden hissing noises, mysterious parts falling off, cramps, itches, and alarm bells are all possible in the right circumstances. It is best if the GM rolls the dice and describes the physical circumstances to the victim. Fright Checks are appropriate for the survivors of a failed EOD attempt! *Prerequisite:* DX 12+.

Nuclear Ordnance Disposal (NOD): The equivalent of Explosives (EOD) for nuclear devices. Only a critical failure verified by a second critical failure will result in a nuclear detonation. Disarming a military nuclear weapon is straightforward; disarming a homemade terrorist bomb might be more difficult. Only a critical failure *verified by a second critical failure* will result in a nuclear detonation. Any lesser failure will – at worst – detonate the high-explosive trigger and contaminate the immediate area with radioactive material . . . not that this is a great deal of consolation to those nearby. This skill includes fission, fusion, and antimatter weapons.

Underwater Demolition (UD): The ability to prepare and set explosives underwater. This is otherwise identical to Explosives (Demolition). You usually need Scuba‡ skill – or at least Swimming skill – to get into a position where you can use this skill.

These specialties default to one another at -4 *except* for Demolition and UD, which default to one another at -2, and EOD and NOD, which also default to one another at -2.

Modifiers: Equipment modifiers (p. 186); -1 to -5 for distractions (e.g., enemy fire or swarms of biting ants) or physical motion (e.g., a rocking boat or speeding bus). The time modifiers under *Time Spent* (p. 185) will often apply.

Fast-Draw†

DX/Easy

Defaults: None.

This skill lets you *quickly* draw a weapon from its holster, sheath, or hiding place. A successful roll means you ready the weapon instantly. This does not count as a combat maneuver; you can use the weapon to attack on the same turn. On a failure, you ready your weapon normally but may do nothing else on your turn. A critical failure means you *drop* the weapon!

You *must* specialize in one of these weapon types: Knife, Long Arm (rifle, shotgun, submachine gun, etc.), Pistol, Sword (any one-handed blade larger than a knife), or Two-Handed Sword. The GM may add Fast-Draw skills for other weapons (or even tools) that one could reasonably draw quickly.

In addition to the above specialties, there is another Fast-Draw skill that allows you to reload missile weapons quickly:

Fast-Draw/TL (Ammo): Reduces the time required to reload any kind of gun or beam weapon. The exact benefits depend on your weapon, but a successful roll always shaves at least one second off the reload time. This skill varies greatly with TL! At TL4, it covers powder-and-shot drills; at TL6+, it includes speed-loading techniques for detachable magazines; and at higher tech levels, it involves quickly replacing energy cells and attaching power cables.

For the Ammo specialty, failure means you accidentally discard one round of ammunition. On a critical failure, you drop the entire ammo box, magazine, etc., scattering loose ammunition everywhere!

Modifiers: Combat Reflexes gives +1 to all Fast-Draw specialties; Ham-Fisted‡ gives -3 per level.

Fast-Talk

IQ/Average

Defaults: IQ-5 or Acting-5.

This is the skill of talking others into doing things against their better judgment. It is not taught (intentionally, that is) in school; you study it by working as a

salesman, confidence man, lawyer, etc. In any situation that calls for a reaction roll, you may make an Influence roll against Fast-Talk instead; see *Influence Rolls* (p. 197).

If you have Fast-Talk at level 20 or better, you get +2 on all reaction rolls where you're allowed to talk!

Note that Fast-Talk differs from Acting. In general, Fast-Talk is used to get someone to make a snap decision in your favor, while Acting is used for long-term dissimulation. However, there are situations in which the GM could allow a roll on either skill.

Modifiers: +2 for Voice; -3 for Low Empathy‡; -1 for Oblivious‡; -1 to -4 for Shyness; -2 for Stuttering‡ ; -5 for Truthfulness. The GM may ask you for details of the story you are using, rather than just let you say, "I'm using Fast-Talk." Your approach and the plausibility of the story may further modify the roll, at the GM's discretion.

Finance

IQ/Hard

Defaults: Accounting-4, Economics-3, or Merchant-6.

This is the skill of managing money. It is a *practical* application of Economics, much as Engineer skill is a practical application of Physics. A successful skill roll lets you broker a financial deal, raise capital for a new corporation, balance a budget, etc.

Modifiers: Business Acumen and Mathematical Ability *both* provide a bonus.

First Aid/TL

IQ/Easy

Defaults: IQ-4, Esoteric Medicine‡, Physician, or Veterinary-4.

This is the ability to patch up an injury in the field (see *Recovery,* p. 226). Make a skill roll to halt bleeding, suck out poison, give artificial respiration to a drowning victim, etc. Unusual problems must be identified using Diagnosis skill first.

Modifiers: Interspecies Medicine (p. 228); equipment modifiers (p. 186).



Yitlian Medic

Flight

HT/Average

Default: HT-5.
Prerequisite: Flight advantage (p. 91).

This skill represents training for endurance flying. Use the *better* of Flight or HT when rolling to avoid fatigue due to flying. When traveling long distances, a successful Flight roll increases the distance traveled by 20%. If a group of fliers is traveling together, all must make the Flight roll in order to get the increased distance.

Forensics/TL

IQ/Hard

Defaults: IQ-6 or Criminology-4.

This is the ability to apply the principles of forensic science and criminalistics, such as the computation of bullet paths and the microscopic or chemical analysis of clues. Some disciplines require other skills. For instance, a forensic pathologist performing an autopsy would roll against Surgery skill.

Forgery/TL

IQ/Hard

Defaults: IQ-6 or Counterfeiting‡-2.

This is the ability to create falsified documents (identity cards, passports, etc.). It is not taught except by intelligence agencies and the underworld – although you can always study it on your own.

The time required to create a forgery ranges from days to weeks (GM decides). When you use a forged document, make your Forgery roll *each time* it is inspected – unless you roll a critical success on your first attempt. Failure means someone spots the forgery.

Some tasks require DX-based skill rolls, in which case modifiers for High Manual Dexterity (p. 92) or Ham-Fisted‡ apply. The GM may allow Forgery to default to a suitable Artist‡ specialty at -5 if you are doing the work entirely by hand.

Modifiers: Equipment modifiers (p. 186); +3 if you merely *altered* a genuine document; -5 if you did not have a sample to copy. The GM may also assign modifiers based on the severity of the inspection; a routine border check, for instance, would give a +5 bonus.

Forward Observer/TL

IQ/Average

Defaults: IQ-5, Artillery (any)-5, and others.

This is the skill of being a "spotter" for artillery. It includes locating targets, marking targets, matching ordnance to target for best effect, and calling in corrections to any fire you personally observe.

Failure means the ordnance misses the target; critical failures result in severe "collateral damage" or "friendly fire" incidents. The very worst critical failures (GM's decision) drop the ordnance on *your* position!

Modifiers: Equipment modifiers (p. 186); -2 if you are unfamiliar with the artillery (e.g., aircraft bombs when you are used to naval guns); -3 per 500 yards between you and the target – but divide the actual range by the magnification of any vision aid first.

Free Fall

DX/Average

Defaults: DX-5 or HT-5.

This is the ability to operate in a free-fall (zero-gravity) environment. Roll against the *higher* of HT or Free Fall when you first enter free fall; see *Space Adaptation Syndrome* (p. 235). In addition, whenever you make a DX or DX-based skill roll in free fall, use the *lower* of Free Fall and your DX or skill. For instance, if you had Free Fall-14 and Karate-16, you would roll at 14 or less to land a punch.

Modifiers: +2 for 3D Spatial Sense.

Freight Handling/TL

IQ/Average

Default: IQ-5.

This is the skill of supervising the loading and unloading of vehicles (*laborers* do not require this skill – just their foreman). A successful skill roll cuts the time required by 20%. Also roll against Freight Handling skill any time there is doubt as to whether an item of cargo was lost or damaged; on a success, it made the journey intact.

Gambling

IQ/Average

Defaults: IQ-5 or Mathematics (Statistics)-5.

This is skill at playing games of chance. A successful Gambling roll can (among other things) tell you if a game is rigged, identify a fellow gambler in a group of strangers, or "estimate the odds" in *any* tricky situation. When you gamble against the house, make a skill roll (The GM will secretly modify this roll if the odds are poor!). When you gamble against someone else, roll a Regular Contest of Gambling until one of you wins.

Sleight of Hand skill is helpful if you want to cheat! To *spot* a cheater, roll a Quick Contest of your Gambling or Vision roll, whichever is *higher,* vs. your opponent's Sleight of Hand skill (for card or dice tricks) or IQ (for other kinds of cheating).

Modifiers: +1 to +5 for familiarity with the game being played; -1 to -5 if the game is rigged against you; -3 for Killjoy‡, since you don't care if you win or lose.

Garrote

DX/Easy

Default: DX-4.

This is the ability to strangle a victim with a rope or a wire. See *Special Melee Weapon Rules* (p. 116) for details. Note that you cannot use a garrote to parry.

Geography/TL†

IQ/Hard

Defaults: IQ-6 and others.

This is the study of the physical, political, and economic divisions of a planet, and how they interact. It is part physical science, part social science. You *must* specialize:

Physical: The study of the physical properties of a planetary surface. A physical geographer could answer questions about climate, terrain, and so forth. You must further specialize by planet type (p. 155). *Defaults:* Geology (same planet type)-4 or Meteorology (same planet type)-4.

Political: The study of political regions – their borders, natural resources, industries, etc. A political geographer could answer questions about land claims, overpopulation, regional economic disparities, transportation networks, etc. *Default:* Economics-4.

Regional: The study of *all* of the above, but specific to a single region: New York, the United States, planet Earth, etc. The depth of knowledge decreases with the size of the region (see *Area Knowledge*). *Default:* the relevant Area Knowledge skill at -6.

These specialties default among themselves at -5.

Geology/TL†

IQ/Hard

Defaults: IQ-6, Geography (Physical)-4, or Prospecting-5.

This is the science dealing with the structure of planets – their crust, mantle, and core. A geologist knows about minerals, oil, ores, etc.; about earthquakes and volcanoes; and about fossils. In the field, he can attempt to find water by using an "eye for country" (see the Survival skill).

You *must* specialize by planet type (p. 155).

Gunner/TL†

DX/Easy

Default: DX-4.

This is the ability to use a heavy weapon, usually one mounted on a tripod or a vehicle, to make a *direct-fire* attack – that is, to aim and fire at a target to which you have a line of sight. For *indirect* fire, use Artillery skill. Roll against Gunner skill to hit the target.

Make an IQ-based skill roll to take immediate action (e.g., clear a stoppage or restart a crashed targeting computer), should your weapon fail. Loaders can make ST-based skill rolls to improve the rate of fire of certain crew-served weapons; see individual weapon descriptions for details.

You *must* specialize by weapon type.

Beams: Any kind of heavy directed-energy weapon: laser, particle beam, phaser, etc.

Cannon: Any kind of heavy projectile weapon – e.g., the main gun of a tank or a photon torpedo on a starship – that fires single shots.

Catapult: Any kind of large, direct-fire mechanical bolt-thrower, such as a ballista.

Machine Gun: Any kind of heavy projectile weapon capable of firing bursts.

Rockets: Any kind of free-flight rocket fired from a mount.

These specialties default to one another at -4. The weapons covered by each specialty vary by TL. For instance, Gunner (Machine Gun) covers hand-cranked Gatling guns at TL5, automatic machine guns at TL6, and autocannon at TL7.

Familiarity is crucial here! Gunner/TL7 (Machine Gun) covers both tripod-mounted machine guns and aircraft autocannon, but going from one to the other gives you -2 for weapon type (machine gun to autocannon), -2 for aiming system (open sights to HUD), and -2 for mount (tripod to hull mount), for a net -6 to skill until you familiarize yourself with all the differences.

Modifiers: All applicable ranged combat modifiers; -2 for an unfamiliar aiming system (e.g., a camera when you're used to open sights) or mount (e.g., a tripod when you're used to a turret), or for an unfamiliar weapon of a known type (e.g., .30-cal when you are used to .50s); -4 or more for a weapon in bad repair.

Guns/TL†

DX/Easy

Default: DX-4.

This is the ability to use a handheld chemical-propellant or mass-driver projectile weapon. Roll against Guns skill to hit your target.

Make an IQ-based skill roll to take immediate action (e.g., eject a dud round), should your weapon fail.

You *must* specialize by weapon type.

Grenade Launcher (GL): Any large-bore, low-powered small arm that fires a bursting projectile. Includes under-barrel grenade launchers, flare pistols, and ultra-tech "tanglers."

Gyroc: Any kind of small arm that fires miniature rockets.

Light Anti-Armor Weapon (LAW): All forms of rocket launchers and recoilless rifles.

Light Machine Gun (LMG): Any machine gun fired from the hip or a bipod.

Rifle: Any kind of *rifled* long arm – assault rifle, hunting rifle, sniper rifle, etc. – that fires a solid projectile.

Shotgun: Any kind of *smoothbore* long arm that fires multiple projectiles (flechettes, shot, etc.).

Submachine Gun (SMG): All short, fully automatic weapons that fire pistol-caliber ammunition, including machine pistols.

Most of these specialties default to one another at -2, but defaults involving GL, Gyroc, or LAW are at -4 in either direction. The weapons covered by each specialty vary by TL. For example, Guns (Rifle) covers muzzleloaders at TL4, lever actions at TL5, and self-loaders at TL6+. In particular, *ammunition* varies with TL, from black powder and loose shot at TL4, to smokeless powder cartridges at TL6, to power cells and grenades for TL10+ under-barrel grenade launchers.

Familiarity is crucial here! Guns (Rifle) covers both bolt-action 12.7mm sniper rifles and 5.56mm assault rifles, but going from one to the other gives you -2 for weapon type (12.7mm to 5.56mm), -2 for action (bolt-action to self-loader), and -2 for grip (bipod to hand-held), for a total of -6 to skill until you familiarize yourself with all the differences.

Modifiers: All applicable ranged combat modifiers; -2 for an unfamiliar action (e.g., an automatic when you're used to a revolver) or grip (e.g., a shoulder-fired antitank weapon when you're used to a bipod), or for an unfamiliar weapon of a known type (e.g., a 5.56mm rifle when you are used to a 7.62mm rifle); -4 or more for a weapon in bad repair.

History†

IQ/Hard

Default: IQ-6.

This is the study of the recorded past (compare Archaeology skill). A successful skill roll lets you answer questions about history, and might (at the GM's option) allow you to remember a useful parallel: "Ah, yes. Hannibal faced a situation like this once, and here's what he did ..."

You *must* specialize. There are two general classes of specialty:

- A limited geographical region – no larger than a small nation – over multiple eras. *Examples:* History (Bavarian), History (Irish), or History (New York State).
- A single *era* (e.g., Victorian period, 20th century) and *one* of a broad geographical region (e.g., Europe), a culture (e.g., Muslim), or an idea (e.g., economic, esoteric, or military). *Examples:* History (20th-Century American), History (Ottoman Muslim), or History (Napoleonic Military).

The sheer variety of possible specialties makes it impossible to list all possible defaults. In general, if two specialties overlap *at all,* then GM should permit a default at -2 to -4

Holdout

IQ/Average

Defaults: IQ-5 or Sleight of Hand-3.

This is the skill of concealing items on your person or on other people (usually with their cooperation). An

item's size and shape govern its concealability. Some examples:

+4: A BB-sized jewel, a postage stamp.
+3: A pea-sized jewel.
+2: One lockpick, a huge jewel, a dime, a TL9+ computer disk, a letter.
+1: A set of lockpicks, a silver dollar.
0: A TL8 floppy disk or CD without case.
-1: A dagger, a slingshot, the tiniest handgun or grenade.
-2: An average handgun, a grenade, a large knife.
-3: A submachine gun, a shortsword, a short carbine.
-4: A broadsword, an assault rifle.
-5: A bastard sword, a battle rifle.
-6: A crossbow, a heavy sniper rifle.

Things that move or make noise give an additional -1 or more to skill.

Clothing also modifies effective skill. A nun in full habit (+5 to skill) could conceal a bazooka or a battle-axe from an eyeball search. A Las Vegas showgirl in costume (-5 to skill) would have trouble hiding even a dagger. Of course, the showgirl might escape search entirely (unless the guards were bored) because "She obviously couldn't hide anything in *that* outfit!" Full nudity is -7 to skill.

A proper concealment holster helps conceal a weapon; use the equipment modifiers on p. 186. Clothing designed specifically to hide things gives a bonus of up to +4.

To spot a concealed item, roll a Quick Contest of Search skill vs. Holdout. Search defaults to Perception-5 if you haven't studied it. See the Search skill for additional rules.

Intelligence Analysis/TL

IQ/Hard

Defaults: IQ-6 or Strategy (any)-6.

This is the ability to *analyze* and *interpret* intelligence data. It allows you to deduce enemy plans and capabilities, evaluate the accuracy of information, rate the reliability of sources, etc. In most game worlds, only intelligence, military, and security services teach this skill – often only to those with a minimum level of Rank or Security Clearance.

The GM makes *all* Intelligence Analysis rolls in secret. On a success, he provides details about the significance and accuracy of your data, or insights into what it means in terms of enemy planning. When you encounter deliberately falsified data, the GM rolls a secret Quick Contest: your Intelligence Analysis vs. the enemy's skill at disinformation (Forgery, Propaganda, etc.). If you win, the GM provides details on precisely what is wrong with the information. It is up to you to deduce what this means, however!

This skill has nothing to do with *gathering* intelligence. Use Current Affairs‡ and Research to sift through public sources; Forensics and Search to find physical clues; Observation for human surveillance; and Electronics Operation to work with the satellite imagery, communications intercepts, and related "technical means" common at TL7+.

You may take an *optional* specialty in one particular type of intelligence. A useful specialty at TL6+ is Intelligence Analysis (Traffic Analysis): identifying the purpose and organization of targets by examining intercepted communications traffic.

Modifiers: -1 to -5 for incomplete information; -3 if all your information comes from a single source; -3 for intelligence concerning an arcane scientific or bureaucratic principle, *unless* you have skill in that area (e.g., Engineer (Electronics) for intelligence regarding a radar installation).

Interrogation

IQ/Average

Defaults: IQ-5, Intimidation-3, or Psychology-4.

This is the ability to question a prisoner. Only intelligence agencies, police and prison services, the military, and the underworld teach this skill.

Roll a Quick Contest of Interrogation vs. the prisoner's Will for each question. This requires 5 minutes per question. If you win, you get a truthful answer. If you tie or lose, the victim remains silent or lies. If you lose by more than five points, he tells you a *good, believable lie!* The GM roleplays the prisoner (or, if *you* are the prisoner, the GM will roleplay the interrogator) and makes all die rolls in secret.

Modifiers: -5 if the prisoner's loyalty to his leader or cause is "Very Good" or "Excellent"; -3 for Low Empathy‡; +2 for a lengthy interrogation (over two hours); +3 if you use severe threats; +6 if you use torture*. Increase these last two bonuses by +1 if you have the Callous disadvantage!

* "Torture" does not necessarily mean thumbscrews and the rack. Exposing a prisoner to the object of his phobia (see *Phobias,* p. 135) is an effective torture, as is a believable threat against a loved one. Note that torturing a prisoner is usually considered *vile* behavior, likely bringing retribution.

Intimidation

Will/Average

Defaults: Will-5 or Acting-3.

This is the skill of hostile persuasion. The essence of Intimidation is to convince the subject that you are able and willing, perhaps even eager, to do something awful to him.

You can substitute an Intimidation attempt for any reaction roll; see *Influence Rolls* (p. 197). *Exception:* You cannot intimidate someone who has the Unfazeable advantage!

The results of a successful Intimidation attempt depend on the target. An honest citizen probably

cooperates, sullenly or with false cheer. A low-life might lick your boots (even becoming genuinely loyal). A really tough sort might react well without being frightened: "You're my kind of scum!" The GM decides, and roleplays it. If you rolled a critical success – or if the subject critically failed his Will roll – your victim must make a Fright Check in addition to the other results of the Influence roll!

Group Intimidation: You may attempt to intimidate up to 25 people at once, at -1 to skill per five people (or fraction thereof) in the group. Multiple intimidators can attempt to intimidate proportionally larger groups; for instance, three thugs could try to intimidate up to 75 people! Base the skill penalty on the size of the target group divided by the number of intimidators (round up). Resolve the outcome with a single Quick Contest: the *highest* effective Intimidation skill from among the intimidators vs. the *highest* modified Will in the target group.

Specious Intimidation: You can attempt a Quick Contest of Fast-Talk vs. the subject's IQ *before* your Intimidation attempt in order to appear to be intimidating when you can't back it up. If you win, you are at +3 on the subsequent Intimidation attempt, which can go a long way toward offsetting the high Will and Fearlessness of martial arts masters, world leaders, etc. If you tie or lose, however, your Intimidation attempt fails *automatically,* and you suffer a "Very Bad" reaction instead of just a "Bad" one!

Modifiers: +1 to +4 for displays of strength, bloodthirstiness, etc. (GM's judgment); increase this bonus by +1 if you are Callous. Appearance (p. 31) matters: +2 if you are Hideous, +3 if Monstrous, or +4 if Horrific. Size also matters: add your Size Modifier and subtract the subject's. Appropriate Reputation modifiers (positive or negative) certainly count! You get -1 for Oblivious‡ and -1 to -4 for Shyness. Subtract the *subject's* Fearlessness (p. 91) from your roll. The GM may assign a +1 or -1 for especially appropriate or clumsy dialog. Requests for aid are always at -3 or worse.

Judo

DX/Hard

Defaults: None.

This skill represents *any* advanced training at unarmed throws and grapples – not just the eponymous Japanese martial art.

Judo allows you to parry two *different* attacks per turn, one with each hand. Your Parry score is (skill/2) + 3, rounded down. This parry is *not* at the usual -3 for parrying a weapon barehanded, greatly reducing the likelihood of injury when you defend against an armed foe. In addition, Judo gives an improved retreating bonus when you parry; see *Retreat* (p. 213). For more on barehanded parries, see *Parrying Unarmed* (p. 212).

On the turn immediately after a successful Judo parry, you may attempt to throw your attacker if he is within one yard. This counts as an attack; roll vs. Judo skill to hit. (Note that in an All-Out Attack, you cannot attempt two throws, but you can make one attempt at +4.) Your foe may use any active defense – he *can* parry your hand with a weapon! If his defense fails, you throw him.

When you throw a foe, he falls where you please. On a battle map, he lands in any two hexes near you. One of these hexes must be *his* starting hex, *your* hex, or any hex adjacent to one of those hexes. Your victim must roll against HT; a failed roll means he is stunned! If you throw him into someone else, that person must roll against the higher of ST+3 or DX+3 to avoid being knocked down.

Finally, you may use your Judo skill instead of your DX for any DX roll made in close combat except to draw a weapon or drop a shield. If you grapple a foe using Judo, and he fails to break free, you may make a Judo attack to throw him on your next turn, exactly as if you had parried his attack.

To use Judo, any hand with which you wish to parry or grapple must be empty. Because Judo relies heavily on footwork, all Judo rolls and Judo parries take a penalty equal to your encumbrance level. For instance, Heavy encumbrance would give you -3 to hit or to parry an enemy attack.

Jumping

DX/Easy

Defaults: None.

This skill represents trained jumping ability. When you attempt a difficult jump, roll against the *higher* of Jumping or DX. In addition, you may use half your Jumping skill (round down) instead of Basic Move when calculating jumping distance. For instance, Jumping-14 would let you jump if you had Basic Move 7. See *Jumping* (p. 191).

Karate

DX/Hard

Defaults: None.

This skill represents *any* advanced training at unarmed striking, not just the Okinawan martial art of *karate.* Roll against Karate to hit with a punch (at no -4 for the "off" hand), or Karate-2 to hit with a kick. You cannot use Karate to attack with claws, teeth, etc., or with a blackjack – use Brawling for that. Karate skill does let you make several special attacks, however; see *Unarmed Combat* (p. 206).

Karate improves damage: if you know Karate at DX level, add +1 per die to basic thrust damage when you calculate damage with Karate attacks: punches, kicks, elbow strikes, etc. Add +2 per die if you know Karate at DX+1 or better!

Karate allows you to parry two *different* attacks per turn, one with each hand. Your Parry score is (skill/2) + 3, rounded down. This parry is *not* at the usual -3 for parrying a weapon barehanded, greatly reducing the likelihood of injury when you defend against an armed foe. In addition, Karate gives an improved retreating

bonus when you parry; see *Retreat* (p. 213). For more on barehanded parries, see *Parrying Unarmed* (p. 212).

To use Karate, any hand with which you wish to strike or parry must be empty (but you are free to wear heavy gauntlets, brass knuckles, etc. to increase damage). Because Karate relies heavily on footwork, all Karate attacks and parries take a penalty equal to your encumbrance level. For instance, Heavy encumbrance would give you -3 to hit or to parry an enemy attack.

Knife

see *Melee Weapon*

Law †

IQ/Hard

Default: IQ-6.

This skill represents knowledge of law codes and jurisprudence. A successful roll lets you remember, deduce, or figure out the answer to a question about the law. Few legal questions have clear-cut answers, however – even an expert will hedge his advice!

You *must* specialize. There are two general classes of specialty:

- The laws of a particular political region *within a specific field* (constitutional, contract, criminal, police, etc.). *Examples:* Law (British Criminal), Law (Canadian Constitutional), and Law (U.S. Contract).
- A specialized body of law not associated with a political region. *Examples:* Law (Catholic Canon) and Law (international).

Specialties within the same *region,* such as Law (British Criminal) and Law (British Police), or *field,* such as Law (British Criminal) and Law (French Criminal), default to one another at -4. If both region and field differ, the default is -6 or worse.

In some times and places, a Quick Contest of Law (Criminal) between the defense and prosecution will determine the outcome of a trial. In others, Law functions as an Influence skill (see *Influence Rolls,* p. 197) used to sway the rulings of the judge.

Law enforcers nearly always have a point or two in Law (Police) for their region. This represents knowledge of "proper procedure" when it comes to arrests, evidence handling, interrogation, etc.

Leadership

IQ/Average

Default: IQ-5.

This is the ability to coordinate a group. Make a Leadership roll to lead NPCs into a dangerous or stressful situation. (PCs can decide for themselves if they want to follow you!)

You may attempt a Leadership roll in combat if you spend your turn doing *nothing* but giving orders and encouragement. On a success, everyone on your side who can hear you (*including* PCs) has +1 on all combat-related Fright Checks and morale checks, and on self-control rolls for disadvantages that would reduce combat efficiency (such as Berserk and Cowardice – or Bloodlust, if you wish to take prisoners). A critical success gives +2. The bonus lasts until your next turn, at which time you may roll again. A group can have only one leader, however! If multiple people attempt Leadership rolls, *no one* gets a bonus.

Note that a minimum level of Leadership is often a prerequisite for high Rank (p. 37).

Modifiers: Any bonus for Charisma; -3 for Low Empathy‡; -1 to -4 for Shyness. -5 if the NPCs have never been in action with you; -5 if you are sending them into danger but not going yourself; +5 if their loyalty to you is "Good"; +10 if their loyalty is "Very Good." If their loyalty is "Excellent," you do not have to roll!

Linguistics

IQ/Hard

Defaults: None.

This is the study of the principles upon which languages are based. A successful skill roll lets you identify a language from a snatch of speech or writing. As well, make a skill roll once per month when learning a language without a teacher. On a success, you learn at full speed rather than at 1/4 speed (see *Learning Languages,* p. 34).

Lockpicking/TL

IQ/Average

Default: IQ-5.

This is the ability to open locks without the key or combination. Each attempt requires one minute. If you make the roll and open the lock, each point by which you succeeded shaves five seconds off the required time. (Safecracking and similar challenges can take more time, at the GM's discretion.)

Note that if the lock has a trap or alarm attached, you must make a separate Traps roll to circumvent it.

Modifiers: Equipment modifiers (p. 186); -5 if working by touch (e.g., in total darkness). Inside information gives a bonus at GM's discretion. If the GM requires a *DX*-based roll (for instance, to work with a particularly delicate mechanism), modifiers for High Manual Dexterity or Ham-Fisted‡ will apply.

Machinist/TL

IQ/Average

Defaults: IQ-5 or Mechanic (any)-5.

This is the skill of making and modifying mechanical parts and tools. A successful skill roll lets you build parts from raw materials, manufacture tools for use with another skill (such as Armoury or Lockpicking), or modify any simple mechanical device not explicitly covered by another skill. The GM may require an

inventor to make one or more Machinist rolls before attempting an Engineer roll to assemble a gadget.

Modifiers: Equipment modifiers (p. 186).

Mathematics/TL†

IQ/Hard

Defaults: IQ-6 and others.

This is the scientific study of quantities and magnitudes, and their relationships and attributes, through the use of numbers and symbols. You *must* specialize:

Applied: The branch of mathematics that interacts directly with the physical sciences and engineering, dealing with mathematical models of the behavior of physical systems. *Defaults:* Engineer (any)-5 or Physics-5.

Computer Science: The theoretical study of data structures and computation. Roll vs. skill to answer questions about what is *possible* with computers. This gives you no special ability to *use* computers! *Default:* Computer Programming-5.

Cryptology: The mathematical study of codes and ciphers. This gives you a *theoretical* understanding of encryption schemes, including how they change with TL and why some schemes are more effective than others. To create or break codes, use Cryptography skill. *Default:* Cryptography-5.

Pure: Generic "academic" mathematics. Make a skill roll to answer any math-related question not covered by another specialty. Pure mathematics encompasses dozens of obscure subfields that will never affect the game. If you *must* be an expert in something like "non-selfadjoint operator algebras," you may further note an *optional* specialty (p. 146).

Statistics: The science of assembling and analyzing data for the purpose of calculating probabilities, constructing models, and making forecasts. Roll vs. skill to determine the odds of a particular outcome, given sufficient data about similar situations in the past.

Surveying: The science of determining the area of a portion of the Earth's surface, the lengths and directions of the bounding lines, and the contour of the surface. Make a skill roll to determine the dimensions of any area you can see. More complex determinations require specialized equipment. *Defaults:* Cartography-3 or Navigation (any)-4.

These specialties default to one another at -5.

Mechanic/TL†

IQ/Average

Defaults: IQ-5, Engineer (same)-4, or Machinist-5.

This is the ability to diagnose and fix ordinary mechanical problems. A successful skill roll will let you find or repair one problem.

You must pick a specialty from within *one* of these four categories:

Machine Type: Any one class of nonvehicular machine. Types include Micromachines (miniature machinery, invisible to the naked eye; TL9+), Nanomachines (*molecular*-scale machinery; TL10+) (this is not prevalent within the ***SFU*),** and Robotics (robots and automated factories; TL7+).

Motive System Type: Any one type of propulsion system, regardless of vehicle type. Types include Legged, Tracked, Wheeled, Rockets, and Reactionless Thrusters.

Power Plant Type: Any one type of power plant, no matter what it powers. Types include Clockwork, Steam Engine, Gasoline Engine, Diesel Engine, Gas Turbine, Fuel Cell, Fission Reactor, Fusion Reactor, and Antimatter Reactor.

Vehicle Type: The controls, hull, motive system, power plant, transmission, and even the paint job of *one specific type of vehicle* listed under a vehicle-operation skill such as Driving, Piloting, or Submarine‡.

Mechanic specialties default to one another at -4, although the GM may modify this for particularly close or distant specialties. The systems covered by each specialty vary by TL. For instance, Mechanic (Light Airplane) covers single-engine biplanes at early TL6, small private jets at TL7, and so forth.

Familiarity is very important here. For instance, Mechanic/TL7 (Light Airplane) covers both propeller-powered seaplanes and small private jets, but going from one to the other gives you -2 for an unfamiliar item (prop-powered plane to jet) and -2 for an unfamiliar implementation (seaplane to regular plane), for a net -4 to skill until you familiarize yourself with all the differences.

Modifiers: -2 for an unfamiliar item within your specialty (e.g., a barge when you're used to battleships), or for an unfamiliar implementation (e.g., a powerboat engine when you're used to automobile engines); equipment modifiers (p. 186).

Melee Weapon

DX/Varies

Defaults: Special.

This is not one skill, but an entire *collection* of skills – one per class of closely related melee weapons. Melee Weapon skills are based on DX, and default to DX-4 if Easy, DX-5 if Average, or DX-6 if Hard. See specific skill descriptions for other defaults.

Make a Melee Weapon roll to hit an opponent in combat. You may also use these skills to parry. Your Parry defense is (skill/2) + 3, rounded down. Melee weapons fall into broad categories on the basis of overall balance and function. When a rule refers to one of these categories, it applies to *all* weapons in that category and *all* Melee Weapon skills used to wield them. For instance, "fencing weapons" means "all weapons used with any of Main-Gauche, Rapier, Saber, or Smallsword skill."

Fencing Weapons

Fencing weapons are light, one-handed weapons, usually hilted blades, optimized for parrying. If you have a fencing weapon, you get an improved retreating bonus when you parry – see *Retreat* (p. 213). Furthermore, you have *half* the usual penalty for parrying more than once with the same hand (see *Parrying,* p. 212).

Note that fencing weapons are *light* and likely to break when used to parry a heavier weapon. They cannot parry flail weapons at all! You must be relatively mobile to capitalize on their speed and maneuverability: all attacks and parries take a penalty equal to your encumbrance level (e.g., Heavy encumbrance gives -3 to hit or to parry).

The skills in this category default to one another at -3. They also default to sword skills, as noted below.

Rapier (DX/Average): Any long (over 1 yard), light thrusting sword. *Default:* Broadsword-4.

Saber (DX/Average): Any light cut-and-thrust sword. Note that *cavalry* sabers are quite heavy, and use Broadsword instead. *Defaults:* Broadsword-4 or Shortsword-4.

Smallsword (DX/Average): Any short (up to 1 yard), light thrusting sword or one-handed short staff (such as the sticks used in the martial arts *arnis, escrima,* and *kali*). *Default:* Shortsword-4.

Impact Weapons

An *impact* weapon is any rigid, unbalanced weapon with most of its mass concentrated in the head. Such a weapon cannot parry if you have already attacked with it on your turn. The skills in this category default to one another at -3.

Axe/Mace (DX/Average): Any short- or medium-length, one-handed impact weapon, such as an axe, hatchet, knobbed club, or pick. *Default:* Flail‡-4.

Two-Handed Axe/Mace (DX/Average): Any long, two-handed impact weapon, such as a baseball bat, battleaxe, maul, or warhammer. *Defaults:* Polearm‡-4 or Two-Handed Flail‡-4.

Pole Weapons

Pole weapons are long (usually wooden) shafts, often adorned with striking heads. All require two hands.

Spear (DX/Average): Any long, balanced pole weapon with a thrusting point, including spears, javelins, tridents, and fixed bayonets. *Defaults:* Polearm‡-4 or Staff-2.

Staff (DX/Average): Any long, balanced pole *without* a striking head. This skill makes good use of the staff's extensive parrying surface when defending, giving +2 to your Parry score. *Defaults:* Polearm‡-4 or Spear-2.

Swords

A *sword* is a rigid, hilted blade with a thrusting point, cutting edge, or both. All swords are balanced, and can attack and parry without becoming unready.

Broadsword (DX/Average): Any *balanced,* 2- to 4-foot blade wielded in one hand – broadsword, cavalry saber, scimitar, etc. This skill also covers any stick or club of similar size and balance to these blades, as well as bastard swords, katanas, and longswords used one-handed. *Defaults:* Force Sword‡-4, Rapier-4, Saber-4, Shortsword-2, or Two-Handed Sword-4.

Knife (DX/Easy): Any rigid, hilted blade less than one foot long, from a pocketknife to a bowie knife. A knife has a very small parrying surface, which gives you -1 to your Parry score. *Defaults:* Force Sword‡-3, Main-Gauche‡-3, or Shortsword-3.

Shortsword (DX/Average): Any *balanced,* one-handed weapon 1-2 feet in length – including the shortsword and any club of comparable size and balance (e.g., a police baton). *Defaults:* Broadsword-2, Force Sword‡-4, Jitte/Sai‡-3, Knife-4, Saber-4, Smallsword-4, or Tonfa-3.

Two-Handed Sword (DX/Average): Any *balanced,* two-handed blade over 4 feet in length: greatswords, zweihanders, etc. This skill also covers quarterstaffs wielded like swords, as well as bastard swords, katanas, and longswords used two-handed. *Defaults:* Broadsword-4 or Force Sword‡-4.

Whips

A *whip* is a flexible weapon made from a length of chain, leather, wire, etc. A whip can be up to seven yards long – but note that a whip two yards or more in length cannot strike at one yard or closer, and is slow to ready after an attack. A whip tends to wind around its target, making it an excellent disarming and entangling weapon. However, a whip's lack of rigidity makes it a poor parrying weapon. For details, see *Special Melee Weapon Rules* (p. 218).

The skills in this category default to one another at -3.

Kusari (DX/Hard): A weighted chain wielded in two hands. *Default:* Two-Handed Flail‡-4.

Whip (DX/Average): Any ordinary whip.

Other Weapons

Some hand weapons defy easy classification. For instance:

Tonfa (DX/Average): A tonfa is a baton with a protruding handle on one side. It can function as a baton, but you can also grasp it by the handle and hold it against the forearm in close combat. This grip lets you jab for thrust+1 crushing damage and parry close-combat attacks at (skill/2) + 3, rounded down. Roll vs. skill to change grips. On a success, the grip change is a free action. On a failure, you must spend the entire turn changing grips. A critical failure means you throw your weapon away! *Default:* Shortsword-3.

Merchant

IQ/Average

Defaults: IQ-5, Finance-6, or Market Analysis‡-4.

This is the skill of buying, selling, and trading retail and wholesale goods. It covers all types of merchandise, but many merchants have an *optional* specialty in a single class of goods.

Make a skill roll to judge the value of any piece of common goods, find out where any commodity is bought and sold, find the local fair market value of any commodity, etc.

When two merchants haggle, the GM may settle it with a Quick Contest. The winner adds or subtracts 10% of fair value, depending on whether he was trying to sell or buy.

If you have this skill at *any* level, you get + 1 on reaction rolls when buying or selling. If you have this skill at level 20 or better, you get +2.

Modifiers: -3 for Gullibility‡; -3 for Low Empathy‡; -1 to -4 for Shyness. -3 for illegal goods, unless you have Streetwise at 12+ or specialize in such goods; -2 in an unfamiliar area, until you have had time to familiarize yourself with local market conditions; Cultural Familiarity modifiers (p. 33). These last two modifiers "stack," and frequently occur together.

Metallurgy/TL

IQ/Hard

Defaults: Chemistry-5, Jeweler‡-8, or Smith (any)‡-8.

This is the study of metals and their properties. A successful roll lets you identify metals or alloys, or solve a problem concerning metals, their use, mining, or refining.

Meteorology/TL†

IQ/Average

Default: IQ-5.

This is the study of the weather, and the ability to predict it. It includes familiarity with technological aids such as barometers and satellite maps, but you can still function without your instruments. (If you can't, you're a meter-reader, not a meteorologist!)

When you wish to predict the weather, the GM rolls against your skill in secret. On a success, he tells the truth; on a failure, he answers randomly, or *lies.* Each skill roll predicts the weather for one day. If one day's roll fails, subsequent ones can't succeed. For instance, a three-day forecast would require three skill rolls: the first for tomorrow, the second for the next day, and the third for the day after that.

A successful roll also allows you to deduce what sort of *general* climate to expect when you visit a new area.

At TL4 or less, this skill is called Weather Sense, and you get +2 to skill in your home area. At TL5 and up, Meteorology is a scientific skill, and you *must* specialize by planet type; see *Planet Types* (p. 155) for details.

Modifiers: Time is a major factor! There is no penalty to predict tomorrow's weather, but you have -1 for 2 days, -2 for 3 days, -4 for 4 days, -6 for 5 days, and an additional -2 per day for each further day. Instrumentation becomes useful with the development of the barometer at TL4, after which equipment modifiers (p. 186) apply. You must know this skill at better than default to claim bonuses for good equipment.

Mind Block

Will/Average

Defaults: Will-5 or Meditation‡-5.

This ability allows you to establish a mental block against attempts to eavesdrop on your thoughts and emotions. The techniques involved are wholly mundane – for instance, doing complicated mathematical calculations, or repeating poetry over and over again. With sufficient training, *anyone* can learn this skill.

To maintain a block, you must make a Mind Block roll once per minute. You must roll every *second* in combat or other stressful situations.

If you succeed, anyone who reads your mind must *win* a Quick Contest of his mind-reading ability vs. your Mind Block skill in order to get useful information. Otherwise, he gets nothing but poetry, multiplication tables, etc. However, if you ever critically fail a Mind Block roll, you thought about precisely what the mind reader wanted to know – in detail – right there in the forefront of your mind!

This skill only works against mind *reading,* not mind control or other mental attacks. If you have a mind shield, Mind Block acts as a last-ditch defense: only mental probes that pierce your psionic defenses and contact your mind will encounter the block.

Modifiers: +2 if you do nothing but concentrate on blocking; -3 if you are mentally or physically stunned; -2 or more to hide *emotions* rather than thoughts, depending on how strong the GM rules your emotions are – it's hard to block your emotions while sneaking up on your most hated enemy!

Musical Instrument†

IQ/Hard

Defaults: Special.

This is the ability to play a musical instrument. With a successful skill roll, you give a competent performance. You *must* specialize in a particular instrument. Defaults between specialties range from -3 for similar instruments to "no default" for utterly unrelated ones, such as Musical Instrument (Drums) and Musical Instrument (Harp).

This skill includes the ability to read music in your culture's notation system (if any). Treat different systems as familiarities (see *Familiarity,* p. 147).

Naturalist†

IQ/Hard

Defaults: IQ-6 or Biology-3.

This skill represents *practical* (as opposed to scientific) knowledge of nature in its many forms. It includes just enough Biology to tell dangerous plants and animals from benign ones; just enough Geology to locate a cave to shelter in; and just enough Meteorology to know when to take shelter. Roll vs. skill to do any of these things.

You must specialize by *planet.* The specialties for planets of the same type (see *Planet Types,* p. 155) default to one another at -4. Any larger difference results in no default.

Navigation/TL†

IQ/Average

Defaults: Special.

This is the ability to find your position through careful observation of your surroundings and the use of instrumentation. A successful roll tells you where you are or lets you plot a course.

You *must* specialize:

Sea: Navigation by the stars and ocean currents. *Modifiers:* +3 if you have Absolute Direction, or a high-tech global positioning system or inertial compass; -5 (and no use of Astronomy default) if you lack high-tech aids, the weather is bad, and the stars are hidden. *Defaults:* Astronomy-5 or Seamanship-5.

Air: Navigation by the stars and by the terrain below. Modifiers are as for Navigation (Sea). *Default:* Astronomy-5.

Land: Navigation using landmarks and the stars; also called "orienteering." *Modifiers:* +3 if you have Absolute Direction or a high-tech substitute. *Defaults:* IQ-5, Cartography-4, or Mathematics (Surveying)-4.

Space: Navigating through ordinary interplanetary and interstellar space. *Modifiers:* +2 for 3D Spatial Sense. *Defaults:* Astronomy-4 or Mathematics (Applied)-4.

Air, Land, and Sea default to one another at -2. There is *no* default from Space to Air, Land, or Sea.

Modifiers: -1 to -10 for being in an unfamiliar area (GM's discretion, but an unfamiliar world, star system, etc. should give at least -5); equipment modifiers (p. 186).

Observation

Per/Average

Defaults: Perception-5 or Shadowing-5.

This is the talent of observing dangerous or "interesting" situations without letting others know that you are watching. Use this skill to monitor a location, a group of people, or your immediate surroundings for concealed or tactically significant details. This is not the same as gathering clues or making a hands-on search (use Forensics and Search, respectively) – you always use Observation from a distance.

A successful skill roll lets you gather information that is not specifically hidden. For instance, you could case a bank for obvious cameras before a robbery, learn the schedule of sentries, estimate the size of a crowd, or gauge the strength of troops moving in the open. The GM may require an Intelligence Analysis roll to *interpret* what you observe.

To spot deliberately hidden details, you must win a Quick Contest of Observation skill vs. the Stealth, Shadowing, or Camouflage skill (as appropriate) of the other party. The GM should roll the Contest in secret, and should *not* say, "You don't see the machine gun nest concealed in the bushes."

If your attempt fails, you get no details on an obvious item, or fail to spot a hidden one. On a critical failure, someone spots *you* and reacts poorly to the attention . . .

Modifiers: Acute Senses, as appropriate; modifiers for cover, darkness, or size; -1 to -10 if the target is concealed by high-tech camouflage or "stealth" technology; +1 to +10 if you possess suitable surveillance devices (a thermograph to spot a concealed sniper, binoculars to observe troop movements, etc.) and succeed at the skill roll to operate them.

Operations/TL

IQ/Hard

Defaults: IQ-6,Strategy-6, or Tactics-6.

Operations represents skill in coordinating multiple tactical missions to achieve the goals of a strategic plan (see Strategy). Majors and lieutenant commanders begin learning this skill, which higher officers must know at increasing levels. The usual unit sizes involved are anywhere from a battalion to an army corps. This skill has been adopted for the ***Star Fleet Universe.***

The skill includes operating, commanding, and supplying units on this scale. It requires specialization by medium: Air, Land, Sea, or Space. Officers in nonstandard units may instead specialize in a combination medium; for instance, a Marine Major would have operations (Space-Land). All specialties default to one another at -3.

Parachuting/TL

DX/Easy

Default: DX-4.

This is the ability to survive a parachute jump. Roll once per jump. Failure could mean anything from drifting off course to panic that makes you drop your gear (GM's option). A critical failure means the chute did not open or was fatally fouled (see *Falling,* p. 233). For a jump under bad conditions, make a second roll on landing – for instance, to survive an "ankle-breaker"

landing without injury, or to dodge trees on the way down. Make an IQ-based roll to *pack* a parachute.

Modifiers: -2 if your body weight plus encumbrance exceeds your Basic Lift×10.

Pharmacy/TL†

IQ/Hard

Defaults: IQ-6 and others.

This is the skill of preparing medicines to treat illness. (To work with *noxious* drugs, use Poisons skill.) You *must* specialize:

Herbal: The ability to make and administer remedies prepared from plants. Make a Naturalist roll to *locate* herbs. Before TL5, this is the only specialty available. It replaces Physician (below) and is frequently used in conjunction with Esoteric Medicine‡. At TL5+, this specialty remains available, but Pharmacy (Synthetic) is much more common. *Prerequisite:* Naturalist. *Defaults:* Biology-5, Herb Lore‡-5, or Naturalist-5.

Synthetic: The skill of preparing drugs under "laboratory" conditions. To *prescribe* drugs, use Physician skill. This specialty is only available at TL5+. *Defaults:* Chemistry-5 or Physician-5.

Physician/TL

IQ/Hard

Defaults: IQ-7, First Aid-11, or Veterinary-5.

This is the ability to aid the sick and the injured, prescribe drugs and care, etc. In the ***SFU*** you must specialize by species (see *Interspecies Medicine,* p. 228). Make a skill roll to hasten natural recovery from injury (see *Recovery*, p. 226), and whenever the GM requires a roll to test general medical competence or knowledge. Apply physiology modifiers if your patient is of a different species from you (see *Interspecies Medicine,* p. 228).

In the ***SFU,*** medical knowledge is divided between Pharmacy (Synthetic) and Physician. A physician knows a great deal about drugs. He can identify most drugs fairly easily (at -5 without laboratory facilities but +3 if he takes the risk of smelling/tasting the substance), but he cannot *formulate* them unless he also learns Pharmacy.

Physics/TL

IQ/Very Hard

Default: IQ-6.
Prerequisite: Mathematics (Applied) at TL5+.

This is the science dealing with the properties and interactions of matter and energy. Beyond the basics (such as the behavior of moving bodies), a physicist's knowledge includes whatever is understood about electricity, gravity, heat, light, magnetism, radiation, and sound at his tech level.

At TL6+, most physicists have an *optional* specialty (p. 146): acoustics, astrophysics, geophysics, nuclear physics, optics, particle physics, quantum physics, relativity, solid-state physics, etc. The ***SFU*** offers warp physics.

Physiology/TL†

IQ/Hard

Defaults: IQ-6, Diagnosis-5, Physician-5, or Surgery-5.

This is the study of the human body and its function. A physiologist knows how bones, muscles, and organs work, and where they are located. You *must* specialize by species (see *Interspecies Medicine,* p. 228).

Pickpocket

DX/Hard

Defaults: DX-6, Filch‡-5, or Sleight of Hand-4.

This is the ability to steal a purse, knife, etc., from someone's person – or to "plant" something on him. If your victim is aware someone may try to pick his pocket, or if he is generally wary, you must win a Quick Contest of Pickpocket vs. the *higher* of his Perception or Streetwise skill. To outwit a third party who is watching you and the victim, you must win a Quick Contest of Pickpocket vs. the watcher's Observation skill.

Modifiers: +5 if the victim is distracted; +10 if he is asleep or drunk; up to -5 for goods in an inner pocket; and up to -10 for a ring or similar jewelry.

Piloting/TL†

DX/Average

Default: IQ-6.

This is the ability to operate a specific type of aircraft or spacecraft. The default is to IQ, because it takes intelligence to figure out the controls in an emergency, but when you *learn* this skill, always base it on DX.

Roll against Piloting for takeoffs and landings, and in any hazardous situation. Failure by 1 indicates a rough job; failure by more indicates damage to the vehicle. A critical failure is a crash! If you have skill 15+, a critical failure requires an immediate second roll. Only if the second roll is a failure does a mishap occur. Otherwise, it was a "near thing," averted by experience. Air combat requires frequent Piloting rolls as well.

Make an IQ-based Piloting roll for basic map reading or practical meteorology, or to recall aviation laws and regulations.

Remotely piloted vehicles (RPVs) use this skill if the pilot uses some form of telepresence to mimic actually being in the cockpit. Otherwise, make a DX-based roll against the appropriate skill for the task the

RPV is performing (e.g., Forward Observer for a surveillance drone).

You *must* specialize:

Aerospace: Any vehicle capable of atmospheric flight to and from orbit. *Defaults:* High-Performance Airplane-2 or other Piloting at -4.

Glider: Any kind of unpowered, winged aircraft. *Defaults:* Light Airplane or Ultralight at -2, or other Piloting at -4.

Heavy Airplane: Any winged aircraft weighing over 10 tons and flying at 600 mph or slower. *Defaults:* High-Performance Airplane or Light Airplane at -2, or other Piloting at -4.

Helicopter: Any aircraft that uses rotors for both lift and thrust. *Defaults:* other Piloting at -5.

High-Performance Airplane: Any winged aircraft capable of flying faster than 600 mph. *Defaults:* Aerospace, Heavy Airplane, or Light Airplane at -2, or other Piloting at -4.

Light Airplane: Any winged aircraft weighing 10 tons or less and flying at 600 mph or slower. *Defaults:* Glider, Heavy Airplane, High-Performance Airplane, or Ultralight at -2, or other Piloting at -4.

Shuttlecraft: Shuttlecraft, fighters, or bombers in the ***SFU.*** *Defaults:* Aerospace-4 or Starship-2.

Starship: Starships, skiffs, gunboats, or workboats in the ***SFU.*** *Defaults:* Aerospace-4 or Shuttlecraft-2.

Ultralight: Any winged aircraft weighing 0.5 tons or less and flying at 200 mph or slower. *Defaults:* Glider or Light Airplane at -2, other Airplane specialties at -4, or other Piloting at -5.

Modifiers: +1 for 3D Spatial Sense; +1 for Perfect Balance. -2 for an unfamiliar vehicle within your specialty (e.g., a twin-engine plane when you are used to single-engine craft); -2 or more for unusually primitive *or* extremely complex controls; -4 or more for a plane in bad repair; -2 or more for bad flying conditions.

Poetry

IQ/Average

Defaults: IQ-5 or Writing-5.

This is the ability to compose "good" poetry of any type native to your culture, in any language you know. A successful roll lets you write one good poem in an appropriate amount of time (GM's decision). A failed roll might mean that you couldn't get inspired – or that your audience just didn't care for your work (for whatever reason).

Modifiers: The time modifiers under *Time Spent* (p. 185) will often apply; Cultural Familiarity modifiers (p. 33); Language modifiers (p. 33).

Poisons/TL

IQ/Hard

Defaults: IQ-6, Chemistry-5, Pharmacy (any)-3, or Physician-3.

This skill represents practical knowledge of poisons. A successful skill roll lets you (among other things) recognize a poison-bearing plant in the wild; extract the poison in a useful form; recognize a poison by its taste in food or drink; identify a poison by observing its effects (+3 if *you* are poisoned); know a proper antidote; or recognize or prepare the antidote from its sources. Each of these feats requires a separate roll.

Modifiers: Acute Taste and Smell gives a bonus to notice or recognize a poison by taste or by scent. Likewise, Discriminatory Smell and Discriminatory Taste give +4 to these tasks when working by smell or by taste, respectively.

Politics

IQ/Average

Defaults: IQ-5 or Diplomacy-5.

This is the ability to get into office and get along with other politicians. It has nothing to do with administration! You can only learn Politics in office or by working for someone in office. A successful skill roll will give you +2 on reactions from fellow politicians. The GM may opt to handle an election as a Quick Contest of Politics.

Modifiers: +2 for Voice; -3 for Low Empathy[‡]; -1 to -4 for Shyness. In some jurisdictions, money is another important modifier . . .

Professional Skill

DX or IQ/Average

Defaults: Special.

Many realistic job skills are more useful for making a living than for adventuring. Most such skills do not appear in this skill list – but you can still learn them if you want! Each is a separate Professional Skill. If your "adventuring" skills aren't useful for earning money, a Professional Skill can help you earn a steady income. To qualify for most jobs, you will need the relevant Professional Skill at 12+ (unless you really are *supposed* to be incompetent!).

Most professions encompass a body of knowledge. The associated Professional Skills are IQ/Average and default to IQ-5, because the smarter you are, the better you can recall and employ the techniques used at your job. Examples include accountant, air traffic controller, barber, game designer, journalist, librarian, and zookeeper.

A few professions – glassblower, tailor, weaver, etc. – focus more on precision than on recall. These Professional Skills are DX/Average and default to DX-5.

At the GM's option, a given Professional Skill might also default to other skills. For instance, "Journalist" would logically default to Writing-3.

The skills associated with highly paid or respected professions often have prerequisites. For instance, "Air

Traffic Controller" might require Electronics Operation (Sensors) skill. Like defaults, prerequisites are up to the GM.

You are free to create your own Professional Skills, subject to GM approval. They should be unique and well defined, *not* just a compilation of existing skills.

Propaganda/TL

IQ/Average

Defaults: IQ-5, Merchant-5, or Psychology-4.

This is the skill of indirect persuasion through the media. It is used for psychological warfare by intelligence and military organizations, and for advertising and marketing in the civilian world. Use familiarity (p. 147) to reflect the differences between these areas.

Propaganda works on groups, not individuals. The GM should set the effective Will of the target group based on its size, composition, and resistance to the desired outcome, and then use the *Influence Rolls* (p. 197) rules to determine the results. Success might inform the target audience or even alter its perceptions. Propaganda attempts nearly always take more time and exposure than ordinary Influence rolls, however; how much time is up to the GM.

Prospecting/TL

IQ/Average

Defaults: IQ-5 or Geology (any)-4.

This is the skill of finding valuable minerals. A successful Prospecting roll lets you locate minerals, judge good ore from a small sample (and gauge its commercial value), and find water by using an "eye for country," as described for Survival skill.

This skill is "applied geology," and *requires* on-site examination. Prospecting from a distance – using maps, instrument readings, and extrapolation – uses Geology skill instead.

Modifiers: Equipment modifiers (p. 186); -1 in a new area of a familiar type, or -2 or more in an unfamiliar type of area, until you have been there for at least a month.

Psychology

IQ/Hard

Defaults: IQ-6 or Sociology-4.

This is the skill of *applied* psychology, which may be learned by academic study or lengthy observation of human nature. Roll against skill to predict the *general* behavior of an individual or small group in a particular situation – especially a stressful situation.

In the ***SFU,*** you *must* specialize by species. Defaults between specialties are up to the GM.

If the GM desires extra detail, he may rule that Psychology is split into two specialties: Applied (described above) and Experimental (for scientists who run rats in mazes and so forth). Applied defaults to Experimental-5; Experimental does not default to Applied, as a shrewd observer of people may lack training in scientific procedures.

Modifiers: +3 if you know the subject well; +3 if the subject is of a known deviant personality type; +1 for Sensitive *or* +3 for Empathy, or -3 for Low Empathy‡, if diagnosing a subject in your presence; -3 for Callous, unless specifically rolling to deduce someone's weaknesses so you can exploit them.

Public Speaking

IQ/Average

Defaults: IQ-5, Acting-5, Performance‡-2, or Politics-5.

This is general talent with the spoken word. A successful skill roll lets you (for instance) give a good political speech, entertain a group around a campfire, incite or calm a riot, or put on a successful "court jester" act.

Public Speaking includes skill with debate, oratory, and rhetoric, as well as ability with less formal activities such as "punning" and storytelling. Not all speakers possess talent in all of these areas. You may take an *optional* specialty (p. 146) to represent this.

Modifiers: Any bonus for Charisma; +2 for Voice; -1 to -4 for Shyness; -2 for Stuttering‡; Cultural Familiarity modifiers (p. 33); Language modifiers (p. 33).

Research/TL

IQ/Average

Defaults: IQ-5 or Writing-3.

Prerequisite: literacy in at least one language; at TL8+, Computer Operation is also a prerequisite.

This is the ability to do library and file research. Roll against skill to find a useful piece of data in an appropriate place of research . . . *if* the information is there to be found.

At the GM's option, when researching material connected with a "book-learned" skill such as Forensics, Literature‡, or Physics, you may roll against that skill at -2 instead, if that would be better than your Research skill or default (but this is *not* a general default level).

Modifiers: Language modifiers (p. 33), for research materials in a foreign tongue.

Rapier

see *Melee Weapon*

Riding†

DX/Average

Defaults: DX-5 or Animal Handling (same)-3.

This is the ability to ride a particular kind of mount. Make a skill roll when you first try to mount a riding

animal, and again each time something happens to frighten or challenge the creature (e.g., a jump).

You *must* specialize by riding beast. Defaults between specialties vary from 0 to -10. For instance, if you have Riding (Horse), Riding (Mule) is essentially the same skill (no default penalty), Riding (Camel) would default at -3, Riding (Dolphin) at -6, and Riding (Dragon) at a whopping -10!

Modifiers: +5 if the animal knows and likes you; +1 or more for a mount with the Mount skill‡ ; -10 if the animal has not been trained for riding.

Running

HT/Average

Default: HT-5.

This skill represents training in both sprints and long-distance running. Roll against the *higher* of Running or HT to avoid fatigue or injury due to running. When racing someone of equal Move on foot, roll a Quick Contest of Running skill to determine the winner.

Note that you must have legs and be capable of land movement to learn this skill.

Saber

see *Melee Weapon*

Savoir-Faire†

IQ/Easy

Defaults: IQ-4 and others.

This is the skill of appropriate behavior in a subculture that has an established code of conduct – for instance, high society or the military. When dealing with that social group, a successful skill roll lets you interact without embarrassing yourself, detect pretenders to high standing, and so on. You may also substitute an Influence roll against Savoir-Faire for any reaction roll required in a social situation involving that subculture; see *Influence Rolls* (p. 197). Roll once per encounter.

You *must* specialize. Common specialties include:

High Society: The manners of those of "good" birth and breeding. Status determines relative standing. Roll against skill whenever you must impersonate someone more than three Status levels away from your own. If your Status is negative and you are trying to pass yourself off as someone of Status 1+, or vice versa, this roll is at -2.

Military: The customs, traditions, and regulations of military service. This also includes knowledge of the *unwritten* rules: what is acceptable even if not regulation, and what is forbidden although there is nothing in writing against it. Military Rank determines relative standing.

Pirate: Proper conduct within a formal criminal organization such as an Orion Pirate cartel. This includes such things as codes of silence and showing proper deference to "made men." These protocols often ape those of high society ... but the penalties for misconduct are far more severe. *Default:* Streetwise-3.

Police: As Savoir-Faire (Military), but for civilian police service. This gives knowledge of the *social* protocols for police officers; use Law (Police) for the *legal* protocols. Police Rank determines relative standing.

Servant: Knowledge of how to serve the upper class. Certain procedures are always done *just so* (the salad fork goes outside the dinner fork, the Duke is announced before the Earl, etc.), and certain attitudes in a servant are unacceptable.

Savoir-Faire (High Society) is the most common specialty, and you may list this as simply "Savoir-Faire" on your character sheet. Savoir Faire (High Society) and (Servant) default to one another at -2. There are no defaults between other types of Savoir-Faire.

Modifiers: Cultural Familiarity modifiers (p. 33). +2 if you are of higher standing than those you are trying to impress, or -2 if you are of lower standing ("standing" might mean Rank, Status, skill level, or something else). +2 if you seem to have important friends. -4 for Clueless‡; -3 for Low Empathy‡; -1 for Oblivious‡; -1 to -4 for Shyness.

Seamanship/TL

see Crewman

Search

Per/Average

Defaults: Perception-5 or Criminology-5.

This is the ability to search people, baggage, and vehicles for items that aren't in plain sight. The GM rolls once – *in secret* – per item of interest. For *deliberately* concealed items, this is a Quick Contest of your Search skill vs. the Holdout or Smuggling skill used to hide the item. If you fail, the GM simply says, "You found nothing." (It defeats the purpose to say, "You don't find the gun under his jacket.")

If more than one person is searching, roll separately for each searcher.

The GM should avoid unnecessary rolls. For instance, no human can get a sawed-off shotgun through a body search. Likewise, a knife or jewel simply cannot be found on a normally dressed person without an X-ray or skin search. In general, if the net bonus to the concealer's Holdout roll is +3 or more, a skin search is *required.* If his Holdout is at -2 or worse for size, a skin search will automatically find the hidden item.

Modifiers: +1 for a "pat-down" of an unresisting person (takes one minute), +3 for a thorough "skin search" of a person's hair and clothing (takes three minutes), or +5 for a complete search, including body cavities (takes five minutes). Bonuses for Acute Touch and Sensitive Touch‡ apply to *all* hands-on searches. On a successful Electronics Operation (Security) roll,

specialized sensors – metal detectors, X-ray machines, etc. – give from +1 to +5 to find items they can detect (a metal detector won't help you find plastic explosives!).

Sex Appeal

HT/Average

Default: HT-3.

This is the ability to impress those who are attracted to members of your sex. It has as much to do with attitude as it does with looks. If you are not willing to "vamp" someone to get what you want, you won't have this skill – or *want* it.

You may substitute an Influence roll against Sex Appeal for any reaction roll made by someone who is attracted to members of your sex; see *Influence Rolls* (p. 197).

Usually, you may make only one attempt per "target," although the GM might allow another attempt after a few weeks.

Modifiers: +2 for Voice; -3 for Low Empathy‡; -1 for Oblivious‡; -1 to -4 for Shyness; -2 for Stuttering‡. Apply any bonus for above-average appearance (p. 31) – or *double* the penalty for below-average appearance!

Shadowing

IQ/Average

Defaults: IQ-5, Observation-5, or Stealth-4 (on foot only).

This is the ability to follow another person through a crowd without being noticed. (In the wilderness, use Tracking and Stealth.) Roll a Quick Contest every 10 minutes: your Shadowing vs. the subject's Vision roll. If you lose, you lost the subject; if you lose by more than 5, you were seen.

Once the subject is aware you are shadowing him, roll a Quick Contest every five minutes: your Shadowing skill vs. his Shadowing or Stealth skill. If he wins, he eludes you. If he loses by more than 5, he *thinks* he eluded you. If you critically fail, you lose him *and* follow the wrong person.

Following someone in a vehicle is harder than shadowing on foot. Use the same rules, but you roll at -2 (and may not use your Stealth default).

Modifiers: -3 if the subject knows you. Distinctive appearance gives a penalty – see *Build* (p. 29), *Unnatural Features* (p. 32), and specific disadvantages (e.g., One Leg) for details. If you belong to a visibly different race or species than most of the people around you, the penalty is up to the GM; it is never smaller in magnitude than the *difference* between your Size Modifier and that of those around you.

Shield†

DX/Easy

Default: DX-4.

This is the ability to use a shield, both to block and to attack. Your active defense with any kind of shield – your Block score – is (skill/2) + 3, rounded down. You *must* specialize:

Shield: Any shield held in place with straps. Such shields have the advantage that you can hold (but not *wield*) something in your shield hand, but the disadvantage of being slow to put on or take off. This is the most common specialty – list it as "Shield" on character sheets.

Buckler: Any kind of shield, usually a small one, held in the hand. A buckler occupies one hand completely, but you can ready it in only one turn and drop it as a free action.

Shield and Shield (Buckler) default to each other at -2.

Shiphandling/TL†

IQ/Hard

Defaults: IQ-6 and others.
Prerequisites: see below.

This is the ability to act as the *master* of a large vessel. It involves directing the crew in the tasks necessary to control the vehicle's speed and direction. It also covers such duties as keeping the captain's log and inspecting the crew. Someone with Shiphandling skill (at better than default!) should stand watch at all times when the vessel is underway. Roll vs. skill when encountering hazards or maneuvering for battle.

A failed roll when encountering hazards means the vessel is damaged. This might mean anything from scratched paint to crippling damage that requires extensive repairs.

A failed roll in battle means the vessel did not go exactly where intended. The details depend on the vessel, the tech level, and the GM's judgment, but might include weapons being "masked" (unable to engage the enemy), a failed boarding attempt, or drifting out of formation with your fleet (which might deny you the benefits of area defenses, fire support, or tactical communications).

A critical failure under any circumstances means an appropriate disaster. Depending on the TL and situation, this could mean running aground, colliding with another vessel, being dismasted, losing your screws or rudder, or simply giving an order that your crew disregards. Whether they then save your ship for you, or mutiny and flee, is up to the GM.

You *must* specialize.

Ship: "Wet-navy" vessels from tugboats to carriers. *Prerequisites:* Leadership, Navigation (Sea), and Seamanship. *Defaults:* Seamanship-5, or to Boating (Large Powerboat)‡-5 for ships with engines or Boating (Sailboat)‡-5 for tall ships.

Spaceship: Slower-than-light spacecraft. *Prerequisites:* Leadership, Navigation (Space), and Spacer. *Defaults:* Spacer-5 or any spaceship Piloting-5.

Starship: Faster-than-light spacecraft. *Prerequisites:* Leadership, Navigation (Space), and Spacer. *Defaults:* Spacer-5 or any spaceship Piloting-5.

Submarine: All forms of large submersibles. *Prerequisites:* Leadership, Navigation (Sea), and Submariner. Defaults: Submariner-5 or Submarine (Large Sub)‡-5.

Modifiers: -2 to master an unfamiliar vessel (e.g., an aircraft carrier when you're used to a battleship); -2 for an unfamiliar crew; -2 or more for a vehicle in bad repair.

Shortsword

see *Melee Weapon*

Singing

HT/Easy

Default: HT-4.

This is the ability to sing in a pleasing fashion. A successful roll means the audience liked your song.

Modifiers: Language Modifiers (p. 33), if you are singing in a foreign language; -2 if the audience does not understand the language; +2 for Voice; -2 for Stuttering‡.

Sleight of Hand

DX/Hard

Default: Filch-5.

This is the ability to "palm" small objects, do coin and card tricks, etc. Make a skill roll to perform one piece of simple "stage magic." A failed roll means you blew the trick.

When you use this skill to steal, you must win a Quick Contest of Sleight of Hand vs. the Vision roll or Observation skill of potential witnesses to perform the theft unnoticed.

You can also use this skill to cheat at cards, dice, etc. A successful Sleight of Hand roll gives from +1 to +5 on your Gambling roll. Any failure causes you to be denounced as a cheater! In both cases, the exact results are up to the GM.

Modifiers: +3 if the light is dim; +3 if you have a confederate to distract attention; +5 if you have prepared in advance (cards up your sleeve, etc.); -3 if the person you want to fool knows Sleight of Hand himself; modifiers for High Manual Dexterity or Ham-Fisted‡.

Sling

DX/Hard

Default: DX-6.

This is the ability to use the sling or staff sling.

Smallsword

see *Melee Weapon*

Smuggling

IQ/Average

Default: IQ-5.

This is the ability to conceal items in baggage and vehicles. You can also use it to hide an object in a room or a building. Roll against skill to hide an item from casual inspection. In an active search, the searchers must win a Quick Contest of Search vs. your Smuggling skill to find the item.

Modifiers: Equipment modifiers (p. 186) for specialized smuggling gear. The *difference* between the Size Modifier (p. 30) of the package, vehicle, or room in which you are hiding the item and that of the item itself; e.g., to hide a bottle of liquor (SM -5) in a family car (SM +3), you would roll at +8.

Sociology

IQ/Hard

Defaults: IQ-6, Anthropology-3, or Psychology-4.

This is the study of societies and social relationships. A successful skill roll lets you judge how well a large group of people will work together; deduce the social pressures contributing to a crime wave, revolution, war, etc.; or predict the most probable outcome of dissimilar societies coming into contact.

Soldier/TL

IQ/Average

Default: IQ-5.

This skill represents a combination of basic military training – the lessons taught at "boot camp" or its equivalent – and actual combat experience. Only those who have served in an army, militia, etc. are likely to know it.

The GM may require a Soldier roll whenever circumstances would test your battlefield discipline (knowing when to shoot, use concealment, take cover, etc.) or skill at practical field survival (e.g., keeping your feet dry and eating when you get the chance). Roll daily during prolonged military action. Failure means an inconvenience – perhaps a minor piece of equipment fails. Critical failure indicates a disaster: "friendly fire" incident, trench foot, etc.

Soldier includes basic lessons in many fields covered by other skills. For instance, a TL8 soldier learns to strip his rifle without learning Armoury (Small Arms), to use a radio without learning Electronics Operation (Comm), to dig a foxhole without learning Engineer (Combat), and so forth. In a situation where someone with one of those skills would roll at +4 or better for a routine task (see *Task Difficulty,* p. 184), the GM may let you roll against Soldier skill instead. You do not receive the bonus that someone with the full-fledged skill would get, but you *do* suffer any situational penalties.

Soldier can only substitute for skill rolls to do things that would be a believable part of basic training.

This means the *routine* use of *standard* equipment by *ordinary* troops – not research, improvisation, or design, and never the operation of new or secret technologies! Soldier cannot replace weapon skills, either; you must buy all such skills separately.

Example: If someone with Electronics Operation (Comm) would be at +4 to call HQ on a standard-issue communicator, you could do so with a successful Soldier roll. However, you could *not* use Soldier to fix a broken communicator, use an enemy communicator, or transmit coded signals.

Spacer/TL

see Crewman

Spear

see Melee Weapon

Sports

DX/Average

Defaults: DX-5 and others.

This is the ability to play a particular sport *well* – perhaps well enough to earn a living. Each sport is a separate Sports skill. Most Sports skills are DX/Average and default to DX-5, but those that put a premium on strength (e.g., rugby) might default to ST-5. Some Sports skills might default to one another or to other skills as well.

Make an IQ-based roll to recall the *basic* rules of your sport. Detailed knowledge of the full rules governing leagues and tournaments – as would be expected of a coach or referee – is covered by the relevant Games‡ skill.

The GM may rule that certain Sports are useful in combat situations. For instance, Sports (Baseball) might let you use a bat to parry hurled rocks and grenades at (skill/2) + 3, Sports (Bullfighting) might give a Parry equal to (skill/2) + 3 against a slam by a beast that uses a "running head butt," and you might be able to roll against Sports (Rugby) to hit with a slam.

Staff

see Melee Weapon

Stealth

DX/Average

Defaults: DX-5 or IQ-5.

This is the ability to hide and to move silently. A successful roll lets you conceal yourself anywhere except in a totally bare room, or move so quietly that nobody will hear you, or follow someone without being noticed. (To follow someone through a *crowd,* use Shadowing.)

If someone is *specifically* on the alert for intruders, the GM will roll a Quick Contest between your Stealth and the sentinel's Perception.

You can also use this skill to stalk game. A successful roll (and about 30 minutes) gets you within 30 yards of most animals. Another roll, at -5, gets you within 15 yards.

Modifiers: A penalty equal to your encumbrance level. -5 to hide in an area without "natural" hiding places, or +3 or more if there are *many* hiding places. -5 to move silently if you are moving faster than Move 1. -5 to fool those with Discriminatory Smell.

Strategy†

IQ/Hard

Defaults: IQ-6, Intelligence Analysis-6, or Tactics-6.

This is the ability to plan military actions and predict the actions of the enemy. In most settings, only the military teaches this skill.

A successful Strategy roll lets you deduce, in advance, enemy military plans unless another person with this skill leads them. In that case, the GM rolls a Quick Contest of Strategy. The amount of information gained depends on how well you roll (but *not* on the quality of the foe's plans). If you fail an uncontested roll or lose a Quick Contest, the GM gives you *false* information.

You *must* specialize in a type of strategy – Land, Naval, Space, etc. These specialties default to one another at -4. The specific units being commanded are less important; even the units of another nation or tech level would give -1 or -2 at most (GM's judgment), as long as you had accurate information about their capabilities.

Streetwise

IQ/Average

Default: IQ-5.

This is the skill of getting along in rough company. A successful Streetwise roll might let you learn (among other things) where any sort of illegal "action" is; which local cops or bureaucrats can be bought, and for how much; and how to contact the local underworld. Note that you might also be able to get this information by asking a Contact‡. This skill is a measure of your ability to make *new* connections as needed.

You may substitute an Influence roll against Streetwise for any reaction roll made in an underworld or "bad neighborhood" situation; see *Influence Rolls* (p. 197).

Modifiers: +3 if you have a tough reputation (either "good" or "bad") in the area; -3 if you are obviously a stranger in the area. -3 for Low Empathy‡; -1 for Oblivious‡; -1 to -4 for Shyness.

Surgery/TL

IQ/Very Hard

Defaults: First Aid-12, Physician-5, Physiology-8, or Veterinary-5.

Prerequisites: First Aid or Physician.

This is skill at using *invasive* medical techniques to treat sickness or injury. Roll once per operation. On a success, the operation proceeded without complications. On a failure, the patient took damage – 2d for a simple amputation, 3d for other procedures. Surgery rolls can also facilitate recovery from wounds; see *Surgery* (p. 227.)

This skill represents general surgical expertise, which is relatively rare in real life. Most surgeons have an *optional* specialty (p. 146) in a certain part of the body (brain, heart, etc.) or a specific type of surgery (cosmetic surgery, microsurgery, transplant surgery, etc.). In the ***SFU,*** you must specialize by species (see *Interspecies Medicine,* p. 228).

Modifiers: Equipment modifiers (p. 186); physiology modifiers (p. 228). -3 if the area or equipment cannot be properly cleaned and sterilized; -3 for head or chest surgery; -5 for undiagnosed problems. If you lack Physician skill, you are at -5 to do anything but "field-expedient" surgery (e.g., stitch wounds or extract arrowheads, bullets, and shrapnel).

Survival†

Per/Average

Defaults: Perception-5 or Naturalist (same planet)-3.

This is the ability to "live off the land," find safe food and water, avoid hazards, build shelter, etc. You may look after up to 10 other people. To live safely in a wilderness situation, you must make a successful Survival roll once per day. Failure inflicts 2d-4 injury on you and anyone in your care; roll separately for each victim.

This skill also gives an "eye for country." A successful roll shows you the best direction of travel to find flowing water, a mountain pass, or whatever other terrain feature you desire – assuming that it exists.

Finally, you can use this skill to *trap* wild animals. (A city-bred thief could use Traps skill, but he's used to different game . . . so the roll would be at a -5.) Make one roll per trap. It takes about 30 minutes to improvise a trap from ordinary materials, or 10 minutes to set and hide a commercial steel trap. Pit traps for large game take several hours to dig.

Survival often requires skill rolls based on scores other than Perception. The GM might ask for a ST-based roll to dig a pit trap or erect a log shelter, a DX-based roll to start a fire using primitive techniques (flint sparking, bow and palette, etc.), or even a HT-based roll to avoid nutritional deficiencies from an improvised diet.

You *must* specialize by terrain type. Land-dwellers may choose from Arctic, Desert, Island/Beach, Jungle, Mountain, Plains, Swampland, and Woodlands. Aquatic beings may take any of Bank, Deep Ocean Vent, Fresh-Water Lake, Open Ocean, Reef, River/Stream, Salt-Water Sea, and Tropical Lagoon. Amphibious individuals can pick from *either* list!

Land specialties default to one another at -3, while aquatic specialties default among themselves at -4. Island/Beach and Tropical Lagoon default to each other at -4, as do Swampland and River/Stream, but there are no other defaults between land and aquatic specialties.

You *must* also specialize by planet. Each Survival specialty defaults to the *same* terrain type for a *different* planet at -4. All this assumes that the two planets are of the same planet type (see *Planet Types,* p. 155). There is no default at all between Survival skills for two planets of different planet types.

At the GM's option, extreme manmade terrain may call for unique specialties; e.g., Survival (Radioactive Wasteland). Most such specialties have *no* default of any kind.

See also Urban Survival.

Modifiers: Up to -5 for extreme weather conditions. Equipment modifiers (p. 186).

Swimming

HT/Easy

Default: HT-4.

This is the skill of swimming (whether on purpose or to keep afloat in emergencies) and lifesaving. Roll against the *higher* of Swimming or HT to avoid fatigue while swimming or injury due to aquatic misfortunes. When racing someone of equal water Move, roll a Quick Contest of Swimming to determine the winner. See *Swimming,* p. 192.

Note that Swimming does *not* cover high diving – that's Sports (Diving).

Tactics

IQ/Hard

Defaults: IQ-6 or Strategy (any)-6.

This is the ability to outguess and outmaneuver the enemy in small-unit or personal combat. In most settings, only the military teaches this skill.

When commanding a small unit, roll against Tactics to place your troops correctly for an ambush, know where to post sentries, etc. At the GM's option, a successful roll might even provide clues as to *immediate* enemy plans. To outmaneuver enemy units, you must win a Quick Contest of Tactics with their leader. All of this only applies when you lead a group small enough that you can give each warrior orders *personally* – or through at most one subordinate. Thus, radio and similar technologies can greatly enhance your command abilities!

In personal combat, you may make a Tactics roll before the fight begins if you had *any* time to prepare. On a success, you start the fight in an advantageous

position – e.g., behind cover or on higher ground – as determined by the GM. The better the roll, the greater your advantage. If you fail, or do not attempt a Tactics roll, you are in a random location (or one of the GM's choosing) when combat begins. Fighters without Tactics skill *always* start combat this way.

Even in an ambush or similar "surprise" situation, the GM will use the *better* of your Tactics skill and your Perception to see if you spotted the danger on time.

Teaching

IQ/Average

Default: IQ-5.

This is the ability to instruct others. If you have Teaching at level 12+, you may act as a teacher for game purposes. For more on teaching and learning, see *Improvement Through Study* (p. 249).

Modifiers: -3 for Callous‡; -1 to -4 for Shyness. Apply both the teacher's *and* the student's Language penalties (p. 33) in the language of instruction.

Theology†

IQ/Hard

Defaults: IQ-6 or Religious Ritual (same)‡-4.

This is the study of a particular religion: its gods, cosmology, doctrines, scriptures, etc. You *must* specialize by religion. There are usually no defaults between specialties, but the GM might permit a default at -4 or so for belief systems that have similar origins, or where one is derived from the other.

Alternatively, you may study the similarities and differences between religions; this is Theology (Comparative). The Theology of any religion routinely studied by scholars in your game world defaults to this specialty at -5.

To be a priest or holy man at TL1+, you must have both Theology *and* Religious Ritual‡ skill for your religion. TL0 shamans need only learn Religious Ritual.

You do not necessarily believe in the religion you study – faith comes from within, not from book learning! If you do, you may ask the GM to make a secret roll against your Theology skill when confronted with moral uncertainty. On a success, the GM will advise you on which course of action "feels" right, given your beliefs and understanding of scripture.

Throwing

DX/Average

Defaults: DX-3 or Dropping‡-4.

This is the ability to throw any small, relatively smooth object that fits in the palm of your hand. Examples include baseballs, hand grenades, and rocks. (Boomerangs, javelins, knives, etc. require their own specialized skills; see Thrown Weapon.) Roll against skill to hit. Furthermore, if you know Throwing at DX+1 level, add +1 to ST when figuring throwing distance (but *not* damage). Add +2 to ST for Throwing at DX+2 or better.

If you do not have this skill, roll against your default to hit a specific target, but against *full* DX to lob an object into a general area.

Thrown Weapon†

DX/Easy

Defaults: DX-4 and others.

This is the ability to hurl any one type of thrown weapon. You *must* specialize:

Axe/Mace: Any axe, hatchet, or mace balanced for throwing (but *not* an unbalanced battleaxe or maul!).

Dart: Any sort of small, finned dart. Games (Darts) defaults to this skill at no penalty. *Default:* Throwing-2.

Harpoon: Any sort of *tethered* spear. *Default:* Thrown Weapon (Spear)-2.

Knife: Any sort of knife.

Shuriken: Any sort of hiltless blade, notably *shuriken* ("ninja stars"). *Default:* Throwing-2.

Spear: Any sort of spear, javelin, etc. *Defaults:* Spear Thrower‡-4 or Thrown Weapon (Harpoon)-2.

Stick: Any balanced and shaped throwing stick, such as a boomerang. This type of throwing stick does not return to the user.

Tonfa

see *Melee Weapon*

Tracking

Per/Average

Defaults: Perception-5 or Naturalist-5.

This is the ability to follow a man or an animal by its tracks. Make a Tracking roll to pick up the trail, then roll periodically to avoid losing it. The frequency and difficulty of these rolls depend on the terrain:

Jungle, Plains, or Woodlands: Roll every 30 minutes.

Arctic, Desert, Island/Beach, or Mountain: Roll at -2 every 15 minutes.

Swampland: Roll at -4 every 5 minutes.

Urban: Roll at -6 every minute!

You may also use this skill to *cover* your tracks. This doubles your travel time! A successful roll means you have hidden your tracks well enough that only someone else with this skill can see them. If another tracker follows you, the Tracking rolls above become Quick Contests of Tracking skill. If he loses any of the Contests, he loses your trail.

To stalk game once you have tracked it, use the Stealth skill.

Modifiers: -5 if the trail is more than a day old, or -10 if more than a week old. +3 if you are following a man, or +6 if following a group of men. Superior senses help *a lot:* bonuses for Acute Vision and

Discriminatory Smell usually apply, and many superhuman senses (Infravision, Subsonic Hearing, etc.) give situational bonuses.

Traps/TL

IQ/Average

Defaults: IQ-5 or Lockpicking-3*.

* Also defaults to DX-5 if you are *disarming* or *resetting* a trap, but not if you are detecting or building one.

This is the skill of building and nullifying traps. A successful Traps roll will (among other things) disarm a trap once you have found it, reset it after you pass, or build a new trap (given suitable materials). Time required is as for Lockpicking. To *detect* a trap, make a Perception-based skill roll.

Note that for the purposes of Traps skill, detection devices are "traps." Thus, this skill covers everything from covered pits to elaborate electronic security systems!

Modifiers: Infinitely variable. The more sophisticated the trap, the harder it will be to disarm, reset, build, or find – and a given trap might be (for instance) easy to find but hard to disarm. The GM should be creative! Equipment modifiers (p. 186) apply to most rolls to set or disarm traps. Bonuses for Acute Vision apply to rolls to detect traps (only).

Two-Handed Axe/Mace

see *Melee Weapon*

Two-Handed Sword

see *Melee Weapon*

Urban Survival

Per/Average

Default: Perception-5.

This talent covers the *physical* part of staying alive in a city environment, whether it's overpopulated or empty. (The *social* problems of city survival are covered by Streetwise skill.) A successful skill roll allows you to find clean rainwater; locate manholes from above or below; quickly locate building entrances, exits, stairwells, etc.; recognize and avoid physically dangerous areas, such as crumbling buildings; make and read city maps; find your way out of strange city areas; find a warm place to sleep outside in cold weather; and locate common types of buildings or businesses without asking anyone, just by your "feel" for the way cities are laid out.



VaccSuit/TL

see *Environment Suit*

Veterinary/TL

IQ/Hard

Defaults: Animal Handling (any)‡-6, Physician-5, or Surgery-5.

This is the ability to care for a sick or wounded animal. You may take an *optional* specialty (p. 146) in a particular type of animal.

Modifiers: +5 if the animal knows and trusts you; -2 or worse if the animal is of an unfamiliar type.

Weather Sense

see *Meteorology*

Whip

see *Melee Weapon*

Wrestling

DX/Average

Defaults: None.

This skill represents training at grappling and pinning. Roll against the *higher* of DX or Wrestling to hit with a grapple, or to make or resist a takedown. Furthermore, if you know Wrestling at DX+1 level, add +1 to ST for the purpose of making or resisting any choke, grapple, neck snap, takedown, or pin, and whenever you attempt to break free. Add +2 to ST for Wrestling at DX+2 or better.

When you defend with bare hands, Wrestling allows you to parry *once* attacks per turn. You must use both hands. Your Parry score is (skill/2) + 3, rounded down. This parry is at -3 vs. weapons. For complete rules for parrying barehanded, see *Parrying Unarmed* (p. 212).

Writing

IQ/Average

Default: IQ-5

This is the ability to write in a clear or entertaining manner. A successful roll means the work is readable and accurate.

This is mostly useful to earn a living or write for ***GURPS,*** but can sometimes help on adventures . . . or after them. The report of a spy, soldier, or private investigator is far more useful if it is well-written!

Modifiers: The time modifiers under *Time Spent* (p. 185) will often apply; -5 if you are writing about an unfamiliar subject; Language modifiers (p. 33).



SUCCESS ROLLS

Whenever a character attempts to perform an action (e.g., use a skill), roll three dice to determine the outcome. This is called a *success roll.* The task in question *succeeds* if the total rolled on the dice is *less than or equal to* the number that governs the action – most often a skill or an attribute. Otherwise, it *fails.*

Example: If you attempt to pick a lock with a Lockpicking skill of 9, you must roll 9 or less on 3d to succeed. On a roll of 10 or more, you fail.

Regardless of the score you are rolling against, a roll of 3 or 4 is *always* a success, while a roll of 17 or 18 is *always* a failure.

In general, the player makes the die rolls for his character's actions. However, the GM may always choose to roll the dice in Secret – see *When the GM Rolls.*

WHEN TO ROLL

To avoid bogging down the game in endless die rolls, the GM should only require a success roll if there is a chance of *meaningful failure* or *gainful success.* In particular, the GM *should* require success rolls when . . .

- A PC's health, wealth, friends, reputation, or equipment are at risk. This includes chases, combat (even if the target is stationary and at point-blank range!), espionage, thievery, and similar "adventuring" activities.
- A PC stands to gain allies, information, new abilities, social standing, or wealth.

The GM *should not* require rolls for . . .

- Utterly trivial tasks, such as crossing the street, driving into town, feeding the dog, finding the corner store, or turning on the computer.
- Daily work at a mundane, nonadventuring job. (To evaluate job performance, make monthly "job rolls"; see *Jobs,* p. 242)

When the GM Rolls

There are two sets of circumstances under which the GM should roll for a PC and not let the player see the results:

*1. When the **character** wouldn't know for sure whether he had succeeded.* This is true of all rolls to gain information, whether through skills such as Detect Lies, Interrogation, Meteorology, and Search, advantages like Intuition and Oracle‡, or supernatural divinatory abilities. In this situation, the player declares that he is using his ability and the GM rolls in secret. On a success, the GM gives the player true information – the lower the roll, the better the information. On a failure, the GM either gives no information at all or *lies* (the higher the roll, the more severe the lie), as appropriate.

*2. When the **player** shouldn't know what's going on.* This includes most Sense rolls, rolls to use Danger Sense, etc. Suppose the party is walking along a jungle trail. A jaguar is on a limb ahead. The GM should not say, "There's a jaguar ahead of you. Roll to see if you notice it." Neither should he say, "Everybody make a Vision roll. Does anybody have Danger Sense?" Either of these approaches gives too much away. Instead, the GM should roll for each character in secret. If anyone succeeds, the GM can say, "You notice a jaguar on a branch 20 yards ahead!" If nobody succeeds . . . they're in for a surprise.

MODIFIERS

The rules often specify *modifiers* for certain success rolls. These bonuses and penalties affect the *number you are rolling against* – your "target number" – and not the total rolled on the dice. Bonuses always improve your odds, while penalties always reduce them.

For instance, the Lockpicking skill description states, "-5 if working by touch (e.g., in total darkness)." This means that if you are working in the dark, you must subtract 5 from your Lockpicking skill for that attempt. If your Lockpicking skill is 9, you roll against 9 minus 5, or 4, in the dark.

A specific scenario might provide modifiers to allow for the relative ease or difficulty of a particular situation. For instance, an adventure might state that a

lock is +10 to open due to the fact that it is primitive and clumsy. If your Lockpicking skill were 9, you would roll against 9 + 10, or 19. Since the highest roll possible on 3d is 18, it would seem that success is assured. This is almost true, but not quite – see *Critical Failure* (p. 186).

Modifiers are cumulative unless stated otherwise. For instance, if you tried to open that primitive lock in the dark, *both* modifiers would apply, and you would roll against 9 - 5 + 10, or 14.

See *Culture* (p. 33), *Language* (p. 33), *Tech-Level Modifiers* (p. 146), *Familiarity* (p. 147), *Equipment Modifiers* (p. 186), and *Task Difficulty* (p. 184) for discussions of common modifiers.

Default Rolls

When a task calls for a skill roll, you must have *some* ability with the required skill in order to attempt the task. Ideally, you want points in that skill . . . but an untrained person can take a stab at most tasks. For instance, *anyone* can swing a sword – although only a trained warrior is likely to have much success at it.

A skill that anyone can attempt without study is said to "default" to an attribute or another skill. This means you can attempt the desired action by rolling against one of your attributes or other skills *at a penalty.* This "default roll" is just an ordinary success roll.

Example: Lockpicking skill defaults to "IQ-5"; that is, anyone can open a lock, *without training,* by making a success roll against 5 less than his IQ. If your IQ is 10, you can open an ordinary lock on a roll of 5 or less on 3d. The smarter you are, the better your chances — but training is always preferable!

The description of each skill shows what skills or attributes it defaults to, and at what penalties. If a skill offers multiple defaults, always choose the best one.

Example: Interrogation defaults to "IQ-5, Intimidation-3, or Psychology-4." If you're not a trained interrogator, you can still get answers out of a prisoner by outthinking him (IQ-5), frightening him (Intimidation-3), or playing "mind games" with him (Psychology-4). If you had IQ 12, Intimidation at 14, and Psychology at 13, your defaults would be 7, 11, and 9, respectively. Roll against 11, the highest of the three.

The Rule of 20

If you have a basic attribute over 20, treat it as 20 for default purposes. For instance, if you have IQ 25, your default Lockpicking skill (IQ-5) is 15 — not 20. No such limit applies to defaults to other skills.

"No Default"

Some actions are *impossible* without training. Skills like Fast-Draw, Karate, and Computer Programming have *no default.* If you lack the proper training, you can't attempt these things at all.

Base Skill vs. Effective Skill

Your *base skill* is your actual level in a skill, as recorded on your character sheet. Your *effective skill* for a particular task is your base skill plus or minus any modifiers for that task. In the Lockpicking examples above, base skill is 9 in all cases, while effective skill is 4, 19, and 14 in three different situations.

The terms "base skill" and "effective skill" apply to *all* success rolls, not just to skill rolls. When you make an attribute roll (p. 119), defense roll (p. 211), self-control roll (p. 120), etc., your base skill is your unmodified score, while your effective skill is your final, modified target number.

You may not attempt a success roll if your effective skill is less than 3, unless you are attempting a *defense roll* (p. 211).

TASK DIFFICULTY

If the GM feels that a success roll should be easier or harder in a particular situation, he may assess a *difficulty modifier.* This is separate from modifiers for the culture, equipment, language, tech level, etc. of the person attempting the task, in that it applies to anyone who attempts the task. It is cumulative with all other modifiers.

For instance, if the GM rules that the only way to sway a particular audience is to make a Public Speaking roll at -2, the difficulty modifier is -2. *Any* speaker has -2, in addition to personal modifiers (for culture, language, Voice, etc.), when dealing with that audience.

Many skills suggest difficulty modifiers – e.g., the -5 to use Lockpicking skill by touch – but the possible variety of tasks is essentially infinite. Here are some guidelines for GMs:

+10 – *Automatic.* Tasks so trivial that the GM should waive the need for a success roll, except under extraordinary circumstances. *Example:* A Driving roll to start a car.

+8 or +9 – *Trivial.* Situations where failure is extremely unlikely, and would require *incredibly* bad luck. *Example:* A Driving roll to drive around an empty parking lot.

+6 or +7 – *Very Easy.* Tasks where failure is possible, but would require bad luck. *Example:* A Driving roll to drive down an empty suburban street.

+4 or +5 – *Easy.* Most *mundane* tasks, including rolls made by ordinary people at day-to-day jobs. *Example:* A Driving roll to commute to work in a small town.

+2 or +3 – *Very Favorable.* Mildly risky tasks that most people would undertake without hesitation. *Example:* A Driving roll to commute to work in a teeming metropolis.

+1 – *Favorable.* Tasks that most people *would* hesitate at, due to the risk, but that a career adventurer would regard as easy. *Example:* A Driving roll to compete in a road rally.

0 – *Average.* Most *adventuring* tasks, and the majority of skill use under stress. *Example:* A Driving roll in a car chase.

-1 – *Unfavorable.* Stressful tasks that would challenge a novice adventurer, but not an old hand. *Example:* A Driving roll in a *high-speed* car chase.

-2 or -3 – *Very Unfavorable.* Stressful tasks that would challenge a professional. Skilled adventurers still routinely accept such risks! *Example:* A Driving roll in a high-speed car chase on a busy freeway.

-4 or -5 – *Hard.* Tasks so challenging that even an expert will look for alternatives. A true "master" is still unlikely to feel challenged. *Example:* A Driving roll to keep the car on the road while shooting a gun out the window during a high-speed chase.

-6 or -7 – *Very Hard.* Situations that even the masters might have second thoughts about. *Example:* A Driving roll in a high-speed chase during a blizzard.

-8 or -9 – *Dangerous.* Tasks at which even the greatest masters expect to fail. *Example:* A Driving roll while shooting a gun in a high-speed chase during a blizzard.

-10 – *Impossible.* No sane person would attempt such a task. The GM may wish to forbid such attempts altogether. *Example:* A Driving roll to steer a car with the knees while firing a bazooka two-handed during a chase through a blizzard.

These modifiers assume a *trained* character. To get an idea of how tough a task would be for someone working at default, add the default penalty to the difficulty modifier.

Example: Someone who never learned to drive is using Driving at its DX-5 default. For him, an everyday commute – "Easy" (+4 or +5) for a trained driver – would be "Average" (DX) or even "Unfavorable" (DX-1), and almost certainly a stressful experience!

The GM can use difficulty modifiers *in place of* other modifiers if the outcome of a task is too unimportant – or the action too hot – to justify stopping to add up a long string of modifiers. For instance, in a car chase involving a car in bad repair, the GM might bump the difficulty up a level or two *instead* of assessing an equipment modifier for the car.

Time Spent

You can reduce the penalty for a tough task – or even get a bonus – by working slowly and deliberately, taking the time to get things right. Conversely, if you are racing to beat a deadline, even the simplest task can become tricky.

Extra Time: Taking more time than usual for a task (as specified by the rules or the GM) gives a bonus to a *noncombat* action: 2× as long gives +1, 4× gives +2, 8× gives +3, 15× gives +4, and 30× gives +5. For instance, taking a work day (eight hours) to do a one-hour task would give +3. This bonus only applies if it would make sense to take extra time for the task at hand (GM's judgment). You can take extra time to open a safe or figure out an alien artifact, but not to neutralize poison or chase a fleeing suspect!

Haste: Hurrying gives a penalty: -1 per 10% less time taken. For instance, attempting a task in half the usual time (-50%) is at -5. The maximum time reduction is normally 90% (taking 1/10 the prescribed time), at -9. However, you cannot hasten tasks that require a certain amount of time due to natural laws (e.g., a chemical reaction) or the limitations of equipment (e.g., the top speed of a vehicle). When in doubt, the GM's decision is final.

Note that if a skill specifies time modifiers, these override the generic modifiers above.

DEGREE OF SUCCESS OR FAILURE

Once you have calculated effective skill by applying all relevant modifiers to base skill, roll 3d to determine the outcome. If the total rolled on the dice is less than or equal to your effective skill, you succeed, and the difference between your effective skill and your die roll is your *margin of success.*

Example: If you have effective skill 18 and roll a 12, you succeed; your margin of success is 6.

If you roll *higher* than your effective skill, you fail, and the difference between the die roll and your effective skill is your *margin of failure.*

Example: If you have effective skill 9 and roll a 12, you fail; your margin of failure is 3.

Always note your margin of success or failure, as many rules use these margins to calculate results that matter in play. Even when the rules don't call for these numbers, the GM might wish to reward a large margin of success with a particularly favorable outcome, or assess especially dire consequences for a large margin of failure!

Extremely high or low rolls have special effects – beyond those for normal success and failure – regardless of your exact margin of success or failure.

Critical Success

A *critical success* is an especially good result. You score a critical success as follows:

- A roll of 3 or 4 is *always* a critical success.
- A roll of 5 is a critical success *if your effective skill is 15+.*
- A roll of 6 is a critical success *if your effective skill is 16+.*

When you roll a critical success, the GM determines what happens to you. It is always something good! The lower the roll, the better "bonus" he gives you.

A *critical hit* is a critical success scored on an attack. The GM does not determine the result. Instead, use the *Critical Hit Table* (p. 186).

Critical Failure

A *critical failure* is an especially bad result. You score a critical failure as follows:

- A roll of 18 is *always* a critical failure.
- A roll of 17 is a critical failure *if your effective skill is 15 or less;* otherwise, it is an ordinary failure.
- Any roll of 10 greater than your *effective* skill is a critical failure: 16 on a skill of 6, 15 on a skill of 5, and so on.

When you roll a critical failure, the GM determines what happens to you. It is always something bad – the higher the roll, the worse the result. A critical miss is a critical failure scored on an attack. The GM does not determine the result. Instead, use the *Critical Miss Table* (p. 187).

CRITICAL HIT TABLE

All doublings or triplings of damage refer to *basic damage* (not injury). In all cases, the target gets no active defense against the attack.

3 – The blow does triple damage.
4 – The target's DR protects at half value (round down) after applying any armor divisors.
5 – The blow does double damage.
6 – The blow does maximum normal damage.
7 – If *any* damage penetrates DR, treat it as if it were a major wound, regardless of the actual injury inflicted.
8 – If *any* damage penetrates DR, it inflicts double normal shock (to a maximum penalty of -8). If the injury is to a limb or extremity, that body part is crippled as well. This is only a "funny-bone" injury: crippling wears off in (16 - HT) seconds, minimum two seconds, unless the injury was enough to cripple the body part anyway.
9, 10, 11 – Normal damage only.
12 – Normal damage, and the victim drops anything he is holding, regardless of whether any damage penetrates DR.
13, 14 – If *any* damage penetrates DR, treat it as if it were a major wound, regardless of the actual injury inflicted.
15 – The blow does maximum normal damage.
16 – The blow does double damage.
17 – The target's DR protects at half value (round down) after applying any armor divisors.
18 – The blow does triple damage.

Equipment Modifiers

The quality of your equipment modifies your skill rolls for tasks that normally require equipment:

No equipment: -10 for technological skills, -5 for other skills. Note that many skills cannot be used *at all* without equipment!
Improvised equipment: -5 for technological skills, -2 for other skills.
Basic equipment: No modifier. This is the case most of the time.
Good-quality equipment: +1. Costs about 5× basic price.
Fine-quality equipment: +2. Costs about 20× basic price.
Best equipment possible at your TL: +TL/2, round down (minimum +2). Not usually for sale!

If you have "basic" or better equipment that is not in perfect condition, the following modifiers apply *in addition to* quality modifiers:

Missing important items: -1 per item.
Damaged equipment: -1 to -3.

Equipment modifiers reflect the quality of:

- Special "tools of the trade," for criminal, military, and espionage skills such as Disguise, Explosives, Forgery, Forward Observer, Holdout, and Lockpicking.
- The contents of your backpack, for outdoor skills like Fishing‡ and Survival.
- Your instruments or lab, for scientific and medical skills such as Alchemy‡, Diagnosis, Meteorology, Navigation, and Surgery.
- Your shop or toolkit, for Armoury, Carpentry‡, Electrician, Electronics Repair, Engineer, Machinist, Masonry‡, Mechanic, Smith‡, and other skills used to build or repair things.
- Your studio, for artistic skills – Artist‡, Jeweler‡, Photography‡, etc.

Example: For First Aid skill, "improvised" might mean leaves and clean mud; "basic," sterile bandages; "good," a standard first-aid kit; "fine," a crash kit (found in most ambulances); and "best," an entire hospital. Missing antiseptic would give -1, while a first-aid kit salvaged from a wrecked vehicle might give -1 or worse for damaged equipment.

CRITICAL HEAD BLOW TABLE

Use this table only for critical hits to the head (*face, skull,* or *eye*). In all cases, the target gets no active defense against the attack.

3 – The blow does maximum normal damage *and* ignores the target's DR.
4, 5 – The target's DR protects at half value (round up) after applying any armor divisors. If *any* damage penetrates, treat it as if it were a major wound, regardless of the actual injury inflicted.
6, 7 – If the attack targeted the *face* or *skull,* treat it as an eye hit instead, even if the attack could not normally target the eye! If an eye hit is impossible (e.g., from behind), treat as **4.**
8 – Normal head-blow damage, and the victim is knocked off balance: he must Do Nothing next turn (but may defend normally).
9, 10, 11 – Normal head-blow damage only.
12, 13 – Normal head-blow damage, and if *any* damage penetrates DR, a *crushing* attack deafens the victim, while any other attack causes severe scarring (the victim loses one appearance level, or two levels if a *burning* or *corrosion* attack).
14 – Normal head-blow damage, and the victim drops his weapon (if he has two weapons, roll randomly to see which one he drops).
15 – The blow does maximum normal damage.
16 – The blow does double damage.
17 – The target's DR protects at half value (round up) after applying any armor divisors.
18 – The blow does triple damage.

CRITICAL MISS TABLE

3, 4 – Your weapon breaks and is useless. *Exception:* Certain weapons are resistant to breakage. These include solid *crushing* weapons (maces, flails, mauls, metal bars, etc.); firearms (other than wheel-locks, guided missiles, and beam weapons); and fine and very fine weapons of all kinds. If you have a weapon like that, roll again. Only if you get a "broken weapon" result a second time does the weapon really break. If you get any other result, you drop the weapon instead. For more on broken weapons, see ***GURPS Basic Set,*** p. 485. Note that many items and weapons built by a high-tech civilization are fine or very fine by default; only weapons built specifically for export (such as the Soviet "monkey models") are normal grade.
5 – You manage to hit *yourself* in the arm or leg (50% chance each way). *Exception:* If making an *impaling* or *piercing* melee attack, or any kind of ranged attack, roll again. If you get a "hit yourself" result a second time, use *that* result – half or full damage, as the case may be. If you get something other than "hit yourself," use that result.
6 – As **5,** but half damage only.
7 – You lose your balance. You can do *nothing* else (not even a free action) until your next turn, and all your active defenses are at -2 until then.
8 – The weapon turns in your hand. You must take an extra Ready maneuver before you can use it again.
9, 10, 11 – You drop the weapon. *Exception:* A *cheap* weapon *breaks;* see **3.**
12 – As **8.**
13 – As **7.**
14 – If making a *swinging* melee attack, your weapon flies 1d yards from your hand – 50% chance straight forward or straight back. Anyone on the target spot must make a DX roll or take half damage from the falling weapon! If making a *thrusting* melee attack or any kind of ranged attack, or parrying, you simply drop the weapon, as in **9.**
15 – You strain your shoulder! Your weapon arm is "crippled." You do not have to drop your weapon, but you cannot use it, either to attack or defend, for 30 minutes.
16 – You fall down! If making a ranged attack, see **7** instead.
17, 18 – Your weapon breaks; see **3.**

UNARMED CRITICAL MISS TABLE

Use this table only for critical misses on *unarmed* attacks (bites, claws, grapples, head butts, kicks, punches, slams, etc.) or parries, including those by animals.

3 – You knock yourself out! Details are up to the GM – perhaps you trip and fall on your head, or walk face-first into an opponent's fist or shield. Roll vs. HT every 30 minutes to recover.
4 – If attacking or parrying with a limb, you strain it: take 1 HP of injury and the limb is "crippled." You cannot use it, either to attack or defend, for 30 minutes. If biting, butting, etc., you pull a muscle and suffer moderate pain (see *Irritating Conditions,* p. 231) for the next (20 - HT) minutes, minimum one minute.
5 – You hit a solid object (wall, floor, etc.) instead of striking your foe or parrying his attack. You take crushing damage equal to *your* thrusting damage to the body part you were using; DR protects normally. *Exception:* If attacking a foe armed with a ready impaling weapon, you fall on his weapon! You suffer the weapon's damage, but based on *your* ST rather than his.
6 – As **5**, but half damage only. *Exception:* If attacking with natural weapons, such as claws or teeth, they *break:* -1 damage on future attacks until you heal (for recovery, see *Duration of Crippling Injuries,* p. 225).
7 – You stumble. On an attack, you advance one yard past your opponent and end your turn facing away from him; he is now behind you! On a parry, you fall down; see **8.**
8 – You fall down!
9, 10, 11 – You lose your balance. You can do *nothing* else (not even a free action) until your next turn, and all your active defenses are at -2 until then.
12 – You trip. Make a DX roll to avoid falling down. Roll at DX-4 if kicking, or at *twice* the usual DX

penalty for a technique that requires a DX roll to avoid mishap even on a normal failure (e.g., DX-8 for a Jump Kick‡).

13 – You drop your guard. All your active defenses are at -2 for the next turn, and any Evaluate bonus or Feint penalty against you until your next turn counts *double!* This *is* obvious to nearby opponents.

14 – You stumble; see **7.**

15 – You *tear* a muscle. Take 1d-3 of injury to the limb you used (to one limb, if you used two), or to your neck if biting, butting, etc. You are off balance and at -1 to all attacks and defenses for the next turn. You are at -3 to any action involving that limb (or to *any* action, if you injure your neck!) until this damage heals. Reduce this penalty to -1 if you have High Pain Threshold.

16 – You hit a solid object; see **5.**

17 – You strain a limb or pull a muscle, as in **4.** *Exception:* An IQ 3-5 animal fails so miserably that it loses its nerve. It will turn and flee on its next turn, if possible. If backed into a corner, it will assume a surrender position (throat bared, belly exposed, etc.).

18 – You knock yourself out; see **3.** *Fighters that cannot fall down* (e.g., snakes, and anyone already on the ground): Treat any "fall down" result as 1d-3 of general injury instead. Details are up to the GM – perhaps your opponent steps on you! *Fliers and swimmers:* Treat any "fall down" result as being forced into an awkward flying or swimming position with the same effective results (-4 to attack, -3 to defend).

REPEATED ATTEMPTS

Sometimes you will only get one chance to do something (defuse a bomb, jump over a crevasse, remove an inflamed appendix). Other times you can try over and over again until you succeed (pick a lock, catch a fish, analyze a poison). Still other times you will not know whether you succeeded or failed until it's too late to try again (translate an ancient Vulcan scroll, order in a French restaurant, build a ship). Finally, there are times when you are injured by failure but can afford to fail a few times (climb a wall, impress a savage tribesman).

The GM must use common sense to distinguish between these cases, according to the exact situation in which the players find themselves. As a rule:

- If the first failure kills them or destroys the object of the attempt, that's that.
- If a failure causes damage of some kind, assess the damage and let them try again after a "reasonable" time passes. (Skill descriptions frequently state the time required.)
- If a failure causes no damage, let them try again after a reasonable time, but at -1 per repeated attempt – that is, -1 on the second attempt, -2 on the third, and so on – until they succeed or give up.
- If repeated attempts are the norm for the task (e.g., when attacking in combat), or if it's long task, tell them that their attempt failed but let them try again at no special penalty, in the usual amount of time.

CONTESTS

Sometimes a situation will arise in which two characters must compare attributes, skills, or other traits to settle a competition. The one with the highest score doesn't *always* win . . . but that's the way to bet. A "Contest" is a quick way to handle such a competitive situation without playing it out in detail.

In a Contest, each competitor attempts a success roll against the ability being tested – with all applicable modifiers – and then compares his result to his opponent's. There are two different ways to make this comparison.

QUICK CONTESTS

A "Quick Contest" is a competition that is over in very little time – often in one second, perhaps even *instantly.* Examples include two enemies lunging for a phaser, or two knife throwers seeing who gets closer to the bull's-eye.

Each competitor attempts his success roll. If one succeeds and the other fails, the winner is obvious. If both succeed, the winner is the one with the largest margin of success; if both fail, the winner is the one with the smallest margin of failure. A tie means nobody won (in the examples above, both fighters grabbed the weapon at once, or the knives hit the same distance from the bull's-eye).

Margin of Victory

The amount by which the winner beat the loser is often important – success by 5 vs. failure by 5 generally means more than success by 2 vs. success by 1! The winner's "margin of victory" is the difference between his margin of success and the loser's margin of success if both succeeded, the sum of his margin of success and the loser's margin of failure if he succeeded and the loser failed, or the difference between the loser's margin of failure and his margin of failure if both failed.

Resistance Rolls

Most abilities that can affect an unwilling subject offer the subject an attempt to resist using an attribute, skill, or supernatural ability. This is sometimes a Quick Contest between the attacking ability and the defender's resistance, in which case two special rules apply:

1. *The attacker must* ***succeed*** *to win.* He cannot win by having the smallest margin of failure. If he fails his roll, he loses automatically and his subject does not need to attempt a resistance roll.
2. *The attacker must* ***win*** *to affect the subject.* All ties go to the defender.

REGULAR CONTESTS

A "Regular Contest" is a slow competition with much give and take – for instance, arm wrestling.

Each character attempts his success roll. If one succeeds and the other fails, the winner is obvious. If both succeed or both fail, the competitors' relative positions are unchanged and they roll again. Eventually, one character succeeds when the other fails. At this point, the one who made his roll is the winner.

The length of *game time* each attempt takes depends on the activity, and is up to the GM. In a combat situation, each attempt takes one second . . . but in a library-research contest, with the fate of the galaxy hanging on who finds a certain obscure reference first, each attempt could represent days of time.

Extreme Scores

If both contestants have a score of 6 or less, a Regular Contest can bog down the game as both sides roll failure after failure. To keep the game moving, raise the *lower* score to 10 and add the same amount to the *higher* score.

Example: For a 5 vs. 3 Contest, add 7 to each score to make it 12 vs. 10.

Likewise, a Regular Contest can become deadlocked if both contestants have scores of 14 or more, because it can take a long time before anyone rolls a failure. To speed up the process, reduce the *lower* score to 10 and subtract the same amount from the *higher* score.

Example: For a 19 vs. 16 Contest, subtract 6 from each score to make it 13 vs. 10.

When both scores are greater than 20 – e.g., a Contest of ST between alien space monsters – even this will not suffice. Instead, reduce the *lower* score to 10 and multiply the *higher* score by (10/lower score), rounding down.

Example: For a 600 vs. 500 Contest, multiply the higher score by 10/500 and set the lower one to 10 to make it 12 vs. 10.

PHYSICAL FEATS

Below are rules for common physical tasks of importance to adventurers. For tasks not listed here, make DX rolls for matters of precision and HT rolls for feats of endurance. To determine weight moved or work done, use Basic Lift. Movement speed should generally be proportional to Basic Move. For more on basic attributes and secondary characteristics, see Chapter 2.

CLIMBING

To climb anything more difficult than a ladder, roll against Climbing skill. This defaults to DX-5. Modifiers to the roll depend on the difficulty of the climb (see below). In all cases, subtract your encumbrance level from your roll as well. Climbing while heavily laden is a dangerous matter!

Type of Climb	*Modifier*	*Combat*	*Regular*
Ladder going up	no roll	3 rungs/sec	1 rung/sec
Ladder going down	no roll	2 rungs/sec	1 rung/sec
Ordinary tree	+5	1 ft/sec	1 ft/3 sec
Ordinary mountain	0	1 ft/2 sec	10 ft/min
Vertical stone wall	-3	1 ft/5 sec	4 ft/min
Modern building	-3	1 ft/10 sec	2 ft/min
Rope-up	-2	1 ft/sec	20 ft/min
Rope-down *(w/o equipment)*	-1	2 ft/sec	30 ft/min
w/ equipment	-1	12 ft/sec	12 ft/sec

Make one roll to start the climb and another roll every five minutes. Any failure means you fall (see *Falling,* p. 233). If you secured yourself with a rope, you will fall only to the end of the rope unless you rolled a critical failure.

The table above gives skill modifiers and climbing speeds for some common climbs. In most cases, use the speeds in the "Regular" column. The "Combat" column is for climbs inspired by rage or terror, which always cost at least 1 FP – or *double* the FP cost given in an adventure or assessed by the GM. Climbs in combat require a Move maneuver.

DIGGING

Digging rate depends on the type of soil, the digger's Basic Lift (that is, ST x ST/5), and the quality of the tools available.

Loose Soil, Sand, etc.: A man can dig 2×BL cubic feet per hour (cf/hr).

Ordinary Soil: A man can dig BL cf/hr. One man with a pick can break up 4×BL cf/hr, making it into loose soil, which is easier to remove. The most efficient way to dig is with one man with a pick, and two shovelers clearing behind him.

Hard Soil, Clay, etc.: Must be broken up first by a pick, at 2×BL cf/hr, and then shoveled at 2×BL cf/hr. A lone man with both pick and shovel can only remove 0.6×BL cf/hr – he loses time switching between tools.

Hard Rock: Must be broken by a pick at BL cf/hr (or slower, for very hard rock!), and then shoveled at BL cf/hr.

All of the above assumes iron or steel tools! *Halve* speeds for wooden tools (common at TL5 and below).

Divide by 4 (or more) for improvised tools – bare hands, mess kits, etc.

Time Required and Fatigue Cost

To find the time required to dig a given hole, find the volume of the hole in cubic feet by multiplying height × width × depth (all in feet). Then divide the number of cubic feet by the digging rate to find the hours of work required.

Each hour of work costs 1 FP for loose soil, 2 FP for ordinary soil, 3 FP for hard soil, and 4 FP for hard rock.

HIKING

Sustainable cross-country speed on foot depends on ground Move. Start with Basic Move and reduce it for encumbrance (see *Encumbrance and Move,* p. 28), injury (see *Injury, Illness, and Fatigue,* p. 233), and exhaustion (see *Fatigue,* p. 230), as applicable. The distance in miles you can march in one day, under ideal conditions, equals 10 × Move.

If you have the Enhanced Move (Ground) advantage, you may apply your movement multiple to this distance. For instance, Enhanced Move 1 (Ground) multiplies Move by two, doubling daily marching distance. See *Enhanced Move,* p. 89.

A successful roll against Hiking‡ skill increases marching distance by 20%. (Hiking defaults to HT-5 for those who have not studied it.) Roll daily. A group led by someone with Leadership skill at 12+ may make a single roll against the group's *average* Hiking skill. Success lets the entire group march 20% farther; failure means the whole group must forgo the bonus.

When these rules result in different speeds for different members of a party, the party must either move at the speed of its *slowest* member or split up. Note that a party that has opted to make a single Hiking roll for the entire group has already chosen not to split up!

Terrain

Once you know your ideal daily mileage, modify it for terrain as follows:

Very Bad: Deep snow, dense forest, jungle, mountains, soft sand, or swamp. ×0.20.

Bad: Broken ground (including streams), forest, or steep hills. ×0.50.

Average: Light forest or rolling hills. ×1.00.

Good: Hard-packed desert or level plains. ×1.25.

Weather

Weather conditions can further modify distance traveled:

Rain: Rain halves *off-road* speed in any terrain. See *Roads* (below) for the effects of rain on roads.

Snow: Ankle-deep snow halves speed in any terrain. Anything deeper divides speed by 4 or more. *Exception:* Skis allow travelers to treat any depth of snow as Average terrain. Replace Hiking skill with Skiing‡ skill when traveling on skis.

Ice: Cold combined with moisture – due to rain, sleet, snowmelt, etc. – results in ice. A coating of ice halves speed in any terrain. *Solid* ice, such as a frozen lake or river, is effectively its own terrain type; treat it as Bad terrain. *Exception:* Treat solid ice as Good terrain for those with skates. Skating‡ skill replaces Hiking skill when traveling on skates.

Roads

In fine weather, most roads count as Average terrain, regardless of the surrounding terrain. The best roads might even count as Good terrain, giving a bonus.

In rain, low-quality roads – unsurfaced dirt or gravel – turn to mud. Treat them as Very Bad terrain. Better roads behave as Average (but never Good) terrain in the rain.

In snow or ice, treat roads as Average terrain, but apply the movement penalties given under *Weather* (above) unless the road is cleared.

Time Required and Fatigue Cost

These rules assume you spend the entire day preparing for your hike, hiking, or resting, leaving *no* time for study or other activities. This is true however small your daily mileage – the heavier your load and the worse the traveling conditions, the more slowly you walk and the more frequently you stop to rest.

Should you interrupt your travels for adventuring matters, you will be missing FP when you stop. See *Fatigue,* p. 230.

HOLDING YOUR BREATH

Adventurers often need to hold their breath – whether to dive or to survive poison gas, strangulation, vacuum, etc. Your HT determines the length of time you can hold your breath, as follows:

No Exertion (e.g., sitting quietly or meditating): HT×10 seconds.

Mild Exertion (e.g., operating a vehicle, treading water, or walking): HT×4 seconds.

Heavy Exertion (e.g., climbing, combat, or running): HT seconds.

These times assume you have one second to take a deep breath (requires a Concentrate maneuver in combat). Multiply all times by 1.5 if you hyperventilate first – or by 2.5 if you hyperventilate with pure oxygen. A successful roll against Breath Control skill multiplies these times by a further factor of 1.5. However, if you are surprised and don't have a chance to take a deep breath – e.g., when a gas grenade goes off in combat – *halve* these times instead.

Regardless of circumstances, each level of the Breath-Holding‡ advantage doubles the time you can hold your breath.

At the end of this time, you start to lose 1 FP per second. At 0 FP, you must make a Will roll every

second or fall unconscious, and are likely to die unless you are rescued. See *Suffocation* (p. 239) for details.

JUMPING

When you want to jump over something with a Size Modifier *3 less than yours or smaller* (which encompasses most "ordinary" obstacles), the GM should say, "Okay, you jumped over it," and get on with play. Such jumps succeed automatically. But when the obstacle seems really significant, or if the GM put it there as a deliberate hazard, use the following rules.

Jumping Distance

Your Basic Move determines jumping distance, as follows:

High Jump: (6 × Basic Move) – 10 inches. For example, a Basic Move of 6 lets you jump 26" straight up. For a *running* jump, add the number of yards you run to Basic Move in this formula. Maximum running high-jump height is twice standing high-jump height.

Broad Jump: (2 × Basic Move) – 3 feet. For example, a Basic Move of 6 lets you jump 9 feet from a standing start. For a *running* jump, add the number of yards you run to Basic Move in this formula. Maximum running broad-jump distance is twice standing broad-jump distance.

Those with the Enhanced Move (Ground) advantage may apply their movement multiplier to Basic Move before inserting it into these formulas when they have a running start.

This is *instead* of adding the number of yards run! For instance, a horse with Basic Move 6 and Enhanced Move 1 makes running jumps as if its Basic Move were 12.

Remember that 12 inches equal one foot, and that 3 feet equal one yard (or one *hex* on a battle map).

Jumping During Combat

The jumping distance formulas assume you take the time to crouch and prepare for the jump. In combat, this takes two consecutive Concentrate maneuvers. Halve all distances if you jump without such preparation.

If you jump over a small obstacle during a fight (anything with a Size Modifier 3 less than yours or smaller), you must use a Move maneuver, and the jump costs one extra movement point.

To jump over a larger obstruction (e.g., a chair) or onto something (e.g., a table) during a fight takes your entire turn and requires a Move maneuver. Unless the jump is *extreme,* the GM will assume you can make the jump. (Don't interrupt a battle to calculate jumping distance every time somebody jumps onto a chair!)

However, you must make a DX roll when you make a vertical jump or a long horizontal one. A difficult jump (into a pit, for instance) might give -1 to -5 to this DX roll. The GM determines whether you must roll, and at what penalty. On a failure, you fall. It takes two Change Posture maneuvers to stand up again. On a critical failure, you fall off the thing you jumped onto, or land badly if you were jumping down, and take normal falling damage for that height (see *Falling,* p. 233).

To clamber onto a vertical obstacle without risking a DX roll, take two consecutive Move maneuvers. Success is automatic.

Jumping Skill

If you have the Jumping skill, you may *substitute* half your skill level, rounded down, for Basic Move in the distance formulas. In addition, you may roll against Jumping instead of DX whenever you make a difficult jump.

LIFTING AND MOVING THINGS

Basic Lift – ST×ST/5 pounds – governs the weight you can pick up and move. The GM may let multiple characters add their BL (*not* their ST) whenever it seems reasonable; e.g., to carry a stretcher or pull a wagon.

One-Handed Lift: 2×BL (takes two seconds).

Two-Handed Lift: 8×BL (takes four seconds).

Shove and Knock Over: 12×BL. *Double* this if you have a running start. The GM can also make allowances for precariously balanced objects, to make them easier to tilt.

Carry on Back: 15×BL. Thus, you can carry more than you can lift by yourself ... but every *second* that your encumbrance is over 10 x BL (that is, Extra-Heavy encumbrance), you lose 1 FP.

Shift Slightly: Depending on your footing and the way you are braced, you could shift or rock 50×BL.

Pulling and Dragging

When you pull a load behind you unassisted, use its full weight. Halve effective weight if you are pulling a sledge over snow or ice, divide effective weight by 10 for a two-wheeled cart, and divide effective weight by 20 for a four-wheeled wagon. (Remember to add the weight of the sledge, cart, or wagon to that of the load before dividing!)

In all cases, if the surface is smooth and relatively level – for instance, a concrete floor, a proper road, or a frozen lake – *halve* the effective weight of the load. This is cumulative with the effects of a sledge, cart, or wagon.

Final effective weight pulled, after all modifiers, cannot exceed 15×BL if you are to have any hope of moving the object at all. Determine your encumbrance level using *effective* weight, and work out Move normally.

Lifting and Moving Things During Combat

In combat, you can pick up an item that weighs no more than your Basic Lift by taking a one-second Ready maneuver. To pick up anything heavier requires multiple, consecutive Ready maneuvers: two if using one hand, four if using two hands. To pick up an unwilling *character,* you must take a second to grapple

him first (see *Grappling,* p. 207). He may attempt to break free during the time it takes you to pick him up!

To kick, body-block, shove, or otherwise shift an obstacle in combat requires an Attack maneuver. You can move or knock over up to 12×BL this way. If you have enough space to run your full Move, you can knock over twice this weight (24×BL) by slamming into it at a run. This requires a Move maneuver. These rules are for *inanimate* objects; see *Slam* (p. 208) for rules governing attempts to knock over someone who can actively resist.

If using a combat map, be sure to mark the map or place a counter to indicate an object that has been knocked over. This is especially important for a feature that was drawn on the map! Likewise, objects picked up by fighters should be removed from the map.

In all cases, if an attempt seems reasonable, do not pause the battle to compare weight to BL. Use common sense. Make it fun!

RUNNING

Your running speed, or ground Move, is equal to your Basic Move score modified for encumbrance – see *Encumbrance and Move* (p. 28). In combat, running is just a series of Move maneuvers. Use the more detailed rules below when it is important to know whether the heroes catch the shuttle to Antares, escape the berserk Slirdarians, or whatever.

Sprinting

Sprinting is all-out running. It is very fast, but also fatiguing. Use it when you need to cover a short distance *quickly,* and can afford to arrive at your objective somewhat fatigued.

You can sprint if you run *forward* for two or more seconds. Add 20% to your Move *after one second.* For instance, with a Move of 7, you could sprint at 8.4 yards/second after running for one second at 7 yards/second.

On a battle map, where movement involves discrete one-yard hexes, drop all fractions to get a round Move score; in the example above, you would have Move 8. Assume that even the slowest sprinter gets +1 Move. Thus, sprinters with Move 9 or less can move one extra hex on a battle map.

If you have Enhanced Move (Ground), you can accelerate by your Basic Move every second until you reach top speed. Use your Enhanced Move multiplier *instead* of the 20% bonus above. For instance, with Basic Move 7 and Enhanced Move 2, you run at Move 7 the first second, Move 14 the next second, Move 21 the third second, and your top speed of Move 28 in the fourth second.

You may only move at your maximum sprinting speed if the ground is good and you are running more or less straight at some goal. Any deviation from "forward" movement requires you to run at normal ground Move for one second before you can resume sprinting.

Paced Running

If you need to run a long distance, you will want to pace yourself to avoid exhaustion. Paced running averages exactly *half* the sprinting speed calculated above. For instance, with a ground Move of 7, you would run at 4.2 yards/second on good ground; thus you could run a 7-minute mile.

Fatigue Cost

After every 15 seconds of sprinting or every minute of paced running, roll against the *higher* of HT or Running skill. On a failure, you lose 1 FP. Once you are reduced to 1/3 or less your FP, halve your Move for any kind of running; see *Fatigue,* p. 230.

Note that since paced running is *half* as fast as sprinting but burns FP at *one-quarter* the rate, you can run twice as far before you run out of energy.

Flying

When flying, use the Hiking (p. 190) and Running rules with these changes:

- Substitute "air Move" (equal to twice Basic Speed, dropping all fractions) for "ground Move" (equal to Basic Move). Apply modifiers for encumbrance, injury, and fatigue exactly as you would for ground Move.
- Substitute "Enhanced Move (Air)" for "Enhanced Move Ground)." For high-speed flight ("running"), handle acceleration with Enhanced Move as described under Sprinting.
- Substitute "Flight skill" for "Hiking skill" and "Running skill."
- Ignore terrain, but note that wind and other weather conditions can have comparable effects.

SWIMMING

Unless you are Amphibious (p. 84) or Aquatic (p. 133), you must roll against Swimming skill any time you enter water over your head; Swimming defaults to HT-4. Roll when you first enter the water, and again every five minutes.

Modifiers: +3 if you entered the water intentionally; a penalty equal to *twice* your encumbrance level (e.g., Heavy encumbrance gives -6); +1 if you are Overweight, +3 if Fat, or +5 if Very Fat (see *Build,* p. 29).

On a failure, you inhale water! Lose 1 FP and roll again in five seconds – and so on, until you drown, are rescued (see *Lifesaving,* p. 193), or make a successful Swimming roll and get your head above water. If you successfully recover, roll again in one minute; if you

succeed, go back to making rolls five minutes apart. Yes, you *can* shout for help!

You may try to get rid of armor, etc. after making your first successful Swimming roll. Roll vs. DX for each item you try to remove; roll at -4 to remove shields, helmets, or torso armor. A failed roll means you inhale water, with penalties as above.

Once you reach 0 FP, you must make a Will roll every second or fall unconscious, and are likely to die unless you are rescued. See *Suffocation* (p. 239) for details.

Swimming Speed

Land-dwellers such as humans have water Move equal to Basic Move/5 (round down), although it is possible to modify this slightly; see *Move in Other Environments* (p. 28). Minimum water Move for such characters is 1 yard/second.

Amphibious and Aquatic beings have water Move equal to their full Basic Move.

When swimming long distances, use a 10-second time scale. The number of yards you can swim in 10 seconds is equal to 10 times your water Move, modified downward for encumbrance (see *Encumbrance and Move,* p. 28). For instance, water Move 1 and Heavy encumbrance would let you swim four yards in 10 seconds.

Fatigue Cost

After every minute of top-speed swimming, roll against the *higher* of HT or Swimming skill. On a failure, you lose 1 FP. Once you are reduced to 1/3 or less your FP, halve your water Move; see *Fatigue,* p. 230).

If you are swimming slowly, or just staying afloat, make this roll every 30 minutes.

Lifesaving

You can use the Swimming skill to rescue a drowning person. Make a Swimming roll at -5, plus or minus the difference in ST between you and the person you are rescuing. If the players think of good lifesaving techniques, the GM may give them a bonus to this roll.

On a failure, you inhale water and lose 1 FP, but may try again after one minute. On a critical failure, the victim nearly drowned you! This costs *6* FP, and you must break off the rescue attempt.

THROWING

You can throw anything you can pick up – that is, anything with a weight of 8×BL or less. If the object you wish to throw is not already in your hands, you must take one or more Ready maneuvers to pick it up. See *Lifting and Moving Things* (p. 191) for details.

Throwing an object during combat – whether as an attack or not – requires an Attack maneuver. You can throw objects that weigh up to 2×BL using one hand; heavier objects require a two-handed throw. Roll against DX-3 to hit a specific target, or against DX to lob something into a general area. Apply the usual modifiers for target size, speed, and distance.

Throwing Distance

To avoid slowing down the game with math, the GM should allow any throw he deems reasonable . . . but when you need to know the exact distance you can throw an object, use the following procedure:

1. Divide the object's weight in pounds by your Basic Lift to get the "weight ratio."
2. Find the weight ratio in the *Weight Ratio* column of the table below. If it falls between two values, use the *higher* value.
3. Read across to the *Distance Modifier* column and find the "distance modifier."
4. Multiply your ST by the distance modifier to find the distance in yards you can throw the object.

Weight Ratio	*Distance Modifier*	*Weight Ratio*	*Distance Modifier*
0.05	3.5	2.0	0.30
0.10	2.5	2.5	0.25
0.15	2.0	3.0	0.20
0.20	1.5	4.0	0.15
0.25	1.2	5.0	0.12
0.30	1.1	6.0	1.10
0.40	1.0	7.0	0.09
0.50	0.8	8.0	0.08
0.75	0.7	9.0	0.07
1.00	0.6	10.0	0.06
1.50	0.4	12.0	0.05

Example: You have ST 12, giving a BL of 29 lbs. You need to throw a 120-lb. body over a two-yard pit. Divide weight by BL: 120/29 = 4.1. This falls between 4.0 and 5.0 in the *Weight Ratio* column, so treat it as 5.0. The associated distance modifier is 0.12. Multiplying by ST, your range is 0.12 × 12 = 1.4 yards. Oops! The body just hit the bottom of the pit.

Damage from Thrown Objects

Thrown objects inflict *thrust* damage for your ST (see *Damage Table,* p. 26), modified for weight as shown on the following table (p. 194). Damage is usually crushing, but the GM may rule that a sharp object does cutting, piercing, or impaling damage instead. A fragile object (or a thrown character) takes the same amount of damage it inflicts; roll damage separately for the object and target.

Example: You have ST 28, which gives you a BL of 157 lbs. and a thrust damage of 3d-1. You hit a foe with a hurled 50-lb. bag of cement. It is between BL/4 (39 lbs.) and BL/2 (78 lbs.). As shown on the table on p. 194, it does straight thrust damage, or 3d-1.

Weight	*Damage*
Up to BL/8	Thrust, -2 per die
Up to BL/4	Thrust, -1 per die
Up to BL/2	Thrust
Up to BL	Thrust, +1 per die
Up to 2×BL	Thrust
Up to 4×BL	Thrust, -1/2 per die, (round down)
Up to 8×BL	Thrust, -1 per die

Throwing Skill

When you throw an object that fits into the palm of your hand – such as a bottle, rock, or grenade – you may roll against Throwing skill to hit a target *or* a general area. Furthermore, if you know Throwing at DX+1 level, add +1 to ST before you multiply it by the distance modifier. Add +2 to ST if you know Throwing at DX+2 or better.

Thrown Weapons

The rules above are for throwing rocks, bodies, televisions . . . anything but *weapons.* Hurled weapons differ in three important ways:

1. Thrown weapons use Thrown Weapon skills to hit, not DX or Throwing (but Throwing Art[‡] *does* allow you to throw weapons).
2. Many throwing weapons travel significantly farther than "ordinary" objects due to streamlining and stabilization. Others have *less* range, due to the way they are thrown. For instance, you can hurl a throwing knife as far as these rules suggest, but the range at which it will hit point-first and inflict damage is considerably shorter.
3. Throwing weapons have points, edges, dense striking heads, etc. that focus the force of impact. They almost always do more damage than these rules would indicate.

Catching

If someone throws an object *at* you, you may make an active defense roll to avoid it. However, if he deliberately throws it *to* you – by successfully lobbing it into your general area – you can try to catch it. Roll against DX or a suitable Sports skill to make the catch, at -4 if you are not taking a Wait maneuver, but at +1 per two full points by which the thrower made his roll. This counts as a parry with your catching hand.

You can also attempt to *intercept* a thrown object en route to a catcher. Treat this as a parry against a thrown weapon (see *Parrying,* p. 212). On a success, you snatch the thrown object out of the air.

EXTRA EFFORT

Through sheer force of will, you can push your body past its usual limits when you perform physical tasks. This is called "extra effort."

You can use extra effort to increase Basic Lift (but *not* ST itself) when digging or lifting; daily mileage when hiking; Move when running or swimming; distance (but *not* Basic Move itself) when jumping; and ST for the purposes of throwing, making a single ST roll, or drawing or cocking a bow or crossbow that's too strong for you. You *cannot* use extra effort to increase the time you can hold your breath – that would be self-defeating!

To apply extra effort, make a Will roll.

Modifiers: -1 per 5% increase in capabilities (e.g., to add 10% to ST, roll at -2). If you are fatigued, apply a penalty equal to the missing FP. Roll at +5 if you are motivated by fear, anger, or concern for a loved one (GM's decision, but you must usually *fail* a Fright Check or a self-control roll for a suitable disadvantage, or be the victim of a successful Intimidation attempt, to get this bonus).

Extra effort costs FP whether you succeed or fail. Instantaneous feats (e.g., jumps and throws) cost a flat 1 FP per attempt. Ongoing tasks (digging, running, swimming, etc.) require repeated extra effort rolls, and cost 1 FP *per roll.* Hiking works differently – see p. 195. Pay the FP cost for extra effort immediately after you attempt your Will roll. Note that the FP spent on extra effort do not penalize *this* attempt, but give a penalty to *future* attempts until you recover the FP.

On a success, you gain the desired increase in your physical capabilities. This does not guarantee success at the task at hand – you could still fail the DX roll for an extra-effort jump, for instance. On a critical success, you do not have to pay FP for your extra effort.

On a failure, you achieve only what you would have accomplished *without* extra effort.

A critical failure means you lose HP equal to the FP spent on the attempt – including any FP the task would have cost without extra effort – and the task *fails automatically!* If you roll a natural 18, you must also make an immediate HT roll to avoid acquiring a temporary disadvantage appropriate to the task (see below for examples). Handle recovery as described in *Duration of Crippling Injuries* (p. 225). A sufficiently bad HT roll can result in a *permanent* disadvantage!

Notes for Specific Physical Tasks

Instead of rolling against Will to use extra effort, you may make a Will-based roll against a relevant skill (Hiking, Jumping, Lifting, Running, Swimming, or Throwing, as applicable), if that would be better.

Digging: For every hour of digging, make an extra-effort roll and pay 1 FP. This *adds* to the usual FP cost. On a critical failure, the injury is to your back, and will heal only with rest (not First Aid) or, in the ***SFU***,

with the assistance of a trained physician with appropriate medical equipment such is found in a ship's sickbay; on an 18, you temporarily acquire the Bad Back‡ disadvantage (again, in the ***SFU,*** a trained physician with appropriate medical equipment can heal this).

Hiking: Make one extra-effort roll per day. Extra effort increases the FP you suffer by two when you stop on the march (see *Fatigue*, p. 230). Assess injury due to critical failure at the end of the day, and base it on the modified FP penalty. For instance, if you would normally be missing 5 FP when you stopped, you would be missing 7 FP if you used extra effort – and if you critically failed, you would end the day with *7 HP* of injury! When using Hiking skill, make a *single* Will-based Hiking roll at -1 per 5% extra mileage beyond the basic +20% for a successful Hiking roll (-1 for +25%, -2 for +30%, and so on).

Jumping: On a critical failure, apply the injury to the foot or leg (GM's option, or roll randomly); on an 18, you temporarily acquire the Crippled Leg disadvantage (see *Lame,* p. 131).

Lifting and Moving Things: For every minute of continuing effort, make an extra-effort roll and pay 1 FP. (This cost *adds* to the 1 FP per second for carrying encumbrance over 10×BL, if applicable.) Handle critical failures as described for digging. When using Lifting skill, make a *single* Will-based Lifting roll, at -1 per 10% extra Basic Lift. This is *instead* of the usual 5% bonus per point of success.

Running: For every 15 seconds of sprinting or minute of paced running, make an extra-effort roll and pay 1 FP. This *adds* to the FP cost for failed HT rolls while running! On a critical failure, apply the injury to one of your legs; on an 18, you temporarily acquire the Crippled Leg disadvantage (see *Lame,* p. 131).

Swimming: For every minute of swimming, make an extra effort roll and pay 1 FP. This *adds* to the FP cost for failed HT rolls while swimming.

Throwing: Increases to ST affect both damage and distance, but *not* Basic Lift for the purpose of what you can throw in the first place. For that, make a separate extra-effort lifting attempt! Add bonuses for Throwing or Throwing Art‡ skill *after* those for extra effort.

SENSE ROLLS

"Sense rolls" include Vision rolls, Hearing rolls, Taste/Smell rolls, and all rolls to use special senses such as Scanning Sense and Vibration Sense.

To notice something using a given sense, roll against your Perception score, modified by the applicable Acute Senses advantage: Acute Vision for Vision rolls, Acute Hearing for Hearing rolls, and so on.

Comprehension Rolls: A successful Sense roll means you noticed something. That is often sufficient, but in some cases, the GM may require a second roll to understand what you have sensed; e.g., to realize that the "hiss" you heard is really a Klingon warrior's battle language, or that the faint scent you noticed belongs to the flower of a man-eating plant. This roll is against IQ for details that anyone could figure out, or against an appropriate skill if the significance would be lost on anyone but an expert.

Danger Sense: If you have the Danger Sense advantage and fail a Sense roll or comprehension roll to notice something *dangerous,* the GM will secretly make a Perception roll for you. On a success, you sense the danger anyhow!

VISION

Make a Vision roll whenever it is important that you see something.

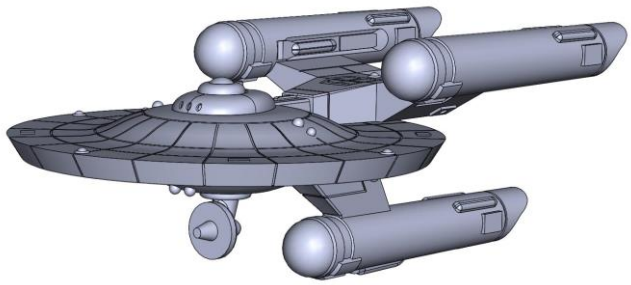
Modifiers: Any Acute Vision bonus; +3 for Hyperspectral Vision‡; modifiers for the size and range of the target (see p. 211); -1 to -9 in partial darkness. In *total* darkness, Vision rolls are impossible without special advantages or technological aids. To spot something in plain sight – e.g., a car coming toward you on the road – roll at +10. This does *no*t apply to attempts to spot hidden objects, read text, identify faces, etc.

When you try to spot something that is deliberately hidden, the GM may treat this roll as a Quick Contest against a concealment skill (Camouflage, Holdout, etc.), and may allow – or require – a skill such as Observation or Search to replace Perception for the roll.

Note that the curvature of a planet blocks vision beyond the horizon. The normal horizon on an Earth-sized planet is about three miles for an observer five to six feet in height. The GM should increase this for taller observers or those in elevated positions. There is no horizon in space!

Useful Advantages: Night Vision cancels -1 in partial darkness penalties per level, and Dark Vision‡ lets you *ignore* darkness penalties. Peripheral Vision gives you a Vision roll to see anything that is not absolutely, positively, directly behind you – and 360° Vision‡ lets you see even that! Telescopic Vision‡ cancels -1 in range penalties per level.

Limiting Disadvantages: Bad Sight gives -6 to Vision rolls to spot items more than one yard away if you are nearsighted, or items *within* one yard if you are farsighted. Restricted Vision‡ prevents you from noticing anything that isn't in the direction you are looking. Blindness means you can see nothing!



Federation War Destroyer

Different Gravity

A world's gravity is measured in "Gs," with 1G being Earth-normal conditions. In comparison, Mars has 0.38G and the Moon has 0.17G.

Microgravity is extremely low gravity (e.g., that of an asteroid or small moon) – for game purposes, anything below 0.1G.

Zero gravity is weightlessness, or "free fall," as found in space and aboard any spacecraft not spinning, accelerating, or otherwise generating artificial gravity.

In higher or lower gravity, mass stays the same, but *weight* changes.

Encumbrance and Move in Different Gravity

If local gravity is more than 1G, multiply the sum of your body weight and the weight of everything you're carrying by (local gravity in Gs)-1. This is the extra weight you're carrying due to high gravity. Add this to your encumbrance when determining Move.

Example: You weigh 150 lbs. and are carrying 30 lbs. of gear. On a 1.2-G world, that amounts to an *extra* weight of (150 + 30) × (1.2 - 1) = 36 lbs. Since you're already carrying 30 lbs., your total encumbrance is 66 lbs.

If local gravity is less than 1G, multiply the weight of the gear you're carrying by the local gravity, and use the modified weight to determine your encumbrance. There is a similar reduction in your body weight; this does not affect encumbrance, but it lets you jump further. In very low gravity, you may be able to move faster than your Basic Move by making a series of running broad jumps instead of walking!

In *zero* gravity, you float in space (unless using magnetic boots, thrusters, etc.). If you can't fly, you must push off from a solid surface to move. Your Move when doing so is equal to ST/2, rounded down. You will keep going at that speed until you grab or collide with something!

Actions in Different Gravity

In gravities other than 1G, the jumping rules need modification. Multiply your normal jumping distances by the ratio of 1G to local gravity. For instance, under 1.25G, you jump 1/1.25 = 0.8 times as far, while under 0.2G, you jump 1/0.2 = 5 times as far. (*Exception:* Do not multiply the bonus high-jump distance you get from a running start!) If this lets you jump at least twice as far as normal, use the rules under Super Jump‡ (***GURPS Basic Set,*** p. 89) to determine how fast you can move by bounding along.

When throwing, multiply distance by the ratio of 1G to local gravity, just as you would for jumping. *Damage* from thrown objects does not change, as this is based on mass.

Gravity also affects falls. Multiply terminal velocity by local gravity. See *Falling* (p. 233) for what this implies.

In zero gravity, your skills and DX rolls are affected as well; see *Free Fall* (p. 164). This does *not* apply when firing beam weapons (unless they have Recoil 2 or more) or operating vehicles or tools specifically designed for zero gravity (e.g., a spacecraft).

G-Increments and Attribute Penalties

If local gravity differs from your home gravity (see *Home Gravity,* p. 28), you might become disoriented and suffer physiological effects. The change in gravity you can tolerate without penalties is your "G-Increment." This is 0.2G unless you have the Improved G-Tolerance advantage.

In higher or lower gravity than usual, count the number of G-Increments from your home gravity, rounding down. This determines the penalties you suffer. For instance, an Earth native used to 1G treats 0.81G to 1.19G as zero G-Increments, but 0.8G or 1.2G counts as one G-Increment.

DX: You are at -1 DX per G-Increment of difference (-1 per *two* full G-Increments, if you have the G-Experience advantage). This applies to activities that require agility or judging ballistic trajectories; it affects Broadsword, Driving, and Guns, but not Beam Weapons or Lockpicking.

IQ: You are at -1 IQ per *two* full G-Increments of *higher* gravity, due to reduced blood flow to the brain and general fatigue. Lower gravity has no effect.

HT: You are at -1 HT per *two* full G-Increments of *higher* gravity, because the heart has to work harder. Lower your FP score by the same amount. There is no effect in lower gravity – although microgravity or zero gravity might cause space sickness (see *Space Adaptation Syndrome,* p. 235), or even have lasting ill effects in the long term.

See *Temporary Attribute Penalties* (p. 225) to learn how attribute penalties affect secondary characteristics and skills

HEARING

Make a Hearing roll whenever it is important that you hear a sound. The GM will often require a separate IQ roll to make out speech, especially in a foreign language.

Modifiers: Any Acute Hearing bonus; +4 for Discriminatory Hearing; -4 for Hard of Hearing. The GM may make this roll easier or harder, depending on the loudness of the sound, surrounding noises, etc.

The range at which you can hear a sound at no penalty is given on the table below. For each step by which you are closer than this, apply +1 to the roll, while for each step by which you are more distant, apply -1. For instance, to hear normal conversation at 8 yards would require a roll at -3.

When you try to hear someone who is attempting to move silently, the GM may treat this roll as a Quick Contest against his Stealth skill. If you are *actively* listening for such activity, the GM may allow you to substitute Observation skill for Perception.

Useful Advantages: Parabolic Hearing allows you to hear distant sounds as if they were nearby. Subsonic Hearing and Ultrahearing can detect sounds that are inaudible to normal humans.

Limiting Disadvantage: If you suffer from Deafness, you can hear nothing!

Hearing Distance Table

Sound	***Range (yards)***
Leaves rustling	1/4
Quiet conversation	1/2
Normal conversation	1
Light traffic	2
Loud conversation	4
Noisy office	8
Normal traffic	16
"Quiet" rock band	32
Heavy traffic	64
Jet takeoff	128
Very loud rock band	256
Metallica	512

TASTE/SMELL

Taste and smell are two manifestations of the same sense. Make a Taste roll to notice a flavor, or a Smell roll to notice a scent.

Modifiers: Any Acute Taste and Smell bonus; +4 for Discriminatory Smell or Taste (as applicable). The GM may modify this roll for a particularly strong or weak taste or odor, and may apply a penalty if it is specifically disguised.

Useful Advantages: In addition to giving a bonus to your roll, Discriminatory Smell and Discriminatory Taste can reveal sufficient detail to allow you to identify people, locations, and objects with precision equivalent to hearing or vision for a normal human.

Limiting Disadvantage: No Sense of Smell/Taste‡ means that you cannot taste or smell *anything.*

INFLUENCE ROLLS

An "Influence roll" is a *deliberate* attempt to ensure a positive reaction from an NPC. A PC with an appropriate "Influence skill" can always elect to substitute an Influence roll for a regular reaction roll in suitable circumstances (GM's decision). See *Reaction Rolls* (p. 198) for more on NPC reactions.

Decide which Influence skill you are using: Diplomacy, Fast-Talk, Intimidation, Savoir-Faire, Sex Appeal, or Streetwise. Choose wisely! The GM may allow other skills to work as Influence skills in certain situations (e.g., Law skill, when dealing with a judge). Then roll a Quick Contest: your Influence skill vs. the subject's Will.

Modifiers: All your personal reaction modifiers (although the GM or the skill description may rule that some modifiers do not apply); any specific modifiers given in the skill description; -1 to -10 for using an *inappropriate* Influence skill (GM's decision).

If you *win,* you get a "Good" reaction from the NPC – "Very Good" if you used Sex Appeal with a compatible species. On any other outcome, the NPC resents your clumsy attempt at manipulation. This gives you a "Bad" reaction – "Very Bad" if you attempted specious intimidation. *Exception:* If you used Diplomacy, the GM will also make a regular reaction roll and use the *better* of the two reactions. Thus, Diplomacy is relatively safe . . .

If the subject is Indomitable, you *lose* automatically unless you have Empathy. Intimidation attempts against those with the Unfazeable advantage also fail automatically. On the other hand, you *win* automatically – no roll required – against those with Slave Mentality‡.

Influencing the PCs

Influence rolls are designed to allow PCs to affect NPC reactions. The GM should *not* make Influence rolls on behalf of NPCs and tell the players how to react. Most players form an opinion of an NPC based on the GM's portrayal of the character, and few appreciate being told that they *must* roleplay a good reaction toward an NPC they do not like or trust.

This does not mean that NPCs cannot influence PCs! When an NPC makes a successful Influence roll against a PC, the GM should apply the NPC's margin of victory as a bonus or penalty (as appropriate) to the PC's die rolls when dealing with that NPC. For instance, if a beautiful spy beats the PC's Will by 3 using Sex Appeal, the hero might suffer -3 on self-control

rolls for his Lecherousness and -3 to his Detect Lies skill where that spy is concerned. Be creative!

Psychological Warfare

You can use Propaganda skill for media manipulation, and Psychology skill for other "psyops." This is an Influence roll. Apply your *cause's* reaction modifiers rather than your own, and use the *average* Will of the target group in the Quick Contest.

REACTION ROLLS

When the PCs meet an NPC whose reaction to them is not predetermined (see below), the GM makes a "reaction roll" on 3d. The higher the roll, the better the reaction. The GM then plays the NPC according to the guidelines on the *Reaction Table.*

The GM should keep this roll secret from the players. They don't know, for instance, whether that friendly-looking old farmer is giving them straight advice or sending them into a trap.

A reaction roll is *not* a success roll. There are three important differences:

1. There is no "target number" to roll against.
2. A high roll is *good,* not bad.
3. Reaction modifiers apply directly to the die roll. A reaction *bonus* is any factor that will make NPCs *friendlier,* while a reaction *penalty* is something that will bias NPCs *against* the PCs.

Some common reaction modifiers:

Personal appearance and behavior. This is especially true for the PC who does the talking! Above-average appearance gives a bonus, as do such traits as Charisma, Fashion Sense, Pitiable, and Voice. In most situations, so does a high apparent Status. Below-average appearance and many disadvantages give a penalty.

Skills. A successful roll against a skill appropriate to the situation can give +2 to reactions. Examples include Administration when dealing with bureaucrats, Carousing when partying, and Politics when interacting with politicians. In a few cases, skill 20+ gives an *automatic* +2 to reactions. Diplomacy and Fast-Talk work this way if you are allowed to talk – as does Merchant skill, during commercial transactions. The GM may give similar bonuses for other skills.

Species or empire biases. Lyrans don't like Kzintis, Tholians don't care for lower lifeforms, and so on. These are usually penalties, and take the form of a Social Stigma disadvantage for the PC or an Intolerance disadvantage on the part of the NPC.

Appropriate behavior by the players! Here's a chance to reward good roleplaying. A good approach should be worth +1 or more! A wholly inappropriate approach that antagonizes the NPCs should give the party -1 or -2 on the reaction roll. Don't tell the players, "You blew it!" – just roleplay the offended character, and let them figure it out.

Random reaction rolls are great when they add a note of unpredictability to the game – this is more fun for the GM, too! However, *never substitute random die rolls for reason and logic.*

Predetermined Reactions

Certain NPCs might have reaction modifiers (mostly bad) worked out in advance. For instance, a street gang might have a -5 reaction to *anybody.*

Predetermined reaction penalties sometimes come with a "best-case" reaction. Treat any reaction better than the best-case reaction as the best-case scenario; do not roll again. For instance, a mountain man might be a loner, with a -2 reaction to any outsider – and no matter what, his reaction will never be better than "Neutral." In this case, the GM would lower any reaction better than Neutral to Neutral.

Predetermined *bonuses* and *worst-case* reactions (e.g., "never any worse than Neutral") are possible for unusually friendly NPCs.

Second Reaction Rolls

If the players get a reaction roll they don't like, they may change their approach and try again (unless the first roll started a fight!). Changes in approach include offering a bribe, offering a better deal, having someone else ask, presenting new information, and using a particular skill. If the NPC, as played by the GM, feels that the PCs are becoming a nuisance, apply a cumulative -2 to each reaction roll after the first! The PCs can avoid this penalty by waiting a reasonable time between requests. "Reasonable" is entirely up to the GM!

Reaction Table

Roll 3d and apply the modifiers described above.

0 or less: Disastrous

General reaction: The NPC hates the PCs and acts in their worst interest.

In a *potential combat situation,* the NPCs attack viciously, asking no quarter and giving none.

Commercial transactions are doomed: The merchant has nothing to do with the PCs. Make a "potential combat" roll at -2.

Requests for aid are denied totally. Make a "potential combat" roll at -4. If combat is called for but not possible, the NPC works against the PCs in any way possible.

Requests for information are met with anger. Make a "potential combat" roll at -2.

Loyalty: The NPC hates the PCs or is in the pay of their enemies, and takes the first good chance to betray them.

Reaction Table (Continued)

1 to 3: Very Bad

General reaction: The NPC dislikes the PCs and acts against them if it's convenient to do so.

In a *potential combat situation,* the NPCs attack, and flee only if they see they have no chance. (A fight in progress continues.)

Commercial transactions are next to impossible. The merchant asks three times the fair price, or offers 1/3 the fair price.

Requests for aid are denied. Make a "potential combat" roll; no reaction better than "Neutral" is possible.

Requests for information are met with malicious lies.

Loyalty: The NPC dislikes the PCs, and will leave their service (probably taking everything he can carry) or sell them out as soon as possible.

4 to 6: Bad

General reaction: The NPC cares nothing for the PCs and acts against them if he can profit by doing so.

In a *potential combat situation,* the NPCs attack unless outnumbered. If they are outnumbered they flee, possibly to attempt an ambush later. (A fight in progress continues.)

Commercial transactions go badly. The merchant asks twice the fair price, or offers half the fair price.

Requests for aid are denied. The NPCs go about their business, ignoring the PCs.

Requests for information are denied. NPCs lie maliciously or demand payment for information. If paid, the NPC gives true, but incomplete, information.

Loyalty: The NPC has no respect for the PCs. He leaves or betrays them given even moderate temptation, and is a sluggish worker.

7 to 9: Poor

General reaction: The NPC is unimpressed. He may become hostile if there is much profit in it, or little danger.

In a *potential combat situation,* the NPCs shout threats or insults. They demand that the PCs leave the area. If the PCs stick around, the NPCs attack unless outnumbered, in which case they flee. (A fight in progress continues.)

Commercial transactions are unprofitable. The merchant asks 120% of the fair price, or offers 75% of the fair price.

Requests for aid are denied, but bribes, pleas, or threats might work. The PCs may roll again, at -2.

Requests for information are unproductive. The NPCs claim not to know, or give incomplete data. A bribe may improve their memory; roll again if a bribe is offered.

Loyalty: The NPC is unimpressed with the PCs or dislikes the job; he thinks he's overworked and underpaid. He'll probably betray them if offered enough, and would certainly take a "better" job if he thought he had one.

10 to 12: Neutral

General reaction: The NPC ignores the PCs as much as possible. He is totally uninterested.

In a *potential combat situation,* the NPCs are inclined to go their own way and let the PCs go theirs. (If a fight is in progress, the NPCs try to back off.)

Commercial transactions go routinely. The merchant buys and sells at fair prices.

Requests for aid are granted – if they are simple. Complex requests are denied, but the PCs can try again at -2.

Requests for information are successful. The NPC gives the information requested if it is simple. If the question is complex, the answer is sketchy.

Loyalty: The NPC views the PCs as "just another boss," and this is just another job. He works hard enough to keep them happy, but no harder. He does not leave unless he is sure the new job is better, and does not betray them unless the temptation is very strong.

13 to 15: Good

General reaction: The NPC likes the PCs and is helpful within reasonable, everyday limits.

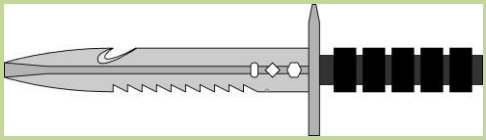
In a *potential combat situation,* the NPCs find the PCs likeable, or else too formidable to attack. The PCs may request aid or information; roll again at +1. (If a fight is in progress, the NPCs flee.)

Commercial transactions go pleasantly. The merchant buys and sells at fair prices, and volunteers useful information or small bits of help if possible.

Requests for aid are granted if the request is reasonable. The NPCs' attitude is helpful. Even if the request is silly and must be denied, they offer helpful advice.

Requests for information are successful. The question is answered accurately.

Loyalty: The NPC likes the PCs or the job. He is loyal, works hard, and accepts any reasonable hazard that the PCs accept.



(continued on the next page)

Reaction Table (Continued)

16 to 18: Very Good

General reaction: The NPC thinks highly of the PCs and is quite helpful and friendly.

In a *potential combat situation,* the NPCs are friendly. The PCs may ask for aid or information (roll again at +3). Even sworn foes find an excuse to let the PCs go . . . for now. (If a fight is in progress, the NPCs flee if they can, or surrender otherwise.)

Commercial transactions go very well. The merchant accepts the PCs' offer unless they tried to buy below 80% of the fair price or sell above 150% of the fair price. In that case, he offers those rates. He also offers help and advice.

Requests for aid are granted unless they are totally unreasonable. Any useful information NPCs have is volunteered freely.

Requests for information are successful. The NPC answers in detail and volunteers any related information he has.

Loyalty: The NPC works very hard, and risks his life if need be. Under most circumstances, he puts the PCs' interests ahead of his own.

19 or better: Excellent

General reaction: The NPC is extremely impressed by the PCs, and acts in their best interests at all times, within the limits of his own ability.

In a *potential combat situation,* the NPCs are extremely friendly. They may even join the party temporarily. The PCs may ask for aid or information; roll again at +5. (If a fight is in progress, the NPCs surrender.)

Commercial transactions go extremely well. The merchant accepts the PCs' offer unless they tried to buy below 50% of fair price or sell above 200% of fair price. In that case, he offers those rates. He also offers help and advice.

Requests for aid are granted. NPCs help in every way within their power, offering extra aid.

Requests for information are extremely successful. The question is answered completely. If the NPC doesn't know everything the PCs need, he exerts himself to find out. He may even offer to help: roll a request for aid at +2, with no reaction worse than "Poor" possible.

Loyalty: The NPC worships the PCs or their cause, works incredibly hard, puts the PCs' interests ahead of his own at all times, and would even die for them.

WILL ROLLS

When you are faced with a stressful situation or a distraction, the GM may require you to roll against your Will to stay focused. On a success, you may act normally. On a failure, you submit to the fear, give in to the pressure, are distracted from your task, etc.

The effects of a failed Will roll in a stressful situation are often identical to those of a failed self-control roll for a mental disadvantage. This does not make Will rolls and self-control rolls interchangeable. Which kind of roll you must make depends on the cause of the stress, not on its effects.

If a *game-world event* causes negative effects (distraction, stunning, etc.) for *anyone* who fails a Will roll, you roll against Will just like anyone else – even if your self-control roll to resist identical effects from a mental disadvantage would be easier or harder.

If a *mental disadvantage* causes a negative effect on a failed self-control roll, you roll against your self-control number to resist – even if your Will roll to avoid that same effect under other circumstances would differ.

However, *modifiers* to self-control rolls and Will rolls to resist a particular effect are usually interchangeable. For instance, a drug that gives +2 to Will rolls to resist distraction would also give +2 to self-control rolls to resist disadvantages that result in distraction.

FRIGHT CHECKS

A Fright Check is a Will roll made to resist *fear.* Fright Checks can occur as often or as rarely as the GM wishes. In a horror campaign where ordinary people meet shockingly gruesome Things, Fright Checks might be very common! With only minor adaptation, the GM can use these rules for awe, confusion, etc. as well as fear.

As a general rule, "ordinary" frightening things do not require Fright Checks. Fright Checks are for events so unusual and terrifying that they might stun or even permanently scar someone.

What counts as "ordinary" depends on the characters and the setting. This is one place where a character story can be helpful! An ordinary, 21st-century American might have to make Fright Checks for encounters with extra-terrestrials, dead bodies, and the supernatural. A battle-hardened commando in the same game might not have to roll for dead bodies. And in a fantasy campaign, all these things may be quite normal . . . threatening, but normal. On the other hand, a fantasy character might have to make a Fright Check if transported to the 21st century and given a ride down the interstate.



Fright Check Modifiers

The following modifiers are cumulative.

Advantages and Disadvantages: Any Fearlessness bonus or Fearfulness penalty; +2 for Combat Reflexes, or -2 for Combat Paralysis. Other modifiers are conditional: -1 to -4 for Cowardice when your physical safety is at risk; +1 for Daredevil when charging into a scary situation; +1 for Higher Purpose when confronting threats you are sworn to oppose; +1 to +4 for Xenophilia when confronting monsters. Unfazeable characters don't make Fright Checks!

Bodies: +6 for a peaceful-looking body, prepared for burial; +2 for a dead body with no signs of violence; no modifier for most victims of violence; and from -1 to -3 for grisly mutilations. Apply another -6 if the victim was your Dependent!

Heat of Battle: +5 if you are in combat when the terrifying thing happens or you first notice it.

Monsters: A given monster might give a basic -1 to -10 to Fright Checks. For *hordes* of monsters, roll at -1 for 5 monsters, -2 for 10, -3 for 20, -4 for 50, and -5 for 100 or more. This could apply to aliens (of a frightening nature) with which your species or empire is not familiar.

Physical Circumstances: -1 if the body, monster, etc. *touches* you; +1 if you witness it at a great distance (at least 100 yards); or +3 if you view it remotely (using Clairsentience‡, closed-circuit TV, etc.). Apply -1 if the area is physically isolated, -1 at night or in the dark (or in daylight, if you're a night-dweller!), and -2 if you are (or *think* you are) alone.

Preparation: +1 if you have previous personal experience with this kind of threat; +1 per exposure to this *particular* threat in 24 hours; +1 to +3 (depending on the quality of the report) if you learned the details of this particular situation before you witnessed it.

The Rule of 14

If final, modified Will exceeds 13, reduce it to 13 for the purpose of the Fright Check. This means that a roll of 14 or more is automatically a failure. This rule does not apply to other Will rolls (resistance rolls, rolls to avoid distraction, etc.) – only to Fright Checks.

Fright Check Table

When you fail a Fright Check, roll 3d, add your margin of failure on the Fright Check, and consult the table below. This sometimes gives implausible results. The GM should either reroll these or change them to something more appropriate – especially for Fright Checks stemming from awe (e.g., divine beauty) or mind-warping complexity (e.g., otherworldly geometry or radical philosophical concepts) instead of fear.

Many of these results give a new mental quirk or disadvantage. The GM assigns this trait, which must be related to the frightening event. If possible, it should also be related to the victim's *existing* mental traits! Traits acquired this way reduce the victim's point value.

4, 5 – Stunned for one second, then recover automatically.

6, 7 – Stunned for one second. Every second after that, roll vs. unmodified Will to snap out of it.

8, 9 – Stunned for one second. Every second after that, roll vs. Will, plus whatever bonuses or penalties you had on your original roll, to snap out of it.

10 – Stunned for 1d seconds. Every second after that, roll vs. modified Will, as above, to snap out of it.

11 – Stunned for 2d seconds. Every second after that, roll vs. modified Will, as above, to snap out of it.

12 – Lose your lunch. Treat this as retching for (25 - HT) seconds, and then roll vs. HT each second to recover; see *Incapacitating Conditions* (p. 231). Depending on the circumstances, this may be merely inconvenient, or humiliating.

13 – Acquire a new mental quirk (see *Quirks,* p. 142). This is the only way to acquire more than five quirks.

14, 15 – Lose 1d FP, and take 1d seconds of stunning as per **10.**

16 – Stunned for 1d seconds, as per **10,** and acquire a new quirk, as per **13.**

17 – Faint for 1d minutes, then roll vs. HT each minute to recover.

18 – Faint as above, and roll vs. HT immediately. On a failed roll, take 1 HP of injury as you collapse.

19 – Severe faint, lasting for 2d minutes. Roll vs. HT each minute to recover. Take 1 HP of injury.

20 – Faint bordering on shock, lasting for 4d minutes. Also, lose 1d FP.

21 – Panic. You run around screaming, sit down and cry, or do something else equally pointless for 1d minutes. At the end of that time, roll vs. unmodified Will once per minute to snap out of it.

22 – Acquire a -10-point Delusion (p. 125).

23 – Acquire a -10-point Phobia (p. 135) or other -10-point mental disadvantage.

24 – Major physical effect, set by GM: hair turns white, age five years overnight, go partially deaf, etc. In game terms, acquire -15 points worth of physical disadvantages (for this purpose, each year of age counts as -3 points).

25 – If you already have a Phobia or other mental disadvantage that is logically related to the frightening incident, your self-control number becomes one step worse. If not, or if your self-control number is already 6, add a new -10-point Phobia or other -10-point mental disadvantage.

(Continued on the next page)

Fright Check Table (Continued)

26 – Faint for 1d minutes, as per **18,** and acquire a new -10-point Delusion, as per **22.**
27 – Faint for 1d minutes, as per **18,** and acquire a new -10-point mental disadvantage, as per **23.**
28 – Light coma. You fall unconscious, rolling vs. HT every 30 minutes to recover. For 6 hours after you come to, all skill rolls and attribute checks are at -2.
29 – Coma. As above, but you are unconscious for 1d hours. Then roll vs. HT. If the roll fails, remain in a coma for another 1d hours, and so on.
30 – Catatonia. Stare into space for 1d days. Then roll vs. HT. On a failed roll, remain catatonic for another 1d days, and so on. If you have no medical care, lose 1 HP the first day, 2 the second, and so on. If you survive and awaken, all skill rolls and attribute checks are at -2 for as many days as the catatonia lasted.
31 – Seizure. You lose control of your body and fall to the ground in a fit lasting 1d minutes and costing 1d FP. Also, roll vs. HT. On a failure, take 1d of injury. On a critical failure, you also lose 1 HT *permanently.*
32 – Stricken. You fall to the ground, taking 2d of injury in the form of a mild heart attack or stroke.
33 – Total panic. You are out of control; you might do *anything* (the GM rolls 3d: the higher the roll, the more useless your reaction). For instance, you might jump off a cliff to avoid the monster. If you survive your first reaction, roll vs. Will to come out of the panic. If you fail, the GM rolls for another panic reaction, and so on!
34 – Acquire a -15-point Delusion.
35 – Acquire a -15-point Phobia or other mental disadvantage worth -15 points.
36 – Severe physical effect, as per **24,** but equivalent to -20 points of physical disadvantages.
37 – Severe physical effect, as per **24,** but equivalent to -30 points of physical disadvantages.
38 – Coma, as per **29,** and a -15-point Delusion, as per **34.**
39 – Coma, as per **29,** and a -15-point Phobia or other -15-point mental disadvantage, as per **35.**
40+ – As **39,** above, but victim also loses 1 point of IQ *permanently.* This automatically reduces all IQ-based skills by 1.

COMBAT

The GM decides when to start using the combat rules. This will generally be when fighting seems likely and combatants begin maneuvering for tactical advantage. The GM may also use these rules to resolve "action" situations such as chases and tournaments.

COMBAT TURN SEQUENCE

Combat takes place second by second. Each character actively involved in the combat gets one opportunity to act per second, referred to as his "turn." After everyone has taken his turn, one second has passed.

The GM shouldn't feel constrained by the one-second time scale. This is just a way of breaking a battle into manageable chunks! He should feel free to drop out of combat time whenever dramatically appropriate, and to resume combat time when noncombat action gives way to more fighting.

Active Characters

An "active character" is involved in the combat *and* able to take action. A character who is knocked out, asleep, etc. is not active. But someone who chooses to do nothing *is* still active – "Do Nothing" is a valid combat maneuver (see p. 203).

Turn Sequence

The "turn sequence" is the order in which active characters take their turns. It is set at the start of the fight and does not change during combat. The combatant with the highest Basic Speed goes first and takes his turn, then the one with the next-highest Basic Speed, and so on, in descending order by Basic Speed. Once every active character has taken his turn, one second has passed and another second begins.

Tied Speeds: If multiple NPCs on the same side have the same Basic Speed, the GM simply decides who goes first – it isn't really important. If PCs are involved, ties go to the highest DX. If there's still a tie, GM should roll randomly at the start of the combat to determine who acts first, and use that order throughout the combat.

Sequence Chart: If a combat has many participants, the GM may find it useful to make a quick list of the order in which the combatants take their turns.

"Your Turn"

A given participant's turn is the one-second period that stretches from when he chooses a maneuver until his next opportunity to select a maneuver. This overlaps the turns of other characters.

MANEUVERS

A "maneuver" is an action that you can take on your turn. Each turn, you must choose *one* of the following maneuvers: Aim, All-Out Attack, All-Out

Defense, Attack, Change Posture, Concentrate, Do Nothing, Evaluate, Move, Move and Attack, Ready, or Wait. Your choice determines *what you can do* on your turn, and sets your options for active defense and movement.

Active Defense and Maneuvers

The maneuver you choose affects your "active defenses" – your ability to dodge, parry, or block attacks (see *Defending,* p. 211). You only have to select an active defense if you are attacked. Your most recent maneuver governs the active defenses you can use.

For the purpose of active defenses, your maneuver is considered to be in effect until you select another maneuver on your next turn. For instance, if you chose All-Out Defense (which gives a defensive advantage), its benefits would apply if you were attacked after you took your turn, and would persist until it was your turn again and you took a different maneuver.

If you're attacked before you've had a chance to choose a maneuver – usually at the start of combat – you're considered to be taking a Do Nothing maneuver.

Free Actions

"Free actions" are things you can do during *any* maneuver. Some examples:

Talk. You can *always* talk. If the GM wants to be realistic, he should allow only one sentence of communication per second . . . but it is usually more fun when you ignore this limitation!

Maintain psi. As long as you remain active, you can maintain an ongoing psi ability, no matter what else you do.

Drop an item. You can drop any "ready" item at any time during any maneuver. If you're moving, you may drop it at any point within your reach during your movement.

Crouch. If standing, you may opt to crouch (to make yourself a smaller target for ranged attacks) at the *beginning* of your turn. This will usually slow your movement speed (see *Posture Table,* p. 203), and you *cannot* crouch and sprint. If you were already crouching, it is a free action to rise from a crouching position at the start of your turn.

DO NOTHING

Anyone who is just standing still is assumed to be *doing nothing.* In particular, when combat begins, anyone who has not yet taken a turn is treated as if he took this maneuver before entering combat.

Someone who is conscious but stunned or surprised *must* take this maneuver. On each turn of Do Nothing, he may attempt a HT roll to recover from physical stun or an IQ roll to recover from mental stun. On a success, he recovers at the *end* of his turn – that is, he Does Nothing this turn, but may act normally next turn.

MOVE

Move, but take no other action except those specified under *Free Actions* (see above). You may move any number of yards up to your full Move score. Most other maneuvers allow at least some movement on your turn; take this maneuver if *all* you want to do is move.

Players must tell the GM exactly where their PCs move to so that he can keep track of the combat. The GM decides where his NPCs move, and will inform any players whose PCs are in a position to witness the movement.

CHANGE POSTURE

This maneuver lets you switch between any two "postures" (stances in which you can pose your body). Valid postures are *standing, sitting, kneeling, crawling, lying prone* (face down), and *lying face up.* Any posture other than standing slows your movement and penalizes your attack and defense rolls, but also makes you a smaller target for ranged attacks.

You cannot stand up directly from a lying position. If you are lying (prone or face up), you must take a Change Posture maneuver to rise to a crawling, kneeling, or sitting posture first. A second Change Posture maneuver lets you stand from any of these postures. (Going from standing up to lying down, however, only takes one maneuver – or none at all, if the change was involuntary!)

You can switch between kneeling and standing (only) as the "step" portion of any maneuver that allows a step – you don't need Change Posture for that. This is *instead* of using the step to move. Thus, you could go from prone to kneeling with a Change Posture maneuver on one turn, and then stand up in place on your next turn by taking a maneuver that allows a step.

Crouching does *not* require a Change Posture maneuver; see *Free Actions* (above).

Posture Table

Posture	*Attack*	*Defense*	*Target*	*Movement*
Standing	Normal	Normal	Normal	Normal; may sprint
Crouching	-2	Normal	-2	2/3 (+1/2 per hex)
Kneeling	-2	-2	-2	1/3 (+2 per hex)
Crawling	-4	-3	-2	1/3 (+2 per hex)
Sitting	-2	-2	-2	None
Lying Down	-4	-3	-2	1 yard/ second

Attack: The modifier when making a *melee* attack from this posture.

Defense: The modifier to all active defense rolls.

Target: The modifier to hit you with a *ranged* attack.

Movement: The effect on movement.

AIM

This maneuver is used to aim a ranged weapon (or a device such as a camera or telescope). You must choose a specific target. You can't aim at something that you can't see or otherwise detect.

Specify the weapon you're aiming with and your target. If you follow an Aim maneuver with an Attack or All-Out Attack with the *same* weapon against the *same* target, you get a bonus to hit. Add the weapon's Accuracy (Acc) to your skill, plus any bonuses for targeting systems used: sights, targeting computers, etc.

If you *brace* a firearm or crossbow, you get an extra +1 to Acc. A firearm or crossbow is braced if you can rest it on a sandbag, low wall, car, etc. A one-handed firearm (e.g., a pistol) is considered braced if used two-handed. A two-handed firearm (e.g., a rifle) is considered braced if you are prone and using a bipod.

If you Aim for more than one second, you receive an additional bonus: +1 for two seconds of Aim, or +2 for three or more seconds.

Your combined bonus from all targeting systems (scopes, sights, computers, etc.) cannot exceed the weapon's base Accuracy. For instance, if you add a telescopic sight that gives +4 Acc to a pistol with Acc 2, the bonus is +2, not +4.

EVALUATE

This maneuver is the melee combat equivalent of Aim. It lets you take time to study an adversary in order to gain a combat bonus on a subsequent attack. You must specify one *visible* opponent who is close enough to attack unarmed or with a ready melee weapon, or whom you could reach with a single Move and Attack maneuver. You are sizing him up and looking for the right moment to strike.

An Evaluate maneuver gives you +1 to skill for the purpose of an Attack, Feint, All-Out Attack, or Move and Attack made against *that opponent, on your next turn only.* You may take multiple, consecutive Evaluate maneuvers before you strike, giving a cumulative +1 per turn, to a maximum of +3.

ATTACK

Use this maneuver to make an armed or unarmed attack in melee combat, or to use a thrown or missile weapon in ranged combat. To use a weapon to attack, it must be ready.

If you are using a melee weapon or unarmed attack, your target must be within reach. Resolve the attack as explained under *Melee Attacks* (p. 206). If you took an Evaluate maneuver (above) last turn, you will have a bonus to hit. If you took a Feint (below), your opponent may have a penalty to defend.

If you are using a ranged weapon, your target must be within the weapon's Max range. Resolve the attack according to *Ranged Attacks* (p. 209). If you took an Aim maneuver (above) last turn, you will have a bonus to hit.

FEINT

"Fake" a melee attack. You cannot Feint someone unless you *could* have hit him with a melee attack – that is, your weapon is ready and your foe is within reach. This maneuver is *not* an attack, though, and does not make your weapon unready.

When you Feint, roll a Quick Contest of Melee Weapon skills with your foe; if either of you is unarmed, you may roll against an unarmed combat skill instead. Your opponent may opt to roll against Cloak or Shield skill, if he is suitably equipped and this would give him a better roll. If his DX is better than his combat skills, he may roll against DX instead.

If you fail your roll, your Feint is unsuccessful. Likewise, if you succeed, but your foe succeeds by *as much as* or *more than* you do, your Feint fails.

If you *make* your roll, and your foe *fails,* subtract your margin of success from the foe's active defense if you attack him with Attack, All-Out Attack, or Move and Attack on your next turn. For instance, if your skill is 15 and you roll a 12, your foe defends against you at -3 next turn.

If you and your foe *both* succeed, but you succeed by more, subtract your margin of victory from the foe's defense. For instance, if your skill is 15 and you roll a 10 (success by 5), and your foe's skill is 14 and he rolls 12 (success by 2), you win by 3, so he will defend at -3 if your next maneuver is to attack him.

You cannot Feint if your foe is unable to observe you! However, if your foe runs away, turns his back on you, or loses sight of you in some way *after* you successfully Feint, he will still suffer his defense penalty *if you attack him on your next turn.* If *you* lose track of the foe, or cannot attack him next turn, your foe's defense penalty vanishes.

A Feint is good for *one* second! But if you Feint and then make an All-Out Attack (Double), the feint applies to both attacks.

In all cases, your allies cannot take advantage of *your* Feint. The defense penalty applies only to *your* next attack.

Shield Feints: After you have attacked your foe once by striking with your shield, you may also Feint with your shield, rolling against Shield skill.

ALL-OUT ATTACK

Attack any foe with a ready weapon, making no effort to defend against enemy attacks. If you are making a melee attack, you must specify *one* of these three options before you attack:

- *Determined:* Make a single attack at +4 to hit!
- *Double:* Make two attacks against the same foe, *if* you have two ready weapons or one weapon that does not have to be readied after use. Attacks with a second weapon held in the off hand are at the usual -4 (see *Handedness,* p. 27) unless you have Ambidexterity (p. 84).
- *Feint:* Make one Feint (see above) and then one attack against the same foe. The Feint applies to *this* attack instead of one you make on your next turn.

- *Strong*: Make a single attack, at normal skill. If you hit, you get +2 to damage – or +1 damage per die, if that would be better. This only applies to melee attacks doing ST-based thrust or swing damage.

If you are making a ranged attack, you must specify *one* of these two options before you attack:

- *Determined:* Make a single attack at +1 to hit.
- *Suppression Fire:* Take the *entire* turn to spray an area with automatic fire. This is a full-turn maneuver, and you can only choose this option if your weapon has RoF 5+. See *Attacking an Area* (p. 221).

MOVE AND ATTACK

Move as described for the Move maneuver (p. 203), but during or after your move, make a single, poorly aimed attack – either unarmed or with a ready weapon.

You attack as described for the Attack maneuver (p. 204), but at a penalty. If you are making a ranged attack, you have a penalty of -2 or the weapon's Bulk rating, whichever is *worse* – and if you took an Aim, you lose all of its bonuses. If you are making a melee attack other than a slam (p. 208), you have a flat -4 to skill, and your adjusted skill cannot exceed 9.

ALL-OUT DEFENSE

This is the maneuver to choose when you're beset by foes – especially foes who like All-Out Attacks! You must specify *one* of the following two options:

- *Increased Defense:* Add +2 to *one* active defense of your choice: Dodge, Parry, or Block. This bonus persists until your next turn.
- *Double Defense:* Apply two *different* active defenses against the same attack. If you fail your defense roll against an attack, you may try a second, different defense against that attack. For instance, if you fail a block, you may try a dodge or a parry. If you try a parry (armed or unarmed) with one hand and fail, a parry using the other hand *does* count as a "different defense."

CONCENTRATE

You *concentrate* on one primarily mental task (even it has a minor physical component, like operating controls, gesturing, or speaking). This may be using a psi ability, making a Sense roll to spot an invisible warrior, making a Leadership roll to give orders, making an Electronics Operation roll to operate a sensor, or any similar action, including most IQ-based skill rolls. This is a full-turn maneuver.

Some activities require you to Concentrate for multiple seconds. If you are forced to use an active defense, knocked down, injured, or otherwise distracted before you finish, you must make a Will-3 roll. On a failure, you lose your concentration and must start over.

READY

Take a Ready maneuver to pick up or draw *any* item and prepare it for use; e.g., to pull a sword from its sheath or a gun from its holster, or to reload a firearm. In some cases, you may also need a Ready maneuver to regain control of an unwieldy weapon after a swing, or to adjust the reach of a long weapon.

You can use a Ready maneuver to perform physical actions other than fighting: opening or closing a door, picking a lock, digging, lifting, etc.

WAIT

Do nothing *unless* a particular event you specified in advance occurs before your next turn; e.g., a foe moves into range. If that happens, you may transform your Wait into an Attack, Feint, All-Out Attack (you must specify the option before acting), or Ready maneuver. If you are reacting to someone else, this interrupts *his* turn, but he can resume it after you've acted.

You must specify exactly what your action will be when you take the Wait maneuver, and what will trigger it. For instance, "I'll make an All-Out Attack (Determined) with my dress saber on the first Klingon to move toward me."

You may take a Wait with a ready ranged weapon; this is known as "covering" a target or area. If so, you must specify the zone that you are covering with that weapon. There is no penalty to cover a one-yard area.

You can use the *Wait* maneuver for *any* "reflex action" you want to plan in advance, provided you specify both the response and the action that will trigger it. This can include holding a knife at a hostage's throat, or even a noncombat action (e.g., "If Dora sees any Klingon, she will pull this handle immediately – otherwise, she does nothing."). An action only qualifies as a "reflex" if you could do it in a *single motion.* The GM's decision is final.

Finally, you can use Wait to coordinate actions with slower friends.

ATTACKING

An "attack" is an attempt to hit a foe or other target. If you execute an Attack, All-Out Attack, or Move and Attack maneuver, you may try to hit a foe. You can only attack with a weapon if it's ready.

The GM always has the option of ruling, for any reason having to do with the situation, that some fighters cannot attack certain opponents. For instance, eight attackers could not hit one human-sized foe at the same time. (Even three or four attackers at once would be unlikely, unless their victim had no allies!)

There are two basic types of attacks: melee attacks (see p. 206) and ranged attacks (see p. 209). Your target must be within reach if you're making a melee attack, or within range if you're making a ranged attack. Resolving either type of attack takes three die rolls:

- First is your *attack roll.* If your roll is successful, your attack was a good one.

- Now your foe must make a *defense roll* to see if he can defend against your blow. If he makes this roll, he evaded or stopped the attack, and is not hit.
- If he misses his defense roll, your blow struck home and you *roll for damage*.

Some advantages (e.g., Extra Attack) and combat options (see *All-Out Attack*) let you attack more than once. Resolve such attacks one at a time.

ATTACK ROLL

Your "attack roll" is a regular success roll. Figure your *effective skill* (base skill plus or minus any appropriate modifiers) with the weapon you are using.

If your roll is *less than or equal to* your "effective" skill, your attack will hit unless your foe successfully defends (see *Defending*, p. 211). If he fails to defend – or if he can't – you've hit him.

If your roll is *greater than* your effective skill, you missed!

No matter what your skill, a roll of 3 or 4 always hits, and is a *critical hit*. A roll of 5 or 6 may be a critical hit, depending on your skill. If your effective skill is 15, then a roll of 5 or less is a critical hit. If your effective skill is 16 or more, then a roll of 6 or less is a critical hit.

On a critical hit, the blow automatically hits home – your foe does not get a defense roll. As well, on an attack roll of 3, you do not roll for damage – your blow automatically does the most damage it could do. For instance, maximum damage for a 1d+2 blow would be 6+2, or 8 points. Other critical hits bypass the defense roll, but roll normally for damage.

Regardless of skill, a roll of 17 or 18 always misses.

MELEE ATTACKS

When you take a maneuver that lets you make a melee attack, you must specify who you are attacking, and with what weapon. You can make a melee attack using any *ready* melee weapon (including a natural weapon such as a kick, bite, or punch).

You can use some weapons in more than one way; e.g., you can swing or thrust with a shortsword. Such weapons have multiple lines on the weapon tables (pp. 276-277). When you attack with a weapon like this, you must indicate how you are using it before you roll.

Ready Weapons

A one-handed weapon is ready if it's being held in your hand. A two-handed weapon is ready if you are gripping it with *both* hands. Some unwieldy weapons (e.g., the poleaxe) become unready after each attack unless you are extremely strong (see p. 274).

To draw a new weapon from a sheath, scabbard, or sling, or to ready an unwieldy weapon that became unready after an attack, you must take a Ready maneuver (p. 205).

A natural weapon (punch, kick, etc.) is *always* ready unless the body part in question is occupied or restrained; e.g., you can't punch if you are holding a weapon with the same hand.

Size Modifier and Reach

If your SM is greater than 0, you have a longer reach with your arms. Increase the *upper* end of the reach of any melee weapon according to the table below.

You also get +1 to hit when you grapple per +1 SM advantage you have over your target.

Example: A giant being with SM +3 gets +2 to the upper end of reach – a weapon with reach 2-3 has reach 2-*5* in his hands! If he grapples a human (SM 0), he gets +3 to hit. He gets no bonus to grapple another of his species.

SM	***Reach***
+1	+0*
+2	+1
+3	+2
+4	+3
+5	+5
+6	+7
+7	+10
+8	+15
+9	+20
+10	+30

* A reach "C" weapon increases to reach 1, but there are no other effects.

UNARMED COMBAT

Sometimes you have to fight without weapons, or with improvised weapons. This is *unarmed combat*. Anyone can engage in unarmed combat, but certain skills make you a more effective unarmed fighter. For this purpose:

- *Striking skills* are Boxing (p. 155), Brawling (p. 156), and Karate (p. 167).
- *Grappling skills* are Judo (p. 167), Sumo Wrestling‡, and Wrestling (p. 182).

Striking

See the *Melee Weapon Table* (p. 276) for the reach, damage, etc., of punches, kicks, bites, and other unarmed strikes. And see *Hurting Yourself* (p. 214) for the effects of striking an armored target barehanded . . .

Grabbing

You can grab something a foe is holding, like a weapon. To do so, you must have an empty hand (but

some weapons, such as whips, can also grab). Make an attack using DX or a grappling skill, with the usual penalty to hit the hand (-4). Your opponent defends normally.

If you hit, you've grabbed hold of your foe's weapon. On subsequent turns, you may try to wrest it from him. Each attempt is a full-turn maneuver. Roll a Regular Contest of ST. If you *win,* you take his weapon away. If you *lose,* you lose your grip on his weapon.

Grappling

"Grappling" is an attempt to grab your foe's *body.* You must have at least one empty hand. On a game board, you must also move into your foe's hex ("close combat").

Each attempt requires an Attack, All-Out Attack, or Move and Attack maneuver. Roll against basic DX or a grappling skill to hit. Your foe may defend normally – he can parry, dodge, or block. You may Evaluate or Feint beforehand to improve your odds of success.

Grappling does no damage, but if you successfully hit, the foe has -4 to DX as long as you're holding on. He may not move away until he breaks free (see *Actions After Being Grappled,* p. 208) or you let go. *Exception:* If you grapple a foe of more than twice your ST, you *do not* prevent him from moving away – you're just extra encumbrance for him!

You may grapple with any or all of your arms. If you grapple with more than two arms, each arm beyond the first two gives a bonus of +2 to hit. An arm committed to grappling cannot make unarmed parries until you let go. Letting go is a free action *on your turn.*

If you are holding onto your foe with *all* your arms, the only further attacks you can make are those listed under *Actions After a Grapple,* below.

Posture: To grapple a prone, kneeling, or sitting opponent, you must kneel or lie down yourself, unless his Size Modifier is two or more greater than yours. You may do this as part of the "step" component of an Attack maneuver.

Hit Location: The rules above assume that you are grappling the torso. To grab another body part, apply *half* the penalty given under *Hit Location*‡ (***GURPS Basic Set,*** p. 398) to your roll; see *Grappling and Hit Location*‡*,* ***GURPS Basic Set,*** p. 400. If you hit, your foe has -4 to DX *only when using that body part.* You could grab a weapon arm or hand (to disarm your victim), a leg (to trip him), or the neck (to strangle him). If you grab an arm or hand, you cannot snatch a weapon away, but you *can* force your foe to drop it by winning a Regular Contest of ST – roll once per turn, as explained under *Grabbing* (p. 206).

Actions After a Grapple

Once you have grappled a foe, you may attempt the following moves on subsequent turns (provided your opponent does not break free!). Each action requires an Attack or All-Out Attack maneuver.

Takedown

This is an attempt to bear your opponent to the ground. You may only try this on a standing foe. Roll a Quick Contest, with each contestant using the *highest* of ST, DX, or his best grappling skill. If you are not standing, you have a penalty equal to the usual penalty to hit for your posture. If you *win,* your victim falls down next to you (on a game board, he falls in your hex and any adjacent hex of your choice). If he was grappling you, he loses his grip. If you lose, *you* suffer the same effects! On a tie, nothing happens.

Pin

You may only attempt a pin if your foe is on the ground *and* you are grappling his torso. Roll a Regular Contest of Strength. The *larger* fighter gets +3 for every point by which his Size Modifier exceeds that of his foe. The fighter with the most free hands gets +3. If you *win,* your foe is *pinned* and helpless. You must stay there to hold him down, but you can free one of your hands for other actions. If you lose or tie, nothing happens.

Choke or Strangle

You must have grappled your foe by the neck. You must normally use your hands, and can't do anything else with them (e.g., parry) while holding on – but if you have the Constriction Attack‡ advantage, you can use your *body* instead. Roll a Quick Contest: your ST vs. the *higher* of your foe's ST or HT. You are at -5 if you use only one hand, but at +2 per hand after the first two. If your Size Modifier exceeds your foe's, you can grapple and squeeze his torso instead, in which case you roll at -5 unless you have Constriction Attack. If you *win,* your foe takes crushing damage equal to your margin of victory. DR protects normally. Multiply injury to the neck by 1.5. If any damage – even blunt trauma (p. 214) – penetrates the victim's DR, you also start to suffocate him! On his next turn and every subsequent turn until he escapes, he loses 1 FP; see *Suffocation* (p. 239).

Choke Hold

If you have Judo or Wrestling skill, you may try to apply a hold that can incapacitate *without* crushing the throat or torso. See *Choke Hold*‡ (***GURPS Basic Set,*** p. 404).

Arm Lock

If you have Judo or Wrestling skill, you may try to apply a lock to restrain or cripple your opponent's arm. See *Arm Lock*‡ (***GURPS Basic Set,*** p. 403).

Neck Snap or Wrench Limb

If you grappled your foe's neck or skull, or a limb or other extremity, you can *twist.* See *Neck Snap or Wrench Limb*‡ (***GURPS Basic Set,*** p. 404).

Other Actions

You can bite or use a Striker (provided it has reach C) even if all your hands are busy. If you're not using a hand to grapple your foe, you can use it to

Attack or All-Out Attack (either unarmed or with a reach C weapon), or to take a Ready maneuver. You *cannot* Aim, Feint, Concentrate, Wait, or make *ranged* attacks unless you've pinned your foe. You may also perform the following free actions:

- *Release your grip.* Let go of the foe, if you are grappling or pinning him. Or you can release just one hand – but this makes it easier for him to escape.
- *Throw away a ready weapon.* This automatically succeeds and takes no time. You may do this to get a useless weapon out of your way, or to deprive the foe of a chance to grab a useful weapon (e.g., a blackjack) from you.
- *Drag or carry your victim.* If you've pinned your foe, you can move or step normally, dragging or carrying him; see *Lifting and Moving Things* (p. 191) for how much you can lift or drag. He counts as encumbrance, reducing your Move. If you ***haven't*** pinned him, moving away from him means you automatically release your grip unless you have at least twice his ST. If you're that strong, you can pull or carry him with you!

Slam

You can deliberately collide with an opponent. This requires an Attack, All-Out Attack, or Move and Attack maneuver. Roll against DX, Brawling, or Sumo Wrestling‡ to hit. Note that the -4 to hit and effective skill cap of 9 for a Move and Attack *do not apply to slams.*

Your foe may block, dodge, or parry (but your body counts as a heavy weapon; see *Parrying Heavy Weapons*‡, ***GURPS Basic Set,*** p. 376). If your foe dodges, you must move at least two yards past him if you have enough movement. If you would hit someone else, see *Hitting the Wrong Target*‡ (***GURPS Basic Set,*** p. 389).

If you hit, you and your foe each inflict dice of crushing damage on the other equal to (HP × velocity)/100. "Velocity" is usually just the number of yards you moved this turn – but in a head-on collision, add the distance *your foe* moved toward you on his last turn (that is, use *relative* velocity).

If damage is less than 1d, treat fractions up to 0.25 as 1d-3, fractions up to 0.5 as 1d-2, and any larger fraction as 1d-1. Otherwise, round fractions of 0.5 or more *up* to a full die. You *can* use All-Out Attack (Strong) to increase your damage!

If your damage roll equals or exceeds that of your foe, he must make a DX roll or fall down. You knock him down *automatically* if you roll twice his damage or more. If he rolls twice *your* damage or more, though, you fall down instead!

If your opponent dodged and you went past him and hit a solid obstacle, apply your damage roll to yourself (and to the obstacle, if it matters).

You can also slam with a vehicle or mount. Roll against your vehicle-operation skill to hit with a vehicle, or Riding skill to hit with a mount. Figure damage based on the HP of your vehicle or mount.

For additional rules and special cases, see *Collisions and Falls*‡ (***GURPS Basic Set,*** p. 430).

Flying Tackle: As slam, but you must have at least two legs and one arm free – most animals and vehicles can't do this! A flying tackle gives you +4 to hit and an extra yard of reach, and you may opt to roll against Jumping skill to hit. However, whether you succeed or fail, you end up lying down (in the same hex as your foe, if you are using a combat map).

Pounce: As flying tackle, but you must have four or more legs. After you attack, make a DX, Acrobatics, or Jumping roll. On a success, you stay on your feet! This is how some animals attack, especially cats: they knock down their foe and then claw or bite. If a mount tries this, the rider must roll vs. Riding-4 or fall off!

Shield Rush: As slam, but you must have a shield. Roll against Shield skill to hit, and add your shield's Defense Bonus to your damage roll. Your *shield* takes damage instead of you, but you still fall down if your opponent rolls twice your basic damage or more.

Actions After Being Grappled

If you have been grappled, you cannot take a Move maneuver unless you have at least twice your foe's ST. Aim, Feint, Concentrate, and Wait maneuvers – and *ranged* attacks – are completely impossible. If you are *pinned,* you can't take any maneuver that requires physical movement! Otherwise, you can do the following:

Attack or All-Out Attack

You can take either maneuver, with certain limitations. You *cannot* use any limb that has been grappled – or bite, if your neck or head was grappled. You're limited to unarmed attacks (striking or grappling) or attacks using weapons with reach C. You can stab with a dagger, but not swing a sword!

Ready

You can Ready an item if you have a hand free, but you must make a DX roll. Failure means you drop the item. Ready maneuvers to switch advantages off and on succeed automatically.

Break Free

If you are grappled, you cannot move away until you break free by *winning* a Quick Contest of ST. Your foe has +5 if he is grappling you with two hands. If he has you pinned, he rolls at +10 if using two hands or at +5 if using only one, and you may only attempt to break free once every 10 seconds. If either of you has three or more arms, each arm beyond the first two gives +2. If your foe is stunned, he rolls at -4; if he falls unconscious, you are *automatically* free! If you successfully break free, you may immediately move one yard in any direction.

Shove

You can shove a foe with one or both arms. Roll against DX or Sumo Wrestling‡ to hit. Your foe may block, dodge, or parry. If you hit, roll thrust/crushing damage – at -1 per die, if you used only one hand – and *double* it. This inflicts knockback (see *Knockback,* p. 215), but never actual physical injury.

RANGED ATTACKS

A "ranged attack" is any attack with a weapon used at a distance, from a thrown rock to a laser rifle.

You can only make a ranged attack on a target that falls within your weapon's *range.* To find this, see the relevant weapon table. Most ranged attacks list Half Damage (1/2D) range and Maximum (Max) range, in yards. Your target must be no farther away than Max range; 1/2D range only affects damage.

All ranged weapons have an Accuracy (Acc) statistic. This is the bonus you get if you take one or more Aim maneuvers immediately before you attack. When you Aim, you can receive other bonuses for extra seconds of aim, bracing your weapon, or using a scope.

"Thrown weapons" are weapons you must physically hurl at the target: rocks, hand grenades, ninja stars (*shuriken*), etc. You can also throw certain melee weapons, such as hatchets, knives, and spears. Treat a thrown weapon just like any other ranged attack.

MISSILE WEAPON ATTACKS

"Missile weapons" are ranged attacks other than thrown weapons: bows, firearms, ranged Innate Attacks, and so on. They fall into two broad categories.

Muscle-Powered Missile Weapons: These include bows, slings, and crossbows. As with thrown weapons, your range and damage are determined by your ST – or in the case of a bow or a crossbow, by the *weapon's* ST. See the *Muscle-Powered Ranged Weapon Table* (p. 279) for details.

Firearms: These include guns, beam weapons, and self-propelled projectiles. See the *Firearms Table* (pp. 282-283) for statistics and special rules for all types of high-tech missile weapons – from black-powder weapons through contemporary guns and on to science-fiction weapons such as lasers.

Rate of Fire

All missile weapons have a Rate of Fire (RoF) statistic. If RoF is 1, the weapon can fire one shot per attack. If RoF is 2 or more, the weapon is capable of firing more than one shot per attack; see *Rapid Fire* (below).

Examples: A bow has RoF 1; it can fire one shot per attack. A .38 revolver has RoF 3; it can fire up to three shots per attack. A machine gun has RoF 10; it can fire up to 10 shots per attack . . . but this is still one attack roll, not 10 separate attacks!

Reloading and Shots

Missile weapons also have a Shots statistic. Once you have fired this many shots, you must reload before you can fire the weapon again.

Reloading requires a number of Ready maneuvers; see *Readying Weapons and Other Gear* (p. 217). The time required to reload appears in parentheses after the weapon's Shots entry in the weapon tables.

Reloading restores the weapon's full number of shots. If a weapon has only one shot, this represents loading a new one. If it has multiple shots, this represents changing the magazine, belt, etc. The exception to this is multi-shot weapons that have cylinders, hoppers, or internal magazines. Their loading time is designated "i" (for "individually loaded"), and is *per shot* (unless sped up by some mechanism, such as a speed loader).

Examples: A bow has Shots 1(2); it can fire one arrow, after which it takes the archer two seconds to prepare another. A .38 revolver has Shots 6(3i); it can fire six shots, after which *each shot* takes 3 seconds to reload. A machine gun has Shots 200(5); it can fire 200 shots, after which it takes 5 seconds to change the belt.

Rapid Fire

Some missile weapons have RoF 2 or more. This means they can fire multiple shots *per attack,* up to a maximum equal to their RoF. For example, a .38 revolver with RoF 3 could fire 1, 2, or 3 shots per attack. Of course, you can never fire more shots than your weapon currently has remaining, regardless of its RoF.

Rapid-fire weapons use the Recoil (Rcl) statistic, which measures how controllable the weapon is when firing multiple shots. Rcl helps determine the number of hits a rapid-fire attack can inflict. The *lower* the Rcl, the easier the weapon is to control. Rcl 1 means the weapon is recoilless, like most beam weapons.

If a weapon has RoF 2 or more, you must decide how many shots (up to RoF) you wish to fire *before* you make your attack roll. Firearms fired at RoF 1-3 are firing one shot per trigger pull; those fired at RoF 4+ are usually firing "full auto" like a machine gun – either in short bursts or continuously.

Firing a large number of shots per attack gives a bonus to hit, as shown on this table:

Shots	***Bonus to Hit***
2-4	+0
5-8	+1
9-12	+2
13-16	+3
17-24	+4
25-49	+5
50-99	+6
each ×2	+1 to hit

Rapid fire may score multiple hits from a single attack. A successful attack means you scored at least one hit – and possibly a number of *extra* hits, up to a maximum equal to the number of shots you fired. To find the number of hits you scored, compare your margin of success on the attack roll to your weapon's Recoil.

An attack scores one *extra* hit for every *full* multiple of Recoil by which you make your attack roll. The total number of hits cannot exceed shots fired. For instance, if your attack had Rcl 2, success by 0-1 would mean one hit; success by 2-3, one *extra* hit; success by 4-5, two *extra* hits; success by 6-7, three *extra* hits; and so on.

High-RoF weapons (those with RoF 5+) can also spread fire among multiple targets (see *Spraying Fire,* p. 220) or fire lots of shots to "suppress" an area (see *Suppression Fire,* p. 220). Other special rules apply to rapid fire with certain weapons – see *Special Rules for Rapid Fire* (p. 220).

General Attack Modifiers

Attacker's Maneuver
Move and Attack: -4

Attacker's Situation
Bad footing: -2 or more (GM's option)
Major distraction (e.g., all clothes on fire): -3 or more (GM's option)
Minor distraction (e.g., part of clothes on fire): -2
ST below that required for weapon: -1 per point of deficit

Visibility
Blind, target completely invisible, or in total darkness: -10
Cannot see foe: -6, or -4 if you know his location to within 1 yard
Partial darkness, fog, smoke, etc.: -1 to -9 (GM's option)

Melee Attack Modifiers

Attacker's Maneuver
All-Out Attack (Determined): +4

Attacker's Situation
Holding a large shield: -2

Other Actions by Attacker
Off-hand attack: -4 (no penalty w. Ambidexterity)

Ranged Attack Modifiers

Attacker's Maneuver
All-Out Attack (Determined): +1

Other Actions by Attacker
Aim for one turn: +Accuracy of weapon
Braced weapon: +1 if stationary *and* took a turn to Aim
Extra Aim: +1 for 2 seconds, +2 for 3+ seconds
Off-hand attack: -4 (no penalty w. Ambidexterity)

Targeting Systems
Scope: +1 per second of Aim, to a maximum of the scope's bonus

Size and Speed/Range Table

The main use for this table is ranged combat, but the GM can also use it for Sense rolls and other success rolls that size, speed, or range might believably affect.

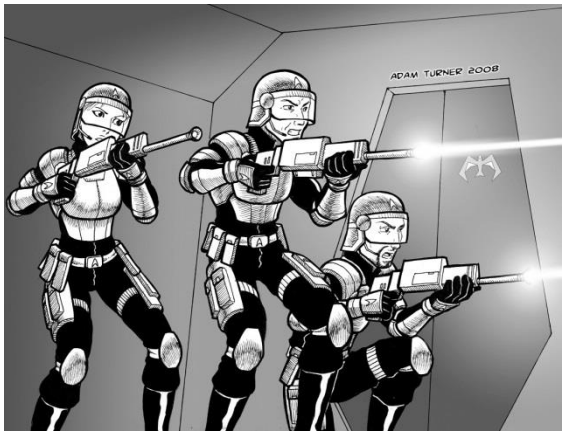
This table uses the same progression for size as it does for the sum of speed and range, but the modifiers for size have the *opposite sign* from those for speed/range: large size gives a bonus, while large speed and range give a penalty. Thus, if a target is twice as big but also twice as far away and twice as fast, the net modifier to hit stays the same.

Size of Target: The larger the target, the easier it is to hit. The modifier to hit an object due to its size is its "Size Modifier" (SM). Humans have SM 0. Objects larger than man-sized give a bonus to hit, while smaller objects give a penalty.

Find the SM of a creature or object using the table. Simply look up the being or object's longest dimension (e.g., height, for a humanoid) in the "Linear Measurement" column, and then read across to the "Size" column to find SM. If size falls between two values, base SM on the next-highest size. If an object is much smaller in *two* of three dimensions (e.g., a steel cable 100 yards long but only 2" thick), use the *smallest* dimension instead of the largest.

Target's Speed and Range: Speed and range only affect ranged combat. Add the target's speed in yards/seconds to its range in yards. Find the total in the "Linear Measurement" column. Read across to the "Speed/Range" column to find the speed/range modifier. If the total falls between two values, use the higher; e.g., treat 8 yards as 10 yards. For fighters on foot, assume speed is 0 and use range by itself; for vehicles, speed in yards/second is half speed in mph.

Examples: A man 8 yards away is -4 to hit. A motorcycle rider 40 yards away, traveling at 30 yards/second (60 mph), has a speed/range of 40 + 30 = 70 yards, which equals -9 to hit.



Speed/Range	*Size*	*Linear Measurement*
0	-15	1/5"
0	-14	1/3"
0	-13	1/2"
0	-12	2/3"
0	-11	1"
0	-10	1.5"
0	-9	2"
0	-8	3"
0	-7	5"
0	-6	8"
0	-5	1 ft
0	-4	1.5 ft
0	-3	2 ft
0	-2	1 yd
0	-1	1.5 yd
0	0	2 yd
-1	+1	3 yd
-2	+2	5 yd
-3	+3	7 yd
-4	+4	10 yd
-5	+5	15 yd
-6	+6	20 yd
-7	+7	30 yd
-8	+8	50 yd
-9	+9	70 yd
-10	+10	100 yd
-11	+11	150 yd
-12	+12	200 yd
-13	+13	300 yd
-14	+14	500 yd
-15	+15	700 yd
-16	+16	1,000 yd
-17	+17	1,500 yd
-18	+18	2,000 yd (I mile)
-19	+19	3,000 yd
-20	+20	5,000 yd (2.5 miles)
-21	+21	7,000 yd
-22	+22	10,000 yd (5 miles)
-23	+23	15,000 yd
-24	+24	20,000 yd (10 miles)
-25	+25	30,000 yd
-26	+26	50,000 yd (25 miles)
-27	+27	70,000 yd
-28	+28	100,000 yd (50 miles)
-29	+29	150,000 yd
-30	+30	2000,000 yd (100 miles)
etc.	etc.	etc.

Continue this progression indefinitely, with each 10× increase in linear measurement giving +6 to SM or -6 to speed/range modifier.

DEFENDING

If you make your attack roll, you have not (yet) actually struck your foe, unless you rolled a critical hit. Your attack is *good enough* to hit him – *if he fails to defend.*

There are three "active defenses" that a fighter can use to evade or ward off an attack: Dodge (see *Dodging*), Parry (see *Parrying*), and Block (see *Blocking*). You should calculate these active defense scores in advance and record them on your character sheet.

An active defense is a deliberate attempt to avoid a particular attack. It's only possible if the defender is aware of the possibility of an attack from his assailant *and* is free to react . . . by moving out of the way of the attack (a dodge), deflecting the attack with a weapon or empty hand (a parry), or interposing a shield (a block).

If a foe makes a successful attack roll against you, you may choose *one* active defense and attempt a "defense roll" against it. *Exception:* The All-Out Defense (Double Defense) maneuver lets you attempt a second defense against a particular attack if your first defense fails.

The active defense you choose depends on your situation – *especially* the maneuver you chose last turn. Some maneuvers restrict the active defenses you can make. You also get no active defense if you're unaware of the attack. And you get no active defense if you are unconscious, immobilized, or otherwise unable to react.

ACTIVE DEFENSE ROLLS

The defender rolls 3d against his active defense score. If his roll is *less than or equal to* his effective defense, he dodged, parried, or blocked the attack. Otherwise, his active defense was ineffective and the attack struck home. If this occurs, roll for damage.

An active defense roll of 3 or 4 is *always* successful – even if your effective defense score was only 1 or 2! A roll of 17 or 18 always fails.

Your foe does not get to attempt a defense roll if you rolled a critical hit against him.

If you are *stunned*, any active defense is at -4.

If you have a ready shield, add its Defense Bonus (DB) to any Dodge, Parry, or Block roll against an attack that came from in front of you or from your shield side.

DODGING

A "dodge" is an active attempt to move out of the perceived path of an attack. This is often the best defense when you're not skilled with your weapon and you have no shield, or when you're attacked multiple times.

Dodge is normally the *only* active defense you can take against firearms. This does not mean you can actually dodge bullets! A dodge against this kind of attack represents an attempt not to be where you think your opponent will shoot, by weaving or ducking at the right moment.

Your Dodge active defense is Basic Speed + 3, dropping all fractions, less a penalty equal to your encumbrance level (see *Encumbrance and Move,* p. 28). List Dodge on your character sheet for quick reference.

If a single rapid-fire attack scores multiple hits, a successful Dodge roll lets you avoid one hit, plus additional hits equal to your margin of success. A critical success lets you dodge *all* hits you took from that attack.

Example: A machine gun gets four hits against you. Your Dodge is 10. You roll an 8, succeeding by 2. You dodge three of the hits; only one bullet strikes you.

You may dodge *any* attack except one that you did not know about! You only get one Dodge roll against a given attack. You only get one active defense against each attack, unless you use All-Out Defense (Double Defense), but there is no limit to the number of times you may dodge *different* attacks during your turn.

Acrobatic Dodge

If you have put at least one point into the Acrobatics skill, you can try a "fancy" dodge *once* during your turn. You may define this as jumping over a sword blow, cartwheeling away, or whatever else you like. Make an Acrobatics roll before you attempt your Dodge roll. (If flying, roll against Aerobatics instead.) On a success, you get +2 to that Dodge roll. On a failure, you get -2.

You *can* combine this option with a retreat (see *Retreat,* p. 213).

BLOCKING

A "block" is an attempt to interpose a shield, cloak, or similar large object between yourself and an attack. This requires a *ready* shield. (If you're strong enough to grab and lift someone, you can block with his body!)

Your Block active defense is 3 + *half* your Shield skill, dropping all fractions. For instance, Shield-11 would give a Block of 3 + (11/2) = 8.5, which rounds down to 8.

In general, you can block any melee attack, thrown weapon, projected liquid, or muscle-powered missile weapon. You *cannot* block bullets or beam weapons . . . these come too fast to be stopped this way.

You may attempt to block only *one* attack per turn.

PARRYING

A "parry" is an attempt to deflect a blow using a weapon or your bare hands. You cannot parry unless your weapon is *ready* – or, if you are unarmed, you have an empty hand. You may attempt to parry only one attack per turn.

You can use most melee weapons to parry. A few long, well-balanced weapons (e.g., the quarterstaff) get a +1 or +2 bonus to parry due to their ability to keep a foe at bay.

Your Parry active defense with a given weapon is 3 + *half* your skill with that weapon, dropping all fractions. For instance, Broadsword-13 would give a Parry of 9.

A parry won't stop anything except melee attacks or thrown weapons. *Exception:* If a foe attacks you with a missile weapon *and* he is within reach of your melee weapon, you may parry. You're parrying the weapon, not the projectile! For example, if an attacker fired a pistol at you from only one yard away, you could attempt to parry barehanded. Success would mean that you slapped his arm or gun aside, causing him to fire wide of your body.

You can parry thrown weapons, but at a penalty: -1 for most thrown weapons, or -2 for *small* ones such as knives, shuriken, and other weapons that weigh 1 lb. or less.

If you successfully parry an unarmed attack (bite, punch, etc.) with a weapon, you may injure your attacker. Immediately roll against your skill with the weapon you used to parry. This roll is at -4 if your attacker used Judo or Karate. If you succeed, your parry struck the attacker's limb squarely. He gets no defense roll against this! Roll damage normally.

Parrying Unarmed

If you are fighting without weapons, or with at least one hand free, you may choose to parry barehanded. Beings that lack hands (like most animals) can't parry unarmed – they can only dodge. (Hydrans can use their tentacles as hands.)

You can use Boxing, Brawling, Judo, or Karate skill – or DX, if higher – to parry with one hand. You can also parry with Sumo Wrestling‡ or Wrestling skill, but this requires both hands. Your Parry active defense is 3 + *half* your skill or DX, dropping all fractions.

There's no penalty to parry another unarmed attack. You are at -3 to parry weapons, unless the attack is a *thrust* or you are using Judo or Karate (in either

case, use your full parry). See individual unarmed-combat skill descriptions for other limitations.

A failed parry means you are hit. If you are using hit locations, a failed parry against a weapon means your attacker may choose to hit his original target *or* the arm you parried with! If your arm suffers more than half your Hit Points in injury, it is automatically *crippled* (see *Crippling Injury,* p. 224).

Some unarmed skills (e.g., Judo) give you special options after a successful parry. See individual skill descriptions for details.

ACTIVE DEFENSE OPTIONS

You can improve your odds of success with an active defense by choosing one of these options to go along with it.

Retreat

"Retreat" is not a separate defense, but an option you may add to *any* active defense against a melee attack. To exercise this option, you must move away from your attacker: at least one yard, but not more than 1/10 your Move.

Retreating gives +3 to Dodge, or +1 to Block or Parry. *Exception:* If you parry using Boxing, Judo, Karate, or any fencing skill (Main-Gauche, Rapier, Saber, or Smallsword), a retreat gives +3 to Parry, as these forms make superior use of mobility.

Your step back takes place immediately. It is assumed to occur as your foe is striking. If it would take you out of your attacker's reach, *he still gets his attack.* If he has multiple attacks (e.g., from an Extra Attack, All-Out Attack, or Rapid Strike‡), your retreat does not put you beyond the reach of his remaining attacks. However, you get your retreating bonus on *all* active defense rolls against *all* of his attacks until your next turn.

If your opponent attacked you with a maneuver that allows a step, but has not yet taken his step, he can choose to follow you by taking his unused step. In effect, he is forcing you back!

You can retreat only *once* during your turn. In other words, once you retreat, you may not retreat again until after your next turn.

You cannot retreat while in a sitting or kneeling posture, or while stunned. You also cannot retreat if you moved faster than your Basic Move on your last turn (that is, if you were sprinting or using Enhanced Move).

You *can* retreat (by rolling) if you are lying down.

Dodge and Drop

When under fire, hit the dirt! You may drop to the ground while dodging, earning a +3 bonus to Dodge. This is a "dodge and drop." It is similar to a retreat, but only effective against *ranged* attacks. It also has a drawback: it leaves you prone on the ground.

Like a retreat, a dodge and drop applies to *all* of your defenses against one foe for one turn. Any cover you drop behind does not count against the initial attack that inspired the dodge and drop, but is effective against subsequent attacks directed at you.

Diving for Cover: You may also attempt a dodge and drop if you are within the area of effect of an explosion, cone, or area-effect attack and there is cover (such as a trench) only a step away. Success means you reach it in time; failure means you don't. Even if there is no cover handy, an extra yard or two of distance from a blast can still help, since explosive damage declines with distance. If you succeed, you are a step farther away; if you fail, you suffer the effect before you make your step.

Flying or Swimming: Dodge and drop is possible only if a step would take you below concealing terrain (e.g., a flyer dropping below a hillcrest). You don't end up prone. You can still dive for cover to increase your distance from an explosion, etc.

Defense Modifiers

Defender's Equipment

Parrying with dagger or knife: -1 to Parry
Parrying with quarterstaff: +2 to Parry
Unarmed parry vs. weapon: -3 to Parry (0 vs. thrust, or w. Karate)

Defender's Maneuver

All-Out Attack: no defense possible!
All-Out Defense (Increased Defense): +2 to *one* of Dodge, Block, or Parry
Move and Attack: dodge or block only; you cannot parry

Defender's Situation

Bad footing: -1 or more (GM's option)
Can't see attacker: -4, and a block or parry requires a Hearing-2 roll
Distraction (e.g., clothes on fire): -1 or more (GM's option)
Encumbered: penalty equal to encumbrance level to Dodge, or to Karate Parry
Stunned: -4

Nature of Attack

Attack from behind: no defense possible
Flail: -4 to Parry/-2 to Block
Thrown weapon: -1 to Parry, or -2 to Parry if *small* (1 lb. or less)



DAMAGE AND INJURY

If your attack roll succeeds and your target fails his defense roll (if any), you hit him! If your attack is one that can do damage, you must now make a "damage roll." This tells you how much *basic damage* you deal to your target.

Your weapon (and, for muscle-powered weapons, your ST) determines the number of dice you roll for damage. If your target has any Damage Resistance (DR) – from armor, the Damage Resistance advantage, etc. – he subtracts this from your damage roll. If your attack has an *armor divisor* (see p. 109), this modifies your target's DR.

If your damage roll is less than or equal to your target's effective DR, your attack *failed to penetrate* – it bounced off or was absorbed. A cutting, crushing, impaling, or piercing attack can sometimes cause damage without penetrating, however.

If your damage roll *exceeds* your target's DR, the excess is the *penetrating damage*. If your foe has no DR, the entire damage roll is penetrating damage.

Once you know the penetrating damage of your attack, apply the wounding modifier for damage type (this matters only for cutting, impaling, and certain types of piercing damage; see below). This gives the *injury* the foe suffers, which is subtracted from his Hit Points.

DAMAGE ROLL

You usually make your own damage rolls, and the GM rolls for NPCs. Damage rolls are expressed as a number of dice, sometimes with a modifier; e.g., "6d-1" or "1d+2." A negative modifier can't reduce damage below 0 if the attack does *crushing* damage, or below 1 if it does *any other type* of damage.

High-damage attacks may express damage as a number of dice with a multiplier. For instance, "6d×3" means "roll 6d and multiply the total by 3." If those six dice came up 21, you would do 63 points of damage. This is just a quick way to roll lots of dice.

The result of the damage roll (*after* any modifiers, as explained above) is the hit's "basic damage."

Half Damage (1/2D) for Ranged Weapons

If a ranged weapon has two range statistics, the first is its Half Damage (1/2D) range, in yards. If the target is at or beyond 1/2D range, *divide basic damage by 2,* rounding down.

Some ranged weapons (e.g., grenades) do not suffer a reduction in damage; these do not list a 1/2D range. The damage of an attack modified with Follow-Up (p. 112) is never halved, either – although its "carrier" attack is subject to 1/2D effects as usual.

Finally, if an attack has a 1/2D range but requires a resistance roll to avoid an affliction of some sort, add +3 to the resistance roll *instead* of halving damage (if any).

DAMAGE RESISTANCE AND PENETRATION

Damage Resistance (DR) rates the degree of protection that natural or worn armor, a force field, tough skin, etc. affords against damage. Objects and vehicles have their own DR values that protect against any damage *they* suffer – and if you take cover behind or inside them, their DR also protects *you*.

Subtract DR from basic damage. The result is the "penetrating damage" that punched through or deformed the armor enough to cause a significant injury. For instance, if you are hit by an attack that inflicts 6 points of basic damage and you're wearing mail with DR 4, you take 2 points of penetrating damage.

In general, DR from multiple sources is additive; e.g., if you have a natural DR of 2 and put on a tactical vest with DR 12, your total DR is 14. Exceptions will always be noted.

The DR of armor often varies by body part. If you are not using the hit location rules (see ***GURPS Basic Set,*** p. 389), just assume that any hit strikes the torso, and apply its DR.

Finally, note that DR from certain sources may provide differing degrees of protection against different damage types.

Armor Divisors and Penetration Modifiers

An "armor divisor" indicates that an attack is especially good (or bad) at penetrating Damage Resistance. Armor divisors appear on weapon tables as numbers in parentheses after damage dice; e.g., "3d(2) pi" means 3d piercing damage with a (2) armor divisor.

A divisor of (2) or more means that DR protects at reduced value against the attack. Divide the target's DR by the number in parentheses before subtracting it from basic damage; e.g., (2) means DR protects at half value. Round DR down. Minimum DR is 0.

Flexible Armor and Blunt Trauma

Flexible armor doesn't stop the full force of blows it stops. An attack that does cr, cut, imp, or pi damage may inflict "blunt trauma" if it *fails* to penetrate flexible DR.

For every *full* 10 points of cutting, impaling, or piercing damage or *5* points of crushing damage stopped by your DR, you suffer 1 HP of injury due to blunt trauma. This is actual *injury,* not basic damage. There is no wounding multiplier.

If even *one* point of damage penetrates your flexible DR, however, you do not suffer blunt trauma. If you layer other DR over flexible DR, only damage that penetrates the outer layer can inflict blunt trauma.

Hurting Yourself

Any time you strike *unarmed* (with bare hands, feet, fangs, etc.) and hit a target with DR 3+, you may hurt *yourself!* For every 5 points of basic damage you roll, you take one point of crushing damage, up to a maximum equal to the DR of the target you hit. Apply this damage to the body part you used to attack, if you are using hit locations. Your own DR protects against this damage. *Exception:* This rule does not apply if the target's DR has the Tough Skin limitation (see *Damage Resistance,* p. 85).

Knockback

When you hit someone very hard, you may knock him away from you! This is called "knockback." Only *crushing* and *cutting* attacks can cause knockback. A crushing attack can cause knockback regardless of whether it penetrates DR. A cutting attack can cause knockback only if it *fails* to penetrate DR.

Knockback depends on basic damage rolled *before* subtracting DR. For every *full* multiple of the target's ST-2 rolled, move the target one yard away from the attacker. For instance, a man with ST 10 would be knocked back one yard per full 8 points of basic damage. If the target has ST 3 or less, knockback is one yard per point of basic damage! If the target has no ST score at all (like a wall), or is not resisting, use its HP instead.

Anyone who suffers knockback must attempt a roll against the *highest* of DX, Acrobatics, or Judo. If he is knocked back more than one yard, he rolls at -1 per yard after the first. Perfect Balance (p. 99) gives +4 to this roll. On a failure, he falls down.

If you knock your foe into something solid, the result – including damage to him and whatever he hit – is as if he had collided with it at a speed equal to the yards of knockback.

"Knockback Only": Some attacks – a jet of water, a shove, etc. – do knockback but no damage. Roll the listed damage and work out knockback as usual, but no actual injury occurs (unless the target collides with something!).

WOUNDING MODIFIERS AND INJURY

Any damage left over after subtracting DR from basic damage is "penetrating damage." If there is any penetrating damage, multiply it by the attack's "wounding modifier." This is a multiplier that depends on damage type:

- Small piercing (pi-): ×*0.5.*
- Burning (burn), corrosion (cor), crushing (cr), fatigue (fat), piercing (pi), and toxic (tox): ×*1 (damage is unchanged).*
- Cutting (cut) and large piercing (pi+): ×*1.5.*
- Impaling (imp) and huge piercing (pi++): ×2.

The damage after this multiplier determines the injury: the HP lost by the target. Round fractions *down,* but the minimum injury is 1 HP for any attack that penetrates DR at all. Reduce the victim's current HP total by the injury sustained.

Note that blunt trauma injury has no wounding modifier.

Where you were hit may further affect the wounding modifier; see *Hit Location* in ***GURPS Basic Set,*** p. 398. The rules above assume a hit to the torso or face.

EFFECTS OF INJURY

If you are injured, subtract the points of injury from your Hit Points. Usually, you are still in the fight as long as you have positive HP. The most important effects are:

- If you have *less than 1/3* of your HP remaining, you are reeling from your wounds. *Halve* your Basic Speed and Move (round up), which also reduces your Dodge.
- If you have *zero or fewer* HP left, you are hanging onto consciousness through sheer willpower and adrenaline. You must roll vs. HT *each turn* to avoid falling unconscious. If you pass out, see *Recovering from Unconsciousness* (p. 226) for how long it will take to recover.
- If you go to *fully negative* HP (for instance, -10 if you have 10 HP), you risk death! You must make an immediate HT roll to avoid dying. You must make *another* HT roll to avoid death each time you lose an extra multiple of your HP – that is, at -2×HP, -3×HP, and so on. If you reach -5×HP, you die *automatically.*

The *sudden* loss of HP can have additional effects:

Shock: Any injury that causes a loss of HP also causes "shock." Shock is a penalty to DX, IQ, and skills based on those attributes *on your next turn* (only). This is -1 per HP lost unless you have 20 or more HP, in which case it is -1 per (HP/10) lost, rounded down. The shock penalty cannot exceed -4, no matter how much injury you suffer.

Major Wounds: Any single injury that inflicts a wound in excess of 1/2 your HP is a *major wound.* For a major wound to the torso, you must make a HT roll. Failure means you're stunned and knocked down; failure by 5+ means you pass out.

Stunning: If you're stunned, you are -4 to active defenses and cannot retreat, and must Do Nothing on your next turn. At the *end* of your turn, attempt a HT roll to recover. If you fail, you're still stunned and must Do Nothing for another turn. And so on.

SPECIAL DAMAGE

Certain attacks have "special effects": poison, electrical shocks, stunning, setting the victim on fire, etc.

Follow-Up Damage

Some attacks, such as poison darts and exploding bullets, have "follow-up" damage: a second type of damage that occurs an instant *after* the primary effect. The primary effect is always ordinary damage of some type – piercing, impaling, etc.

If the primary damage penetrates the target's DR, the follow-up effect occurs *inside* the target. DR has no effect! Follow-up effects that occur internally never inflict knockback or blunt trauma – even if their damage type usually does.

If the primary damage fails to penetrate DR, the follow-up effect occurs outside the target, if appropriate, as if the target had been touched – just like a linked effect (see below). Thus, poison that must enter the bloodstream would have no effect if the arrow that carried it failed to penetrate. On the other hand, an explosive projectile would still do damage . . . but the DR that stopped the primary damage would protect against it.

Linked Effects

Some attacks have a linked effect. This is a second type of damage or other effect that occurs simultaneously with the primary effect. Make *one* roll to hit, but resolve all damage and resistance rolls *separately* for the primary effect and the linked effect. An example of a linked effect is a grenade that inflicts both a crushing explosion and a blinding flash of light on detonation. A person in armor might be blinded but unhurt, while an unarmored person with eye protection might be wounded but not blinded.

Injury to Unliving, Homogenous, and Diffuse Targets

The *Wounding Modifiers and Injury* rules assume a human, animal, or other ordinary living being. Machines, corporeal undead, swarms, and other unusual entities are much less vulnerable to certain damage types:

Unliving: Machines and anyone with Injury Tolerance (Unliving) (p. 60), such as most corporeal undead, are less vulnerable to *impaling* and *piercing* damage. This gives impaling and huge piercing a wounding modifier of ×1; large piercing, ×1/2; piercing, ×1/3; and small piercing, ×1/5.

Homogenous: Things that lack vulnerable internal parts or mechanisms – such as uniformly solid or hollow objects (e.g., melee weapons, shields, and furniture), unpowered vehicles, trees, and walls – are even less vulnerable! This includes animated statues, blobs, and anything else with Injury Tolerance (Homogenous). Impaling and huge piercing have a wounding modifier of ×1/2; large piercing, ×1/3; piercing, ×1/5; and small piercing, ×1/10.

Diffuse: A target with Injury Tolerance (Diffuse) is even harder to damage! This includes swarms, air elementals, nets, etc. Impaling and piercing attacks (of any size) never do more than *1 HP* of injury, regardless of penetrating damage! Other attacks can never do more than *2 HP* of injury. *Exception:* Area-effect, cone, and explosion attacks cause normal injury.

DAMAGE TO OBJECTS

For the purpose of these rules, *any* nonliving, fabricated object is an "artifact." Handle attacks on artifacts just like attacks on living beings (see *Damage and Injury,* p. 214), with the following exceptions:

Rolling to Hit: Roll to hit normally, applying the object's Size Modifier. If an object's SM is not given, find it from the *Size and Speed/Range Table* (p. 211). *Inanimate* objects are often motionless and don't hit back; this makes them good targets for an All-Out Attack. No artifact gets a defense roll unless it is under sentient control (e.g., a robot, a weapon in hand, or a vehicle with a driver).

Damage Resistance (DR): An artifact has a DR that represents its innate "toughness." Wooden or plastic tools, gadgets, furniture, etc. usually have DR 2. Small metal, metal-wood, or composite objects, like guns and axes, typically have DR 4. Solid-metal melee weapons have DR 6. Some artifacts may be *armored;* for instance, a quarter-inch of mild steel is DR 14.

Injury Tolerance: Most artifacts have some level of Injury Tolerance (p. 93). Complex machines are Unliving. Solid objects, like furniture or weapons, are Homogenous. Things like nets and mattresses are Diffuse. See *Injury to Unliving, Homogenous, and Diffuse Targets* (above) for the effects on damage.

Health (HT): This rates the likelihood the object will break under stress or abuse. Most machines and similar artifacts in good repair are HT 10. Swords, tables, shields, and other solid, Homogenous objects are HT 12. Cheap, temperamental, or poorly maintained items get -1 to -3 to HT; well-made or rugged ones get +1 or +2.

Hit Points (HP): The amount of damage the object can take before it is likely to break or cease to function.

> *Detailed HP Calculation*
>
> Those who have a calculator or spreadsheet program handy may wish to calculate HP. HP are equal to 4 × (cube root of weight in lbs.) for complex, Unliving objects, and 8 × (cube root of weight in lbs.) for solid, Homogenous ones (round *up*). The GM may alter these values for unusually frail or tough objects

EFFECTS OF INJURY

Injury to artifacts works much like injury to living beings (see *Injuries,* p. 223), with the addition of a few special rules.

Less than 1/3 HP left – An artifact damaged this badly may suffer halved (or otherwise reduced) effectiveness, at the GM's discretion.

0 HP or less – Roll vs. the artifact's HT each second while it is under stress (but *not* if it isn't being

used): a chair rolls each second someone sits on it, a car rolls each second its engine is running, and so on. On a failure, the object suffers a severe malfunction and is disabled. Most disabled artifacts don't function *at all* until repaired. Sentient machines fall "unconscious." Homogenous objects, such as swords, bend or break, but *might* remain partially usable. Ropes, cables, etc., are cleanly severed – not chopped to bits.

-1×HP – Artifacts don't "die," as they were never truly alive, but must still make HT rolls to avoid "death" as described under *General Injury* (p. 223). On a failure, the object is *destroyed.* For instance, a sword might shatter instead of merely bending or snapping. A destroyed computer loses all data stored in it – including memories, if it is sapient.

-5×HP – The artifact is automatically destroyed, as described above.

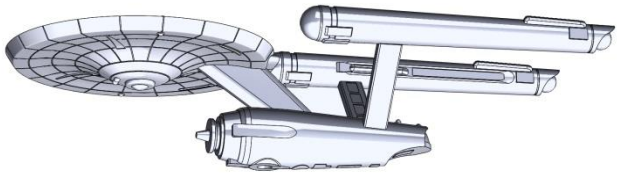
Shock: Most artifacts don't feel pain, but damage can temporarily disrupt their functionality unless they have appropriate backup systems (represented by High Pain Threshold). Apply the usual shock penalty to any *use* of that object. For example, if a vehicle suffers sufficient injury to impose a -3 shock penalty, the driver has -3 to his vehicle operation skill next turn.

Major Wounds: An artifact *can* suffer a major wound, referred to as "major damage." When a machine with many subsystems – like a vehicle – suffers a major wound, the GM may call for a HT roll. On a failure, one or more systems fail. For example, major damage to a tank might knock out its gun or cause a fuel leak.

Knockdown and Stunning: A non-sentient artifact ignores these effects. A *sentient* machine (IQ 1+) can suffer these results as a damage-induced malfunction. For instance, stun means the machine doesn't function that turn, but can function again after it recovers.

Crippling and Hit Location: A human- or animal-shaped artifact uses the normal rules; see *Crippling Injury* (p. 224). Other objects with distinct parts (e.g., a vehicle with a body, turret, and wheels) can suffer crippling injuries to specific hit locations. In all cases, a crippled location is "disabled."

Fragile Objects: Artifacts are often Fragile (p. 129). Those made of paper, dry wood, etc. are Combustible; those that contain *highly* flammable material, such gasoline or hydrogen, are Flammable. Artifacts containing unprotected explosives, sizeable stocks of ammunition, or volatile compressed gas are Explosive. Objects such as glassware, pottery, and televisions are Brittle.



Federation Heavy Cruiser

OTHER ACTIONS IN COMBAT

Combatants can perform actions other than attacking and moving. Physical actions usually require Ready maneuvers, while mental ones call for Concentrate maneuvers.

READYING WEAPONS AND OTHER GEAR

A "ready" item is one that is in hand, ready for action. A weapon or other device is *unready* if in a holster, scabbard, pocket, belt, or pack; on the floor or a table; etc.

It generally takes a single Ready maneuver to ready an item that is on your belt, in a pocket, in a scabbard or holster, or slung over your back. If you *stand still,* a single Ready maneuver also lets you ready an item from a table, wall rack, etc., provided it is within your reach (normally one yard).

A single Ready maneuver lets you accept one item that another person is holding out to you. He must be close enough to reach you (one yard, for a human), and he must have taken a Ready maneuver on *his* turn in order to hold out the item for you. You must both *stand still.* Note that you cannot exchange two items simultaneously. Each object exchanged requires a separate Ready maneuver on the part of each person involved. (Recall that these rules are for *combat;* obviously two people walking down the street can hand things back and forth at will.)

Some additional rules:

Picking something up from the ground. You must be kneeling, crawling, sitting, or lying down to do so, unless you have arms with a two-yard reach! If you are standing, you must first take a Change Posture maneuver to kneel, sit, etc.

Readying a weapon. You can only attack or parry with a weapon that is in your hand and ready to use. You must "ready" some weapons again after each attack! For instance, you must ready a poleaxe after each swing, because its momentum carries it away. See the weapon tables in Chapter 7 to learn which weapons require readying after use.

Reloading a weapon. This requires several consecutive Ready maneuvers. The number of Ready maneuvers required appears in parentheses after the weapon's Shots statistic. For example, a longbow requires two Ready maneuvers: one to ready the arrow by removing it from your quiver, and one to ready the bow by placing the arrow to the string and drawing it. That takes two turns. On the third turn, you can Aim or Attack.

Readying a shield or cloak. If a shield or cloak is on the ground, or slung on your back, it takes a number of Ready maneuvers equal to its Defense Bonus to prepare it for combat. It takes the same amount of time to don your cloak or sling your shield again – but you can drop it on the ground with a single Ready maneuver (*not* a free action!). For the purpose of readying, treat a *buckler* as a weapon, not as a shield.

Long actions. Many physical actions take more than one second to complete. In combat, choose the

Ready maneuver each turn until you are finished. This is not a specific maneuver, but a "generic" choice that lets you do one second's worth of any multi-second action. The GM decides how many turns each action takes; see *Typical Long Actions* (below) for examples. Some things (like piling up rocks to stand on) can be interrupted in the middle if necessary, to take any necessary maneuver or other action. Other things (like ritual magic) can't be interrupted; if you stop in the middle, you must start over.

If an action takes a long time, you can help the GM keep track of events by counting the seconds each time you announce the maneuver. For instance, to reload a weapon, you would say, "Reloading my gun – one second" on your first turn, and, "Reloading my gun – two seconds and finished" on your second turn.

Action	***Time***
Pick up a heavy object in one hand (weight up to 2×BL)	2 sec.
Pick up a heavy object in two hands (weight up to 8×BL)	4 sec.
Open an unlocked box, briefcase, chest, door, etc.	1 sec.
Find a loose item in a box, briefcase, pack, etc. (if it's not hidden)	2d seconds
Find an item in your own pocket	1d seconds
Write a brief note	5 sec. per sentence
Read a brief note	2 sec. per sentence
Swallow a pill or potion	2 sec.
Light a candle, cigarette, fuse, match, torch, etc.	2 sec.
Replace a weapon in its scabbard, drop a small item into your pocket	2 sec.
Search an unresisting person fairly thoroughly	1 min.
Put on a suit of armor	3 sec. per piece (30 sec./piece for a vacc suit or a battle suit)

TYPICAL LONG ACTIONS

See the table above for the duration of typical long actions. You must take a Ready maneuver each second.

The times required for long actions are realistic, but they can also sideline a player – for instance, if his character rummages through his backpack. *If the GM deems it dramatically appropriate,* he may let PCs shave off a few seconds by making a successful DX or IQ roll, at the cost of failure having other problems (e.g., dropping the backpack and spilling its contents).

This completes the combat system. Get out there and fight!

When you are comfortable with these rules or you want to use hex-based combat, consult ***GURPS Basic Set*** Chapter 12, *Tactical Combat.* GMs may also consult ***GURPS Basic Set*** Chapter 13 for advanced rules concerning factors that might not come into play in every battle: hit locations, mounted opponents, surprise attacks, and various exotic weapons.

SPECIAL MELEE WEAPON RULES

Garrotes

A "garrote" is a cord or wire used for strangling. You can only use it on an unaware or helpless victim, and you must attack from behind (this often requires Stealth rolls!).

Once you are in position, roll against Garrote skill to hit. You *must* target the neck, at the usual -5 to hit. In most cases, your target is unaware, so you can safely make an All-Out Attack (Determined) for +4 to hit.

The victim may attempt to parry with his hand or a ready close-combat weapon, but he does so at -3. Unless he has Combat Reflexes, he is most likely mentally stunned, for an *additional* -4 to his defense roll. On a success, he manages to put his hand or weapon between his throat and the garrote. The hand takes no damage unless you are using a wire garrote.

On the turn of the attack and every subsequent turn, you may choke the victim, and get +3 to ST in the ensuing Quick Contest. Treat the damage as crushing (×1.5 to the neck) for a rope garrote, cutting (×2 to the neck) for a wire one. In addition, your victim starts to suffocate (see *Suffocation,* p. 239). To break free, the victim must win a Quick Contest of ST-5, Judo-3, or Wrestling-3 against your Garrote skill.

An improvised garrote (almost any piece of rope) gives -2 to skill. A wire garrote must be equipped with handles, or *you* will take thrust/cutting damage to each hand!

Whips

Whips are effective disarming weapons. When you strike to disarm with a whip, you get +2 in the ensuing Quick Contest.

If you hit and your foe fails to defend, roll a Quick Contest of weapon skills with your foe; if you're

attempting to knock away a missile weapon, your opponent rolls against DX. Either of you may opt to make a *ST*-based skill roll instead of the standard DX-based one, if that would be better. You get +2 if you *use* Whip skill (having it is not enough!). Your *foe* gets +2 if he is using a two-handed weapon.

If you win, you disarm your foe; his weapon flies one yard in a random direction. If your foe wins or ties, he keeps his weapon, but it will be unready unless he won by 3 or more.

If you roll a critical failure, *you* are the one disarmed!

You may try to entangle your *opponent* instead of his weapon. This attack is at an extra -4 to hit, and inflicts no damage.

If you hit the target's arm or torso, you ensnare it. On subsequent turns, you must take a Ready maneuver to keep the victim snared. Roll a Quick Contest of ST on your turn. If you win, you immobilize your opponent; if you lose, he pulls the whip from your grasp.

If you entangle the neck, use the same rules, but your victim is at -5 in the Contest. If you win, the whip cuts off the victim's breathing – see *Suffocation* (p. 239).

If you entangle the foot, the target must make a DX roll to remain standing (this is *instead* of the Contest above). He rolls at -4 if he was running. If he falls, he takes 1d-4 damage – or 1d-2 if he was running. On subsequent turns, use the rules above to keep him entangled.

You must keep the whip taut at all times to immobilize or suffocate your victim. This requires a Ready maneuver each turn.

To escape from a *taut* whip, cut it (DR 1, 2 HP). To escape from a *limp* whip (including one pulled from the attacker's grasp), the victim requires a free hand, and must make three successful DX rolls. Each attempt counts as a Ready maneuver, during which time the victim may take no other actions.

A whip takes 1 turn per 5 yards to ready after a miss.

Whips are poor defensive weapons, and get -2 to Parry. Whips are also *unbalanced,* and cannot attack and parry on the same turn – and long whips actually become *unready* after an attack or a parry. It takes one turn to ready a two-yard whip, two turns to ready a whip three yards or longer. Additional rules apply, depending on the type of whip:

Whip: You can "crack" an ordinary bullwhip – this is the sound of the tip breaking the sound barrier! This requires an attack at -4 to skill, but inflicts +2 damage. *Any* whip blow is painful: anyone who suffers a whip wound to his arm or hand must roll against Will, modified by the shock penalty for the injury. On a failure, he drops anything in that hand.

Fralli Pole-Whip: Only a Fralli can properly use the pole-whip's capacity to pass on a charge. Non-Fralli can use this weapon and cause normal whip effects. See ***GURPS Federation*** for more on this weapon and the Fralli.

SPECIAL RANGED COMBAT RULES

MALFUNCTIONS

This *optional* rule applies only to firearms, grenades, and incendiaries. A "malfunction" is a mechanical failure of the weapon; e.g., a misfire or a jam. Unlike a critical failure, a malfunction does not normally endanger the user.

For the purpose of this rule, firearms, grenades, and incendiaries have a "malfunction number," or "Malf.," a function of TL.

TL	*Malf.*
3	12
4	14
5	16
6 or higher	17

A fine or very fine firearm gets +1 to Malf.; a cheap weapon gets -1. Specific types of weapons might have a higher or lower Malf., as indicated in their descriptions. The GM is free to lower a weapon's Malf. for mistreatment, lack of maintenance, or damage.

Regardless of the attacker's skill, a weapon will malfunction instead of firing on any unmodified attack roll equal to or greater than its Malf. The exact effects depend on the weapon.

Firearm Malfunction Table

When a weapon malfunctions, roll 3d on the following table:

3-4 – Mechanical or electrical problem.
5-8 – Misfire.
9-11 – Stoppage.
12-14 – Misfire.
15-18 – Mechanical or electrical problem, and possible explosion.

Mechanical or Electrical Problem

The weapon fails to fire. A successful Armoury or IQ-based weapon skill roll (takes a Ready maneuver) can diagnose the problem. Once the problem is known, make an Armoury skill roll to correct it. Each repair attempt takes one hour, and any critical failure destroys the weapon.

Grenades: This represents a fusing problem: the weapon detonates 1d seconds *late.*

Misfire

The weapon fails to fire. A successful Armory+2 or IQ-based weapon skill roll (takes a Ready maneuver) can identify the problem. If the weapon is a revolver,

the *next* shot will fire normally. Otherwise, each attempt to fix the problem requires three Ready maneuvers, two hands free, and a successful Armoury+2 or IQ-based weapon skill roll. Critical failure causes a mechanical or electrical problem.

Grenades: The grenade is a dud, and will *never* explode.

Stoppage

The weapon fires one shot, then jams or otherwise stops working. (Treat the fired shot as a normal attack.) Each attempt to clear the stoppage requires three Ready maneuvers, two hands free, and a successful Armoury roll, or IQ-based weapon skill roll at -4. A success fixes the weapon. Failure means it isn't fixed yet, but you can try again. Critical failure causes a mechanical or electrical problem.

Beam weapons: Treat as a mechanical or electrical problem.

Grenades and other single-use weapons: The weapon is a dud; it will *never* fire or explode.

Explosion

Any TL3 firearm or TL4 grenade, breechloader, or repeating firearm may blow up in the gunner's face, inflicting 1d+2 cr ex [2d]. If the weapon uses an explosive warhead, use the warhead's damage instead. TL5+ weapons do not explode – treat as a mechanical or electrical problem.

SPECIAL RULES FOR RAPID FIRE

The following additional rules are for use in conjunction with *Rapid Fire* (p. 209). They only apply when making a ranged attack at RoF 2+.

Automatic Weapons and Full-Auto Only

Automatic weapons – firearms with RoF 4+ – use the *Rapid Fire* rules. Most can fire both controlled bursts and "full auto" (that is, for as long as the trigger is held down).

Some automatic weapons (e.g., machine guns) can *only* fire full auto; they lack a semi-automatic or limited-burst setting ("selective fire"). A weapon that is "full-auto only" has a "!" after its RoF statistic. The only way to fire a short burst with such a weapon is to hold down the trigger for a fraction of a second. *Minimum* RoF is one-quarter full RoF (round up) or shots remaining, whichever is less.

Rapid Fire vs. Close Stationary Targets

Rapid fire generally results in only a fraction of the shots fired hitting the target. This is realistic . . . except when the target is up close and unable to move. This situation arises when shooting your way through a wall, door, or parked car with a shotgun or assault rifle – or when performing an execution.

If your target is totally immobile (for instance, an inanimate object, or someone who is completely restrained or unconscious) *and* has a Size Modifier high enough to completely counteract the range penalty, a successful attack roll means that *half* the shots fired (round up) hit. If the attack succeeds by the weapon's Recoil or more, *all* of the shots hit.

Shotguns and Multiple Projectiles

A weapon with a RoF followed by a multiplier (e.g., RoF 3×9) fires shots that release multiple, smaller projectiles. The most common example is a shotgun. The *first* number is the number of shots the weapon can actually fire; this is how much ammunition is used up. When resolving the attack, however, multiply shots fired by the *second* number to get the effective RoF.

At extremely close range, multiple projectiles don't have time to spread. This increases lethality! At ranges less than 10% of 1/2D, don't apply the RoF multiplier to RoF. Instead, multiply both basic damage dice and the target's DR by *half* that value (round down).

Spraying Fire

A weapon fired at RoF 5+ can attack multiple targets. All the targets must be in the same general direction (within a 30° angle), and you must engage them in succession – from right to left or from left to right, your choice.

Announce how many shots you will fire at each target *before* you roll to hit. You may split up your RoF however you wish. If the targets are more than one yard apart, traversing between them wastes some shots. For RoF 16 or less, you lose one shot for each yard between targets. For RoF 16+, you lose two shots per yard. These "wasted" shots may hit unintended targets (see *Hitting the Wrong Target*‡ (***GURPS Basic Set,*** p. 389).

Make a *separate* attack roll against each target. Your effective RoF for each attack is just the number of shots you fired at that target. Since a weapon is harder to control when you swing it to engage multiple targets, add +1 to effective Recoil for your attack on the second target, +2 to Recoil when you engage the third target, and so on.

Suppression Fire

If you have a weapon with RoF 5+, you can lay down "suppression fire." This involves holding down the trigger and "hosing down" an area with fire. This will affect anyone who enters the area before the start of your *next* turn. There needn't be a target in the area when you start!

To use suppression fire, select a target zone two yards across at some point within your weapon's range, take the All-Out Attack (Suppression Fire) maneuver, and start shooting. This maneuver takes an *entire* second; you can do *nothing* else that turn.

Specify how many shots you are firing, up to your weapon's full RoF. If your weapon has RoF 10+, you can suppress *multiple* two-yard zones, as long as they are adjacent and you fire at least five shots into each zone. Your effective RoF in each zone is the number of shots you fired into that zone, *not* your total shots.

Phaser Autofire

Many beam weapons, including phasers and disruptors, can be fired continuously simply by holding the trigger down. This will cause the weapon to fire at its maximum RoF.

Against people and other living targets, treat such an attack as a standard Rapid Fire attack. Such an attack is especially effective as suppressive fire.

Against inanimate objects, this is treated as a cutting attack. Use the *Damage to Objects* rules (p. 216). Note that when fired at an inanimate object, a phaser set on stun will heat that object without destroying it (up to the melting point of the object, of course).

AREA AND SPREADING ATTACKS

Area-Effect Attacks

Gas bombs, Molotov cocktails, and similar attacks – including anything with the Area Effect enhancement (p. 109) – affect everyone within a specified radius. Damage does not usually decline with distance. On a miss, use the *Scatter* rule (below) to determine where the area is centered. Active defenses don't protect against an area attack, but victims may dive for cover or retreat out of the area; see *Dodge and Drop* (p. 213).

Cone Attacks

Dragon's fire, wide-beam microwave and sonic weapons, and anything with the Cone enhancement (p. 110) are examples of cone attacks. A cone attack requires a roll to hit . . . but it might still catch the target in the area of effect on a miss! On a hit, the cone is on target; otherwise, use the *Scatter* rule to determine a new target point. Once you know the target point, imagine (or trace on a battle map) a line between the attacker and that point. The cone spreads to either side of this line, out to its maximum range.

A cone is one yard wide at its origin, but increases in width at a "rate of spread" equal to its specified maximum width divided by its maximum range. For instance, a cone with a maximum range of 100 yards and a maximum width of 5 yards would spread by one yard per 20 yards of range; out at 60 yards, it would be three yards wide. If maximum width is unspecified, assume the cone spreads by one yard per yard of range.

A cone affects everyone within its area, but anyone who is *completely* screened from the attacker by an object or person is behind cover, which protects normally. Targets may attempt a dodge defense to leave the area or get to cover; see *Dodge and Drop* (p. 213).

Dissipation

Certain cone and area attacks *dissipate* with distance. This is common for realistic wide-area beam weapons and area-effect burning attacks. Attacks with the Dissipation limitation (p. 116) also use these rules.

In the case of a damaging attack (e.g., Innate Attack), damage declines with the target's distance from the center of the area or the apex of the cone. For a cone, divide damage by the cone's width in yards at the target's distance from the apex. For an area effect, divide damage by the distance in yards between the target and the center of the effect.

For an attack that allows a HT roll to resist (e.g., Affliction), find the "damage divisor" as above, but do not apply it to damage (if any). Instead, use the divisor as a bonus to the HT roll to resist; e.g., two yards from the center of an area effect, add +2 to HT.

Attacking an Area

You can *deliberately* attack an area of ground with an area-effect or explosive attack. For a Molotov cocktail, grenade, etc., this means you lobbed it in a high arc. Roll to hit at +4. There's no defense roll, but anyone in the area can dive for cover.

Scatter

When an area-effect, cone, or explosive attack misses its target, it's important to know where it actually ends up!

If you fail your attack roll, you missed your target by a number of yards equal to your margin of failure, to a maximum of half the distance to the target (round up). If the enemy dodges, use his margin of success to determine distance instead.



Exception: If your target was flying or underwater, or you're using the Artillery or Dropping‡ skill to fire upon or bomb a target you can't see, you miss by yards equal to the square of your margin of failure. This does not apply to a dodge.

To determine the *direction* of your miss, roll one die. Take the direction *you* are facing as a roll of 1, 60° clockwise (the next facing, on a hex map) as a roll of 2, and so on. Your attack misses in that direction, by the number of yards determined above.

EXPLOSIONS

Certain attacks, such as hand grenades and explosive weapons, produce a blast when they hit. Such attacks have the notation "ex" after their damage type: "cr ex" for a crushing explosion, "burn ex" for a burning explosion, and so on.

In addition to doing the listed damage to whoever was struck directly, an explosion inflicts "collateral damage" on everything within (2 × dice of damage) yards. For instance, if an explosion does 6d×2 damage, everyone within 24 yards is vulnerable – although some might be lucky enough to take little or no damage.

The listed damage only applies "as is" to the target struck. For everything else caught in the blast, roll this damage but divide it by (3 × distance in yards from the center of the blast), rounding *down.* Roll damage individually (but the GM can save time by using one roll for several NPCs). Use *torso* armor to determine DR against explosion damage.

If an explosive attack has an armor divisor, it does *not* apply to the collateral damage. For example, the shaped-charge warhead of an anti-tank rocket has an armor divisor of (10), but this only reduces the DR of a target it actually strikes; those nearby get their *full* DR against the blast.

Explosions are considered incendiary attacks, and can start fires; see *Catching Fire* (p. 235).

Anyone caught in a blast may attempt an active defense roll to dive for cover from the explosion's collateral damage and fragmentation; see *Dodge and Drop* (p. 213).

Fragmentation Damage

Many grenades, bombs, and artillery shells have metal casings designed to shatter when they explode, producing a storm of sharp fragments. Some are packed with extra material (pellets, nails, etc.) to enhance this effect.

Fragmentation damage, if any, appears in brackets after explosive damage; e.g., "[2d]" means 2d fragmentation damage. Everyone within (5 × dice of fragmentation damage) yards is vulnerable. For example, that [2d] attack would throw fragments out to 5 × 2 = 10 yards.

The farther a target is from the blast, the less likely the fragments are to hit him. A hit is *automatic* if the explosive attack actually strikes the target. The fragments attack everyone else in the area at skill 15. Only three modifiers apply: the range modifier for the distance from the center of the blast to the target, the modifier for the target's posture (prone, etc.), and the target's Size Modifier. It is possible for several fragments to hit! For every three points by which the attack roll succeeds, one *additional* fragment strikes the target.

The only active defense against fragments is to dive away from the explosion that produced them; see *Dodge and Drop* (p. 213).

For each hit, roll hit location randomly. If that location is behind cover, the fragment hits cover.

Fragmentation damage is *cutting.* Note that if an explosive attack has an armor divisor, this does *not* apply to the fragments it produces.

Airbursts: Against an airburst, do not apply posture modifiers – lying prone under an airburst does *not* decrease the body area exposed to the rain of fragments! Only *overhead* cover protects.

Incidental Fragmentation: An explosion with no listed fragmentation damage can still create fragments if there is any loose or frangible material at the explosion site. Incidental fragmentation damage ranges from 1d-4 for ordinary earth to 1d for an explosion on loose scrap.

Hot Fragments: White phosphorus-type smoke warheads produce this effect. The fragments typically inflict 1d(0.2) *burning* damage every 10 seconds for one minute.

Demolition

Sometimes the only way to deal with a problem is to *blow it up!* If the adventurers are using or facing explosives, the PCs or GM should decide how many dice of damage – in multiples of 6d – the blasting charge is supposed to do, and what kind of explosive it is.

Explosives normally do crushing damage with the Explosion modifier (p. 111) – and often the Fragmentation modifier (p. 111).

How Much Explosive? An explosion doing 6d×*n* damage takes (*n*×*n*)/4 pounds of TNT. If you are using an explosive other than TNT, divide the weight required by its relative explosive force (REF) – see the *Relative Explosive Force Table,* p. 213.

How Big a Blast? Reverse the formula to determine how much damage a given weight of explosive will do: damage is 6d × square root of (weight of explosive in lbs. × 4 × REF).

Explosions in Other Environments

Other Atmospheres: These rules assume Earth-normal air pressure. A thicker or thinner atmosphere enhances or reduces the blast effect. Underwater, divide collateral damage by range in yards instead of 3 × range in yards. In a vacuum or trace atmosphere, with no medium to carry the shockwave, damage comes only from the expanding gases themselves: divide damage by 10 × range in yards.

Contact Explosions: A person can throw himself on a grenade, etc. to protect his friends. He takes maximum possible damage; his DR protects him normally. Everyone else gets his torso's DR + HP as "cover DR."

Internal Explosions: If an explosive goes off *inside* someone – e.g., a follow-up attack penetrates the target's DR, or an Astralan Nightbloat swallows a hand grenade – DR has *no* effect! In addition, treat the blast as an attack on the vitals, with a ×3 wounding modifier.

Relative Explosive Force Table

TL	*Type*	*REF*	*Description*
3	Serpentine Powder	0.3	Standard gunpowder, pre-1600.
4	Ammonium Nitrate	0.4	Common improvised explosive.
4	Black Powder	0.4	Standard gunpowder, 1600-1850.
5	Black Powder	0.5	Standard gunpowder, 1850-1890.
6	Diesel Fuel + Nitrate Fertilizer	0.5	Common improvised explosive.
6	Dynamite	0.8	Commercially available for mining demolition.
6	TNT	1.0	The basic, stable, high explosive.
6	Amatol	1.2	TNT-ammonium nitrate. Fills bombs & shells in WWII.
6	Nitroglycerine	1.5	Unstable! If dropped, detonates on 13+ on 3d.
7	Tetryl	1.3	Common for smaller explosive shells and bullets.
7	Composition B	1.4	Another common explosive filler.
7	C4 Plastic Explosive	1.4	Standard military and covert-ops explosive.
9	Octanitrocubane	4	Theoretical advanced explosive.
10	Stabilized Metallic Hydrogen	6	Exotic science-fiction explosive.
11	Antimatter	20	Exotic science-fiction explosive.

INJURY, ILLNESS, AND FATIGUE

The life of an adventurer is not all song and glory. You get tired. You get your clothes dirty. You might actually get *hurt* – or even worse, *killed!*

Fortunately, all these problems can be cured. Even death. Read on . . .

INJURIES

Wounds and ailments cause "injury": a (usually) temporary loss of Hit Points. Thus, your HP score measures your ability to sustain injury; see *Hit Points* (p. 27).

If any injury reduces you to 0 or fewer HP, you will soon fall unconscious. You can even go to *negative* HP . . . but if you go too far, you risk death. For the average man, the difference between full HP and negative HP is one or two sword blows or bullets. This is realistic . . . and dramatic. Even in cinematic battles, heroes rarely shrug off dozens of blows. Instead, they avoid being hit. Armor helps . . . but fights can be deadly, so think before you act!

GENERAL INJURY: LOST HIT POINTS

Repeated wounding eventually causes *anyone* or *anything* to weaken and collapse, even if no single injury is very great. The chart below summarizes the effects of being at low or negative HP. All effects are cumulative.

Less than 1/3 your HP left – You are reeling from your wounds. Halve your Move and Dodge (round *up*).

0 HP or less – You are in immediate danger of collapse. In addition to the above effects, make a HT roll at the start of your next turn, at -1 per *full* multiple of HP below zero. Failure means you fall unconscious (or simply stop working, if you weren't truly alive or conscious in the first place); see *Recovering from Unconsciousness* (p. 226). Success means you can act normally, but must roll again *every turn* to continue functioning. *Exception:* If you choose Do Nothing on your turn, and do not attempt any defense rolls, you can remain conscious without rolling. Roll only on turns during which you attempt a defense roll or choose a maneuver other than Do Nothing.

-1×HP – In addition to the above effects, make an *immediate* HT roll or die. (If you fail by only 1 or 2, you're dying, but not dead – see *Mortal Wounds,* p. 225). If you succeed, you can still talk, fight, etc., as above (until you fail a HT roll and collapse). Roll again each time you suffer injury equal to a further multiple of your HP, whether as a result of one wound or many. For instance, if you have 11 HP, you must roll to avoid death at -11 HP. If you survive, you must roll again at -22 HP, -33 HP, and so on . . .

-5×HP – You die immediately. You have lost a total of *6 times your HP!* Nobody can survive that much injury.

-10×HP – Total bodily destruction, if this makes sense given the source of the damage – 200 points of arrow wounds leave a messy but recognizable corpse; 200 points of fire injury leaves nothing but an unrecognizable lump of charcoal. The difference can be important in settings where resurrection, reanimation, etc. are possible!

SHOCK

Whenever you suffer injury, reduce your DX and IQ by the number of HP you lost – to a maximum penalty of -4, regardless of your injuries – *on your next turn only.* This effect, called "shock," is temporary; your attributes return to normal on the turn after that.

Shock affects DX- and IQ-based skills, but *not* active defenses or other defensive reactions. Therefore, on the turn after you are badly hurt, it is often a good idea to try flight or All-Out Defense instead of an immediate counterattack!

High HP and Shock: If you have 20 or more Hit Points, your shock penalty is -1 per HP/10 of injury (drop all fractions). Thus, if you have 20-29 HP, it's -1 per 2 HP lost; if you have 30-39 HP, it's -1 per 3 HP lost, and so forth. The maximum penalty is still -4.

MAJOR WOUNDS

A "major wound" is any *single* injury of greater than 1/2 your HP. If you are using hit locations in ***GURPS Basic Set,*** a lesser injury that cripples a body part also counts as a major wound – see *Crippling Injury* (below). Any major wound requires a HT roll to avoid knockdown and stunning (see below).

KNOCKDOWN AND STUNNING

Whenever you suffer a *major wound,* and whenever you are struck in the *head* (skull, face, or eye) or *vitals* for enough injury to cause a shock penalty (see *Shock,* above), you must make an immediate HT roll to avoid knockdown and stunning. On a success, you suffer no penalty beyond ordinary shock.

On a failure, you're stunned; see below. You fall prone (if you weren't already), and if you were holding anything, you drop it. This effect is called "knockdown."

On a failure by 5 or more, or any critical failure, you fall unconscious! See *Recovering from Unconsciousness* (p. 226).

Those with Injury Tolerance (p. 93) suffer reduced effects: No Brain means that skull, face, and eye injuries don't cause knockdown or stunning unless they are major wounds – and even then, the roll is at no special penalty. No Vitals means that vitals and groin injuries don't cause knockdown or stunning unless they are major wounds, in which case the roll has no special penalties. Homogenous and Diffuse include No Brain and No Vitals.

Effects of Stun

A failed knockdown roll can cause "stun," as can phaser weapons, certain critical hit results and some afflictions. If you are stunned, you must Do Nothing on your next turn. You may perform any active defense while stunned, but your defense rolls are at -4 and you cannot retreat.

At the end of your turn, you may roll against HT. On a success, you recover from stun and can act normally on subsequent turns. On a failure, you remain stunned; your next maneuver must also be Do Nothing, but you get another roll at the end of that turn . . . and so on, until you recover from stun.

Mental Stun: If you are surprised, you might be *mentally* stunned; see *Surprise Attacks and Initiative* (***GURPS Basic Set,*** p. 393). This sort of stunning works as described above, but you must make an IQ roll, not a HT roll, to snap out of it. You're not hurt – you're confused!

CRIPPLING INJURY

When using hit locations (***GURPS Basic Set***), sufficient injury to a limb, extremity, or eye may cripple it. This requires a single injury that exceeds a certain fraction of the target's HP. For humans and humanoids, these thresholds are:

Limb (arm, leg, wing, striker, or prehensile tail): Injury *over* HP/2.

Extremity (hand, foot, tail, fin): Injury *over* HP/3.

Eye: Injury *over* HP/10.

It is sometimes possible to cripple a body part with less damage or no damage at all; e.g. with a specific critical hit result.

A blow to a limb or extremity can never cause more injury than the *minimum* required to cripple that body part. For example, if a man has 10 HP and suffers 9 points of injury to his right arm, he loses only 6 HP — the minimum required to cripple his arm. *Exception:* No such limit applies to the eyes!

Dismemberment: If injury to a body part *before* applying the above limit was at least *twice* what was needed to cripple it, the body part is not just crippled but *destroyed.* A cutting attack or explosion severs a limb or extremity; otherwise, it's irrevocably crushed, burned, etc.

Crippling Extra Limbs

If you have *more than two* of a particular limb (arm, leg, etc.), a crippling blow is injury over HP/(number of limbs of that kind); e.g., if you have four arms, injury over HP/4 cripples an arm.

If you have *more than two* of a given extremity (hand, foot, etc.), a crippling blow is injury over HP/(1.5 × number of extremities of that kind); e.g., if you have four feet, injury over HP/6 cripples a foot.

Effects of Crippling Injury

Any crippling injury is also a major wound, and requires a HT roll for knockdown and stunning; see *Knockdown and Stunning* (above). Below are some additional effects specific to particular body parts; all these effects apply to *dismemberment* as well. These last until the fight is over, and possibly longer – see *Duration of Crippling Injuries* (p. 225).

Hand: You drop anything you were carrying in that hand. If you were using two or more hands to hold an object, roll vs. DX to avoid dropping it. You cannot hold anything (e.g., a weapon) in that hand. You can wear a shield on that arm and use it to block, but you cannot *attack* with it. Until healed, you have the One Hand‡ disadvantage.

Arm: As for a crippled hand . . . but while someone with a crippled hand could at least carry something in the crook of the arm, you cannot use a crippled arm to carry *anything!* You do not drop a shield on that arm (unless the arm is severed), but you cannot use it to block – and since it's just hanging in front of you, reduce its usual Defense Bonus by one. Until healed, you have the One Arm disadvantage (p. 134).

Foot: You fall down! You cannot stand or walk without a crutch or something to lean on. You can still fight if you brace yourself against a wall. If you have nothing to lean on, you may assume a kneeling or sitting posture. Until healed, you have the Lame (Crippled Legs) disadvantage (p. 121).

Leg: You fall down! You can still fight if you assume a sitting or lying posture. Until healed, you have the Lame (Missing Legs) disadvantage (p. 131).

Eye: You are blind in that eye. Until healed, you have the One Eye‡ disadvantage – or Blindness (p. 122), if you lose all your eyes – unless you have some substitute for eyes.

Nonhuman Body Parts

Extra Arms: If you have three or more arms, a crippled arm (hand) simply reduces the number of arms (hands) you can use. You only suffer an actual disadvantage if reduced to fewer than two arms (hands).

Extra Legs: If you have three or more legs, see *Extra Legs* (p. 90) for the effects of a crippled foot or leg.

Striker: You cannot use your Striker to attack. If your Striker is also a wing or a tail, see below for additional effects.

Tail: Any advantages the tail provides (e.g., Extra Arm or Striker) no longer function. As well, your balance is off: -1 DX, except for close manual tasks. If you're a swimmer or winged flyer, the DX penalty is -2 and you are at half your usual water or air Move (which will also halve your top speed with Enhanced Move).

Wing: If you have Flight (Winged), you cannot fly – and if you were airborne, you *fall.* If your wing is also a Striker, you cannot use it to attack.

Duration of Crippling Injuries

If you suffer a crippling injury, make a HT roll to see how serious it is. For battlefield injuries, roll at the end of combat. Success means the crippling is *temporary,* failure means it's *lasting,* and critical failure means it's *permanent.* Dismemberment is automatically permanent - don't bother rolling!

Temporary Crippling: Until you are back at *full* HP, you suffer the disadvantages described under *Effects of Crippling Injury,* p. 224. Once you are fully healed, these effects disappear.

Lasting Crippling: You suffered a broken bone, badly torn (or burned) muscle, or other lingering damage. Roll 1d. This is the number of *months* it will take for the injury to heal fully. (If the injury is treated by a physician, subtract 3 from the roll at medical TL7+, 2 at TL6, or 1 at TL5 — but the period of healing is never less than one month.)

Permanent Crippling: You lose the use of that body part. It is either nonfunctional or *gone.* Either way, you acquire a new disadvantage (One Hand, Lame, etc., as appropriate). You get no extra character points for this! It simply lowers your point value. In some settings, even this degree of injury is curable; see *Repairing Permanent Crippling Injuries* (p. 227).

Temporary Attribute Penalties

Shock, afflictions, and many other things can *temporarily* lower your attributes. ST reductions affect the damage you inflict with muscle-powered weapons. IQ penalties apply equally to Will and Per. However, there are no other effects on secondary characteristics; for instance, ST, DX, and HT reductions do *not* affect HP, Basic Speed, Basic Move, or FP.

An attribute penalty always reduces skills governed by the lowered attribute by a like amount. For example, -2 to IQ would give -2 to all IQ-based skills (and to all Per- and Will-based skills, since IQ reductions lower Per and Will).

Exception: Defensive reactions that don't require a maneuver to perform – active defenses, resistance rolls, Fright Checks, etc. – *never* suffer penalties for attribute reductions. For instance, -2 to DX would not affect Block, Dodge, or Parry.

Note that *permanent* attribute losses require recalculation of *all* secondary attributes and skills!

MORTAL WOUNDS

If you fail a HT roll to avoid death by 1 or 2, you don't drop dead, but suffer a "mortal wound." This is a wound so severe that your internal injuries might kill you even after you stop bleeding.

If you are mortally wounded, you are instantly incapacitated. You may or may not be conscious (GM's decision). If you suffer further injury and must make another HT roll to avoid death, *any* failure kills you.

While mortally wounded, you must make a HT roll every half-hour to avoid death. On any failure, you die. On a success, you linger for another half-hour – then roll again. On a critical success, you pull through miraculously: you are no longer mortally wounded (but you are still incapacitated).

You can also recover from a mortal wound with a successful HT roll whenever medical treatment or magical healing restores any number of hit points – even if you're still in the negatives.

If you're alive but mortally wounded, surgery may be able to stabilize your condition – see *Stabilizing a Mortal Wound* (p. 227). At TL6+, "trauma maintenance" can keep you alive while waiting for surgery. This involves CPR, oxygen, transfusions, etc. Instead of rolling vs. HT every half-hour, roll against the *higher* of your HT or your caregiver's Physician skill every hour – or every *day,* if you are on a heart-lung machine or similar life support. You do not need to roll at all if you're put into magical or ultra-tech suspended animation!

If you recover from a mortal wound, make a HT roll. On a failure, you lose a point of HT permanently. On a critical failure, the GM may apply an appropriate disadvantage (p. 119) or some other effect (e.g., reduced appearance due to scarring).

DEATH

If your character is killed, you may still wish to keep track of further injury. In certain futuristic or magical worlds, the dead can be brought back to life by prompt treatment, as long as the body is mostly intact (not reduced to -10×HP).

Decapitation, a cut throat, etc. can kill anyone, regardless of HT and HP. If a *helpless* or *unconscious* person is attacked in an obviously lethal way, he's dead. Don't bother to roll for damage, calculate remaining HP, etc. Just assume that he drops to -5×HP.

This does not apply to a merely *unaware* victim. If you sneak up behind a sentry with a knife, you can't automatically kill him. Game it out realistically. Since it's a surprise attack, he won't be hitting back: make an All-Out Attack! Your attack roll will almost certainly succeed. Your victim gets no active defense at all. You will probably inflict enough injury to incapacitate or kill him. But it isn't *automatic.*

When a PC or important NPC is killed in any but the most sudden and thorough fashion, the GM should allow a "dying action." If this is a final blow at the enemy, it should take no more than a turn. If it's a death-bed speech, the GM should stretch time a little bit for dramatic purposes! This has nothing to do with realism, but it's fun.

RECOVERY

The *Injuries* rules may seem harsh, but don't despair . . . you can get better!

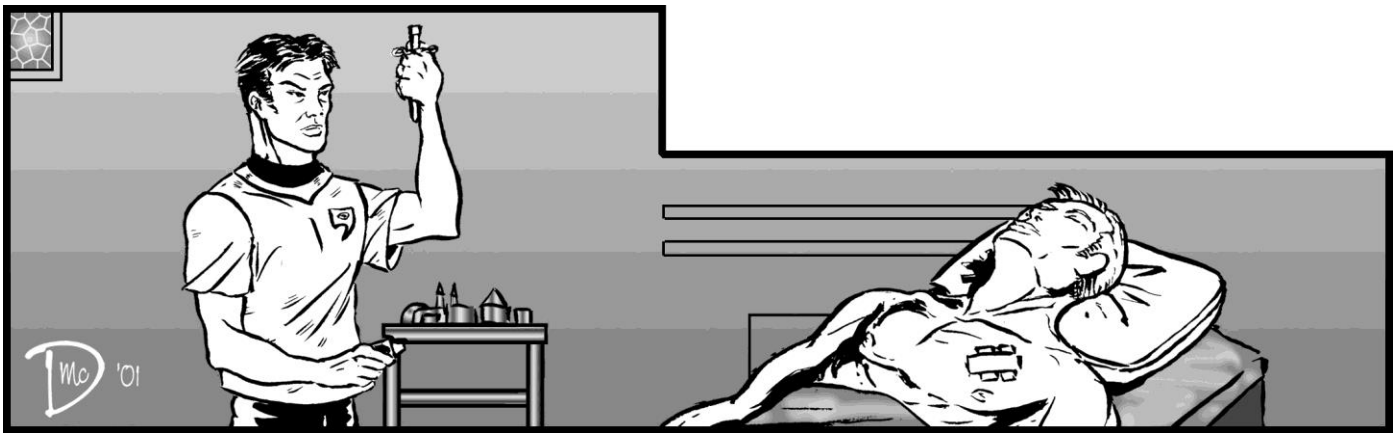
RECOVERING FROM UNCONSCIOUSNESS

Failure by 5 or more on a knockdown roll, a failed HT roll to stay conscious at 0 HP or less, and many other things can leave you unconscious. It is up to the GM to decide whether you are *truly* unconscious or just totally incapacitated by pain and injury – but either way, you can't *do* anything. You recover as follows:

- If you have 1 or more HP remaining, you awaken automatically in 15 minutes.
- At 0 HP or worse, but above -1×HP, make a HT roll to awaken every hour. Once you succeed, you can act normally. You do not have to roll against HT every second to remain conscious unless you receive *new* injury. But since you are below 1/3 your HP, you are at half Move and Dodge.
- At -1×HP or below, you are in bad shape. You get a *single* HT roll to awaken after 12 hours. If you succeed, you regain consciousness and can act as described above. But if you fail, you won't regain consciousness without medical treatment – use the rules given under *Stabilizing a Mortal Wound* (p. 227). Until you receive help, however, you must roll vs. HT every 12 hours; if you fail, you *die.*

NATURAL RECOVERY

Rest lets you recover lost HP, unless the damage is of a type that specifically does not heal naturally (for an example, see *Disease,* p. 233). At the end of each day of rest and decent food, make a HT roll. On a success, you recover 1 HP. The GM may give a penalty if conditions are bad, or a bonus if conditions are very good.



FIRST AID

The two main uses for First Aid skill (p. 163) are *bandaging* and *treating shock.*

Bandaging

It takes one minute to apply pressure or a tourniquet to stop bleeding. This restores 1 HP.

Treating Shock

After bandaging, the aid-giver may take extra time to apply a more elaborate dressing and treat the victim for shock. He must keep the victim warm, comfortable, calm, and still. After the time indicated on the *First Aid Table* below, he may roll against First Aid skill.

On a success, the medic rolls as indicated on the table to see how many HP the victim recovers – minimum 1 HP. A critical success restores the maximum possible HP! This roll *includes* the 1 HP for bandaging; thus, a roll of 1 HP restores no further HP.

On a critical failure, the victim *loses* 2 HP instead of recovering any HP at all!

First Aid Table

Tech Level	Time per Victim	HP Restored
0-1	30 minutes	1d-4
2-3	30 minutes	1d-3
4	30 minutes	1d-2
5	20 minutes	1d-2
6-7	20 minutes	1d-1
8	10 minutes	1d
9+	10 minutes	1d+1

SURGERY

Surgery can physically repair damage to the body, but it's *risky* at low TLs – especially prior to the invention of anesthesia (mid-TL5) and blood typing (TL6). See Surgery skill (p. 180) for general modifiers and for the effects of a failed skill roll. Some additional rules:

Equipment: Basic equipment gives -6 at TL1, -5 at TL2-3, -4 at TL4, -2 at TL5, and +(TL-6) at TL6+. Equipment quality further modifies the roll; see *Equipment Modifiers* (p. 186). The modifiers for TL5+ surgery assume that anesthetic is available. If it isn't, apply a -2 penalty to skill. This is *instead* of the usual -1 for a missing item.

Infection: Before TL5 (and, at the GM's option, even during much of TL5), antiseptic practice is poor. Check for infection (see *Infection,* p. 236) after any surgery.

Stabilizing a Mortal Wound

Each attempt takes one hour. The roll is at -2 if the patient is at -3×HP or worse, or -4 if he's at -4×HP or worse. On a failure, repeated attempts are allowed, at a cumulative -2 per attempt. If the victim dies on the table, resuscitation may be possible; see *Resuscitation* (p. 228).

Repairing Lasting Crippling Injuries

It is possible to fix a lasting crippling injury (see *Duration of Crippling Injuries,* p. 225) through surgery rather than leaving it to heal on its own. This takes 2 hours. On a success, measure the injury's remaining recovery time in *weeks* rather than *months.* But on a critical failure, the injury becomes permanent!

Repairing Permanent Crippling Injuries

Radical surgery can fix certain *permanent* crippling injuries at TL7+; exact details are up to the GM. This often requires prosthetic or transplant parts, which might be costly or hard to find. At TL7-8, the procedure might only restore partial functionality. This kind of operation is also tricky: -3 or worse to skill. On a failure, the patient needs 1d months to recover before another attempt is possible.

MEDICAL CARE

Anyone under the care of a competent physician (Physician skill 12+) gets +1 on all rolls for natural recovery.

The *healer* may also make a Physician roll to cure the patient. Only one physician may roll per patient, but a single physician can care for up to 200 patients. The exact number of patients a physician can attend to and the frequency with which he may roll to cure them depend on the TL of his Physician skill; see the *Medical Help Table,* below. On a success, the patient recovers 1 HP; on a critical success, he recovers 2 HP. This is in addition to natural healing. However, a critical failure *costs* the patient 1 HP!

High-tech physicians depend heavily on equipment but still receive good basic training; therefore, a TL6+ physician performs as though he were TL6 if he has to make do without the gadgetry to which he is accustomed, as long as the surroundings are clean.

Medical Help Table

Medical TL	Frequency of Rolls	Patients per Doctor
0	There are no physicians. Get well by yourself	
1-3	Weekly	10
4	Every 3 days	10
5	Every 2 days	15
6	Daily	20
7	Daily	25
8	Daily	50
9	2 × daily	50
10	3 × daily	50
11	4 × daily	100
12+	5 × daily	200

RESUSCITATION

Reviving a drowning, asphyxiation, or heart attack victim requires *resuscitation.* Make a successful Physician/TL7+ roll – or a First Aid/TL7+ roll at -4. Each attempt takes one minute. Repeated attempts are possible, but there is almost always a time limit.

Cardiopulmonary resuscitation (CPR) and rescue breathing, widely taught after 1960, are more effective than earlier forms of resuscitation. First Aid rolls (but *not* default rolls) to revive victims of drowning or asphyxiation are at -2 instead of -4.

INTERSPECIES MEDICINE

Without exception, all medical skills are specialized by species. With rare exceptions, medical professionals are initially trained to treat members of their own species, and only after gaining proficiency do they receive training for other species. So for all medical skills, it is assumed that the character learns them first for his own species; exceptions to this must be cleared with the GM during character creation and may require an Unusual Background.

Once a character has received initial skill training for his own species, application of his medical skills and/or training for other species is handled by *Improving Skills by Default* (p. 150) – each medical skill per species is considered a separate skill; for example, Surgery (Human) is a different skill than Surgery (Vulcan). In the remainder of this rule section, the skill "Surgery" will be used in examples. It should be clearly understood that these rules apply to *all* medical skills, not just Surgery!

Some species are very similar to each other, while some are very alien. The table on p. 229 classifying species into groups and subgroups was first proposed by Doctor Zorski of New Texas and has been updated as new species have been discovered. In it, Groups are designated by Roman numerals, and subgroups within a group have letters appended after the group number.

Default Modifiers

When attempting a medical skill by default for a different species than your own for the first time, the minuses that are applied to your skill level are as follows:

- within a subgroup: -1. Examples: Human to Deian (both are Group I-a), Romulan to Vulcan (both are Group III-a), or Gorn to Hilidarian (both are group V-b).
- within a Group: -2. Examples: Human to Prellarian (both are Group I but in different subgroups), Dunkar to Klingon (both are Group II), Vulcans to Andorian (both are Group III but in different subgroups), or Ranel to Phelan (both are Group IV but in different subgroups).
- between Groups I, II, III, or IV: -5.
- between Group V and Groups I through IV: -10.
- between Groups I-V and any of Groups VI-IX: -15.
- between any of Groups VI-IX: -15.

Group "X" species are the exception to this rule. Medical skills for these species *cannot* be learned "by default" and may only be learned normally.

Example: A Dunkar doctor with Surgery (Dunkar) 21 attempting to treat a Klingon patient would do so at Surgery (Klingon) 19. Attempting to treat a Pronhoulite patient, he would do so at Surgery (Pronhoulite) 11. That doctor could not treat a Tholian patient with Surgery, as Tholians are Group X; he would first have to learn Surgery (Tholian) as a new skill.

If the patient is of a completely unknown species then the modifier is *doubled.* Note that this doubling is only applied during unusual circumstances, such as the emergency treatment of an enemy casualty during a First Contact event. (This is sometimes referred to as the "What the devil is this on my operating table, Captain?" rule.) A successful roll on an Expert Skill (Xenology) skill would cut the normal penalties in half; round fractions up.

Finally, if the medical skill modifier is greater than the medical skill itself (i.e., the modified skill level is zero or negative) then the doctor does not have sufficient skill to treat the patient.

As stated elsewhere, once you have a learned a skill (even "by default") you are allowed to spend character points in order to improve it, even during character creation. (Be sure to do it; your buddies will love you for it!)

First Aid and Interspecies Medicine

Because First Aid mostly treats obvious injuries and symptoms and is intended to stabilize a patient until a real doctor is available, it is not penalized as severely as surgery or internal medicine would be. Any doctor within Groups I, II, III, and IV could treat any other species within those groups at First Aid-0. This includes such things as stop bleeding, set broken bones, or restore breathing. (Think of it this way, any human Boy Scout could manage to bandage a cut on his own dog to keep it from bleeding to death until they can reach a veterinarian.) Outside of Groups I-IV, the normal medical penalties would apply to First Aid.

Improving the Patient's Odds

With access to a medical library covering the patient's species (or subspace communication with a doctor familiar with the patient's species), a few hours of study, and a success roll against IQ or the relevant medical skill, the penalty can be reduced by 33% to 67%. (The GM will decide the extent of penalty reduction based on the difference in species and available knowledge.)

Hybrids

These are individuals composed of mixed species, for example a half-Human/half-Vulcan. The GM has two options as to how to handle these characters.

Treat the patient (for penalties) as being of the most different type. Thus, a Human-Klingon hybrid would be treated as a different group by a Deian.

The character in question is a hybrid whose composition is uncommon and/or unique. In this case, the medical skill modifier is calculated as follows: calculate the medical skill modifier for each species the patient is composed of, and determine the worst-case modifier. Then double that worst-case modifier and subtract 1; this is the applicable medical skill modifier for that doctor and patient.

Example: A Deian doctor wishes to treat a Human/Klingon patient. The modifier for Deian-Human is -1 (both are subgroup I-a), while the modifier for Deian-Klingon is -5 (one group different). Thus the worst case modifier is -5, which doubled becomes -10, and -1 gives a final medical skill modifier of -11. Therefore, if this doctor had Surgery (Deian) 21, he would default to Surgery (Human/Klingon) 10.

Zorski's Interspecies Compatibility Table

Group I-a (humans): Alpha-Centaurans, Deians, Humans, Rigellians
Subgroup I-ar: Satha'hai‡
Group I-b (near-human): Brecon, Cygnans, Prellarians, Yitlians, Zoolies

Group II (other iron-blooded humanoids): Arcturians, Bargantines, Cromargs, Dunkars, Klingons, Mantorese, Tellarites, Veltressai

Group III-a (copper-blooded): Romulans, Vulcans
Group III-b (copper-blooded): Andorians, Antareans, Fralli, Orions

Group IV-a (felinoid mammals): Carnivons, Kzintis, Lyrans†
Group IV-b (other felinoid mammals): Korlivilar†
Group IV-c (omnivores): Ranel, Slirdarians
Group IV-d (aquatic mammals): Phelan, Rovilians
Group IV-e (flying mammals): none yet known

Group V-a (avians): Paravians
Group V-b (cold-blooded reptiles): Gorns, Gurlunians, Hilidarians, Pronhoulites
Group V-c (warm-blooded reptiles): Skoleans, Vudar

Group VI-a (crustaceans): Vergarians
Group VI-b (insectoids): Seltorians
Group VI-c (invertebrates): Jindarians, Mynieni

Group VII (undifferentiated): none yet known

Group VIII-a (chlorine-breathers): Q'Naabians
Group VIII-b (ammonia-breathers): none yet known
Group VIII-c (fluorine-breathers): none yet known

Group IX-a (methane-breathers): Hydrans
Group IX-b (hydrogen-breathers): none yet known

Group X (uniques): Tholians

Notes

Group I species are all moderately compatible in terms of blood and biochemistry. (Alpha-Centaurans are genetically human.) All members of Subgroup I-b are treated (to each other) as members of the same group, not the same subgroup.

Group II species are dissimilar in biochemistry to Group I species, and/or have significant internal differences including extra or unique internal organs.

Group III species all have copper-based blood.

Group IV species are all mammalian with moderately compatible biochemistries but have significant internal and external differences.

Group V are reptilian; Paravians are in fact descended from the original Gorn species.

Group VI, loosely described as exoskeletal, is a "catch all" group of unrelated species. Every species in that group should be considered a separate group unrelated to other species but still one group for purposes of determining how many groups apart other groups are.

Group VII species do not have individual internal organs or their equivalents, and include plantlike species.

Group VIII species do not breathe oxygen and come from sub-zero climate worlds, while Group IX species come from worlds with cryogenic temperatures.

Group X species are highly unique, so different from any others that they defy classification; essentially, "Group X" is a catch-all equivalent to "none of the above".

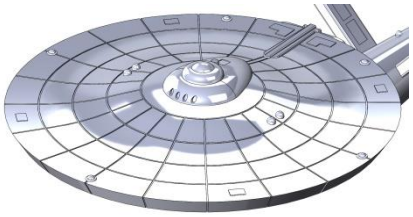
Groups VI through X are simply "general categories" and reflect totally different biologies rather than a range of variations such as Groups I through V. As such, any doctor would treat any species in Groups VI through IX as the maximum difference (-15).

Some of the subgroups listed above are currently empty; they just haven't been discovered (well, published in ***GURPS Prime Directive*** products) . . . yet.

† The original Zorski table listed the Korlivilar in subgroup IV-a and the Carnivons in subgroup IV-b, but this was proven wrong once DNA testing was done. In fact, the "cat" Kzintis and Lyrans, and the "dog" Carnivons, all descended from a common ancestor, while the "cat" Korlivilar (from the opposite end of the Alpha Sector) are only superficially felinoid; their internal structure and blood chemistry are different from the other "cat species."

‡ The Satha'hai are technically Subgroup I-ar with the "r" meaning they require ionizing radiation to live.

Medicine is not an exact science and assuming that an alien who is superficially like some other species is internally similar to that species can be very dangerous.



FATIGUE

Running or swimming long distances, being suffocated, and many other things can cause "fatigue": a temporary loss of Fatigue Points. Your Fatigue Points (FP) score starts out equal to your HT, but you can modify this; see *Fatigue Points* (p. 27). Just as injury represents physical trauma and comes off of HP, fatigue represents lost energy and reduces FP. When you lose FP, keep track of it on your character sheet.

LOST FATIGUE POINTS

The chart below summarizes the effects of being at low or negative FP. All effects are cumulative.

Less than 1/3 your FP left – You are very tired. Halve your Move, Dodge, and ST (round *up*). This does *not* affect ST-based quantities, such as HP and damage.

0 FP or less – You are on the verge of collapse. If you suffer further fatigue, each FP you lose also causes 1 HP of injury. To do anything besides talk or rest, you must make a Will roll; in combat, roll before each maneuver other than Do Nothing. On a success, you can act normally. If you are drowning, you can continue to struggle, but you suffer the usual 1 HP per FP lost. On a failure, you collapse, incapacitated, and can do *nothing* until you recover to positive FP. On a critical failure, make an immediate HT roll. If you fail, you suffer a heart attack; see *Mortal Conditions* (p. 232).

-1×FP – You fall unconscious. While unconscious, you recover lost FP at the same rate as for normal rest. You awaken when you reach positive FP. Your FP can *never* fall below this level. After this stage, any FP cost comes off your HP instead!

FATIGUE COSTS

The following activities commonly result in FP loss.

Fighting a Battle

Any battle that lasts more than 10 seconds will cost FP – you expend energy quickly when you fight for your life! Those who make *no* attack or defense rolls during the fight are exempt from this fatigue, but other actions (e.g., casting magic spells) still have their usual FP cost. At the *end* of the battle, assess a cost of 1 FP *plus* a number of FP equal to the encumbrance modifier.

These costs are *per battle,* not per 10 seconds of battle. A very long battle may cost more (GM's decision), but it would have to run for 2 or 3 minutes (120 to 180 turns!) before extra FP costs would be realistic.

Hiking

Use the FP costs for fighting a battle, but assess them *per hour* of road travel; e.g., one hour of marching with light encumbrance costs 2 FP.

Overexertion

Carrying more than extra-heavy encumbrance, or pushing/pulling a very heavy load, costs 1 FP *per second* (see *Lifting and Moving Things,* p. 191). For FP costs for other forms of heavy exertion, see *Extra Effort* (p. 194)

Running or Swimming

Every 15 seconds of sprinting, or minute of paced running or swimming, requires a HT roll to avoid losing 1 FP. Encumbrance has no direct effect on this, but you run or swim more slowly. See *Running* (p. 192) and *Swimming* (p. 192).

STARVATION AND DEHYDRATION

When you buy equipment, don't forget food!

Starvation

A human needs three meals per day. For each meal you miss, take 1 FP. You can only recover "starvation" fatigue with a day of rest: no fighting or travel, and three full meals. Each day of rest makes up for three skipped meals.

Dehydration

A human needs 2 quarts of water a day – 3 in hot climates, 5 in the heat of the desert! If you get less than you need, you lose 1 FP every eight hours. If you drink less than a quart a day, you lose an *extra* 1 FP and 1 HP per day. You can regain all FP lost to dehydration after a day of rest with ample water supplies. You recover lost HP at the usual rate.

MISSED SLEEP

The *average* human can function for a 16-hour "day." He must then rest for an eight-hour "sleep period." Less Sleep (p. 95) shortens this sleep period, thereby increasing useful day length; Extra Sleep (p. 128) and Sleepy (p. 138) do the opposite. Getting less sleep than your sleep period costs FP that you can only recover by sleeping.

Interruptions, noise, and disadvantages such as Chronic Pain‡, Insomniac‡, Light Sleeper (p. 132), and Nightmares‡ can reduce the *quality* of your sleep. In game terms, your sleep counts as fewer hours – or none at all.

Those who have the Doesn't Sleep advantage (p. 88) can *ignore* this entire section!

Staying up Late

If you've been awake for more than your normal day (typically 16 hours), you start to get tired. You lose 1 FP if you fail to go to sleep, and 1 FP per quarter-day (usually four hours) you stay awake after *that.*

If you've lost half or more of your FP to lack of sleep, you must make a Will roll every two hours you spend inactive (e.g., standing watch). On a failure, you fall asleep, sleeping until you are awakened or get a full night's sleep. On a success, you have -2 to DX, IQ, and self-control rolls.

If you're down to less than 1/3 your FP due to lack of sleep, roll as above once per 30 minutes of inaction or two hours of action. This can be very dangerous!

Getting Up Early

If you sleep for less than your full sleep period, you'll still be tired when you wake up. Subtract *twice* the hours of missed sleep from your day to determine how long you can stay awake.

RECOVERING FROM FATIGUE

You can recover "ordinary" lost FP by resting quietly. Reading, talking, and thinking are all right; walking around, or anything more strenuous, is *not*. Lost FP return at the rate of 1 FP per 10 minutes of rest. The GM may allow you to regain one extra FP if you eat a decent meal *while resting.* Certain drugs can restore missing FP.

You can only recover from fatigue caused by *missed sleep* by sleeping for at least one full sleep period. This restores 1 FP. Further uninterrupted sleep restores 1 FP per hour.

You need food or water to recover FP lost to starvation or dehydration; see p. 230.

HAZARDS

Besides the ordinary combat risks of swords, guns, and spells, adventurers commonly face other hazards.

AFFLICTIONS

An "affliction" is a harmful effect other than direct injury or fatigue, usually the result of an attack, hazard, illness, magic spell, or toxin. In most cases, the victim gets a HT roll to resist, and only suffers the affliction on a failure. Duration depends on the cause; see the relevant disease, hazard, poison, or weapon description for details.

Irritating Conditions

Coughing or Sneezing: You are at -3 to DX and -1 to IQ, and cannot use Stealth.

Drowsy: You are on the verge of falling asleep. Make a Will roll every two hours you spend inactive. On a failure, you fall asleep, and sleep until you are awakened or get a full night's sleep. On a success, you have -2 to DX, IQ, and self-control rolls.

Drunk: You are highly intoxicated: -2 to DX and IQ, and -4 to self-control rolls except those to resist Cowardice. Reduce Shyness by *two* levels, if you have it.

Euphoria: You have a -3 penalty to all DX, IQ, skill, and self-control rolls.

Nauseated: You have -2 to all attribute and skill rolls, and -1 to active defenses. As well, roll vs. HT after you eat, are exposed to a foul odor, fail a Fright Check, or are stunned, and every hour in free fall or in any situation where you might suffer motion sickness. A rich meal in the past hour gives -2; anti-nausea remedies give +2. On a failure, you vomit for (25 - HT) seconds – treat as Retching, p. 232.

Pain: You have a penalty to all DX, IQ, skill, and self-control rolls. This is -2 for Moderate Pain, -4 for Severe Pain, and -6 for Terrible Pain. High Pain Threshold halves these penalties; Low Pain Threshold doubles them.

Tipsy: You are slightly intoxicated: -1 to DX and IQ, and -2 to self-control rolls except those to resist Cowardice. Reduce Shyness by one level, if you have it.

Incapacitating Conditions

All of these afflictions prevent you from taking voluntary action for the duration. In addition to their other effects, you're effectively stunned (-4 to active defenses). In combat, you must Do Nothing on your turn. If an affliction lets you *drop,* you can sit, kneel, go prone, etc. if standing, or go prone if kneeling or sitting. If it lets you *stagger,* you can drop, change facing, or step or crawl one yard. In all cases, you are still effectively stunned.

Agony: You are conscious but in such terrible pain that you can do *nothing* but moan or scream. If standing or sitting, you fall down. While the affliction endures, you lose 1 FP per minute or fraction thereof. After you recover, anyone who can credibly threaten you with a resumption of the pain gets +3 to Interrogation and Intimidation skill rolls. Low Pain Threshold *doubles* the FP loss and torture bonus. High Pain Threshold lets you overcome the agony enough to function, but at -3 to DX and IQ.

Choking: You are unable to breathe or speak. You may do nothing but drop. While the choking endures, you suffer the effects of suffocation (see *Suffocation,* p. 239). If you have an object lodged in your throat, a friend can try a First Aid roll to clear it; roll at -2 before TL7. Each attempt takes 2 seconds. If you have Doesn't Breathe or Injury Tolerance (Homogenous), you cannot choke!

Daze: You are conscious – if you are standing, you remain upright – but you can do nothing. If you are struck, slapped, or shaken, you recover on your next turn.

Ecstasy: You're incapacitated with overwhelming pleasure. Treat as Agony, but neither Low Pain Threshold nor High Pain Threshold has any effect – and instead of a bonus for torture, someone offering to *continue* the pleasure gets +3 to any Influence roll! If you have Killjoy‡, you're immune.

Hallucinating: You can *try* to act, but you must roll vs. Will before each success roll. On a success, you merely suffer 2d seconds of disorientation. This gives -2 on success rolls. On a failure, you actually hallucinate for 1d minutes. In this case, the penalty is -*5.* The GM is free to specify the details of your hallucinations, which need not be visual. On a critical failure, you "freak out" for 3d minutes. You might do *anything!* The GM rolls 3d: the higher the roll, the more dangerous your action.

Paralysis: You cannot move any voluntary muscles, and fall over if you are not in a balanced position.

You remain conscious, and can still use advantages or spells that require neither speech nor movement.

Retching: You are conscious but vomiting (or suffering dry heaves). You can *try* to act, but you will be at -5 to DX, IQ, and Per, and automatically fail at any action that requires a Concentrate maneuver. At the end of the retching spell, you lose 1 FP. You gain no benefit from recent meals or oral medication – you've thrown it up.

Seizure: You suffer a fit of some kind. Your limbs tremble uncontrollably, you fall down if standing, and you cannot speak or think clearly. You can do *nothing.* At the end of the seizure, you lose 1d FP.

Unconsciousness: You are knocked out, just as if you had suffered injury.

Mortal Conditions

Coma: You collapse just as if you had been wounded to -1×HP or below and passed out; see *Recovering from Unconsciousness* (p. 226). You get a *single* HT roll to awaken after 12 hours. On a failure, you won't recover without medical treatment. Until you receive treatment, roll vs. HT every 12 hours. On any failure, you *die.*

Heart Attack: Your heart stops functioning ("cardiac arrest"). You immediately drop to -1×FP. Regardless of your current HP, you will die in HT/3 minutes unless resuscitated – see *Resuscitation* (p. 228). If you survive, you will be at 0 HP or your current HP, whichever is *worse.* Missing HP heal normally. If you die and it matters what your HP total was, treat this as death at -1×HP or your current HP, whichever is worse. Injury Tolerance (Diffuse, Homogenous, or No Vitals) grants immunity to this affliction.

ATMOSPHERIC PRESSURE

Regardless of its *composition,* an atmosphere may be difficult or impossible to breathe if its *pressure* is wrong. We measure air pressure in "atmospheres" (atm.); 1 atm. is air pressure at sea level on Earth.

Trace (up to 0.01 atm.): Treat an atmosphere this thin as vacuum (see *Vacuum,* p. 240).

Very Thin (up to 0.5 atm.): The air is too thin to breathe. Earth's atmosphere becomes "very thin" above 20,000'. If you lack protection (e.g., the Doesn't Breathe advantage, or a respirator and oxygen tanks), you suffocate – see *Suffocation* (p. 239). Vision rolls are at -2 without eye protection.

Thin (0.51-0.8 atm.): Earth's atmosphere is "thin" between 6,000' and 20,000'. Thin air is breathable *if* oxygen is present in Earthlike percentages, but it is hard on unprotected individuals. Increase all fatigue costs for exertion by 1 FP. Vision rolls are at -1 without eye protection. Finally, anyone who breathes thin air for an hour or more must check for "altitude sickness." Make a daily HT roll at +4. Critical success means acclimatization – do not roll again. Success means no effect *today.* Failure means headaches, nausea, etc., giving -2 to DX and IQ. Critical failure means the victim falls into a coma after 1d hours; see *Mortal Conditions* (above). Roll against Physician skill once per day to revive the victim before he dies.

Dense (1.21-1.5 atm.): The air is breathable, with some discomfort: -1 to all HT rolls, unless you have a pressure suit. If the air contains more than 50% oxygen, you must wear a "reducing respirator" that lowers oxygen partial pressure, or suffer -2 to DX due to coughing and lung damage.

Very Dense (1.51+ atm.): As "dense," but a reducing respirator is *required* if the air is more than 10% oxygen. Usually quite hot from greenhouse effects.

Superdense (10+ atm.): As "very dense," but the atmospheric pressure is so great that it can actually *crush* someone who is not native to it, unless he has Pressure Support or an armored suit that provides this advantage; see *Pressure* (p. 237). Visitors to Venus, or deep inside Jupiter, experience *hundreds* of atmospheres of pressure! Such atmospheres are often poisonous, which presents a separate problem.

These rules assume you are native to 1 atm. and can function normally at 0.81-1.2 atm. If your native pressure differs from 1 atm., multiply all the pressure ranges above by your native pressure in atm. For example, if you're native to 0.5 atm., a "dense" atmosphere for you would be 0.61-0.75 atm. and a "thin" one would be 0.26-0.4 atm.

COLD

Cold can be deadly. Armor must be insulated or heated to shield against prolonged exposure to ambient cold.

Make a HT roll every 30 minutes in "normal" freezing weather. For most humans, this means temperatures below 35°F. In light wind (10+ mph), roll every 15 minutes. In strong wind (30+ mph), roll every 10 minutes. Additionally, strong wind can dramatically reduce the effective temperature (the "wind chill factor"). Also see the modifiers below:

Situation	***Modifier to HT Roll***
Light or no clothing	-5
Ordinary winter clothing	+0
"Arctic" clothing	+5
Heated suit	+10
Wet clothes	*additional* -5
Every 10° below 0°F *effective* temperature	-1

Failure costs 1 FP. As usual, once you go below 0 FP, you will start to lose 1 HP per FP. Recovery of FP or HP lost to cold requires adequate shelter and a heat source (flame, electric heat, body warmth, etc.).

COLLISIONS AND FALLS

An object or person's *Hit Points* and *velocity* determine collision damage. "Velocity" is how fast the character or object is moving in yards per second (2 mph = 1 yard per second).

An object in a collision inflicts dice of crushing damage equal to (HP × velocity)/100. If this is less than 1d, treat it as 1d-2.

If a moving object hits a stationary object that is too big to push aside – like the ground, a mountain, or an iceberg – it inflicts its usual collision damage on that object and on *itself.* If the obstacle is breakable, the moving object cannot inflict or take more damage than the obstacle's HP + DR.

Falling

A fall is a collision with an immovable object: the ground. Find your velocity (in yards per second) when you hit using the following table:

Falling Velocity Table

Fall	*Velocity*	*Fall*	*Velocity*
1 yard	5	20 yards	21
2 yards	7	30 yards	26
3 yards	8	40 yards	30
4 yards	9	50 yards	33
5 yards	10	75 yards	40
10 yards	15	100 yards	47
15 yards	18	1,000 yards	146

Alternatively, calculate velocity in yards per second as the square root of (21.4 × g × distance fallen in yards), where g is the local gravity in Gs (g = 1 on Earth). Round to the nearest whole number.

Controlled Falls: If you are free to move, you can use Acrobatics skill to land properly. On a success, reduce falling distance by five yards when calculating velocity. If falling into water, you can do this *or* attempt a proper dive (see above) – decide which first!

Terminal Velocity: "Terminal velocity" is the maximum speed a falling object can achieve before air resistance negates further acceleration under gravity. Air resistance is relatively negligible for distances shown on the table, but increases drastically for longer falls.

Terminal velocity varies greatly by object. For human-shaped objects on Earth, it is 60-100 yards/second. Use the low end for a spread-eagled fall, the high end for a swan dive. For dense objects (e.g., rocks) or streamlined objects, it can be 200 yards/second or more!

The terminal velocity rules assume Earth-normal gravity (1G) and atmospheric pressure (1 atm.). Multiply terminal velocity by the square root of gravity in Gs. Then divide it by the square root of pressure in atm. Thus, gravity under 1G, or pressure above 1 atm., reduces terminal velocity; gravity over 1G, or pressure below 1 atm., increases it. Note that terminal velocity is *unlimited* in a vacuum!

Damage from Falling Objects

If an object falls *on* someone, find its velocity on the table above and calculate damage as for an ordinary collision.

A falling object with a Size Modifier equal to or greater than that of whoever it lands on impedes the victim's movement. He may move only one yard on his next turn, and his active defenses are -3. These penalties result from *bulk,* not mass, so ST is irrelevant.

DISEASE

Maladies and strange diseases may affect adventurers in far-off lands . . . or even at home. The search for a cure – whether for the Princess' wasting disease, an alien plague, or a terrorist's bioweapon – is a wonderful plot device. Technological items, the Resistant advantage (p. 101), and high HT can all protect you from disease. However, if you catch something, you won't know until the symptoms start to show . . . *the GM* makes your roll to avoid it!

Defining a Disease

The important things to know about a given disease are:

Vector: How the disease spreads. Diseases are generally blood, contact, digestive, or respiratory agents. These terms mean just what they do for poisons; see *Delivery* (p. 237).

Resistance Roll: The HT roll to avoid the disease. Most diseases allow a roll at HT to HT-6. On a success, the victim does not contract the disease. On a failure, he does, but he gets further rolls – once per "cycle" – to throw off the disease.

Delay: This is the incubation period – the time between initial exposure to the disease and the appearance of the first symptoms in those who fail to resist. This is 24 hours for a "generic" disease, but can vary considerably for real-life diseases.

Damage: The disease's effects in game terms. This is typically 1 point of toxic damage, but it might be higher – up to 1d – for virulent diseases. DR does not protect against disease! Symptoms (fever, sneezing, coughing, spots, rash, etc.) appear after the subject starts to suffer injury. Injury from disease will *not* heal naturally until the victim makes his HT roll to recover!

Cycles: A disease damages its victim at regular intervals until he makes a HT roll *or* a maximum number of cycles passes. The "default" interval between HT rolls is one day. The number of cycles varies with the deadliness of the disease; for instance, a potentially fatal disease might only inflict 1 HP per cycle but endure for 20-30 cycles.

Symptoms: A disease can cause attribute penalties, temporary disadvantages, etc. after the victim loses a specified fraction (typically 1/3, 1/2, 2/3, or all) of his HP to it.

Contagion: Some diseases are mildly or highly contagious – although sometimes not until after the incubation period.

The combination of resistance roll, damage, and cycles determines "deadliness." By carefully selecting these statistics, the GM can distinguish between a virulent but mild flu that ends in a day or two (24-hour delay, HT-2, 1 point of toxic damage, 12-hour interval,

six cycles) and a slower but usually fatal disease (72-hour delay, HT-5, 1 point of toxic damage, daily interval, 30 cycles).

Diagnosis

Once the symptoms of a disease become apparent, identify it with a roll against Diagnosis or Expert Skill (Epidemiology) – or Veterinary, for an animal illness. This cannot identify a totally new illness, but a good roll might give enough information to allow treatment.

Treatment

Appropriate remedies – herbs, drugs, etc. – can provide a bonus to the cyclic HT rolls to shake off certain diseases. At TL6+, antibiotics (e.g., penicillin) give +3 to recover from most bacterial diseases. At *any* TL, a physician's care provides the same bonuses to recover from disease that it gives to recover from injuries (see *Medical Care,* p. 227).

Immunity and Susceptibility

Differential Susceptibility: Members of a given ethnicity, sex, or species may be more or less susceptible to a particular disease. For instance, the GM might decide that Klingons are *immune* to the Purple Shakes, and that Cygnans get +2 on their HT rolls against it . . . but that the mortality rate among male Cromargs is 100% unless they are treated within two days. A successful Diagnosis or Physician roll reveals differential susceptibility, if applicable.

Natural Immunity: Some individuals are simply immune to a specific disease. If the GM rolls a 3 or 4 for your *first* attempt to resist a disease, you are immune! He should note this fact and not tell you – under normal circumstances, you have no real way of knowing about your immunity.

Acquired Immunity: Anyone who survives a given disease may be immune in the future. This depends on the illness. You only catch measles once, for instance – but mumps can come back over and over.

Vaccination: Vaccination won't cure disease, but it provides almost certain immunity. At TL5, vaccines exist for a few diseases – notably smallpox – but aren't widespread. At TL6+, new vaccines appear constantly, and most can be stored for long periods of time, like other medicines. Developing a new vaccine is difficult and time-consuming. At TL10+, exotic treatments can give individuals or entire societies the Resistant to Disease advantage.

DRINKING AND INTOXICATION

If you drink too much alcohol in a short period of time, you may become intoxicated. Keep track of how many "drinks" you consume each hour. For simplicity, one drink is a full mug or can of beer (12 oz.), a full glass of wine (4-5 oz.), or a shot of spirits (1.5 oz.).

At the end of any hour during which you consume more than ST/4 drinks, roll against the *higher* of HT or Carousing. If you continue to drink, continue to roll once per hour.

Modifiers: -1 per drink over ST/4 that hour; -2 on an empty stomach, or +1 if you have recently eaten; +2 for the Alcohol Tolerance perk (p. 108), or -2 for the Alcohol Intolerance quirk‡.

Each failure shifts you one level from *sober* to *tipsy* to *drunk* to *unconscious* (drunken stupor) to *coma;* see *Afflictions* (p. 231) for details. A critical failure drops you *two* levels: sober to drunk, tipsy to unconscious, or drunk to coma. If penalties reduce your roll to 2 or less, critical failure means you drop *three* levels! Remember that any roll 10 or more above effective skill is a critical failure; e.g., a roll of 11+ against a modified HT of 1.

Pink Elephants: If you are drunk, make one additional HT+4 roll. On a failure, you are also hallucinating (see *Incapacitating Conditions,* p. 231).

The Heaves: If you are drunk and keep drinking, your body will try to purge itself of the alcohol (which *is* a toxin, after all!). When a failed HT roll indicates that you would fall unconscious or into a coma, make a second, unmodified HT roll. On a success, you vomit up the alcohol instead of passing out; treat this as *retching* (p. 232). On a critical failure, however, you pass out and *then* retch; treat this as *choking* (p. 231).

Sobering Up: To sober up, you must first stop drinking. After *half* as many hours as the total number of drinks you consumed, roll vs. HT. Various remedies may give a bonus. On a success, you move one step toward sober. Continue to roll each time this many hours pass until you are sober. *Exception:* To recover from a coma, you need medical help!

Hangovers: If you are tipsy or worse, you must roll vs. HT when you stop drinking, at -2 if you're drunk or -4 if you're unconscious. On a failure, you will suffer a hangover. This kicks in 1d hours after the end of the drinking session – or on awakening, if you pass out or fall asleep before this time – and lasts hours equal to your margin of failure. During this time, you will suffer from moderate pain (see *Irritating Conditions,* p. 231) and acquire Low Pain Threshold (or lose High Pain Threshold, if you have it). The GM may decide that preventative treatment (including drinking plenty of water and possibly taking a mild analgesic) gives you a bonus to this roll.

ELECTRICITY

If an uninsulated person is exposed to electricity, he may receive a shock. The effects of electric shock are *highly* variable, ranging from momentary stunning to instant death! This section helps the GM assess these effects if a character receives a shock during an adventure. If a specific attack or scenario gives different rules, they override the guidelines below.

All electrical damage falls into one of two classes: *nonlethal* or *lethal.* Against either, metallic armor (e.g., plate armor) provides only DR 1 – and if the wearer is grounded, he actually *attracts* electrical attacks, giving the attacker +2 to hit.

Nonlethal Electrical Damage

High-voltage, low-power shocks are unlikely to kill, but can stun the victim or even render him unconscious. This is called "nonlethal electrical damage." Examples include electric stun weapons, realistic electric fences, and static shocks on a cool, dry day. The GM should require an immediate HT roll whenever someone is zapped.

Modifiers: From +2 for a short circuit in a battery-powered gadget down to -3 or -4 for a specially designed stun weapon. Nonmetallic armor gives a bonus equal to its DR – but *surface* shocks (e.g., from a cattle prod) tend to flow over armor rather than through it, and have an armor divisor of (0.5), while energy weapons designed to arc through armor have an armor divisor of (2) or even (5).

On a failure, the victim is stunned. An instantaneous jolt (static electricity, electrolaser, etc.) stuns for one second, after which time the victim may roll vs. HT once per second to recover. A continuous shock (stun gun, electric fence, etc.) stuns for as long as the victim is in contact with the source, and for (20 - HT) seconds after that, with a minimum of 1 second. After this time, the victim may roll vs. HT each second to recover. The basic HT modifier for the strength of the shock (but *not* for DR) applies to all recovery rolls.

Electromuscular Disruption (EMD): Some ultra-tech weapons deliver a more powerful current that induces convulsions. The HT roll is at -5, and if the victim fails, he is knocked down and paralyzed instead of merely stunned. Otherwise, the effects are as above.

Lethal Electrical Damage

High-power shocks cook flesh and inflict real damage; they can even stop the victim's heart! This is called "lethal electrical damage." Examples include power mains and lightning.

Lethal electric shocks inflict *burning* damage: only 1d-3 to 3d around the house, but 6d on up for lightning, transmission lines, etc. A victim who suffers *any* injury must make a HT roll at -1 per 2 points of injury suffered. On a failure, he falls unconscious for as long as the current is applied, and for (20 - HT) minutes afterward, with a minimum of 1 minute. He will be at -2 DX for *another* (20 - HT) minutes when he recovers. Failure by 5 or more, or any critical failure, results in a heart attack; see *Mortal Conditions* (p. 232).

Localized Injury: Attacks that don't affect the target's entire body – including most magical electricity attacks – cause pain and burns, but not unconsciousness or cardiac arrest. Treat this as normal burning damage, except that the victim must make a HT roll at -1 per 2 points of injury suffered. On a failure, he is stunned for one second, after which time he may roll vs. HT once per second to recover. If the injury is to the arm or hand, he must also make a Will roll or drop anything carried in that hand.

FLAME

If you spend *part* of a turn in a fire (e.g., running through the flames), you take 1d-3 burning damage. If you spend *all* of a turn in a fire of ordinary intensity – or if you are on fire – you take 1d-1 damage per second. Very intense fires inflict more damage; for instance, molten metal or a furnace would inflict 3d per second!

Continued exposure to a fire can result in intense heat that can rapidly fatigue you even if the flames themselves cannot penetrate your DR. See *Heat* (p. 236).

Catching Fire

A *single* hit that inflicts at least 3 points of basic burning damage ignites *part* of the victim's clothing. This does 1d-4 burning damage per second and is distracting (-2 to DX, unless the damage simply cannot harm the target). To put out the fire, the victim must beat it with his hands. This requires a DX roll, and each attempt takes a Ready maneuver.

A *single* hit that inflicts 10 or more points of basic burning damage ignites *all* of the victim's clothes. This does 1d-1 burning damage per second and is *very* distracting (-3 to DX, except when rolling to put out the fire). To put out the fire, the victim must roll on the ground. This requires a DX roll, and each attempt takes *three* Ready maneuvers. Jumping into water takes only one second, and automatically extinguishes the fire. In all cases, remember to apply shock penalties to DX if the flame inflicts injury!

GRAVITY AND ACCELERATION

A change in gravity can be harmful. These rules describe *health* effects; see *Different Gravity* (p. 196) for the effects of gravity on common tasks.

Space Adaptation Syndrome ("Space Sickness")

Those who are not native to micro- or zero gravity ("free fall") may become nauseated and disoriented by the constant falling sensation. Roll against the *higher* of HT or Free Fall when you first enter free fall. The Space Sickness disadvantage (p. 139) gives -4.

On a success, you are unaffected. On a failure, you are nauseated (see *Afflictions,* p. 231), which may trigger vomiting. If you begin to retch while wearing a vacc suit, you may choke; treat this as drowning (see *Swimming,* p. 192). Roll against the *better* of HT or Free Fall every 8 hours to recover. If you suffer from Space Sickness, you *cannot* adapt!

High Acceleration

Make a HT roll whenever you experience a *sudden* acceleration ("G-force") of at least 2.5 times your home gravity. Treat a home gravity under 0.1G as 0.1G for this purpose.

Modifiers: -2 per doubling of acceleration (-2 at 5× home gravity, -4 at 10×, and so on); +2 if seated or lying prone, or -2 if upside down.

On a failure, you lose FP equal to your margin of failure. On a critical failure, you also black out for 10 seconds times your margin of failure.

A sudden acceleration may throw you against a solid object. If this happens, treat it as a collision with that object at a velocity equal to 10 × G-force of the acceleration.

HAZARDOUS ATMOSPHERES

Earth's atmosphere is 78% nitrogen and 21% oxygen (plus 1% comprising a number of other gases). Visitors to other planets (and victims of lab accidents or death traps) might encounter other atmospheres, most of which are unsafe for humans without proper protection. Of course, "breathable air" for humans might be deadly for nonhumans, and vice versa!

Corrosive: The atmosphere reacts with exposed flesh. Those with the Sealed advantage are safe; those in sealed suits *might* be safe, but some gases eat away at seals. Small concentrations in otherwise breathable air require a roll at HT to HT-4 every minute to avoid 1 point of corrosion damage. Victims suffer coughing (see *Afflictions,* p. 231) after losing 1/3 their HP, blindness (as the disadvantage) after losing 2/3 their HP. Atmospheres made up mostly of corrosive gases have effects comparable to immersion in acid *and* count as suffocating. Corrosives include ammonia and nitrides. Chlorine and fluorine are *extremely* corrosive *and* toxic!

Toxic: The atmosphere is poisonous. Individuals without respirators, Doesn't Breathe, Filter Lungs, etc. are susceptible. Ordinary airborne industrial pollutants might require a daily HT roll to avoid 1 point of toxic damage. Lethal gases would call for a HT-2 to HT-6 roll every minute to avoid 1 point of toxic damage. If such gases make up most of the atmosphere, they inflict *at least* 1d toxic damage per 15 seconds (*no* resistance possible) *and* count as suffocating. A typical toxic gas is carbon monoxide. Chlorine and fluorine are deadly in tiny concentrations, and also corrosive.

Suffocating: The atmosphere is unbreathable. For humans, this means it lacks oxygen. Those without Doesn't Breathe or an air supply start to suffocate (see *Suffocation,* p. 239). Hydrogen, methane, and nitrogen are all suffocating. As noted above, an atmosphere made up mostly of corrosive or toxic gases is suffocating as well – but these usually kill so rapidly that suffocation becomes irrelevant.

HEAT

In ordinary hot weather, you will experience no ill effects if you stay in the shade and don't move around much. But if you are *active* in temperatures in the top 10° of your comfort zone or above – over 80°F, for humans without Temperature Tolerance (p. 106) – make a HT or HT-based Survival (Desert) roll, whichever is better, every 30 minutes.

Modifiers: A penalty equal to your encumbrance level (-1 for Light, -2 for Medium, and so on); -1 per extra 10° heat.

Failure costs 1 FP. On a critical failure, you suffer heat stroke: lose *1d* FP. As usual, if you go below 0 FP, you start to lose 1 HP per FP. You cannot recover FP or HP lost to heat until you move into cooler surroundings.

In addition, at temperatures up to 30° over your comfort zone (91-120° for humans), you lose an extra 1 FP whenever you lose FP to exertion or dehydration. At temperatures up to 60° over your comfort zone (121-150° for humans), this becomes an extra *2* FP.

Intense Heat: Human skin starts to *burn* at 160°; see *Flame* (p. 235) for damage. Even if no damage penetrates your DR, you will rapidly overheat if the ambient temperature is more than 6 × your comfort zone's width over your comfort zone (e.g., in a fire). After 3 × DR seconds, make a HT roll every second. On a failure, you lose 1 FP. Your DR provides its usual protection against burning damage, but it has no effect on this FP loss.

Sunburn: After a day of full sun on unprotected skin, an albino will be near death and a light-skinned Caucasian will be very uncomfortable (1d-3 damage). Darker-skinned individuals may itch, but aren't in much danger. Details are up to the GM.

Armor: Armor prevents sunburn and provides its full DR against burning damage – but only armor that provides Temperature Tolerance (through insulation or a cooling system) can prevent FP loss due to heat. This feature is standard on battlesuits and TL9+ combat armor.

INFECTION

A microorganism that attacks open wounds may cause an "infection." Infections are possible anywhere, but some places (especially jungles) may harbor especially severe forms of infection.

Open wounds treated with antibiotics (TL6+) never become infected except on a critically failed First Aid or Physician roll. People wounded under less-than-clean circumstances (GM's decision) *and* who do not receive treatment must make a HT+3 roll, modified as follows:

Ordinary "clean" dirt in wound: *+0.*
Dung or other infected matter in wound: *-2.*
Locale harbors a special infection: *-3.*

These modifiers are *cumulative*.

On a failure, the wound is infected. Treat this as any other disease. A typical infection requires a daily HT roll, modified as above, with failure indicating the loss of 1 HP. Most infections progress until the victim either makes a HT roll, ending the infection, or takes so much injury that he dies.

Treatment with antibiotics (TL6+) gives +3 to HT rolls. This usually halts the infection before serious injury can occur.

If drugs are unavailable, or if the patient doesn't respond, a surgeon can cut out the infected tissue if the injury from infection hasn't progressed beyond a certain point. On the head or torso, this limit is the pa-

tient's HP/2. On a limb or extremity, it is the amount of injury required to cripple the body part. Surgery cannot help infections more severe than this.

The surgeon must make a Surgery roll. This inflicts 2d of injury to the head or torso, or amputates a limb or extremity. On a success, it cures the infection. On a failure, damage or amputation occurs but the patient remains infected.

POISON

Poison can show up on weapons; on darts, needles, or spikes in traps; in food or drink offered by a treacherous foe; and anywhere else you did not expect it. The important things to know about a given poison follow.

Delivery

A given poison might reach its victim in any of several ways:

Blood Agent: The poison must reach a mucous membrane (eyes, open mouth, nose, etc.) or an open wound. If it is sprayed or spat, it must actually strike one of these vulnerable areas (so a spitting cobra must target the face). If it is delivered as a gas or wide-area spray, only those with the Sealed advantage (p. 102) – or with one of Doesn't Breathe (p. 88) or Filter Lungs (p. 91) *and* one of Nictitating Membrane (p. 97) or Protected Vision‡ – are immune. These advantages might be natural or provided by equipment.

Contact Agent: The poison must be inhaled or touch skin to take effect. If it is used to poison a melee weapon, the weapon must hit an unarmored and unclad hit location for the poison to affect the target. If it is delivered as a gas or wide-area spray, it affects everyone in the area who lacks the Sealed advantage (whether natural or provided by a suit, vehicle, etc.).

Digestive Agent: The victim must swallow the poison. This is typical of poisonous plants and toxic substances such as arsenic. If the poison has a slight but distinctive taste (e.g., cyanide), the GM can allow the victim a Taste roll or Perception-based Poisons roll – at a basic -2, but +2 per doubling of dosage – to notice it in time. Poisons that are easier to detect give a bonus; those that are harder to detect, or whose taste is masked by suitable food or drink, give a penalty. To force someone to swallow a poison rather than spit it out, you must grapple him by the head or neck and maintain your hold for 10 seconds.

Follow-Up Poison: The poison must be placed on a piercing or impaling weapon, or injected using a hollow projectile, hypodermic needle, etc. If the weapon penetrates DR and does *any* damage, it delivers the poison. Most "follow-up" poisons are simply blood or contact agents injected into the body.

Respiratory Agent: The poison is a gas that only affects those who inhale it into their lungs. Delivery is usually via an area or cone attack (e.g., gas grenade, spray gun, or dragon's breath), but an *entire atmosphere* could be poisonous! Only Doesn't Breathe and Filter Lungs protect completely against respiratory agents – but a victim who makes a Sense roll to notice the poison in time may hold his breath (see *Holding Your Breath,* p. 190). Unconscious or stunned victims inhale automatically. An improvised mask, such as a wet towel over the face, gives +1 to HT to resist.

Sense-Based Agent: The poison affects the victim through a specific sense. It has no effect on those who lack that sense or have appropriate protection. A smell-based agent is usually a foul stench that induces nausea; suitable protection is nose plugs, a respirator, or the Protected Sense (Smell)‡ advantage. A vision-based agent is generally a cloud of gas that irritates the eyes; appropriate protection is a gas mask, goggles, or the Protected Sense (Vision)‡ advantage. See *Sense-Based* (p. 114).

Delay

Most poisons require a few seconds to several hours to take effect. This is nearly *always* true for digestive agents.

Resistance Roll

Some poisons give the victim a HT roll to resist. Make this roll after the delay, if any, has passed. There is often a modifier: a mild poison might call for a HT+2 roll, while one that is almost impossible to resist might require a HT-8 roll! HT to HT-4 is typical. DR never affects this roll.

If you're in a poisonous *environment* (like a gas cloud or toxic atmosphere) and make your initial HT roll, you must roll again once per second until the poison affects you or you leave the area. If the poison has a delay, roll after each delay period instead.

Some poisons are specific to certain species and do not affect others. Others are easier or harder for particular species to resist. These effects are up to the GM.

Effects of Poison

The most common effect of poison is *toxic* or *fatigue* damage. Mild poisons might only inflict 1 HP or FP; more severe poisons might inflict 1d or more. DR has no effect on this damage. These HP and FP losses heal normally.

Some poisons cause effects other than injury or fatigue, including attribute penalties, irritating or incapacitating conditions (see *Afflictions,* p. 231), temporary disadvantages, or even the removal of existing advantages (e.g. a poison that disorients the victim, removing Absolute Direction.) The victim usually gets a resistance roll against these effects, and the effects always have a specific duration. The default duration is a number of minutes equal to the margin of failure on the resistance roll. In a poisonous *environment,* a failed resistance roll means the effects last for as long as you're in the environment *plus* the duration.

PRESSURE

Adventurers are most likely to encounter extreme pressure in super-dense atmospheres (see *Atmospheric Pressure,* p. 232) or deep underwater (where pressure increases by about 1 atmosphere per 33' of depth). Pressures in excess of your native pressure –

1 atm., for a human – are not always immediately lethal, but present serious risks.

Over 2 × native pressure: You risk "the bends" (see below) if you experience over 2 × native pressure and then return to normal pressure. With Pressure Support 1, the bends are only a risk when returning from over *10* × native pressure. With Pressure Support 2 or 3, you are *immune* to the bends.

Over 10 × native pressure: You may be crushed! On initial exposure and every minute thereafter, roll vs. HT at a basic +3, but -1 per 10 × native pressure. If you fail, you suffer HP of injury equal to your margin of failure. If your Size Modifier is +2 or more, multiply injury by SM. With Pressure Support 2, read this as "Over 100 × native pressure" and "-1 per 100 × native pressure." With Pressure Support 3, you are *immune* to pressure.

The Bends

When you are breathing air that has been compressed (e.g., using scuba gear), your blood and tissues absorb some of the nitrogen gas in the compressed air. When you return to normal pressure, or "decompress," this nitrogen escapes, forming small bubbles in the blood and muscles. This can result in joint pains, dizzy spells, possibly even death. These symptoms are known as "the bends."

You risk the bends if you return to normal pressure after experiencing pressure greater than twice your native pressure (or *10* times native pressure, with Pressure Support 1). To avoid this, you must decompress *slowly,* spending time at intermediate pressures to allow the nitrogen to escape harmlessly.

Divers and mountaineers use precise tables to determine decompression times based on time spent at a given pressure. For game purposes, at up to 2 atm. (about 33' underwater), a human can operate for *any* amount of time and return without risk. At up to 2.5 atm. (50' depth), a human can safely operate for up to 80 minutes and return without requiring slow decompression. Greater pressures reduce the safe time without slow decompression: at 4 atm. (100' depth), it's about 22 minutes; at 5.5+ atm. (150' depth), there is *no* safe period.

Safe decompression involves slowly lowering the pressure, either naturally (e.g., a diver deliberately taking hours to reach the surface) or in a decompression chamber. The time required increases with both pressure and exposure time. It can be several hours – or even *days.*

If you fail to decompress slowly enough, make a HT roll. *Critical success* means no ill effects. *Success* means severe joint pain, causing agony (see *Incapacitating Conditions,* p. 231); roll vs. HT hourly to recover. *Failure* means unconsciousness or painful paralysis; roll vs. HT hourly to regain consciousness, with each failure causing 1d of injury. Once conscious, you suffer joint pain, as described above. *Critical failure* results in painful death. Recompression to the highest pressure experienced lets you roll at HT+4 every five minutes to recover from all effects short of death.

An *instant* pressure reduction can *also* result in explosive decompression; see *Vacuum* (p. 240) for details. All effects are cumulative!

RADIATION

Radiation threatens high-tech heroes in the form of solar flares, cosmic rays, nuclear accidents, radioactive materials, and lethal weapons (nuclear bombs, particle beams, etc.). Exposure is measured in *rads.* The more rads received, the greater the chance of ill effects.

Whenever a character is exposed to radiation, the GM should note both the dose and the date. Each dose diminishes separately from all others; it starts to heal after 30 days, at the rate of 10 rads per day. However, 10% of the original dose *never* heals (except via ultra-tech, magic, etc.). Note that some species may have Radiation Tolerance (p. 100).

Effects of Radiation on Living Things

When a living being accumulates at least 1 rad (but no more than once per day, for continued exposure to a given source), he must make a HT roll. On the *Radiation Effects Table,* below, find his current accumulated dose in the "Accumulated Dose" column. Apply the modifier in the "HT" column to his HT roll. Then roll the dice. Use the first result in the "Effects" column on a critical success, the second on a success, the third on a failure, and the last on a critical failure.

Radiation Effects Table

Accumulated Dose	*HT*	*Effects*
1-10 rads	+0	–/–/A/B
11-20 rads	+0	–/A/B/C
21-40 rads	+0	A/B/C/D
41-80 rads	-1	A/B/C/D
81-160 rads	-3	A/B/C/D
161-800 rads	-4	A/B/C/D
800-4,000 rads	-5	C/D/E/E
Over 4,000 rads	-5	D/E/E/E

–: The dose has no obvious effect, but doses continue to accumulate.

A: Radiation burns and chronic "somatic" damage. HT hours after irradiation, suffer 1d of injury and gain Low Pain Threshold for one week (those with High Pain Threshold lose this instead). If you recover, make two more HT rolls with the modifier on the table: one to avoid sterility, the other to avoid gaining the Terminally Ill (1 year) disadvantage. Gain either condition only on a critical failure.

B: Hematopoietic syndrome. As **A,** but as well, after HT hours you are nauseated (see *Irritating Conditions,* p. 231) for a further (40 - HT) hours; lose 1d each from DX, IQ, and FP; and acquire the Hemophilia‡ disadvantage. Each day, make a HT roll with the modifier on the table. On a critical success, you heal 2 points each of DX, IQ, and FP; on a success,

you recover 1 point of each; on a failure, there is no improvement; and on a critical failure, you *lose* 1 point of each and are nauseated that day. After recovering all lost DX, IQ, and FP, you no longer suffer from Hemophilia or need to make daily HT rolls.

C: Gastrointestinal syndrome. As **B,** but in 1d/2 weeks, you also lose all body hair and must make daily HT rolls. On a critical failure, you suffer 1d points of injury; on a failure, 2 points of injury; on a success, 1 point of injury; and on a critical success, injury stops and normal recovery can occur (and hair starts to grow back). Until injury stops, you have Susceptible to Disease -3 (p. 140) and suffer from nausea. If you lose more than 2/3 of your HP to radiation, your teeth and nails start to fall out.

D: Terminal radiation sickness. As **C,** except HP loss begins in 1d/2 *days,* and even a critical success won't stop daily HP loss – it only postpones it for a day. Death is certain.

E: Rapid cerebrovascular death. After one hour, you lose 1d from each of DX, IQ, and FP; take 1d of injury; gain Hemophilia‡, Low Pain Threshold, and Susceptible to Disease-3; and are nauseated. Make an hourly HT roll. Critical failure means instant death from brain hemorrhage; failure means loss of another 2 points of DX, IQ, and FP, and 2 more points of injury; success means 1 extra point of each; critical success means no decline that hour.

Other Effects: In addition to these effects, a *single* dose of 200+ rads causes sterility and blindness for 1d months; a dose of 500+ rads makes it permanent. An *accumulated* dose of 100+ rads increases the risk of birth defects. Should you become a parent, make a HT roll, at +3 if you are male. On a failure, the child has some sort of birth defect (GM's option).



Radiation Protection

Any material between you and the radiation source grants a Protection Factor (PF) that reduces your received dose. Divide your dose by PF; e.g., PF 100 means 1/100 the dose. Half an inch of lead, 1.5 inches of steel, or 750 yards of air has PF 2; a yard of water has PF 8; a yard of earth has PF 27; and a yard of concrete has PF 64.

Shielding protects differently against certain types of radiation. Radiation from solar flares and planetary radiation belts (like the Van Allen belt) is mostly free electrons and alpha particles: multiply PF by 20. Against cosmic rays, divide PF by 100!

Radiation Hazards

Cosmic Rays: A constant hazard for space travelers. Inflict 1 rad/week. Only massive shielding protects people.

Fallout: Small radioactive particles, such as those produced by a ground-burst nuclear bomb. Inflicts 2-5 rads/minute within a few hours of the blast, and several rads/hour over the next day. If you breathe or swallow fallout (in contaminated food or water), the ingested material delivers a continuing dose (see p. 238).

Fission Plant Accident: 1,000 rads/hour or more! This is only in close proximity (e.g., the reactor room); divide dose by the square of the distance in yards from the source.

Ingested Radioactive Material: Plutonium, radium-226, uranium-235, etc. Even tiny doses can cause 1 rad/day to several rads/minute, depending on the isotope. (Some radioactive materials, such as plutonium, are also extremely toxic!)

Innate Attack: An attack with the Radiation damage modifier (p. 111) delivers one rad per point of damage rolled.

Nuclear Blast: One-megaton fission air or space burst at 2,000 yards: 6,600 rads!

Radiation Treatment

All costs below are *per treatment.*

At TL7, drugs are available that can halve your effective rad dosage if a dose ($500) is taken 1-3 hours *in advance.* Chelating drugs are also available to get radioactive fallout out of your system; a dose ($500) halves exposure after 3 days and eliminates it entirely after a week. This has no effect on radiation already absorbed!

At TL8, advanced chelating drugs ($500) encapsulate and remove fallout in 12 hours.

At TL9, advanced anti-radiation drugs or cell-repair nanotechnology ($1,000) can give +3 to all HT rolls vs. radiation for 2 weeks.

At TL10+, cell-repair nanotech or rejuvenation technology might be able to completely repair the ravages of radiation, provided the victim is still alive.

SUFFOCATION

If you *completely* lack air you lose 1 FP per second. If you are drowning after a failed Swimming roll, you can get *some* air, but you also inhale water: roll

vs. Swimming every five seconds; failure costs 1 FP (see *Swimming,* p. 192).

At 0 FP, make a Will roll every second or fall unconscious. Regardless of FP or HP, you die after four minutes without air.

If you get clean air before you die, you stop losing FP and start to recover FP at the usual rate (see *Recovering from Fatigue,* p. 231). If you are unconscious, you awaken once you have 1 FP. If you were drowning, a rescuer must *also* make a First Aid roll to get the water out of your lungs in order to save you.

If you went without air for more than two minutes, roll vs. HT to avoid permanent brain damage: -1 to IQ.

VACUUM

Vacuum is the absence of air – but these rules also apply in trace atmospheres, where there is *almost* no air. If you are exposed to vacuum without protection (e.g., a vacc suit or the Vacuum Support advantage), the following rules apply.

Breathing Vacuum: You can't hold your breath in vacuum – and you may rupture your lungs if you try (1d of injury). If you exhale and leave your mouth open, you can operate on the oxygen in your blood for *half* the time listed under *Holding Your Breath* (p. 190). After that, you begin to suffocate (see *Suffocation,* p. 239).

Explosive Decompression: When an area *suddenly* goes from normal pressure to little or none (a "blowout"), body fluids boil, blood vessels rupture, and eardrums pop. Take 1d of injury immediately, and roll vs. HT to avoid the bends (see *The Bends,* p. 238). Also roll vs. HT+2 for each eye; failure means One Eye or Blindness, as appropriate. Finally, roll vs. HT-1 to avoid Hard of Hearing. Use the *Duration of Crippling Injuries* rules (p. 228) to determine how long these disadvantages last.

Extreme Temperatures: Vacuum itself is neither "cold" nor "hot," but in the absence of air, surfaces in shadow will eventually grow very cold, while those in sunlight will become extremely hot. For example, on the moon – with its month-long "day" – the temperature can range from -243°F (at night) to 225°F (at noon).

AGE AND AGING

As discussed under *Age* (p. 31), you can start your adventuring career at any age that falls within the usual lifespan of your species. However, unless you are Unaging‡, you will experience gradual decline once you age past a certain point.

Beginning at age 50 (or at the age specified in the description for your species), make a series of "aging rolls" each year to see if old age is taking its toll. (If you did not note an exact birthday, roll on the first day of every game year.) At age 70, roll every six months. At age 90, roll every *three* months!

If you have Extended Lifespan (p. 89), each level *doubles* the age at which you must make aging rolls (50 years), the ages at which aging rolls become more frequent (70 and 90 years), and the time intervals between aging rolls (1 year, 6 months, and 3 months). If you have Short Lifespan (p. 138), each level *halves* these numbers.

Aging rolls are a series of four HT rolls – one for each of your four basic attributes, in the following order: ST, DX, IQ, HT. You may *not* use any form of Luck‡ on these rolls.

Modifiers: Your world's medical tech level *minus 3;* e.g., -3 at TL0, or +4 at TL7. +2 if you are Very Fit, +1 if Fit, -1 if Unfit, or -2 if Very Unfit.

On a failure, reduce the attribute in question by one level. A critical failure, or any roll of 17 or 18, causes the loss of *two* levels. *Exception:* If you have Longevity (p. 95), treat any roll of 16 or less as a success, and treat a 17 or 18 as an ordinary failure – and if your modified HT is 17+, only an 18 fails!

When you lose an attribute level to age, reduce your point value accordingly. Reduce all secondary characteristics and skills based on that attribute to reflect its new level. For instance, if aging reduces your IQ by one, your Perception, Will, and skills based on any of those three quantities also drop by one. If any attribute reaches 0 from aging, you die a "natural" death.

At the GM's option, you may lose advantages or gain disadvantages of equivalent point value instead of losing an attribute point. For example, your Appearance could decline, or you could gain Hard of Hearing.

Artificial Youth

In some settings, technology can halt or reverse aging. Should you become younger through any means, you regain all attribute levels lost between your new age and your old one. This simply increases your point value; you do not have to "buy back" the recovered attribute levels. Even without high technology, you can spend earned character points to raise your attributes to combat aging.

GAME TIME

"Game time" is the time that passes *in the game world,* as determined by the GM. It rarely passes at the same rate as time in the real world.

Time During Adventures

Combat is played in "slow" time. A turn in combat equals one second, but it might take a minute or more in the real world to resolve that turn, especially if the players are inexperienced or the battle is a large one. Since combat is usually a life-or-death situation, you need to give your players time to think.

Conversations, planning sessions, attempts to escape from traps, and similar situations are played in "real" time. If the players spend 10 minutes discussing how to best approach an NPC merchant . . . their *characters* spent 10 minutes talking outside the shop.

Routine travel, long tasks, etc., are handled in "fast" time. Tell the players when they meet someone, when they enter a town, when night falls, and so on. Just compress the rest of the time. Under some cir-

cumstances – a long sea or space voyage, for instance – the GM could compress *months* of uneventful time into "Nothing happens until July, unless you make it happen yourself." This is a good time for the characters to dream up some interesting deviltry, or for study and self-improvement.

Time Between Sessions

If you can't finish an adventure in one session, just "pause" the game until the next session. For instance, if the party confronts a rampaging terilek boar just before the session ends, the terilek boar gets no closer in the real-world week before you can play again.

Time Between Adventures

If you are running a continuing campaign, you should keep track of time between *adventures,* so characters can study, travel, and age. This can always be the same amount of time, or the GM and players can simply agree on a "logical" time to pass between the end of one adventure and the beginning of the next. It is often a good idea to let a month or two go by, to allow time for healing, earning money at "ordinary" jobs, and study of new skills.

Military personnel will not need to "earn money" between adventures (other than pocket money) but will sometimes have the opportunity to take education or training during the normal course of their duties. A starship officer or crewman would have some free time between duty shifts, and would be encouraged to spend it studying various subjects on a computer terminal. In some cases, a character might be sent away for a short while to take a special training course (if the GM wants him to have that skill).

ECONOMICS

Each game world has its own economic situation. But *money,* in some form or another, is important in almost every setting. Money is *anything* you can exchange for what you want. It varies from one game world to the next. In a high-tech world, everything might be done by credit card. In a low-tech world, gold and silver may be king. For the sake of convenience, ***GURPS*** prefixes all prices with a dollar sign – $ – in all settings. The GM is welcome to translate this to credits, copper farthings, Astranian foomphra, or whatever he feels is appropriate to the game world; see *Tech Level and Starting Wealth* (p. 35).

In a low-tech world, jewelry is also money. It might not have a set value imprinted on it, but it is small and portable, and easily traded for coins or bartered directly for needed goods. In fact, many societies exist largely by barter – which can be a test of the players' ingenuity.

Bankrolls and Possessions

List the money a character has on his person on his character sheet, just like his other possessions. If a *lot* of transactions are taking place, it might be wise to record money on a separate sheet of paper to avoid erasing a hole in the character sheet!

List the money a character does *not* carry with him separately, along with its location. The GM may arrange floods, bank robberies, tax increases, and other entertainments to deprive the PCs of their savings – or at least make them work to get their money back. The same is true of all other possessions the heroes do not carry with them.

WEALTH AND STATUS

Wealth (p. 35) and Status (p. 36) are separate but related traits. It is up to the GM to determine the details of the relationship.

In many game worlds, those with high social standing must buy up Wealth by one level past Average per Status level above 0, but can have high Wealth without high Status. In others, wealthy characters must buy an additional level of Status per level of Wealth past Average, but can purchase high Status without Wealth. The GM might even enforce *both* requirements and rigidly associate Status levels with Wealth levels – but this excludes many good character concepts. In all game worlds, it is common for those with *negative* Status to have Wealth one level below Average per Status level below 0.

To keep things fun, the GM should forbid high Status to poor characters or high Wealth to low-Status ones only if the setting absolutely *demands* it!



Cost of Living

Your monthly "cost of living" is an average of your *typical* expenses for one month. It covers food, housing, clothing, and entertainment . . . and, at Status 1 or higher, *servants,* if this is customary in your society.

Your cost of living depends on your Status (p. 36). The *Cost of Living Table* (p. 242) gives a "generic"

cost of living for each Status level; you must normally pay this at the beginning of each month. However, the GM is free to vary both the amount of money involved and the payment scheme; for instance, he could ask for half at the start of the month and half in the middle.

For the status of Star Fleet Universe officers based on rank, see the *Promotion/Grade Table* (p. 39). It is assumed the pay received covers the usual status for the rank.

In most game worlds, you may opt to pay the cost of living for a Status level *higher* or *lower* than your own (but never more than Status 8 or less than Status -2). This affects how NPCs react to you, and may have other effects as well.

Living *below* your Status saves you money, but has negative repercussions. Depending on the level you drop to, these might include unpaid servants quitting, threats from your landlord, malnutrition, eviction, or anything else the GM feels appropriate.

The GM may also reduce your effective Status to the level you're supporting in any situation where your reduced circumstances would cause a negative reaction; e.g., at a "society" function or when meeting strangers who do not recognize your face. Living *above* your Status costs more, but gives you a more comfortable lifestyle. It *might* even let you pose as someone of higher Status – although the GM is free to require a Savoir-Faire (High Society) skill roll as well. But be aware that claiming more Status than you actually possess can lead to a reaction penalty! Actually *living* above your Status can earn you a bad Reputation – or even qualify as an Odious Personal Habit.

Status	***Examples***	***Cost of Living***
8	Emperor, god-king, overlord	$600,000,000
7	King, pope, president	$60,000,000
6	Royal family, governor	$6,000,000
5	Great noble, multinational corporate boss	$600,000
4	Lesser noble, congressional representative	$60,000
3	Landed knight, guild master, big city mayor	$12,000
2	Landless knight, mayor, business leader	$3,000
1	Squire, merchant, priest, doctor	$1,200
0	Freeman, apprentice, ordinary citizen	$600
-1	Bondsman, poor citizen	$300
-2	Serf, street person	$100

If you get Status free from Rank (p. 37), you need only pay the cost of living for your Status *before* this bonus, not for your final Status level. Someone else – your organization, the taxpayers, etc. – covers the difference.

Cost of Living and Status

Each PC must pay the monthly "cost of living" for his Status or accept the consequences, as explained under *Cost of Living* (p. 241). Assume the PCs are Status 0 – or "middle class" – unless they buy their Status up or down.

To calculate how much money a character has for discretionary use each month, subtract his cost of living and that of noncontributing dependents from his monthly pay (see *Jobs,* below). In a campaign that does not use jobs, either subtract cost of living from the PCs' adventuring income or ignore this rule entirely!

JOBS

Not every character will be a member of the military. Many will be civilians who have a need for money, and the means to earn it. It's up to the GM to define the jobs available in his game world.

The table on p. 244 defines many typical jobs in the ***Star Fleet Universe***. The GM can define more as they are needed. The ones provided will give you a general guideline by which other jobs can be rated.

Several things define a job and these are explained below.

Description

The job's title and exactly what the job entails.

Prerequisites

The skills needed to do the job (if any), and the minimum required level in each. The candidate must have at least one point in the skill – default skill will not suffice! Some jobs also have prerequisite advantages.

Job Success Roll

At the end of every month in which a character works, he must roll against one of the prerequisite skills (PR) for his job (as per the jobs table) – possibly at a penalty, for difficult jobs. Jobs without prerequisites may have a flat success roll (e.g., all characters roll vs. 12) or require an attribute roll (e.g., ST or IQ).

If you roll anything but a critical success or critical failure, just collect the *monthly pay* (below) and go on. On a critical success, you get a 10% permanent raise in income. Results of a critical failure vary; see *Critical Failure* (p. 243) for the results.

Monthly Pay

The amount of money earned on a successful roll. Remember that unless the economy is under some sort of stress or outside control, jobs will never be high-paying unless they are difficult (hard success roll), dangerous (severe consequences on a failed success roll), highly trained (difficult skill prerequisites), or privileged (difficult Status or Wealth prerequisites; e.g., see Wealth Level, p. 35).

It should be noted that, by a tradition that is universal, all military personnel receive free meals (if you like mess hall food, feel lucky), housing (e.g., a cabin or bunk on a starship or barracks), medical care (assuming you can get to a military medical facility, most

major units have these), education (if you apply for and are picked for a course), and a minimum number of duty uniforms. As such, military pay tends to be about 2/3 of civilian pay due to these "benefits." (There are retirement benefits as well, but these do not generally concern the players.)

The original source material included two contradictory theories of money. One was that the Federation did not need, have, or use money, and the other that Star Fleet personnel were paid in "credits." We long ago decided that the Federation uses money and pays its military, and that all references to "not having money" were in fact references to the Federation using a system of credit records and not having very much "currency" in their pockets at a given time. Having money (in the bank) is one thing; it could be hard to spend in spaceport bars.



Some empires are stronger economically than others, which has a direct effect on your income. Adjust your monthly pay per your allegiance, as follows:

Ethnic Orion (non-pirate): ×125%.
Tellarites: ×125%.
Other Federation, WYN: ×120%.
Lyrans, Tholians: ×110%.
Ethnic Klingon military personnel: ×80%.
Ethnic Klingon civilians: ×75%
All Dunkars: ×85%.
Other Klingon subject race military personnel: ×75%.
Other Klingon subject race civilians: ×50%.
Romulan House Nobility: ×125%.
Romulan House Member: ×100%.
Other Romulans: ×80%.
Seltorian Workers: ×33%.
All others: no adjustment.

Remember that if a character's time spent adventuring is part of his job, his income should depend mainly on money earned adventuring, not job rolls! This table is best applied when a character does not adventure during some period, and it is necessary to determine income during that time.

Critical Failure

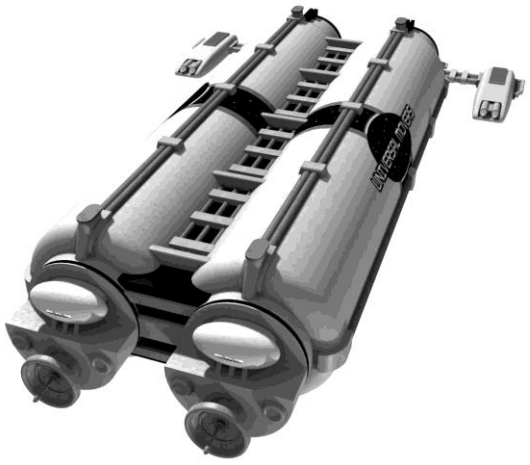
On a critical failure of the Job Success roll, roll again. If the second roll is not another critical failure then apply the penalties listed BEFORE the "/" (slash), but if you roll a critical failure a second time then apply the penalties AFTER the "/".

Critical Failure key:

"i" indicates lost income for however many months – you were fined, forced to pay damages, had to replace equipment, etc.
"d" indicates dice of damage – you were in an accident, fight, etc.
"LJ" stands for Lost Job – you were fired, demoted, or lost your license.

Unstated Benefits and Restrictions

The Jobs Table cannot accommodate endless notes about obvious, and not-so-obvious restrictions placed upon, and fringe benefits of, various jobs. A shop clerk may not sound glamorous but does get to meet a lot of people. Military personnel have time off for personal pursuits, but if the starship you are assigned to is leaving port, you won't be around for next week's festival. Military starship personnel, despite being better paid, have more restrictions than civilian personnel in what they can bring onto the ship in their personal baggage. Corporate executives may be under contractual restrictions regarding private deals and trades. Government employees may have restrictions on what gifts they can accept and what they can and can't do when on duty, but then they may also have access to government records and databases.



Large Q-Ship

JOB TABLE

Job Description [Prerequisites] Monthly Income	***Success Roll***	***Critical Failure***
Poor Jobs		
Welfare Recipient [none] $300	10	-1i / -6i
Struggling Jobs		
Unemployed Actor/Actress [Acting 10+] $50 × PR	PR	-3i / LJ, 1d
Colonist [any useful craft or outdoor skill 10+, Survival (matching land type) 11+] $40 × best skill	Best PR	-2i, 1d / -4i, 4d
Servant [appropriate skill 12+] $60 × best skill	PR	-2i, 1d / LJ, 3d
Laborer [ST 10+] $550	ST	LJ / LJ, 5d
Shop Clerk [Merchant 10+] $600	IQ + Reaction	LJ
Cargo Handler [Freight Handling 10+] $550	PR	LJ / LJ, 4d
Average Jobs		
Bounty Hunter [Weapon 12+, Survival 10+, Tracking 13+] $100 × worst PR	Worst PR -2	LJ, 2d / LJ, 6d
Courtesan [Sex Appeal 13+] $100 × skill	PR + Appearance	-2i / -4i, 2d
Criminal Enforcer [ST 12+, Beam Weapons or Guns 12+, Brawling, Judo, or Karate 12+] $90 × IQ	Best PR -4	LJ, 3d / 8d
Journalist [Research 12+, Photography or Writing 12+] $70 × best PR	Best PR	-3i, 1d / LJ, 3d
Pirate [Beam Weapon or Guns 12+, Free Fall 11+, Spacer 12+] $120 × IQ	10 + Reputation	-3i, 4d / 2d, imprisoned
Asteroid Prospector [Prospecting 12+, Spacer 12+] $100 x best skill	Worst PR	-3i, 1d / LJ, 3d
Civilian Starship Crew [Rank 0+, Professional Certification (any)] (Best skill × $100) + ($200 × Rank)	Best Professional Certification Skill	LJ, 2d / LJ, 8d
Guard (Civilian/Paramilitary) [Rank 0+, combat skill 10+] $1,000 + ($200 × Rank)	Best PR -2	-2i, 2d / -5i, LJ
Comfortable Jobs		
Technician [appropriate skill 14+] $250 × worst PR	Worst PR	-1i / LJ, -3i
Corporate Executive [Administration 23+, Status 1+] $3,000 + ($100 × Status)	PR	-2i / LJ, -4i
Diplomat [Diplomacy 12+, Administration 10+, Status 0+] $1,000 + (worst skill × $500)	Worst PR	-2i, LJ / -6i, 2d, LJ
Free Trader [Merchant 12+, Spacer 12+, Professional Certification] $1,000 + ((worst PR-11) × $100)	Merchant -2	-1i, 1d / -4i, 2d, LJ
Military Starship Crew [Rank 1+, Professional Certification, Spacer 12+] $500 × Rank	Worst PR	-1i, 2d / 4d, LJ
Smuggler [Spacer 12+, Holdout 10+, Streetwise 10+] $3,000 + ($100 × Reputation)	Worst PR	-2i,2d / -12i, 4d, imprisoned
Dock Pilot [Piloting (Starship) 12+, Piloting (Shuttlecraft) 12+] $300 × Worst PR	Best PR	-2i, 2d, LJ / -4i, 4d, LJ
No-Limit Klingon Hold-Em Professional [Fast-Talk 12+, Gambling 15+] $2,000 × (Worst PR-10)	Gambling + Charisma Bonus	-6i / -12i, 2d
Wealthy Jobs		
Research Scientist [Research 12+, any scientific skill 15+, Status 1+] $1,000 × (best skill -12)	Worst PR	-3i / -6i, LJ
Starship Captain [Leadership 12+, Rank or Status 3+, Tactics (space) 12+] $1,000 × Rank or Status	Worst PR	-3i, 2d / -6i, 3d, LJ
Medical Doctor [Physician 15+, any other medical skill 15+, Status 2+] $1,000 × (worst skill -12)	Worst PR	-3i / -6i, LJ
Planetary Rulership [Status 5+, Administration 15+] $5,000 × (Status -3)	Worst PR	-3i / 1d, LJ, imprisoned

LAWS AND CUSTOMS

Each world has its own laws and customs. Furthermore, laws and customs vary from place to place (and time to time) *within* each world. In some worlds, it is possible to research these things in advance (the Law skill helps here). In other worlds, you must learn them the hard way (Law helps here, too, if you specifically investigate; Streetwise can find out "informally").

As a rule, the use of force or the *threat* of force is illegal or improper wherever you go. The stronger the local government (see *Control Rating,* below), the more true this is; government usually considers the use of force to be its own right and monopoly. Self-defense is sometimes an exception – but not always!

Note that public display of non-customary weapons is a "threat of force," and leads to bad reactions even if it's technically legal. If you beam down into a Federation colony in Klingon powered battle armor, disruptor carbines at the ready, the colonists will be very suspicious of your motives.

In general:

- Violating a *law* usually leads to some sort of trial and possible punishment. (The ***GURPS Prime Directive*** sourcebooks have sections on what happens when you violate a law in those areas.)
- Violating someone's *rights* might lead to a "civil" trial and a fine – or just an informal beating.
- Violating a *custom* gives you a reaction penalty – possibly a big one – whenever you try to deal with a local. The offended locals might not even tell you what you are doing wrong!



CONTROL RATING

"Control Rating" (CR) is a *general* measure of the control exercised by a government. The lower the CR, the less restrictive the government and the freer the people. Government type does not *absolutely* determine CR – it is possible to have a very free monarchy, or a democracy where the voters have saddled themselves with thousands of strict rules.

Assign CR according to the following guidelines:

CR0 – *Anarchy.* There are no laws, taxes, or controls.

CR1 – *Very free.* Nothing is illegal save use of force or intimidation against other citizens. Taxes are light or voluntary. Only access to LC0 items is controlled (see *Legality,* p. 246).

CR2 – *Free.* Some laws exist; most benefit the individual. Taxes are light. Access to items of LC0 and LC1 is controlled.

CR3 – *Moderate.* There are many laws, but most benefit the individual. Taxes are moderate and fair. Access to items of LC0 through LC2 is controlled.

CR4 – *Controlled.* Many laws exist; most are for the convenience of the state. Broadcast communications are regulated; private broadcasts (like CB) and printing may be restricted. Taxation is often heavy and sometimes unfair. Access to items of LC0 through LC3 is controlled.

CR5 – *Repressive.* There are many laws and regulations, strictly enforced. Taxation is heavy and often unfair. There is strict regulation of information technology: computers, photocopiers, printing presses, transmitters, etc. *All* goods are effectively controlled; you can't buy anything without the appropriate ration coupons or paperwork.

CR6 – *Total control.* Laws are numerous and complex. The individual exists to serve the state. Many offenses carry the death penalty, and trials – if there are any at all – are a mockery. Taxation is crushing, taking most of an ordinary citizen's income. Censorship is common, and private ownership of *any* information technology is forbidden. *All* goods are controlled, and the government might even withhold basic necessities.

If a question of legality arises, or if you need to determine how severely the government checks and harasses newcomers, roll 1d. If the result is *lower* than the CR, then the act is illegal, or the authorities harass, delay, or even arrest the PCs. If it is *higher,* either the act is legal or the authorities overlook it. If it *equals* the CR, the situation could go either way: play out an encounter or make a reaction roll.

LEGALITY

Each item of equipment has a "Legality Class." Some modern-day examples include:

LC0 – *Banned.* Weapons of mass destruction; strategic missiles; orbital weapons platforms; intercontinental bombers.

LC1 – *Military.* Heavy weapons; air defense radar; sensor jammers; armed vehicles; land mines.

LC2 – *Restricted.* Light assault weapons; silencers; surveillance technology (wiretaps, etc.); armored cars; burglar's tools (e.g., lockpicks); explosives; dangerous drugs.

LC3 – *Licensed.* Handguns; hunting guns; radio transmitters; most unarmed vehicles; ordinary drugs and medical equipment.

LC4 – *Open.* Nonlethal weapons (e.g., stunners); home computers; radio and television receivers; cameras; most tools; first-aid kits.

Control Rating and Legality Class

Legality Class interacts with Control Rating as follows:

LC = CR + 1 or more: Any citizen may carry the item.

LC = CR: Anyone but a convicted criminal or the equivalent may carry the item. Registration may be required, but there is no permit fee.

LC = CR - 1: A license is required to own or carry the item. To get a license, one must show a legitimate need or work for the government. Generally, a license costs 1d x 10% of the price of the item itself.

LC = CR - 2: Prohibited except to police SWAT teams, military units, and intelligence services.

LC = CR - 3 or worse: Only permitted to the military or secret police.



Will you be a member of a Prime Team?



CHARACTER DEVELOPMENT

Your character will improve – or simply *change* – with time. The longer you play your character, the more opportunities you will have for such development.

IMPROVEMENT THROUGH ADVENTURE

At the end of each gaming session, the GM may award characters for good play. "Good play" is anything that advances your mission or shows good roleplaying (including adherence to your disadvantages and quirks) – preferably both! These awards are listed below.

Reputation Points

GMs may award both Professional Reputation points and/or Heroic Reputation points to individual characters at the end of an adventure, but the characters will have had to have earned them! (See p. 36 for more about Heroic Reputation and Professional Reputation.) HR and PR points are awarded separately. Each requires that the character performed in such a way to deserve awarding these points. Additional points of Reputation also raise the point value of the character.

An award of more than one point of each per gaming session should be very, very difficult to achieve. For example, capturing an enemy starship, taking it back in time, and bringing back an extinct lifeform in order to save your homeworld from destruction, all in the course of ONE adventure, would be something worth three Heroic Reputation points, but no one would get that many points for anything less impressive! And of course, poor performance on the part of a character may result in Reputation points being taken away. Negative point totals are usually accompanied by courts-martial and/or criminal records. See p. 39 for the effect that Professional Reputation has upon Military Rank.

Medals are awarded to the character in a manner parallel to the reputation points. A player cannot "buy a medal" for his character. He could buy a level of reputation (if the GM approves) and the character would be given a suitable service award in an appropriate ceremony. If the character did something heroic in an adventure, he would be given the medal by the GM along with bonus character and reputation points.

Seniority Points

Generally, each character is automatically awarded one Seniority Point at the end of each adventure. Longer adventures may earn more than one point, but those are often withheld until that longer adventure is completed. See p. 39 for how Seniority affects Military Rank.

Bonus Points

After each game session, the GM will award you "bonus" character points – the same kind of points you used to create your character. You may spend these points immediately to improve your character, or you can save them. You can save unspent points for as long as you like, but you should *ignore* them when you add up your character's point value.

The following rules apply when you spend bonus character points:

- To add a *new* trait with a *positive* point cost, pay points equal to the trait's usual point cost.
- To improve an *existing* trait that comes in levels, pay points equal to the *difference* in cost between the new level and the old level.
- To remove an *existing* trait with a *negative* point cost, pay points equal to the bonus originally earned when you took the trait.

In all cases, increase the point value of your character by the number of points spent. Some additional rules apply to specific classes of traits.

Improving Attributes and Secondary Characteristics

For each level by which you wish to improve a basic attribute (ST, DX, IQ, or HT) or a secondary characteristic (HP, Will, Perception, FP, Basic Speed, or Basic Move), you must spend character points equal to the cost to raise that score by one level.

If you improve an attribute, secondary characteristics and skills based on that attribute improve as well. For instance, if you raise your HT by one, you gain 1 FP and 0.25 point of Basic Speed (which might in turn increase Basic Move), and *all* your HT-based skills go up by one!

Increases in ST do not affect height (except for a child), but if you wish, you may gain additional *weight* to go with higher ST.

Adding and Improving Social Traits

To improve social traits, you need an in-play justification *in addition to* the expenditure of sufficient points. Some examples:

Allies, Contacts, and Patrons: You must meet such NPCs during your adventures and earn their trust through your actions. You cannot *hire* true Allies, Contacts, or Patrons.

Clerical Investment, Legal Enforcement Powers, Rank, Security Clearance, Status, etc.: An individual in a position of relative authority must bestow such privileges. This might require a background check, qualification course, valor in combat, years of service, or a large bribe.

Reputation: You must earn this through deeds and works. You cannot buy a Reputation until you have done something to merit it! (Reputation Points may be used to buy this.)

Tech Level: You can raise your personal TL (see *Technology Level,* p. 33) by living in a society of a higher TL than your own – but only if you are free to attend that society's schools and benefit from its conveniences (being an alien abductee, prisoner, etc. doesn't count). The GM should consider limiting improvement to one TL per year of game time.

Wealth: To improve your Wealth, you must amass money equal to the starting wealth of the desired wealth level *after* paying any necessary bribes, taxes, etc.

Adding and Improving Mental and Physical Advantages

Most mental and physical advantages are inborn; you cannot buy them after character creation. However, there are some exceptions.

You can learn some advantages as if they were skills; see *Learnable Advantages* (p. 249). If the GM feels that adventuring is as good as training to acquire such an advantage, you may buy it with bonus points.

Other advantages require extraordinary circumstances: perhaps that alien artifact you touched earlier. In addition to points, these traits require the GM's permission and suitable in-game events!

Of course, the GM can allow you to buy *any* advantage, if the results are in keeping with his vision of the game world. The GM may also challenge *you* to provide a good explanation (dramatic, logical, or both) for why he should let you buy a new advantage.

Buying Off Disadvantages

You can get rid of most beginning disadvantages by "buying them off" with character points equal to the bonus earned when you originally took the disadvantage. This generally requires a game-world justification in addition to the point expenditure.

Dependents: When you buy off Dependents, you or the GM should provide a game-world explanation of where they went – died, grew up, moved away, fell in love with someone else . . .

Enemies: If you wish to buy off Enemies, you must deal with them in the game world: kill them, jail them, bribe them, flee from them, make friends with them . . . whatever the GM deems necessary. You can *never* permanently dispose of Enemies unless you buy them off . . . they will return or new Enemies will appear in their place.

Mental Disadvantages and Odious Personal Habits: You may buy these off at their original bonus value. Assume that you simply got over your problem.

Physical Disadvantages: Your game world's tech level determines the degree to which you can buy off these traits. Consider Hard of Hearing. At TL5 or less, you would have to settle for an ear trumpet. At TL6-8, you could buy a hearing aid that would solve your problem while worn, allowing you to apply a Mitigator limitation (p. 117). At TL9+, surgery could fix the problem permanently. The GM has the final say as to whether it is possible to remove a specific physical disadvantage . . . and if so, what the cost and time will be.

Social Stigma: You cannot get rid of this with points alone. You must either change your position in society or change your society. The GM will tell you when you have succeeded – at that time, you must pay enough points to buy off the original disadvantage.

Adding and Improving Skills and Techniques

You can use bonus character points to increase your skills and techniques. Each point is the equivalent of 200 hours of learning. This is not to say that you found time to hit the books during your adventures – only that the genuine experience of an adventure can be equivalent to a much longer period of study.

You can only spend character points to improve skills or techniques that, in the GM's opinion, saw *significant* use in the adventure during which you earned the points. If the only thing you did on an adventure was trek through forests and slay monsters, you can only improve Hiking, Survival (Woodlands), and combat abilities.

When you improve a skill or a technique, the cost is the *difference* between the cost of the new level and the cost of your current level – see *Improving Your Skills* (p. 148).

You may only *add* a skill if you spent most of the adventure around people who were constantly using the skill. For instance, a city boy on a forest trek with a group of skilled woodsmen could add Survival (Woodlands). You may add a technique if, during the adventure, you made significant use of the skill to which it defaults. In all cases, the GM has the final say.



Tholian War Cruiser

IMPROVEMENT THROUGH STUDY

You may add or improve skills by spending time studying them, if an opportunity for study is available. In the discussion below, "skills" refers not only to ordinary skills, but also to techniques and even some advantages (see *Learnable Advantages,* below).

Improvement through study does *not* depend on earning bonus points. You could build a character, keep track of his age and income, and let him study for 40 game-years without ever bringing him into play. Of course, this would not be much fun . . . and things that happen during play can offer great opportunities for study. If you aid a chief engineer, his gratitude might take the form of lessons about the warp drive!

Normally, it takes 200 hours of learning to gain one point in a skill. You may study any number of skills at once, but a given hour of time counts toward study of only *one* subject, unless the GM allows an exception. Some forms of study are more effective than others. This means that an hour of *study* does not always equal an hour of *learning* – there is a "conversion factor" between the two. Some guidelines appear below.

Learning on the Job

If you have a job, time spent on the job counts as "study" of the skills used in the job. However, since most time on the job is spent doing what you already know, not learning new things, every *four* hours on the job count as *one* hour of learning. You may claim a maximum of eight hours on the job per day (four hours per day at a part-time job). Your actual working hours may exceed this, but fatigue limits *learning* to this level. Thus, a year of full-time work will give you two to three points to spend on job-related skills.

Self-Teaching

You can teach *yourself* a skill, unless the skill description attaches specific conditions that would preclude this (such as "only taught by the military" or a prerequisite of Trained By A Master). Every *two* hours of reading, exercises, practice, etc. without an instructor count as *one* hour of learning. This must take place in time not used for adventuring, working, eating, sleeping, or taking care of personal hygiene. The GM should limit self-teaching to 12 hours per day – or eight hours/day for those with part-time jobs, only four hours/day for those with full-time jobs.

Education

Every hour of instruction by a professional teacher counts as one hour of learning. A "professional teacher" is someone with Teaching skill at 12 or higher. In order to teach you a given skill, he must either know that skill at your current skill level or better, or have as many or more points in the skill as you do. Ordinary instruction rarely exceeds eight hours per day. A college semester (21 weeks) of classroom study equals around one point per subject, and a full-time student could study up to five subjects per semester. A semester of night school would give one point in one subject.

Intensive Training

Full-time study with expert teachers and lavish training materials is the most effective type of "normal" learning. An expert teacher has Teaching skill at 12 (or higher), plus a higher level *and* more points in the skill being taught than you do. *Quadruple* all costs and tuition fees! Every hour of intensive training counts as *two* hours of learning. Intensive training is rarely available outside the military, where you have little control over the skills taught or the scheduling of courses. It can last for up to 16 hours per day. You must have HT 12+ to make it through such training without "washing out" (the Fit advantage *does* increase effective HT for this purpose).

Adventuring

Adventuring time can also count as study of suitable skills. The "conversion factor" is up to the GM, who should be generous. For example, a trek through the Amazon might count for every waking moment – say, 16 hours a day – as study of Survival (Jungle).

LEARNABLE ADVANTAGES

You can learn certain advantages as if they were skills (200 hours = 1 point), provided you have a suitable instructor (professor, trainer, etc.). Use the standard rules for skill learning; in particular, anyone teaching an advantage must possess it himself.

Combat Reflexes: The GM may rule that fighting is the *only* way to "learn" Combat Reflexes before TL7, and require adventurers who want this advantage to pay for it with bonus points. At TL7+, realistic military simulations can teach it as if it were a skill.

Cultural Familiarity and Languages: Time spent in a foreign land/alien planet counts as four hours per day toward both Cultural Familiarity and the local Language, no matter what else you are doing (even studying skills – an exception to the "one skill at a time" rule).

Eidetic Memory: By doing daily mental exercises, you can "learn" the first level of this advantage. This requires an hour a day, meaning it takes a little less than three years of constant practice to gain this trait.

Fit: You can acquire either level of Fit through exercise – on your own or with a trainer – just as you would athletic skills like Hiking and Running.

G-Experience: The standard way to "learn" G-Experience is to visit planets that have different gravity fields. In the ***Star Fleet Universe,*** since gravity can be manipulated, this advantage can be taught as if it were a skill.

So your character not only succeeded in his mission, but did so brilliantly. Did he get promoted? Does he now have a medal? Find out more!

FEDERATION MEDALS

The Federation has numerous awards which fall into broad categories of valor, service, and command. GMs can, in some cases, select an award from either category. This section provides only a brief summary of the most general awards; additional awards (and more information about these) are provided in ***GURPS Federation.***

Most awards are medals hung on ribbon; for informal occasions, only a small rectangular ribbon is worn.

Awards for Valor

The highest award for valor in the Federation is the Star Fleet Gold Star (which is also the highest award for anything). This is a military award, although it can (rarely) be awarded to civilians. It is awarded for multiple consecutive heroic actions at the risk of life above and beyond all expectation of duty. (Most are awarded posthumously.)

The second highest valor award is the Star Fleet Silver Star, awarded for heroic actions at the risk of life beyond the requirements of duty.

The Star Fleet Bronze Star is awarded for a single act of heroism at risk to one's own life. This can be given for non-combat heroism; the Gold Star and Silver Star cannot. (See also the various "Life" medals.)



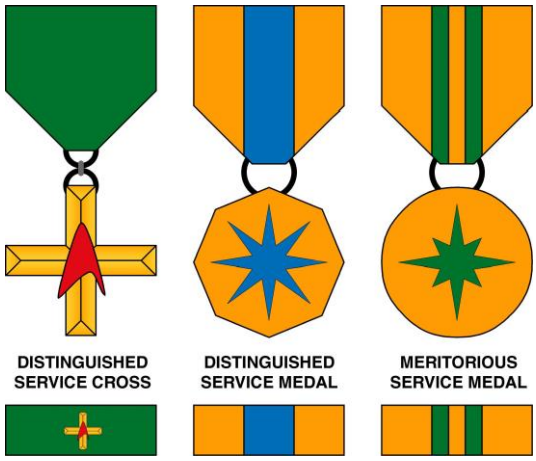
The Star Fleet Commendation Medal can be given for valor, and ranks as the lowest valor award.

Awards for Service

Awards for service cover situations where an individual has done a lot of good things over a period of time, none of which would result in a specific award. The highest award for service is the Star Fleet Distinguished Service Cross. This is awarded for major achievements over an extended period of time, such as commanding a fleet in wartime.

The Distinguished Service Medal is a lesser award given for specific acts (or extended periods) in which the individual is distinguished as having gone far beyond what would be expected of Star Fleet personnel.

The Meritorious Service Medal is awarded for singular acts of service or achievement which were performed with great merit. Combat is not required for this award.



The Star Fleet Commendation can also be given for service (ranking lower than the above medals) as can campaign ribbons.

Star Fleet also has medals for those who complete five, 10, 20, or 30 years of service. For extra decades, a star is added to the 30-year medal.



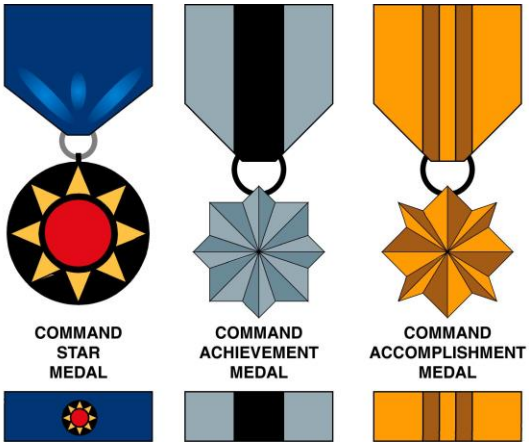
Command Awards

The Federation has a special set of awards for command accomplishments. These include:

The Command Star (also known as the Fleet Captain's Medal) is awarded for spectacular accomplishment under extremely difficult conditions.

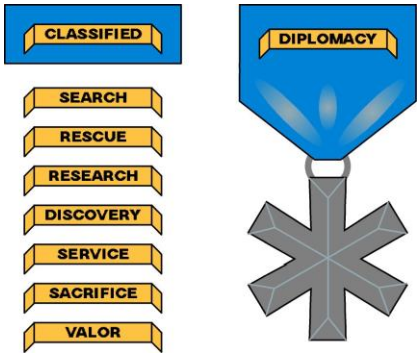
The Command Achievement Medal (sometimes known as the Squadron Major Medal) is awarded to a commander who, while exposed to personal risk, achieved more than could have reasonably been expected.

The Command Accomplishment Medal (sometimes known as the Commander's Medal) is awarded for the accomplishment of a mission. This is the most likely award for a GM to give to a team leader who performed well on a mission. Superior performance rates a higher award.



Commendations

The Star Fleet Commendation is, in some regards, a generic "catch-all" award. It can be awarded to military or civilian personnel for any valid reason, from a university professor who conducted two years of research into new materials to a junior officer who conducted a minor mission with above average results. It is an iron-gray medal in the shape of a six-armed cross. Commendation medals always come with an "honor scroll" reflecting the specific type of service which merited the commendation.



Some examples of these scrolls (there are dozens) include:

Search: Conducting a successful search for a missing person or thing under unusually arduous conditions.

Rescue: Rescuing someone from imminent danger.

Research: Given to scientists or engineers.

Discovery: Awarded for finding some specific and unique fact, truth, or item. Could be given for finding a mineral deposit on a world ripe for colonization.

Exploration: Conducting a survey of a new world.

Valor: Given for minor events.

Service: Lower than the Meritorious Service Medal.

Sacrifice: This is awarded to those who give up something of great personal importance in order to pursue their duty to the Federation.

Achievement: This is awarded for a single specific accomplishment.

Diplomacy: Given for a notable success.

Classified: Some awards are for incidents which must remain secret for the good of the Federation. Such an award is, of course, never worn in public.

Note to GMs: You should not give these out as freebies, but could award them to any military team member after any mission that was a bit more than merely successful.

Campaign Ribbons

Star Fleet awards a series of Campaign Ribbons for those who participate in various campaigns. A campaign is defined as an extended series of operations in a single area, such as a series of battles for a planet. Star Fleet personnel get a General Service campaign ribbon after each five-year tour. Prime teams and other special forces types receive a "special campaign ribbon" for each mission (e.g., stopping Klingon arms smuggling on Sherman's Planet, thwarting the Romulan-backed coup on Debrock) no matter how long the mission takes. If non-special forces characters wander into such a situation and achieve success, they could also get a special campaign ribbon.

Civilians can be given a campaign ribbon if they participated to the same extent as military personnel.

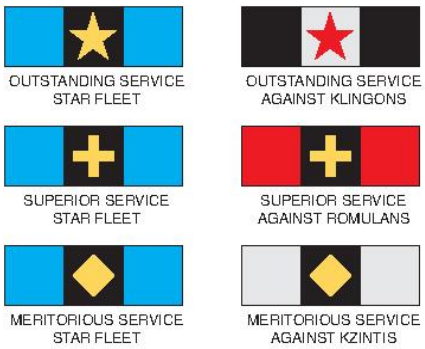
Beyond simply receiving the ribbons, each individual may have a device affixed to the center square of the ribbon to denote how illustrious his service was. There are three such devices:

Star: Outstanding Service Ribbon: This is awarded to personnel who achieve complete success in a manner beyond all reasonable expectation. For example, conducting a successful campaign against Orion Pirates and stealing their tax records at the same time.

Cross: Superior Service Ribbon: This is awarded to personnel who participate in an outstanding manner, to the highest level of performance that could be expected. For example, rescuing hostages held by Orion Pirates without losses and without causing excessive damage.

Diamond: Meritorious Service Ribbon: Awarded to personnel who completed their mission successfully.

No Device: General Service Ribbon: Given to personnel who went on the mission or served in the theater but did not accomplish anything of any particular merit. Except in the cases of actual dereliction of duty, this award basically means "you showed up and you didn't screw up."



Special Awards

The rarest special award is the First Contact Medal. This is awarded to Star Fleet personnel (or civilians who are officials, delegates, or employees of the Federation or one of the member planet governments) who successfully complete a First Contact mission with a new species. These missions are especially critical, as they can accidentally start wars. The ribbon of the First Contact medal is White-Blue-White; the medal itself is blue with a white cross. A symbol affixed to the ribbon represents the planet contacted.





The Guardian of Life Medal is awarded in cases of multiple consecutive acts of valor, leadership, and service equivalent to those required to earn the Star Fleet Gold Star but which did not take place in conditions of wartime combat. For example, it was once given to a doctor who, knowing it could mean her own death, remained in a highly contagious plague zone to coordinate relief operations, control panic, deliver supplies, inspire others, and search for a cure when all common sense would have dictated leaving the area immediately. This is the equivalent of earning the Nobel Prize.



The similar Champion of Life medal is awarded for humanitarian actions at the risk of life beyond the requirements of duty. It is equivalent to the Silver Star.



Equal to a Bronze Star, the Defender of Life medal is awarded for a year of challenging service in a humanitarian role, or for a single humanitarian act of great merit, the absence of which would not merit censure, but is insufficient to merit a higher award.



Equal to a commendation, the Friend of Life medal is awarded for humanitarian service of notable merit beyond simply doing the job the individual was assigned and paid to do.



The Lifesaving Medal is awarded to anyone (military or civilian) who saves a sentient life at the risk of his own life.

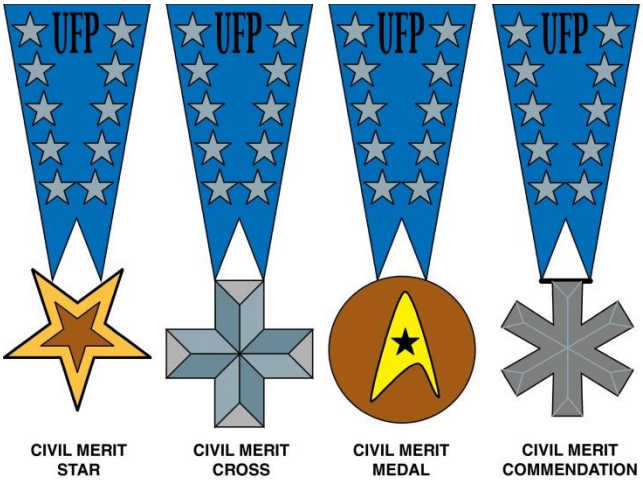
The Combat Action Ribbon (a rectangular red ribbon) is awarded to anyone who performed his duty under enemy fire. You can only earn this medal once in your career. Crossed swords are added for hand-to-hand combat and an arrowhead for an assault on an enemy ship or planet.



The Prime Directive Clasp can be added to any medal if the actions which earned the medal were, at least in large part, taken to enforce and protect the Prime Directive.



Civil Merit Awards are the civilian equivalent of the Gold Star (star, equal to the Nobel Prize), Silver Star (four-armed cross), Bronze Star (disc), and Commendation (six-armed cross). They can be awarded for valor.



The Special Forces badge is awarded to those military personnel (and rare civilians) who complete the grueling 16-week course taught by the Star Fleet Marines. Every member of a prime team, as well as most Marines assigned to a commando squad, will have this badge.





The Star Fleet Wound Badge is awarded to those wounded in action. The wreath of oak and laurel symbolizes strength and honor. The heart is purple. It comes in three grades for minor, major, and crippling wounds.

The Federation's Galactic Intelligence Agency has its own awards, which parallel the Star Fleet Awards exactly. The main difference is that the ribbons are black and the various "stars" (Gold, Silver, Bronze) have four points instead of five. Most such awards are classified.



Each Federation member planet has its own equivalent military and civilian awards which it gives to its citizens who perform acts that deserve recognition. Player characters might hold reserve commissions from their home planets and could be given such awards.

PROMOTION

In game terms a “promotion” is the purchase of the next level of Military Rank. Promotions are only available to military characters who already have purchased at least one level of Rank generally at the time that the character was created. Except under the most unusual of circumstances, a military character receives a promotion only when a number of conditions are met.

GMs should use the following criteria for promotion. See p. 39 for the Seniority Points and Professional Reputation required for each military grade; e.g., 50 Seniority Points and Professional Reputation +1 for a lieutenant commander (O4). When a character has accumulated Seniority Points and Professional Reputation scores equal to or exceeding those given for the next grade, the character becomes eligible for promotion with the GM’s approval. If this promotion increases the character’s Military Rank advantage, the character will have to buy that level of Military Rank when the promotion is granted. E.g., a character with 4 levels of Rank is a lieutenant commander; he must accumulate a total of 70 Seniority points and a Professional Reputation of +2 before he becomes eligible for promotion to commander. Once this has been achieved, he gains the promotion with the GM’s approval and spends 5 bonus points to purchase an additional level of Military Rank, thereby becoming a commander.

Normally a character must spend his own accumulated character points to purchase the new level of Rank. A GM may, at his option, award character points specifically to pay for the promotion; this is known as a “meritorious promotion.”

Special note: This process varies for empires other than the Federation and will be detailed in their sourcebooks. For example, a military Klingon character can substitute Heroic Reputation points for Professional Reputation points, and MUST have at least some Heroic Reputation for every second promotion except for the technical warrant grades.

Rank Insignia

Star Fleet enlisted insignia are usually shown as small brass pins on the collar, but can be shown as green patches on dungarees. Marine enlisted insignia is red patches on the sleeves of the dress uniform and black pins on the collar of the combat uniform.

Star Fleet officer insignia consists of combinations of gold and blue pins (Lieutenant Commander has two gold and one blue). Marine officer insignia is silver (2nd lieutenant and major are gold) on the dress uniform and black (brown in the case of 2nd lieutenant and major) pins on the collars of the combat uniform. Marine cadets wear silver pips while Star Fleet midshipmen wear blue pips.

National Guard officers wear the Marine insignia, but gunnery sergeant is called sergeant first class and lance corporal is called specialist. Police personnel wear Star Fleet insignia except that the gold is replaced by silver. Merchant Marine personnel wear Star Fleet insignia but the gold is replaced by bronze.

Star Fleet	Marines
Commodore	Brigadier
Fleet Captain	Regimental Colonel
Captain	Colonel
Commander	Lt Colonel
Lieutenant Commander	Major
Sr Lieutenant	Captain
Jr Lieutenant	1st Lieutenant
Ensign	2nd Lieutenant
Cadet	Cadet
Command Master Chief	Command Sergeant Major
Master Chief Petty Officer	Sergeant Major
Senior Chief Petty Officer	Master Sergeant
Chief Petty Officer	Gunnery Sergeant
Petty Officer 1st Class	Staff Sergeant
Petty Officer 2nd Class	Team Sergeant
Petty Officer 3rd Class	Corporal
Crewman	Lance Corporal
Apprentice	Private 1st Class
Recruit	Private



TECHNOLOGY LEVELS (TLs)

A technology level (TL or tech level) is a general description of a culture's highest achievement in technology. It is possible for a locale, nation, world, or empire to have widely varying TLs in different sciences, but for game purposes these are averaged into one number. Technology level ratings range from 0 to 16; high TLs are likely to seem like magic to anyone of a sufficiently low TL!

Note that TLs have start dates but *not* end dates. The innovations of a given TL fade as those of higher TLs displace them, but they rarely vanish completely. A blacksmith in 1850s England uses TL3 techniques to shoe the horses that pull the carriage the gentleman rides to catch his TL5 train to London – and those techniques might still exist in TL8, albeit as a quaint hobby. The GM should decide which "dated" technologies remain in use in his game world, and which items from earlier TLs are still commonly available for purchase.

Note: "Foreign versions of the same basic technology" (e.g., a Romulan trying to use a Gorn phaser) is handled by the Familiarity rules (p. 147). In summary, this imposes a -2 penalty until you have had eight hours to practice with the foreign item. Note that this would not apply to an average Romulan trying to use a Klingon drone since the Romulans have no familiarity with drone technology. Some individuals might, due to their training, have actual skill ratings with foreign technology.

PRIME DIRECTIVE TECHNOLOGY LEVELS

This Tech Level Chart shows the progression of technological development in the ***Star Fleet Universe***. It is exactly the same as the standard ***GURPS*** tech level chart for TL0 (Stone Age) through TL6 (the Mechanized Age). At TL7 and above it deviates from the "generic" **GURPS** tech levels to show the way technology developed in this particular universe. *Items in Italics are **SFU** specific.* For example, in this game's universe, transporter technology is common at TL9, but the standard ***GURPS*** definition is TL9^. This is a major strength of the ***GURPS*** system; each universe can build its own history.

It should also be noted that thousands of pages of background, history, and technology from other ***Star Fleet Universe*** products do not neatly fit into ***GURPS*** Tech Levels. If your campaign requires precise data, we refer you to the many ***Star Fleet Battles*** and ***Federation & Empire*** products which provide precise development dates for each empire and type of technology. A lot of this information, but by no means all of it, is in the ***SFU*** Timeline in Chapter 8. It should be noted that tech levels are not a tidy batch of information. Some empires got the various levels at different times, and some technology never made its way to every empire.

Of course, the GM is the final arbiter. GMs are welcome to make whatever alternates they like to best service *their* players. You can set your campaign at any tech level you want; you can use the ***Star Fleet Universe*** timeline or you can ignore it completely.

Star Fleet Universe Tech Level Chart

TL0 – Stone Age (Prehistory and later). Counting; oral tradition.
TL1 – Bronze Age (3500 B.C.+). Arithmetic; writing.
TL2 – Iron Age (1200 B.C.+). Geometry; scrolls.
TL3 – Medieval (600 A.D.+). Algebra; books.
TL4 – Age of Sail (1450+). Calculus; movable type.
TL5 – Industrial Revolution (1730+). Mechanical calculators; telegraph.
TL6 – Mechanized Age (1880+). Electrical calculators; telephone and radio.
TL7 – Modern Era (1951+). Launch-to-orbit travel, computer, laser, miniaturization, mature fission technology.
TL8 – Spacefaring Era (2001+). Slower-than light (interplanetary) travel, *Advanced Sublight Engines,* AI (Artificial Intelligence), genetic engineering, longevity, micro-machines, early fusion technology.
TL9 – Non-Tactical Warp Era (Y0+). Faster than light interstellar travel via *Non-Tactical Warp (Impulse) Engines,* environmental engineering, mature fusion technology, *Matter Transmission, Tractor Beam, Gravity Compensators.*
TL10 – Tactical Warp Era (Y50+). Antimatter power, artificial gravity, Early Faster Than Light radio, *Starship shields, Early Tactical Warp Engines, Artificial Gravity.*
TL11 – The Early Years (Y80+). Improved Faster-Than-Light radio (subspace), *Full Tactical Warp Engines (early).*
TL12 – Main (Phaser-1) Era (Y120+). *Starships mount Phaser-1, Full Tactical Warp Engines (modern),*

fighter-shuttles. During the later portions of this era, various improvements included aegis fire control, "hot warp" engines (used in war cruisers and war destroyers), and "fast warp" engines (used in fast cruisers).

TL13 – X-Technology (Y180+). Full terraforming of planets, *X-warp engines, other X-equipment, gunboat/fast patrol ships.*

TL14 – Dysonian (Tholian). Construction of ringworlds; nanomachines, sentient Artificial Intelligence.

TL15 – 2X-Technology (Y205+). Amazing things. *2X-technology is the next generation after the **Star Fleet Universe** history and is beyond the scope of **GURPS Prime Directive**.*

TL16 – 3X-Technology (Y226+). Wonderful things. *Third-generation X-technology.*

PD Technology Levels for Empires and Species

The following table gives the date that major species and empires achieved Technology Levels important to this game. Y1, or Year One, was the year Earth officially first made contact with aliens, in this case the Vulcans.

	TL9	TL10	TL11	TL12	TL13
Carnivons	Y20	Y64	Y80	D	D
Federation	Y5	Y62	Y79	Y120	Y180
Gorn	Y20	Y66	Y91	Y121	Y182
Hydran	Y25	Y65	Y78	Y134	Y182
ISC	Y25	Y60	Y120	Y168	Y182
Jindarian	?	?	?	Y1	Y182
Klingon	Y8	Y63	Y78	Y125	Y181
Kzinti	Y25	Y64	Y79	Y122	Y182
Lyran	Y30	Y64	Y79	Y120	Y182
Orion	Y21	Y71	Y113	Y121	Y182
Paravian	Y20	Y68	Y85	D	D
Peladine	Y25	Y60	Y121	D	D
Romulan	Y1	[Y60]	[Y140]	Y159	Y182
Seltorian	NA	NA	NA	Y180	D
Tholian	?	?	?	Y79	Y183
Vudar	Y25	Y70	Y76	Y177	Y185
WYN	NA	NA	Y116	Y140	Y182

Notes:

None of the empires listed above reached TL15 or TL16 during the published history of the ***Star Fleet Universe***.

The Andromedans and Tholians (who arrived from another galaxy) had TL14 throughout the entire time period covered by this game. Curiously, they never showed any technological advances. Otherwise, the ***SFU*** skips TL14. While the Tholians had TL14 in their home galaxy, the refugees who arrived in the Milky Way in Y79 had only TL12 (plus one very big TL14 artifact).

The Romulans, who were stuck at TL9 for decades due to infighting (and a few Gorn commando raids), developed the shields and type-W tractor beams of TL10 long before the Klingons handed them TL12 on a platter in the Treaty of Smarba in Y159. Their shields were, however, very weak when first installed and did not reach "normal" power until Y140. The Romulans did not have matter transmission until the Treaty of Smarba.

The Lyran Democratic Republic (LDR) had the same technology levels as the Lyran Star Empire.

The WYN Star Cluster was uninhabited prior to Y116. If it had been occupied earlier, it would have the TL of whoever arrived to occupy it.

The Orions are a special case. Because they steal from everyone, in theory a given Orion pirate ship could have any technology (except Tholian or Andromedan). See the map and special rules on p. 246-247. .

The Seltorians, who overthrew the Tholians in their home galaxy, could not grasp their higher technology and fell to TL12, the technology they had when their search teams reached this galaxy looking for the Tholians.

The Jindarians are an ancient species, probably native to the Milky Way. They apparently had TL12 for many thousands of years and did not develop TL13 until they saw other empires do so.

An entry of "?" indicates the date is unknown and undefined as the empire developed this TL very long ago.

An entry of "D" indicates that the faction had been destroyed or subjugated before achieving this Technology Level.

An entry of "NA" indicates that this empire did not exist in our galaxy prior to this time.

Many of the technologies mentioned apply to starship operations, while others apply to personal equipment, and some technologies apply to both.

Transporter and Tractor Beam Ranges; Engine Types

Many pieces of equipment function differently at different Technology Levels. The following table shows the availability of some items for a given TL.

TL	Transporter	Tractor	Engines
8	None	None	Advanced sublight
9	None	Type-S	Non-tactical warp
10	10,000km	Type-W	Tactical warp (early)
11	20,000km	Type-Y	Tactical warp (full)
11b	30,000km	Type-Y	Tactical warp (full)
12	40,000km	Type-M	Tactical warp (modern)
12b	50,000km	Type-N	Tactical warp (modern)
12c	50,000km	Type-N	"fast," "hot," and "fighter"
13	50,000km	Type-X	X-technology, gunboat/ PF engines

Technology upgrades continued throughout the era. The upgrades listed as Tech Level 11b occurred about Y100, those for 12b about Y140, and those for 12c about Y165. Note that gunboats and X-ships were developed about the same time but are entirely unrelated technologies.

The tractor-S was the original tractor beam designed for emergency towing of a disabled ship. Its range is only several hundred feet, and it only functions in the rear 60° arc on ships, i.e., directly behind the towing ship; on bases, the function is 360°. It can be used only to tow a friendly or captured ship or shuttle; it cannot be used defensively to capture incoming missiles or drones as the targeting system cannot deal with the high relative velocities.

The tractor-W could function at a range up to 10,000km but otherwise had the same limitations as the tractor-S.

The tractor-Y was the first tractor beam that could be used tactically. It could function in a 360° arc, and it could tractor any object (including drones and missiles, friendly *or* enemy ships, and asteroids) but was still limited to a maximum range of 10,000km.

The tractor-M was similar to a tractor-Y except that it increased its maximum range to 20,000km.

The tractor-N was the final development of the series, increasing the maximum range to 30,000km.

The tractor-X is a TL13 development, but still has a maximum range of 30,000km.

Technology Availability by Empire

Andromedan: Displacement devices, maulers, phaser-2s, phaser-3s, power-absorber panels, shuttlecraft (only ones they captured; they never built their own), and tractor-repulsors.

Carnivon: Death bolts, disruptor cannons, phaser-1s, phaser-2s, phaser-3s, and shuttlecraft.

Federation: Drones, fighters, phaser-1s, phaser-2s, phaser-3s, phaser-4s, phaser-Gs (Gatling phasers) on only a few ships, photon torpedoes, plasma-F torpedoes, and shuttlecraft

Gorn: Fighters flown by mercenaries, gunboats/PFs and interceptors, phaser-1s, phaser-2s, phaser-3s, phaser-4s, plasma torpedoes, and shuttlecraft.

Hydran: Fighters, fusion beams, gunboats/PFs and interceptors, hellbores, phaser-1s, phaser-2s, phaser-3s, phaser-4s, phaser-Gs (Gatling phasers), and shuttlecraft.

ISC: Fighters, gunboats/PFs and interceptors, phaser-1s, phaser-2s, phaser-3s, phaser-4s, plasma torpedoes, plasmatic pulsars, and shuttlecraft.

Jindarian: Anti-transporter fields, fighters, gunboats/PFs and interceptors, phaser-1s, phaser-2s, phaser-3s, phaser-4s, shuttlecraft, and warp-augmented rail guns.

Klingon: Disruptors, drones, fighters, gunboats/PFs and interceptors, maulers, phaser-1s, phaser-2s, phaser-3s, phaser-4s, shuttlecraft, and stasis field generators (SFGs).

Kzinti: Disruptors, drones, fighters, gunboats/PFs and interceptors, phaser-1s, phaser-2s, phaser-3s, phaser-4s, and shuttlecraft.

LDR: Disruptors, drones only on fighters, expanding sphere generators (ESGs), fighters, gunboats/PFs and interceptors, phaser-1s, phaser-2s, phaser-3s, phaser-4s, phaser-Gs (Gatling phasers), and shuttlecraft.

Lyran: Disruptors, drones only on fighters, expanding sphere generators (ESGs), fighters, gunboats/PFs and interceptors, maulers, phaser-1s, phaser-2s, phaser-3s, phaser-4s, and shuttlecraft.

Orion: Cloaking devices on some ships, disruptors, drones, expanding sphere generators (ESGs), fighters, fusion beams, hellbores, gunboats/PFs and interceptors, ion cannons, phaser-1s, phaser-2s, phaser-3s, phaser-Gs (Gatling phasers) on only a few ships, photon torpedoes, plasma torpedoes (all but plasma-R torpedoes), plasmatic pulsars, and shuttlecraft. (See *Orion Pirate Special Availability,* below.)

Paravians: Phaser-1s, phaser-2s, phaser-3s, quantum wave torpedoes, and shuttlecraft.

Peladine: Drones, phaser-1s, phaser-2s, phaser-3s, phaser-4s, plasma-G torpedoes, plasma-P torpedoes, plasma torpedo drones, and shuttlecraft.

Romulan: Cloaking devices, fighters, gunboats/PFs and interceptors, maulers, phaser-1s, phaser-2s, phaser-3s, phaser-4s, plasma torpedoes, and shuttlecraft.

Seltorian: Drones only on fighters, fighters flown by mercenaries, gunboats/PFs, particle cannons, phaser-1s, phaser-2s, phaser-3s, phaser-4s, shield crackers, shuttlecraft, and web breakers.

Tholian: Disruptors, fighters, gunboats/PFs and interceptors, phaser-1s, phaser-2s, phaser-3s, phaser-4s, photon torpedoes, shuttlecraft, and webs.

Vudar: Fighters, gunboats/PFs and interceptors, ion cannons, ion pulse generators, ion storm generators, phaser-1s, phaser-2s, phaser-3s, phaser-4s, and shuttlecraft.

WYN: Disruptors, drones, expanding sphere generators (ESGs), fighters, gunboats/PFs and interceptors, maulers, phaser-1s, phaser-2s, phaser-3s, phaser-Gs (Gatling phasers) on only a few ships, and shuttlecraft.

Important note: For players who are using ***Star Fleet Battles*** for ship-to-ship combat in their campaign, or who want more historical precision, use ***SFB*** rule (U7.0) to determine the availability of technologies instead of this rule.

Orion Pirate Special Availability

The Orion Pirates are a special case. They are divided into a number of “cartels” with distinct boundaries that do not conform to the boundaries of the various major powers. In general, an Orion Pirate cartel has access to the technology available to the major powers in whose area they operate, with the exception of technologies listed as “only” e.g., mauler technology.

For example, the Orion Hamilcar Cartel operates in Federation, Klingon, and Hydran space; they would have access to disruptor, photon torpedo, drone/missile, plasma torpedo, fusion beam, and hellbore technology. They would not have access to stasis field generator technology as that is "Klingon only," and they would only rarely have access to ESGs as they do not operate in Lyran space. A very few ships in each cartel area would use "outside" weapons; these were usually "independent" ships which leased operating areas from the cartel.

Romulan Starship Series

The Romulans are a special case. They went from TL9 to TL12 virtually overnight when the Klingons provided this technology under the Treaty of Smarba in Y159.

Prior to the Treaty, the Romulans operated TL9 ships of various "Old Series" or "Eagle" classes including the Warbird, Hawk, Snipe, and Vulture. They developed some TL10 and TL11 technology (tractor beams and shields) but never developed "tactical warp." This caused Federation officers to refer to them, somewhat imprecisely, as "pure sublight" ships (which was true in the case of combat; they could use non-tactical warp only for strategic mobility). Many of these ships were upgraded to TL12 technology (and at least two to TL13!) after these technology levels became available.

During the period of Y159 to Y168, the Romulans were learning to use their new TL12 technology and the Klingon-built "KR" or "Kestrel" classes of ships (converted to newly invented TL12 versions of Romulan technology). During this period, when the Romulans were hastily training on entirely new technologies, it might be more accurate to describe them as being TL11, although this would be an abstraction for gaming purposes (the ships are TL12). During this period, Romulan military personnel would have access to TL12 skills and equipment, but a civilian would not. The Klingon-built ships were TL12 (except for one or two very old TL11 ships sold for initial training), but they were the oldest Klingon TL12 ships which had been stored in mothballs for decades. (The Klingons never threw away a weapon just because it was obsolete, and, being constantly short of cash, were happy to sell these old ships to the Romulans.) These ships, old and unfamiliar as they were, marked a major improvement over what the Romulans had.

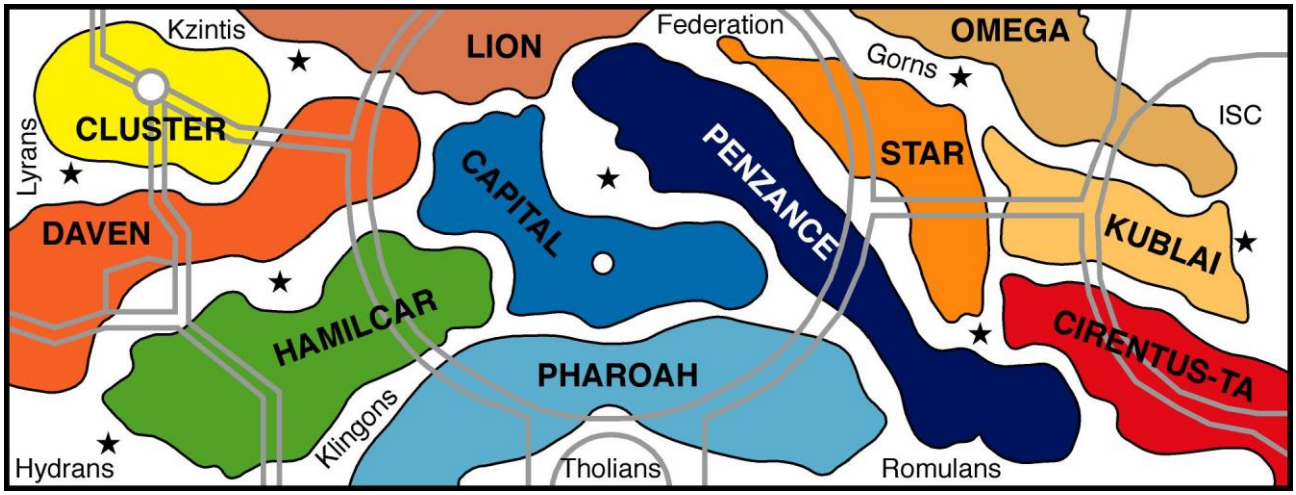
Starting in Y165, the Romulans began building an entirely new series of ships designated as the "Hawks." These included the Condor dreadnought, FireHawk heavy cruiser, SparrowHawk light cruiser, SkyHawk destroyer, and SeaHawk frigate. These ships are truly TL12 in every regard.

The Romulans later converted some ships of all three types into TL13 X-ships.

Each of these three series of starships was built from entirely different technologies. For purposes of crewmen dealing with different technologies, the ships could be considered as TL10 Eagles, TL11 Kestrels, and TL12 Hawks, even though this is not exactly accurate. In general, personnel who transferred from ships of one series to ships of another would require significant amounts of retraining; this was a constant headache to the Romulans during the Y160s. Characters who are being transferred between "series" use the Familiarity rules (p. 147).

X-Technology

The achievement of TL13 by the various empires marked a major shift in starship design philosophies, resulting in new generations of starships whose capabilities far exceeded their predecessors. X-technology, as it was called, also found application in many other areas, civilian and military. It is beyond the scope of this book to present TL13 X-technology in the detail it deserves.



Orion Cartels in Y175

SHIPBOARD EQUIPMENT

This equipment list includes the skill a character must have to operate each type of equipment. Remember if you move from one form of equipment to another, use the familiarity rules (p. 147). If you are moving from one empire's specialized weapons/equipment, you may suffer additional penalties at the GM's discretion.

Example: A Federation transporter technician with Electronics Operations/TL12 skills would suffer -2 to simply operate a Romulan transporter. If attempting to activate a Jindarian anti-transporter field, that penalty would be -4 or higher if the GM choses to use the Task Difficulty rules, p. 189.

Anti-Transporter Fields

This Jindarian-only technology is used because of their weak shields (they depend on their asteroid ships' rocky exterior for protection). It interferes with transporter operation, preventing transporting into or out of a Jindarian asteroid ship. A Jindarian character must have Electronics Operation/TL12 (Transporter) to activate this field.

Cloaking Devices

Almost all Romulan ships, and some Orion ships, have cloaking devices. These are much misunderstood. They make it hard for an enemy to "lock on" to a ship, but a cloaked ship can still be fired at, hit, and damaged by various types of weapons (just less effectively due to weapons being unable to lock on the target). You must have Electronics Operation/TL12 (Electronic Warfare) to operate a cloaking device.

Death Bolts

Death bolts are a type of large drone used only by the Carnivons. You must have Artillery (Guided Missile) at TL9 or higher to fire death bolts.

Deflectors

Ships travelling at high speeds (especially above the speed of light) project a deflector shield ahead of them by a few miles which sweeps away odd bits of cosmic dust that might damage the ship. Deflectors cannot push aside asteroids, but these can be seen on sensors and avoided by Piloting skill. You must have Electronics Operation (Force Shields) at TL9 or higher to operate deflectors.

Displacement Devices

This Andromedan-only device is based on technologies which known other empires cannot begin to understand, even after examining captured examples. The device affects the fabric of space itself, and is related to the Andromedan ability to move rapidly between previously built bases. The device limits the number of ships (fitted with the device) that can operate a device in one area to a maximum of two. The targeted ship simply disappears from its original location and reappears in the new location without having traveled between the two hexes (at least not in this dimension). Ships displaced might cross a web or other terrain feature without interaction with that feature. No player character can operate this device; Andromedan robots that need this skill are assumed to have some form of Electronics Operation, but no one is sure.

Disruptor Cannons

The disruptor cannon is a version of the disruptor used only by the Carnivons. It is literally a disruptor that uses twice as much power, fires half as often, and does twice as much damage. A Carnivon must have Gunner/TL11 (Cannon) to fire this weapon.

Disruptors

This is the primary heavy weapon of the Klingons, Kzintis, Lyrans (including the LDR), and Tholians. Some WYN and Orion ships use copies of this weapon. While many think of this as a beam weapon, it is formally named a disruptor bolt because it fires a bolt of energy at a target. To use this weapon, a character must have Gunner (Cannon) at TL9 or higher.

Drones

These are missiles with thermonuclear warheads, used by the Federation, Klingons, Kzintis, Orions, Peladines, and WYNs. The LDR, Lyrans, and Seltorians have them only on their fighters. Drones have a high speed and long range, and do the same amount of damage no matter how far they travel to reach their target. Drones can be "shot down" by phasers and other weapons, but even a damaged drone has the same speed, range, and warhead. Drones have their fuel and warhead packed inside at a factory. You must have Artillery (Guided Missile) at TL10 or higher to launch drones.

Expanding Sphere Generators (ESGs)

The expanding sphere generator (ESG) is an auxiliary weapon of the Lyrans and LDR. Some are found on Orion pirate ships or WYN ships. The ESG generates a field of energy around the ship which damages whatever it contacts (seeking weapons approaching the ship, other ships, etc.). It is a defensive (anti-drone/fighter) system *and* an offensive ramming system. You must have Electronics Operation (Force Shields) at TL10 or higher to operate ESGs.

Fighters

Fighters are based on shuttlecraft, but are totally redesigned for use as "fighters." While the Hydrans are best known for their Stinger fighters, the Federation, ISC, Jindarians, Klingons, Kzintis, LDR, Lyrans, Orions, Romulans, Tholians, Vudar, and WYNs also fielded fighters. Gorn and Seltorian fighters are flown by mercenaries. You must have Piloting/TL11 (Shuttlecraft) or higher to fly fighters.

Fusion Beams

The fusion beam is the primary Hydran weapon, used by most of their ships and fighters. Some Orion pirates have also acquired the technology. The beam fires a stream of excited tritium which fuses into helium at the point of impact, releasing a tremendous amount of energy, basically a slow-burning hydrogen bomb. You must have Gunner/TL12 (Beams) or higher to fire fusion beams.

Gunboats/PFs and Interceptors

The Lyrans developed the interceptor concept in Y176. The gunboat (sometimes called fast patrol ship or PF) appeared during Y178. Within a few years, most other empires had adopted them. (The Federation and Andromedans didn't use them; the Peladine were subjugated by then; the Carnivons and Paravians were declared extinct decades before then.) These were considered to be attrition units that could be produced by factories at a rate approaching that at which they were lost during intensive combat. While major starships take years to build and can be lost within an hour of entering their first battle; some factories could produce several gunboats per week. Gunboats were developed from the earlier ships known as "interceptors" which were used in limited numbers. You must have the skill Piloting/TL12 (Starship) or higher to fly gunboats or interceptors.

Hellbores

The hellbore cannon fires an ultra-velocity (warp factor 600) fusion bomb. When it strikes a target, it spreads and then implodes, damaging all six shields. (If the implosion detonator is removed, the weaker warhead only affects the facing shield.) The first hellbore-armed Hydran ships appeared in Y156. It didn't take long for Orion pirates to steal the technology. You must have Gunner (Cannon) at TL12 or higher to fire hellbore cannons.

Impulse Engines

Impulse engines are the ion engines of TL8, but the plasma is channeled through a space-time driver coil. This generates a low-level space-time distortion field. This is similar in effect but vastly different from a warp drive field; a ship can have both types of fields at the same time. The result is that the ion exhaust is much more effective, allowing the ship to reach speeds of 0.99c in combat and (with some preparation and planning) to reach trans-light speeds out of combat. Fixing and maintaining impulse engines requires Mechanic (Impulse Engine) or Mechanic (Starships), frequently supervised by an officer with Engineer (Starship). These skills must be at TL8 or higher.

Ion Cannons

Ion cannons are carried by Vudar ships and some Orion pirates. The ion cannons are considered to be the heavy weapons of the ship, but because they must be armed in advance and cost a considerable amount of energy to hold the cannons if they are not fired immediately, their use is normally restricted to heavy combat situations. You must have Gunner (Cannon) at TL12 or higher to fire ion cannons.

Ion Pulse Generators

Carried by most Vudar ships (no other species may operate or be near these safely), the ion pulse generator is a defensive system with limited offensive capability. It creates the effect of a temporary ion storm in proximity to the generating unit. IPGs are a much smaller version of the huge ion storm generators mounted on asteroids and moons. You must have Electronics Operation (Force Shields) at TL12 or higher to operate ion pulse generators.

Ion Storm Generators

The ion storm generator is used as a defensive system to protect Vudar bases and systems (no other species may operate or be near these safely). It creates the effect of an ion storm in proximity to the generating unit. Ion storm generators can only be mounted on bases with positional stabilizers, or on celestial bodies without atmospheres such as asteroids and moons. You must have Electronics Operation (Force Shields) at TL12 or higher to operate ion storm generators.

Maulers

The mauler is a beam of intense directed energy. Because of the immense size of the power accumulators, the weapon is, almost literally, the same as the ship. Originally a Romulan weapon, it was eventually copied by their allies, the Klingons and Lyrans. The WYNs also have appropriated this technology. The Andromedans use a weapon that is functionally similar. You must have Gunner (Beams) at TL11 or higher to operate a mauler.

Particle Cannons

Particle cannons are direct-fire weapons similar to disruptors. They are the primary weapon of the Seltorians, and were the primary weapon of the Tholians in their old galaxy (M81). To use this weapon, a character must have Gunner (Cannon) at TL12 or higher.

Phasers

Phasers are the most common and most numerous weapons that starships carry. They fire "phased energy" (hence their name) which overwhelms and damages the systems of the target. Because of their relatively low power demands and the lack of any shock when firing, they are mounted in several batteries around the ship (unlike heavy weapons), providing all-around firepower for both attack and defense. Phasers are often the final defense against seeking weapons and, because of their large numbers, often cause most of the damage in a starship duel. They are armed with electrical power from the engine power grid.

Phaser-1s: This is the most powerful type of phaser carried by starships, often causing considerable damage to other ships at a medium range. For some reason the Andromedans never developed a weapon that resembled a phaser-1, but all other empires did. Phaser-1s started appearing at TL11 but at that Tech Level were restricted to bases and planets. Only at TL12 did they start appearing on ships. You must have Gunner (Beams) at TL11 or higher to operate a phaser-1. A phaser-4 may be fired as or repaired as a phaser-1.

Phaser-2s: These are shorter-ranged than phaser-1s due to less accurate fire control that is cheaper and easier to maintain; other than the fire control, they are identical to phaser-1s. (For that reason a damaged phaser-1 or phaser-4 may be repaired to operate as a phaser-2.) At TL12, some of these were upgraded to phaser-1s. All empires had phaser-2s. You must have Gunner (Beams) at TL11 or higher to operate a phaser-2. A phaser-4 or phaser 1 may be fired as or repaired as a phaser-2.

Phaser-3s: This type of phaser is the least powerful of all, designed to be used against drones. In practice they are often used against other ships in combat, but are, of course, less effective. Any empire could fire its phaser-1s, phaser-2s, or phaser-4s as phaser-3s or repair them as that. The Andromedans are the only empire that never had phaser-3s (although they, too, could fire or repair their phaser-2s as phaser-3s). You must have Gunner (Beams) at TL11 or higher to operate a phaser-3.

Phaser-4s: This type of phaser is a very powerful model used only on bases that are ground based or that have positional stabilizers. All empires had phaser-4s, except those that never used them (Andromedans, Orions, and WYNs) or were presumed extinct (Carnivons and Paravians). You must have Gunner (Beams) at TL12 or higher to operate a phaser-4.

Phaser-Gs (Gatling Phasers): The Hydrans use this weapon, which can fire four phaser-3 shots either at the same time or separately, and at the same or different targets. In theory, these weapons protected the Hydran ships from Klingon drones; in practice, they were used for savage close-range attacks on Klingon and Lyran ships. The LDR gained the weapons by treaty as did the Federation which used them only in limited numbers. Some Orion and WYN ships have acquired the technology. You must have Gunner (Beams) at TL12 or higher to operate a phaser-G. If a phaser-G is damaged, it can be repaired to be a phaser-3.

Photon Torpedoes

This is the primary heavy weapon of the Federation, although some Tholian, WYN, and Orion ships use copies of this weapon. Photons are classed as "heavy weapons" because of the power usage and shock of firing. The torpedo is loaded with encapsulated antimatter from the ship's power sources in a heavily reinforced launch tube, then fired at the enemy. When it strikes the target, the antimatter is released and causes an explosion. To use this weapon, a character must have Gunner (Cannon) at TL10 or higher.

Plasma Torpedoes

Plasma torpedoes are balls of energy created in a heavily reinforced chamber, then targeted on an enemy ship. Plasma is one of the four states of matter (the others being solid, liquid, and gas); it is comprised of highly energized particles. These are in fact "broken atoms" and include ions (atoms missing a few electrons) and the loose electrons. Atoms and molecules in this state are easily converted into energy, which is where the torpedo gets its propulsive and explosive force. The torpedo includes a solid physical element with the tracking system. There are several different types of this weapon, each with different warhead strengths. From largest to smallest, these are the plasma-R, plasma-S, plasma-G, plasma-F, plasma-P, plasma-D, and plasma-K.

Plasma torpedoes are used primarily by Gorns, the ISC, Orion pirates, the Peladine (before being subjugated), and Romulans. The Federation has plasma-F only; Peladine has plasma-G, plasma-P, and drones only; Orions and the ISC do not have plasma-R. To use this weapon, a character must have Gunner (Cannon) at TL10 or higher.

Plasmatic Pulsars

This is one of the two primary heavy weapons of the Inter-Stellar Concordium (the other being the type-S plasma torpedo). Orion pirates in the area quickly copied the technology. This weapon cannot actually be used on ships that are close to the origin of fire. The basic concept of the weapon is a series of intensely focused plasma energy pulses that are conveyed to the target on a carrier wave. The ISC didn't finish development and installation of this weapon on ships until after they observed a battle between the Gorns and Romulans. If the ISC had observed such violence earlier, it would have taken up to 10 years to develop the weapon (but no later than Y160). To use this weapon, a character must have Gunner (Cannon) at TL12 or higher.

Power-Absorber Panels

Andromedan ships do not use shields; instead, they use power absorbers. These absorb the power of enemy weapons (up to a point) and allow the ship to recycle this power into its batteries and use it against the enemy! A ship cannot have both shields and power absorbers; the two systems are mutually exclusive. The downside is that if the panels absorb too much energy, they release it within the ship – this can cause the ship to explode. (Andromedans are from another galaxy and their ships don't work the same way that the ships in the Milky Way Galaxy work.) Only the Andromedans use power-absorber panels. It is assumed that the robots that service them have some form of Mechanic skill, but no one really knows this for sure.

Quantum Wave Torpedoes

Quantum wave torpedoes are torpedoes that generate continually expanding waves of energy which seek their target. Due to the large size of the waves, the damage from a quantum wave torpedo tends to slightly envelop the target. Paravians developed this form of torpedo; it was never copied by Orion pirates. To use this weapon, a character must have Gunner (Cannon) at TL10 or TL11. (The Paravians never developed this weapon beyond TL11 as in Y94 they were declared extinct after a sun snake made their sun go nova.)

Reactors

Most starships have advanced fusion reactors which can be used to power various systems but not for movement. As starships are often far from bases or planets and are subject to unpredictable problems in unknown regions, designers usually include several different power systems operating on different principles, thereby ensuring that no matter what goes wrong, there is a high probability that at least one of the power systems will still work. Fixing and maintaining reactors requires Mechanic (Reactors) or Mechanic (Starships), frequently supervised by an officer with Engineer (Starship). These skills must be at TL8 or higher.

Replicators

These are the most misunderstood items of ***SFU*** technology. If replicators work, why do we need interstellar commerce instead of just making everything on site? There are two answers to that: cost and quality. Things made by replicator cost more (often a lot more), and quality can suffer unless extra time, skill, effort, technology, and cost are accepted. Some materials simply cannot be replicated, and some are easier to obtain through normal sources.

Starships, which must go long distances from any place they could get spare parts, and have huge tanks full of government-funded fuel to run their power systems, make use of replicators when they have to have the missing part (or the thing needed for the mission) right now.

Trans-Stator: The Heart of the Replicator

To really understand the technology, it is important to understand what a replicator is – and what it isn't. There are three similar technologies at work in the ***SFU,*** these being the replicator, transporter, and matter reformer. All of these (and communicators) use the trans-stator, known as "the centerpiece of all modern technology" to engineers. This tiny device provides access to subspace by placing a point of space-time into a trans-state beyond the normal continuum. (Just how it does this is classified.)

Shifting matter into a trans-state converts it into a form represented by and handled as energy. Transporters convert matter into energy, record the patterns digitally, and then transmit the matter stream to another location. The matter is then reassembled.

Matter Reformers

Matter reformers take existing matter and rearrange it into the desired shapes. A matter reformer could take iron ingots and produce horseshoes, avoiding the necessity to bring along a blacksmith just in case you need some horseshoes to make a treaty with the strange new civilization you just met. A matter reformer could make horseshoes out of bronze or silver if you only had those metals handy. It could process scrap iron and iron ore with considerably more energy expended and waste produced.

The closer the "feedstock" is to the "product," the less time, energy, and skill it takes, and lower TL reformers could do the job. Machine shops or other fabrication facilities that use matter reformers and replicators often have numerous machines of various costs and capabilities so they can do the easy jobs on the cheap machines with the low-skilled operators and use the expensive machines and high-skilled operators only for the most critical or expensive projects.

Most of the "replicators" in cafeterias and mess halls are in fact high-end reformers able to take feedstocks of sugars, carbohydrates, proteins, and other essential elements and convert it into an approximation of specific types of food. The success or failure of any particular recipe depends on the specific types of food, the quality and detail of the recipe template, and the complexity. Making a glass of tea (of any type you have a record of) is relatively simple, but building a cheese soufflé from duck eggs is considerably more difficult.

The Limits of Replicators

A replicator is different from a reformer in that it can rearrange electrons, protons, and neutrons (along with other sub-atomic particles) into the desired atoms and molecules. Feed iron ingots into a TL12 replicator and, with enough energy and the right templates and programs, you could produce a T-bone steak or a wool sweater. Of course, money is money and those using replicators to make things try to use "feedstocks" which are as close to the end result as possible. The primary limits are power and templates.

Given TL12 computer memory storage systems, a starship can leave its home planet on a five-year mission with a database containing billions of templates of things it might need to make. Historical uniforms and costumes are often produced for theatrical presentations by the ship's troupe of actors; it is rare to find a new alien culture that just happens to use the same uniforms as something in the database (but it *does* happen).

Replicators are more useful on planets, where the limits on space, energy, and feedstocks of materials are less troublesome. One of the most important items on a new colony planet is the replicator, as it must be able to produce anything that the colony might need. Hospitals often have small replicators able to make a huge library of drugs and other medical items as needed. Five-star restaurants have small replicators in case a rich customer just has to have his favorite dish,

and the ingredients are not in season (or on the planet).

One limitation of replicators is that the template for any given item is (once programmed into the replicator) a substantial part of the replicator's memory capacity. Thus, complex multi-part systems (say a phaser or a typewriter) have to be made in pieces and then assembled by hand.

Another limitation is that larger and larger items have more and more atoms, and thus more and more opportunities for transcription errors. Large I-beams for construction projects would not be produced by replicator or even a matter reformer due to the safety concerns of these errors. A flaw in such a beam could produce a catastrophic load failure and "bring down the house," so structural beams are made in foundries (or polycarbon facilities) as they always have been. Items made in replicators are often intended for temporary use where these transcription problems will not manifest themselves before the need for the item has ended. Items can be made without errors (well, without quite as many errors) but this requires more time, computer power, operator skill, and energy.

Getting the template into the replicator is often not a simple task, although the degree of difficulty varies with just what is being designed. For mechanical parts and other physical objects, an engineer could create a template in a computer-aided design system. In many cases, engineering labs use replicators to produce quick test copies of new designs, allowing them to be studied, tested, and inspected before tooling is done for actual production by more traditional means. For artifacts (the local leader wants a carving of an *Urubasoid* and nothing else will do) you must scan an existing object, preferably with a transporter or a Replicator Master Work Station. With a lot more work, you could make a less-than-perfect copy from tricorder readings. If you are desperate to impress a local potentate, you could produce *something* in the general style of the desired artifact by having a skilled engineer or designer study drawings, photographs, or even a verbal description. Just how likely you are to fool anyone varies. If you need Michelangelo's actual "Statue of David" to close the trade deal, you better have a transporter pattern of the original or you aren't going to fool anyone (and even then you'd be found out eventually). If, however, you simply need a sculpture (presumably an "unknown work" you "just discovered in an old ruin") *in the style* of the famous Klingon sculptor Kludge of Korbak, a decent artist with a museum-quality book of photos could do the job in a few days.

There are some things that replicators just cannot make, most critical among them being dilithium crystals. Because these crystals are so closely attuned to subspace (if they weren't, warp engines couldn't work), they cannot be processed by the trans-stator. Replicated dilithium crystals crack quickly when used in power systems. Replicators cannot make pergium (a compound used in advanced power systems) or topaline (used in life support gear). Other extremely dense materials with very complicated structures are near impossible to replicate. (GMs can decide what is too difficult.) The materials best suited to replication are pure elements, like iron or carbon. Homogeneous mixtures of elements such as metal alloys are the next easiest.

Replicators cannot create living material because the quantum signatures must be organized in a fashion that cannot be replicated – and the reason why a living person can be reassembled alive (safely!) is that the transporter recreates the person from the original matter which the person was made from, and therefore has the correct quantum signatures for life, using the unaltered transporter template created when the transport began.

While replicators turn matter into energy and vice versa they are extremely inefficient in producing energy. You could replicate a power cell but it would have to be charged before it could be used. Creating a "charged" power cell would take 100 times as much energy (for the replicator) as you would ever get out of the power cell.

Composite materials such as plastics replicate well. While replicators can rearrange protons, neutrons, and electrons into any atoms you want, they're even better at combining existing atoms into molecules. They are much better at this than matter reformers due to their greater processing and computing power. Replicators can also use pure energy as a "feedstock" but this takes more energy than using some physical matter.

Replication leaves a distinct signature in the resulting product (a lack of naturally occurring randomness) and is detectable with a deep scan for these telltale signatures left by the processing of the product. Replicator unit quality also affects this and the quality of the products produced. Furthermore, most commercial replicators leave a digital "watermark" that identifies the unit that created it. Even without a watermark, it is usually possible to tell the difference between the products of Klingon, Romulan, Federation, and any other empire's replicators.

Anyone can use replicators, much as anyone in modern times can use a vending machine. (Some of the operations may more resemble asking a device to record a particular show.) Repairing them takes Mechanic (Replicator) or Engineer (Electronics) at TL12 or higher. Programming them takes Computer Programming at TL12 or higher. Having the replicator create a new item (like that carving of an *Urubasoid*) requires working with someone (such as a sculptor or woodworker for the carving) to do it well.

Shield Cracker

Because the Seltorians provided the shock troops (infantry, Marines, cannon fodder) to enforce the Tholian Will, the Tholians provided them with a weapon known as the shield cracker. The Seltorians used this weapon to knock down the shields of rebellious ships (96% of which were some version of an armed freighter) in order to send in Marines and capture them. This allowed the ships to be returned to their original duties without economic loss to the Tholian Empire. The Tholians did not use this weapon

because of the difficulties in conducting boarding operations on ships with radically different environments. No one, including the Orions or Tholians ever managed to acquire this technology. To use a shield cracker, a character must have Gunner (Cannon) at TL12 or higher.

Shields

These are walls of force used by ships and some ground installations to provide protection from weapons. They also block transporters, molecules, radiation, etc. You must have Electronics Operation (Force Shields) at TL9 or higher to operate deflectors.

Shuttlecraft

Shuttlecraft are small spacecraft used to carry personnel and small amounts of cargo from one ship to another or from a ship to a planet or another location. Shuttles have more range than transporters, and sometimes it is more efficient for the ship to remain on course and let a shuttle carry some of the crew to a location where they will complete some task. Shuttles are not armed and are fairly vulnerable in combat, and as such are rarely used in combat conditions. All empires, except the Andromedans, used shuttlecraft. No one knows why the extra-galactic invaders did not build them; however, if they captured a shuttlecraft, they could use it presumably using robots programmed appropriately. You must have Piloting (Shuttlecraft) at TL9 or higher to fly a shuttlecraft.

Stasis Field Generators (SFGs)

The Klingons experimented with installing these devices in their cruisers, dreadnoughts, starbases, and stellar fortresses. The stasis field generator was invented by the Klingons in Y165 and was never successfully copied by any other empire. Basically, a stasis field stops time for anything inside it. Anything trapped inside of a stasis field cannot move until the field is released, but conversely nothing can be done to anything trapped inside such a field since nothing (logically) can happen while time is stopped. The Klingons use the device for two tactics. One is to pin an enemy ship while other friendly units move into position to deliver concentrated fire. The second is to protect a friendly ship that is observed to be in a disadvantageous position. You must have Electronics Operation (Force Shields) at TL12 or higher to operate SFGs.

Tractor Beams

These are electrogravitic beams of force used to manipulate objects at range. Most think of these as ship-mounted systems used for docking and to stop enemy missiles from hitting the ship (or to stop enemy ships from escaping), but smaller versions are used in cargo bays (replacing the 20th-century chain hoists) and some are used in vertical passageways inside the ship as a form of elevator. You must have Electronics Operation (Tractor Beams) at TL9 or higher to operate tractor beams. A roll against the skill is not normally needed unless you are overloading the tractor or doing something else out of the ordinary.

Tractor-Repulsor Beams

The tractor-repulsor beam is the primary heavy weapon of the Andromedan invaders. It operates by very rapidly alternating tractor and repulsion forces in millisecond-long bursts. The target is literally shaken to pieces on a molecular level. Only the Andromedans use tractor-repulsor beams; even when examples have been captured, no Milky Way empire has been able to operate it or duplicate it. There are two types: the heavy used on motherships, and the light (TRL) used on satellite ships. It has been postulated that the robots that operate these are programmed with Gunner (Beams), but no one is really sure.

Transporters

Transporters are matter-energy conversion devices that transform a person or object into a pattern of energy that is transmitted to a desired location, and then converted back into the original person or object. All known empires in the Milky Way developed this technology. Transporters operate as follows:

Sensors within the transporter lock onto the person or object to be transported. The transporter then scans the person or object and in the process converts him/it into a form of energy called a matter stream. It takes a finite amount of time to scan the person or object being transported; this explains why transporters do not operate instantly, and why the person or object takes a moment or two to fade from sight and then reappear. Various empires use different transporter scan algorithms, resulting in a unique appearance of the dematerialization/rematerialization process for each.

The “instructions” as to what the person or object is composed of are compiled into a separate signal in the form of a data stream, which is also sent to the pattern buffers. Because of the immense amount of data involved, these “transporter traces” are rarely stored longer than needed and are normally overwritten by the next transport. Cargo and emergency transporters are not equipped with buffers, and there is only one chance for rematerialization; this is why cargo transporters are not used to transport living beings, except in cases of extreme emergency.

While in the pattern buffer, the matter stream can be scanned and altered. These alterations include draining energy from power packs, deleting the portion of the pattern that represents weapons, and the application of “biofilters.” (These scan the matter stream for known biohazards, which can then be deleted.)

Due to the immense amount of data, Heisenberg effects at the quantum level will cause the data stream to degrade rapidly; the matter stream will be corrupted within seconds at lower tech levels, no more than a few minutes at higher tech levels. While this generally has minimal effects on non-living matter, the delicate balance of life will be destroyed and the reintegrated

person will be dead in seconds, one of the most agonizing forms of death known.

The process of rematerialization is the reverse of dematerialization. The data stream is converted back into matter, according to the stored instructions contained in the data stream. Interruptions in the reintegration process can be catastrophic, and are usually fatal to living tissue.

The maximum range of a transporter is defined on p. 245. Transporters are less reliable under non-ideal conditions. Electromagnetic fields, proximity to powerful energy sources, magnetic storms, and range reduce the chance of a successful transport. Traditional raised shields block transporters completely and you are left standing on the transporter pad. However, if you try to transport onto an Andromedan ship with a functional power-absorber panel, the energy that is "you" is absorbed and you are dead. Under normal circumstances an Electronics Operations (Transporter) (TL10 or higher) roll is not required. But under less than normal circumstances, a failed transporter roll will inflict from 1d points of fatigue to 4d points of damage to the transportee depending on how badly the skill roll was missed (GM ruling).

Transporters when first created included only basic pattern enhancers. As time progressed, not only did the range increase, the pattern enhancers improved.

Modifers: At TL10, the modifier for Tactical Warp Era pattern enhancers is -4. At TL11, that modifier becomes -2. At TL12, there is no modifier.

Any of the following circumstances *does* require a skill roll with the following modifiers:

Through functional power-absorber panels: impossible (except by Andromedans).
Through functional shields: impossible unless the ship is crippled, then it may be possible to beam survivors off.
Objects or personnel on enemy ships (unless friendly personnel are present): impossible.
Through dense matter or thick layers of matter: -10 to impossible.
Ion or magnetic storms or subspace distortion: -1 to -10.
Proximity to improperly shielded power source: -1 to -4.
Jamming: -1 to -5.
Damaged pattern enhancer: -1 to -6.

Some devices make transporter operation more reliable and/or safer, possibly compensating for the above negative effects (these are not cumulative):

Transporter to transporter: +10
Transporter beacon: +4
Communicator (this can be a communication device within hand's reach): +2

A transporter beacon is a device available at TL12 and higher. It is about the size of a football and weighs five pounds. It enhances the lock-on of the transporter, improving the ability to recover personnel from a distant area or one with jamming or other problems. The device is activated manually with a switch which is safeguarded against accidental activation. Anyone who knows what a transporter beacon actually is would have no problem activating one of them. This uses a single B-cell, which will power it for about an hour.

Enemy transporters cannot steal personnel from your ship, fighter, or shuttle (and vice versa) due to the structural integrity field all ships use. This can be defeated by sending your own people to the enemy ship. They would capture the targeted person or thing and beam back to their ship.

Most gunboats and some workboats are only equipped with transporter receivers. They cannot be used to transport anything or anyone off the ship. Be sure to check that "lightly used" workboat carefully before buying it!

Warp-Augmented Rail Guns

This weapon is the primary heavy armament of the Jindarians and was never copied by any other empire. Its principle use was to "crack" asteroids discovered to be rich in mineral ores in order to make mining them more efficient. The warp-augmented rail gun fires a solid shot of energized neutronium at a speed of Warp 9.95. As the material is not shielded, friction on the material from chance impacts with matter present even in the vacuum of space results in its degradation over range. Shots fired by the warp-augmented rail gun are directed to their targets at the last moment by a "warp-magnetic twist" just as they "leave the barrel"; the weapon itself is incapable of being shifted in any way. This results in a somewhat limited arc of fire, but enhances the concealment of the weapon as there is no need for mechanical systems on the surface of the asteroid ship itself. To use a shield cracker, a Jindarian must have Gunner (Cannon) at TL12 or higher.

Warp Drives

Warp engines use a matter-anti-matter reaction (which produces far more power than the ion engines). This higher power is channeled through a warp coil which generates a warp field, allowing the ship to move 700 or more times the speed of light. There are three basic types of warp drives. Non-tactical warp (impulse engines generating a warp field which cannot be used in combat) becomes available at TL9. Tactical warp (allowing ships to travel above light speed in combat) appears at TL10 (and is improved in TL11 and TL12), and X-technology warp drive at TL13. Early tactical warp (TL10) gave a combat speed of Warp 2.6 (18 times the speed of light); TL11 gave a combat speed of Warp 2.88 (24 times the speed of light), while TL12 gave a combat speed of Warp 3.1 (31 times the speed of light). Fixing and maintaining warp drives requires Mechanic (Warp Drive) or Mechanic (Starships), frequently supervised by an officer with Engineer (Starship). These skills must be at TL9 or higher.

The translation of "warp speeds" into actual movement is covered in Chapter 8.

Web Breaker

Just prior to their revolt against their Tholian masters, Seltorian scientists, working in secret, discovered how to adapt the shield cracker into the formidable web breaker. This more powerful weapon was able to destroy Tholian webs (eliminating the ability of Tholian starships to create "artificial terrain" in open space). Because webs were used to hold Tholian Dyson Spheres together, the Seltorians could use web breakers to crack the spheres and destroy them. This closely held secret has never been copied by another empire. To use a web breaker, a character must have Gunner (Cannon) at TL12 or higher.

Webs

Tholians are the only empire that has mastered this technology. A web is a band of energy (based on tractor technology) which stretches across space and impedes the movement of ships and other units through a given area. It also blocks weapons fire. The Tholians use it primarily to build defensive bastions around their bases, or when caught in open space by superior forces, but also use it tactically to influence enemy maneuvers. In rare cases, it can be used to capture an enemy starship (particularly if it has been disabled). A Tholian character must have Electronics Operation (Tractor Beams) at TL12 or higher to operate web generators. The web caster and web snare are based on web technology. You must have Gunner (Beams) at TL12 or higher to operate a web caster or snare.

PERSONAL EQUIPMENT

This section covers equipment that characters might have access to that is not directly limited to a ship's equipment. When looking at size and weight, remember that the SFU follows an alternate timeline/technology line. Our current technology apparently focused more on miniaturization and never had a World War III to set back technology.

Technology Improvements

Most items remain available at all TLs after introduction, but they become less expensive in some areas. An Early Years phaser may be almost worthless to a Federation soldier in the X-Technology era but to a TL7 nonaligned planet it would command far more then it was worth when it was new! (As a collectible antique, it is priceless!) Of course, when you *need* a phaser and it's the only one handy, it still works. (Remember to apply familiarity rules, p. 147.)

Cost: As a general rule, for any item introduced at TL8 or later, halve the cost at the TL after introduction, and halve it again at the next TL.

Size: Unless specified otherwise, all devices except weapons, vacc suits, power cells, and body armor, weigh half as much one TL after being introduced, and 1/4 as much after two or more TLs.

Power: If using power cells, duration assumes *steady* use (e.g. a year means turning a radio on and leaving it on for a year); casual use will be about 10 times as long. (In the ***GURPS*** rules set, power cells are better than and different from batteries, but are used in the same way. In ***SFU,*** the terms are used more or less interchangeably. In ***GPD,*** we try to use only power cells to avoid confusion.)

GENERAL EQUIPMENT (TL8+)

Air Mask (TL10+)

The air mask is used on worlds that have an unbreathable but otherwise harmless atmosphere (nitrogen, reducing, carbon dioxide and so on). The mask covers the entire face (human and most humanoid eyes get oxygen directly from the air). It always includes a standard communicator for the TL, which uses an A cell. It requires air tanks or a filter (see below). It takes three seconds to put the mask on, one second to take it off. Weight is 1/2 pound and cost is $25. For another $12.50, the mask includes a mini-tank with 10 minutes' worth of air.

TL8: The original stats are 2 pounds and $100 dollars. The mini-tank is $50.

Air Tanks (TL7+)

A two-hour tank weighs 10 pounds and costs $100 (full). A 24-hour tank weighs 73 pounds and costs $400. Don't reduce weight or cost at higher TLs. Air refills are $5 per hour if you don't have your own air compressor. Tanks take 10 seconds to hook up and two seconds to jettison. Note that an hour of oxy-helium breathing mix weighs only 1.5 pounds; the rest is the tank weight. (Ordinary compressed air would weigh 4.2 pounds.) Different people use air at different rates, so duration is approximate. For game purposes, assume that all adults breathe the same amount of air, and that children under 12 use half as much. All times given here assume an external pressure of 1 atmosphere or less. At 2 atmospheres, an air tank lasts only half as long, and so on. Prices are those charged by an honest dealer when air is plentiful; they will be considerably higher if air is scarce!

Armored Vacc Suit

See Vacc Suit, p. 271.

Autograpnel (TL10+)

This uses Guns (Grenade Launcher) skill to fire a grappling hook up to 50 yards. A motor winch on the gun lifts up to 400 pounds at up to five yards per turn. The reel contains 50 yards of biphase rope with a breaking strain of 2,000 pounds (4,000 at TL12+). One

C cell is good for 200 ascents or descents. Cost is $100 and weight is 1.5 pounds.

TL8: Cost is $400 and weight is 6 pounds. Breaking strain is 1,000 pounds.

Basic Tool Kit

See *Tool Kit,* p. 270.

Combat Armor (TL8+)

Combat armor is a multi-piece suit of articulated armor plates covering the entire body. It is fully sealed "space armor." With the helmet visor closed the suit is completely airtight, providing complete protection against contaminated atmospheres, pressure loss, or chemical and biological threats. Combat armor includes a life support pack (described under vacc suits, p. 271), and tanks for two hours of air. The entire range of vacc suit accessories can be used with combat armor. It takes 60 seconds to don the entire outfit, and 40 seconds to remove, or half as long on a successful DX roll.

Light Combat Armor: Light combat armor has DR 20. The armor gains DR 5 per TL after TL8. $1,850, 36.5 pounds.

Medium Combat Armor: Medium combat armor has DR 30. The armor gains DR 8 per TL after TL8. $2,350, 36 pounds.

Heavy Combat Armor: Heavy combat armor has DR 45. The armor gains DR 10 per TL after TL8. $3,100, 66.5 pounds.

Communicators

Combining the concepts of a portable hand-held radio and a cell phone, communicators are used by most species at tech levels of TL9 and up. They can be linked to tricorders in order to transmit and receive data. Communicators are relatively small and cost $100. All have encryption allowing private conversations (which can, sometimes, be decoded by powerful computers). All have sufficient range to reach from a planetary surface to a ship in orbit; the range listed is between two communicators on a planetary surface and assumes no relay or signal boost systems are involved. Virtually everyone from TL7 or better planets could figure out how to use one. Individual communicators are "broadcast radio" types which send a signal in all directions; additional equipment is needed to generate "tight beam" signals that are harder to detect or intercept. Starships in orbit can send their transmissions in a relatively narrow beam (perhaps a mile across at the surface).

Tech Level	Weight	Range (Surface)
TL9	1 pound	25 miles
TL10	3/4 pound	50 miles
TL11	1/2 pound	100 miles
TL12	1/4 pound	250 miles
TL13	1/16 pound	500 miles

Skill rolls are not needed for normal operations. If a skill roll is required, use Electronics Operation (Communications) at the appropriate Tech Level.

Diagnostic Table (TL11+)

This is a 7' x 3' x 3' padded, computerized table with a full range of biomed scanners. The patient lies on the table and the results of the scan are projected onto an overhead screen. It gives a +5 to Diagnosis (+1 per TL over 9). Not a portable unit, the table must be installed in a sickbay on a ship or vehicle, or in a hospital. Cost is $3,000, weight is 62.5 pounds and volume is three cubic yards.

TL9: Cost is $12,000, weight is 250 pounds.

Emergency Medkit (TL10+)

This is a belt pouch containing the basic requirements of TL8 first aid: five plastiskin patches (see p. 268), plus the usual bandages, antiseptic cream, etc., which enable it to act as a TL7 kit when the plastiskin is used up. It also contains five revive capsules (p. 269) along with a pneumospray hypo (p. 268) containing two doses of hypercoagulin (p. 267), with room for 10 doses of whatever other drugs the user wants to add at an extra cost. It adds +1 to First Aid. Cost is $75 and weight is 1/4 pound.

TL8: Cost is $300 and weight is 1 pound.

Envirobag (TL10+)

This is an insulated and heated sleeping bag designed for extremes of temperature. Using a C cell, it works the same as a heat suit (see p. 267). It can be sealed and hooked up to air tanks. It folds to the size of a paperback book. The bag is $20 and weighs 1.5 pounds; the temperature control unit costs $6 and weighs 1/4 pound.

TL8: The bag is $75 and weighs 6 pounds; the temperature control unit costs $50 and weighs 1 pound.

Enviro-Bubble (TL10+)

This inflatable bubble, with self-sealing flap, can be erected and inflated in four seconds and provides 15 minutes of air. It also floats, and is flexible enough to move in, but at a Move of 1. It is usually worn on the belt for quick activation. It can be hooked up to air tanks or a temperature control unit. Cost for the bubble and inflator is $200; weight is 1.25 pounds.

TL8: Cost for the bubble and inflator is $800; weight is 5 pounds.

Field Pack (TL10+)

A field pack provides the basics for survival in the wild on various missions. It contains two vapor canteens (p. 272), one envirobag, one two-man pressure tent (p. 268), and five days of concentrated rations. Other materials can be added as needed. The backpack will hold up to 40 pounds of equipment. Cost is $700 and the weight is 26.5 pounds.

Filtration Canteen (TL10+)

This canteen will purify and hold a quart of water. It removes almost all impurities, microbes and poisons but there is always the possibility of a contaminant for which the filter was not designed (GM's option)! It takes 30 minutes to purify a quart of water. Filters must be changed every 100 quarts; a color change signals this. An "exhausted" filter still has a few quarts of capacity, but only the GM knows how many. Cost is $45, weight is 1 pound (empty) or 3 pounds (full). Replacement filters cost $6 per set.

TL8: Cost is $125, filters are $25.

Flashlight (TL7+)

The flashlight throws a 50-foot beam for six continuous months on a C cell. It costs $20 and weighs one pound. A belt or helmet model that leaves the hands free costs $10 more. $100 buys a heavy-duty light that can be used as a baton without being damaged. A mini-flashlight (15-foot beam) is also available, running off an A cell for one month, for $8, with a weight of 1/4 pound. For use as a baton, use the Shortsword skill; it does crushing damage with swing or thrust, and requires minimum strength 7.

Hand Thruster (TL10+)

A hand thruster propels a user in zero-G with bursts of compressed nitrogen. Each burst accelerates or decelerates a normal-mass human by one yard/second in the direction opposite to that in which the thruster is pointed. A successful roll against Free Fall or Vacc Suit skill is necessary to correctly point the thruster in the desired direction. The unit's cylinder is good for 30 one-second bursts. Cost is $12.50 and weight is 2 pounds, including the cylinder; extra cylinders cost $2.50, weigh 1 pound and take three seconds to replace.

TL8: Cost is $50 and weight is 4 pounds loaded, cylinders cost $10.

Heat Suit (TL10+)

This is an insulated bodysuit with transparent face mask and a temperature control system. It uses one C cell. It protects against freezing by increasing the effective temperature as set by the wearer; 48 hours for +10 degrees, 24 hours for +20 degrees, 12 hours for +30 degrees, and so on. Its high-tech insulation also adds 10 to wearer's effective HT for all rolls to resist freezing, even if the heater is off. The suit has DR 1. Cost is $37.50 and weight is 5 pounds. If the increased energy option is used, all times listed should be doubled.

TL8: Cost is $150.

Heavy-Duty Vacc Suit

See Vacc Suit, p. 271.

Hypercoagulin (TL10+)

When injected into a patient with a bleeding wound, this causes instant coagulation and a cessation of bleeding within 1d+4 seconds. It restores 1 point of HT, and prevents any further damage from loss of blood. The drug should be injected as close to the wound as possible. An injection prior to sustaining a wound will have no effect unless a wound is received within five minutes after the injection.

Overdoses of this drug can kill; for every additional dose within a 24-hour period, roll against HT, minus the total number of doses taken. A failed roll means the patient's blood becomes so thick his heart stops. Full medical facilities (a full blood replacement and possibly a heart transplant) will be required to save his life. Hypercoagulin comes only in injectable form; it costs $7.50/dose. Hypercoagulin is a useful assassination tool in societies at TL7 and below. Death is by heart attack, and the only wound is a tiny pinhole. The drug is undetectable ("...a poison unknown to science...") below TL8.

TL8: Costs $25/dose.

IRD Chip

See *Tricorder,* p. 270.

Inertial Compass (TL10+)

This hand or belt unit indicates the direction and distance traveled from any preset point on a planetary surface. It can be set for the location at which the user is physically present, or for any other coordinates (requiring a Navigation roll if coordinates of the location aren't known). Distances measured are accurate within 1 yard/1,000 miles. It must be calibrated for the planet (taking one hour with a personal computer and a Navigation or Electronics Operation roll). The compass uses an A cell. Cost is $62.50 and weight is 1/4 pound.

TL8: Cost is $250 and weight is 1 pound.

Medical Pouch (TL8+)

A doctor's bag, with room for twice the material in an Emergency Medkit (see p. 266), plus standard bandages, sedatives, stimulants, etc. (purchased separately). It has room for whatever other drugs the physician wants to add and includes a full set of physician's and surgeon's tools for the TL. Cost and weight don't drop at higher tech levels; the contents just get better. This kit is the minimum equipment required to use Surgery, Diagnosis, or Physician skills without penalty. Gives +2 to First Aid skill. A TL8+ physician performs as TL 6 without this much gear. It costs $700 and the weight is 15 pounds.

Military Wet Suit

See *Wet Suit,* p. 272.

Mini-Toolkit

See *Tool Kit,* p. 270.

Monocrys (TL8+)

The usual armor worn by civilians seeking discreet protection, monocrys is similar to Kevlar but is woven from a two-phase, single-crystal metallic fiber. Monocrys provides full protection against crushing and cut-

ting attacks. It is less effective against impaling attacks such as needles or arrows, which penetrate the weave. Protection against impaling attacks is always DR 2. Against crushing and cutting attacks, DR depends on thickness:

Light: DR 8. $400, 3 pounds for a vest; $1,000, 7 pounds for a full suit.

Medium: DR 16. $600, 5 pounds for a vest; $1,500, 12 pounds for a full suit.

Heavy: DR 24. $800, 7 pounds for a vest; $2,000, 16 pounds for a full suit.

However, because monocrys is flexible, any "6" rolled for damage indicates one hit that affects the wearer through the armor. Vests take 10 seconds to put on and five to take off; full suits require 20 seconds to put on and 10 to take off.

Multiview Goggles (TL10+)

These are vision-enhancing goggles that provide the following options:

Anti-Glare: Darkens automatically to cut glare and very bright light. Allows direct viewing of the sun and other stars without risk of blindness. Also protects the eyes against damage from beam weapons fire.

Infrared: Reduces darkness penalties for combat, vision, etc., to -1 (because of the slight distortion when seeing via infrared). Allows vision in total darkness if there is at least 10° temperature difference between objects. At any temperature, allows weapons fire in darkness at only –1 if the target produces heat – which most living things and active machines do! Gives +2 to vision rolls to spot beings if used in daylight. Can be blinded by a powerful heat source.

Light-Intensifier: Picks up and intensifies available light, effectively granting the user the Night Vision advantage and eliminating the darkness penalties for anything but complete darkness. Will burn out if hit by an energy weapon.

Multiview Goggles work for 6 months on an A cell, cost $300, and weigh 1 pound.

TL8: Cost is $1,200, weight is 1 pound, and duration is 3 months on a B cell.

PADD

See *Tricorder,* p. 270.

Plastiskin (TL10+)

This is an antiseptic plastic patch that holds wounded flesh together, taking the place of normal skin. (It even takes on the color of one's skin, so that it's only evident on close examination.) When the flesh beneath heals sufficiently, the plastiskin patch falls off. Plastiskin is found in any TL8 first aid kit. Without it, TL8 first aid counts as TL7. Plastiskin can be used to cover tattoos, scars and marks, or for disguises. It costs $2.50 per six-inch square patch.

TL8: The cost for a six-inch square patch is $10.

Pneumospray Hypo (TL10+)

This hand-held, pneumatic-hypodermic instrument, about the size of a penlight, injects drugs using a charge of compressed air. The hypo must be touching the patient to inject its drug. Its charge can easily penetrate clothing with DR of 1 or less. It takes two turns to remove an empty vial (or pneumocharge) and replace it with a ready new one. Air cartridges are good for 100 injections. Cost is $31.25 and weight is 1/4 pound. Replacement air cartridges cost $10.

TL8: Cost is $125.

Portable Shop

See *Tool Kit,* p. 270.

Portable Tool Kit

See *Tool Kit,* p. 270.

Power Cell

At TL8+, most equipment runs on standardized power cells. They can't be recharged, and can't be discharged quickly enough to explode. They have indefinite shelf lives and unless otherwise specified are good for two years continuous use. Higher-TL cells contain more energy; at each successive TL after the introduction of a device that takes power cells, increase the number of shots or the operating time by 50%. There are six sizes of power cells, AA through E. All are cylindrical, dimensions are diameter × height.

AA cell: 1/16"×1/32". For microbots, brain implants, calculators, etc. Cost is $2; weight is 0.02 ounces.

A cell: ¼"×1/8". For wristcomps, communicators, and similar low power requirements. Cost is $10; weight is 0.04 ounces.

B cell: 1/2"×1/2". For various sorts of hand-held equipment, including tricorders and small, easily concealable weapons. Cost is $30; weight is 0.5 pounds.

C cell: 1"×2". The most common power source for personal weapons, equipment. Cost is $100; weight is 1 pound.

D cell: 2"×4". These power military weapons and heavy equipment; TL8+ battlefields are littered with expended D cells in the way that TL7 battlefields are littered with expended cartridge cases and machine gun links. Cost is $500; weight is 5 pounds.

E cell: 4"×6". These power vehicles as well as support weapons and other power-intensive systems. Cost is $2,000; weight is 20 pounds.

Pressure Tent (TL10+)

This is a completely airtight tent, strong enough to be inflated to one atmosphere in a vacuum. The user(s) must have an air supply with them! Opening it completely evacuates all the air in the tent; entering or leaving through the one-man lock takes one minute. Cost is $125 and weight is 4 pounds for a one-man tent; $375 and 8 pounds for a two-man tent; $1,250 and 40 pounds for an eight-man tent.

TL8: Cost is $500 and weight is 15 pounds for a one-man tent; $1,500 and 30 pounds for a two-man tent; $5,000 and 150 pounds for an eight-man tent.

Respirator (TL11+)

A respirator makes thin or low-oxygen atmospheres breathable by concentrating the oxygen. It is often combined with goggles to protect the eyes from the effects of thin air. It takes three seconds to put on and one to take off, and works for one month on a B-cell (a warning light blinks when power is 90% gone). A standard communicator of the TL is built in. Cost is $75 and weight is 3/4 pounds. If the increased energy option is used, time is two months, not one month.

TL9: Cost is $300 and weight is 3 pounds.

Remote Probe

These devices, which are about a foot in diameter and weigh about 10 pounds, are used to gather recon data in remote areas. They could be left in place by a ground party, or they could be sent to the area of interest by transporter. (Note: The probes that starships launch from their probe launchers are much more capable, heavy, and expensive.)

Typical Scanner Probe: IQ = TL; possesses sensors equivalent to a tricorder/TL but the sensor range is greater (×5 at TL10, ×10 at TL11, ×25 at TL12, ×50 at TL13).

TL10 probes cannot move. TL11 probes can hover and move (speed = 5) for five minutes. TL12 probes can hover and move (speed = 10) for an hour. TL13 probes can hover and move (speed = 15) for 24 hours. Cost $1,000 per TL.

There are several modes for remote probes.

Recorder: The probe simply records sensor readings. It doesn't transmit the data to its owners. The data is recovered by beaming the probe back. This makes the probe more stealthy (-1 on sensor rolls to detect) but less useful, as it must be recovered or accessed directly.

Burst: Just like "recorder" mode until the probe receives a coded signal. Then it sends its logs in a single, short, coded burst. The probe gets a bonus to its stealth (-1 on sensor rolls) while recording, but all sensor rolls to detect it are at +2 when it is transmitting.

Realtime: The probe transmits its sensor data directly back to its owners in realtime. This makes the probe easier to spot (+3 to all sensor skill rolls to detect the probe, adjusted for technology factors).

Sensors can be set on several settings.

Passive: The probe simply records things that it can detect without emitting detectable signals. No active radar or sonar is used in this mode. Sensor rolls to detect the probe while it is using only passive sensors are at -1.

Active: The probe uses active radar and/or sonar. This gives the probe a +2 sight bonus, but gives anyone searching for the probe a +4 bonus to detect it (radar) or a +1 bonus (sonar). Note that sonar cannot be used in a vacuum.

Intrusive: The probe uses a full-scale scanner beam to scan its surroundings. Normal scanners can see through one or two doors or bulkheads and behind obstacles where radar, sonar, or light based sensors are useless. However, high-tech foes can detect these scans directly, giving a +5 bonus to detect the probe's presence.

Mapping: If capable of movement, the probe must remain motionless for a full turn. It makes one spotting roll for every lifeform and weapon-grade power source within 200 yards (even on other decks) with a penalty of -2 for each bulkhead or deck between it and that lifeform or energy weapon, and a penalty of -1 for every foot of solid rock or other "hard to scan through" material. Probes with this type of sensor show up like a beacon on sensor-detecting scanners whenever they use this function. A roll is not even required in most circumstances when using sensors to look for a probe that does this.

Revive (TL10+)

These are small, easily breakable capsules. When held under the nose of a stunned of unconscious character and snapped open, the vapor inside will usually revive him completely (roll against HT+5 to regain consciousness, come out of stun, etc). No HT is regained, but the patient is awake. Revive capsules are widely available to the general public and can be purchased freely in drug stores in all but the most repressive societies. Cost is $1.25/dose.

TL8: Cost is $5/dose.

Rope, Biphase (TL8+)

A 3/8" diameter biphase rope supports 1,000 pounds. Ten yards of rope weighs 1/2 pound and costs $5. A 3/4" diameter rope supports 4,000 pounds; cost is $30 and weight is 2 pounds for 10 yards. Strength doubles at TL10 and again at TL12.

Standard Vacc Suit

See Vacc Suit, p. 271.

Star Fleet Uniform (TL10+)

Star Fleet everyday uniforms are more than just colorful clothing – they are tools in their own right, with a number of features meant to protect the wearer and keep him comfortable. They are made from a special form of tailored light monocrys fabric armor, which provides the wearer with some protection from fire and other kinds of damage. They are specially designed to repel water, dirt, and grime, and they dry in 1/5 the normal time. The uniform material is designed to change its porosity in differing temperature and humidity conditions to help keep its wearer comfortable (providing a +1 to HT rolls to resist the effects of temperature). It is also treated to provide some resistance to chemical and biological agents (providing a +1 to HT rolls to resist chemicals). Finally, it acts to break up

the wearer's infrared signature (providing a -1 on all rolls to spot the wearer using infrared or thermographs). Star Fleet Uniforms provide DR 8 (DR2 vs. impaling damage), cost $325, and weigh 6 pounds.

TL8: Cost is $1,300.

Note: these are medium monocrys, with tailored flexible armor option, adding the light option and CBW coating, with the effects of buzzwear (+100% cost) and memswear (+200% cost) added. This explains why television characters just wore their everyday uniforms into harm's way.

Televiewer (TL10+)

These are lightweight electronic binoculars that provide an extremely sharp image. Magnification can be adjusted from 5× to 50×. Included is an electronic range finder accurate up to 5,000 yards. They also incorporate infrared and light intensifier abilities (see multiview goggles, p. 268). The binoculars get six months continuous operation on a B cell. Cost is $237.50 and weight is 1.5 pounds.

TL8: Cost is $1,550, weight is 2 pounds and the B cell lasts for three months. The range finder gives +2 to Gunner or Forward Observer skill if used with artillery of TL 6 or below, which does not normally have such accurate distance measurements.

Thruster Pack (TL10+)

This strap-on seat is for short jaunts in free fall, say passing from ship to ship and so on. It consists of a "seat" unit with a thruster in the back, a pair of arms with reverse thrusters and a control arm that curves in front of the user. Maneuver jets are located at strategic points along the entire pack. It takes 20 seconds and a Vacc Suit roll (which can be tried again every five seconds if missed) to strap into the thruster pack. It can accelerate or decelerate a normal-mass human by up to three yards/second on each turn. The large cylinder allows 100 seconds of full acceleration, or the equivalent. Successful Free Fall+3 rolls allow the user to control his speed and direction. Cost is $500 and weight is 19 pounds, including one cylinder. Extra cylinders cost $7.50, weigh 10 pounds, and take five seconds to replace.

TL8: Cost is $2,000 and weight is 45 pounds, including one cylinder. Extra cylinders cost $30 and weigh 10 pounds.

Tool Kit (TL8+)

Tool kits exist at all TLs; this section covers those for TL8+. Normal tool kits do not drop in price or weight as TL increases, nor do they gain in effectiveness. As gadgets get more complex, so do the tools required to fix them. Any attempt to repair equipment of a higher TL than the kit has a -2 per TL difference penalty.

Anyone attempting repairs without one of these kits does so at -5 to skill. Each type of kit must be purchased separately, though a user may "make do" with one of the others at a -3 penalty.

All tool kits contain several power cells, but the cells found in salvaged kits are likely (GM's decision) to be partially or completely used already.

Basic Tool Kit (TL8+): This is the standard tool kit for engineers, mechanics, armorers, and electronics technicians, allowing major and minor repairs to be made at no penalty to skill. Any kit includes a few devices requiring small power cells, and is therefore a good source of extra cells in a pinch – roll 1d+2 for the number of AA cells, 1d for the number of A cells, and 1d-2 for B cells. Mechanic or Engineer tool kits cost $800, weigh 300 pounds, and have a volume of 1/2 cubic yard as cargo. Armoury or Electronics kits cost $1,200, weigh 100 pounds, and have a volume of 1/4 cubic yard.

Mini-Toolkit (TL8+): This is a small, belt-sized tool kit. Routine repairs can be made with one of these at only -2 to skill. Major repairs are at -4 when using a mini-toolkit. Roll 1d for the number of AA and A cells in the kit, 1d-3 for B cells. Cost is $400 and weight is 2 pounds.

Portable Shop (TL8+): An elaborate version of the basic tool kit, it is equivalent to a repair shop on a small starship. It has everything necessary for emergency repairs, plus a range of spare parts that can be tooled to specific requirements. It adds +2 to the user's skill. It will have 2d AA, A, and B cells; 1d C cells; 1d-2 D cells; and 1 E cell. A Mechanic, Engineer, or Armoury shop costs $4,000, weighs 3,000 pounds and has a volume of five cubic yards. Portable Electronics Repair shops cost $7,000, weigh 1,500 pounds and have a volume of 4 cubic yards.

Portable Tool Kit (TL8+): A smaller version of the basic tool kit, it fits into a case or backpack and weighs 20 pounds for Mechanics or Engineer kits, or 10 pounds for Armoury or Electronics Repair kits. Major repairs can be made at -2 to skill, and minor repairs are at no penalty. It contains 1d+2 A cells, 1d A cells, and 1d-3 B cells. Cost is $600 for Mechanic or Engineer kits, $900 for Armoury or Electronics Repair kits.

Tricorder



A tricorder is a handheld device that becomes available at TL10; specialized tricorders become available at TL11. Tricorders are a combination of computer and sensors used for a virtually unlimited number of different applications and uses.

PADD: A Personal Access Display Device (or PADD) is the most basic form, and is sometimes referred to as a "monocorder." They are TL9 devices that are an outgrowth of TL8 "Advanced Personal Digital Assistants" (and are sometimes compared to tablets or smart phones) available in the early 21st century. They have built-in data storage and processing capabilities equal to those of a TL8 supercomputer, and have a communications tie-in to available library computer networks. In some cases, the PADD will operate in a standalone mode; in others it operates as a display

terminal or interface to the library computer serving it. At higher tech levels, this interfacing and modality becomes less and less apparent to the user. PADDs have no sensor capabilities. Cost is $250; weight is 4 pounds.

Tricorder: A tricorder is a TL10 device that has all of the functions of a PADD and adds built-in sensors and scanners. The sensor package on a tricorder can sense, display, and analyze any form of energy or matter known to the TL that the tricorder was built at. TL10 tricorders weigh 4 pounds and can scan biosigns at 10 yards, scan physical objects at 100, and analyze energy emissions at one mile. TL11 tricorders weigh 2 pounds and can scan biosigns at 20 yards, scan physical objects at 200, and analyze energy emissions at two miles. TL12 tricorders weigh one pound and can scan biosigns at 100 yards, scan physical objects at 500 yards, and analyze energy emissions at 10 miles. Any of them cost about $2,500 when at current TLs.

At TL11, tricorders became available that were specialized for various tasks. This specialization is reflected as bonuses or modifiers to various skill rolls. Some of these specialized tricorders are:

Data Tricorder: Functions as a non-specialized tricorder, with one exception: it can use up to three IRD chips (below) and costs $4,000. The number of IRD chips that may be active at any time depends on the TL of the data tricorder. At TL10, only one chip may be active; at TL11, two chips may be active; and all three may be active simultaneously at TL12.

Engineering Tricorder: +4 on all Mechanic skill rolls and has additional built-in filters which prevent overloading or damage when scanning intense energy fields.

Geology Tricorder: +4 to any geology-related skill roll and has enhanced range capabilities which allow it to penetrate/ sense minerals or rocks at 10× normal range, *but* loses the ability to scan for living beings, organic tissue, etc.

Medical Tricorder: +4 to all medical-related skill rolls, +4 to Physiology rolls. If programmed in advance with the data on a given species, that Physiology bonus becomes +10 for that species. The hand-held attachment must be within one foot of the patient for these bonuses.

Science Tricorder: +4 to any scientific skill rolls

Tactical Tricorder: +4 to detect and identify lifeforms, weapons, armor, etc. It includes a comprehensive database on all of the above and is typically carried by Marine officers.

IRD Chip: Interactive Relational Database (IRD) chips do not become available until TL10. They are small modules that may be inserted in a variety of devices, but generally are used only with data tricorders. IRD chips are computer memory chips that (in terms of gameplay) make a skill available to characters via their data tricorder. E.g., a Geology-20 chip would be the equivalent of Geology-20 skill. Any given chip may contain data on only *one* skill.

The skill level of an IRD chip is determined by the Technology Level that the empire or species making it had at that time. At TL10 the skill level of a chip is 10 or less, 15 or less at TL11, 20 or less at TL12, etc. For example, an IRD chip created by the Federation in Y150 would possess 20 levels of skill. The skill levels in an IRD chip reflect the knowledge available *when the chip was created* – a chip that is more than a year or two old may contain out-of-date or obsolete information, so the effective skill level may be less than the maximum possible. There are also "black market" and "gray market" IRD chips which were not created with the care necessary (i.e., cheap copies) and may give incorrect results – in this case, the GM should secretly apply a penalty to the skill roll, and on a critical failure the chip gives *disastrously incorrect* information! (The characters will not normally have any chance to determine this, as the skill needed to do this – which is being provided by the IRD chip – is typically one they are lacking.) Cost $100/level. While "skill" IRD chips are the most common ones, there are many other types of IRD chips that may contain maps, complex computer programs, or other forms of data.

Universal Translator (TL12)

A small wand-shaped computer dedicated to translating new languages. It analyzes a new language and compares it with a library database of known examples. Unless the language is completely unlike any known before, the translation matrix will provide a comprehension level of 5 after 10 minutes of exposure to the language, adding +1 for every 30 minutes, up to a maximum of 16. This has to be fairly varied speech – a single word looped over and over is not good enough (not even a couple of dozen words). Nonverbal languages are handled if appropriate sensors are hooked up. It runs for two years on a B cell.

Cost depends on the maximum difficulty of the languages that can be translated: $3,000 for Broken, $4,250 for Accented, $5,500 for Native. Weight is 1 pound.

Vacc Suit (TL8+)

A variety of different pressure suits are available. Every suit needs air tanks (see p. 265) to provide oxygen. Without an air tank, any suit contains enough air for five minutes. All suits include a back-mounted life-support pack (LSP), which provides heat, cooling, and energy for the suit's systems. It uses a C cell, which is good for one week. The life-support pack has DR 3. After it takes 10 hits there is a 50% chance of it malfunctioning on each further hit. When it takes 20 hits, it no longer works; the user's survival depends on the environment.

Every suit has a front pocket with 10 emergency patches. Any damage that penetrates the suit must be patched immediately. This requires three seconds and a Vacc Suit roll. If the first attempt fails, each further attempt is at a cumulative -1. Every three seconds means a loss of 10% of the suit's air.

Vacc suits, survival suits and similar equipment are not reduced in weight (cost does go down, however) at higher TLs.

Standard Vacc Suit (TL10+): This is the standard flexible, insulated pressure suit. It is required in vacuum but may also be worn in poisonous (non-corrosive) or Very Thin atmosphere (p. 232). It covers the whole body; includes a rigid helmet; and has exterior pockets, Velcro patches, straps, hooks, etc. for equipment; and has at least two lifeline hooks. It also includes a short-range communicator, which uses an A cell. Styles vary widely; spacers often paint suits in garish colors or designs. Suit gloves reduce DX and manual skills by -1. The clear helmet allows undistorted vision (but cuts Hearing rolls by -2 in air). Touching helmets in vacuum allows private suit-to-suit communications. A head-up display projected on the helmet tells the wearer how much air and power are left. A tube leading to a one-quart reservoir provides water.

A vacc suit takes one minute to put on or take off; if the suit is worn without the helmet, the helmet only takes five seconds to put on. A successful roll against Vacc Suit halves these times. Default skill cannot be used to decrease suit-up times. A vacc suit has DR 1, while the helmet has DR 3. Cost is $250 and weight is 10 pounds.

TL8: Cost is $1,000.

Heavy-Duty Vacc Suit (TL10+): This is like a normal vacc suit but tougher – the entire suit has DR 3. Cost is $375 and weight is 20 pounds.

TL8: Cost is $1,500.

Armored Vacc Suit (TL10+): This is a rigid suit that covers the whole body, and is capable of withstanding up to 100 atmospheres of pressure. The life-support pack is built into the suit, not mounted outside; the suit's DR protects it. The suit requires an air tank (or several) but always includes a short-range communicator, using an A cell. The suit takes two minutes to put on or take off. All DX or DX-based skills (including Free Fall, but not Driving or Pilot) are at -2. The usual vacc suit accessories are available. The suit has DR 30. It costs $1,000 and weighs 80 pounds.

TL8: Cost is $4,000.

Vacc Suit Accessories

All kinds of accessories are available, and may also be added to airtight body armor. Common items include a HUD (Heads Up Display, $125); a helmet light ($7.50, six months on a B cell); a water and concentrated food system with rations for one day ($125 for the system, refills are at usual water and concentrate prices); a waste-relief system (cost is $125 and worth every penny if the suit is worn for more than a few hours); a helmet visor recorder or better communicators; built-in computer or tricorder; reflective coating (gives DR 2 against lasers and fire; DR 0 against other beam weapons; provides PF 2 against radiation); extra patches ($2.50 per patch).

TL8: Accessories priced above are four times more expensive at TL8, twice as much at TL9.

Magnetized Plates (TL9+): These can be put on the soles of any boots at an additional $25 and 1/8 pound. They let the wearer walk along bulkheads or on ship hulls in microgravity or zero G (if the hull is made of magnetic material). Move is normal with Vacc Suit skill and at 1/2 without.

TL7: Costs $100 and weighs 1/2 pound.

Radiation Protection (TL7+): This can be added to any suit. (For more about radiation protection, see p. 239.) Cost is $50 for PF 2, $2500/+20 pounds for PF 5 or $500/+40 pounds (armored suits only) for PF 10.

TL7: Costs are $200, $1,000, and $2,000 respectively.

Vapor Canteen (TL10+)

This canteen actually draws moisture from the atmosphere, as long as there is any water vapor at all. It extracts and holds one quart of water. Time required varies with the amount of water vapor in the air – with an Earth-standard humidity of 50%, it takes four hours to extract a quart of water. The canteen extracts 100 quarts on a B cell. Cost is $112; empty weight is 0.5 pound; filled it weighs 2.5 pounds.

Larger versions are available for use at base camps. $750 buys a one-cubic-yard version that weighs 75 pounds, runs a month on an E-cell and makes a quart per five minutes in 50% humidity.

The large-size vapor system is standard for expeditions and military or police outposts; it frees them from the necessity of establishing a post near a water source. Sabotaging the vapor system is a favorite ploy of kiddie adventure stories. The plot is so hackneyed that real adventurers laugh at it, and may not be prepared if it happens.

TL8: The small canteen is $450, 2 pounds empty, 4 pounds full. The large version is $3,000 and weighs 300 pounds.

Wet Suit

A wet suit is a one-piece, ultralight underwater suit. It covers the user's entire body, with goggles and a face mask for attaching air tanks. It insulates the wearer against cold (+5 to HT rolls against cold) and incorporates ballast sufficient to keep the diver at any depth he wishes. Fins add 25% to swimming speed (or +1 to swimming Move, whichever is greater). The suit has DR 1. HUDs, vision gear, radios, etc. may be added to the suit at extra cost. It takes two minutes to put on or remove the suit. Cost is $50 and weight is 5 pounds.

TL8: Cost is $200.

Military Wet Suit (TL10+): This incorporates a thin layer of monocrys, with DR 8 (DR 4 vs. impaling) over the whole body except the face. The face mask and goggles are transparent armorplast (DR 10). Goggles may be fitted with HUDs, vision gear, etc. Cost is $175 and weight is 9 pounds.

TL8: Cost is $700.

Zero-G Worksuit (TL11+)

The worksuit more closely resembles a miniature spaceship than a vacc suit. It is a rigid pressurized cylinder with a transparent helmet dome; the whole thing is slightly larger than a man. It has no legs, but is propelled by an integral thruster pack mounted in the base. The suit's thrusters accelerate or decelerate it at up to 3 yards per second^2 per turn, with enough fuel for 300 seconds of acceleration. A Free Fall+3 roll is required to change direction.

In addition to its normal suit sleeves, it has three ST 20 waldos – remote-controlled-arms – for heavy-duty work; they can be used as arms at DX-3 or skill-3. Any two waldos may be used at once. One waldo also mounts an integral laser torch (4d cutting damage per second to doors, bulkheads and the like). It is not really suitable as a weapon since the laser has the length of a paring knife, but if it is used as one, armor protects at only 1/5 DR. It would do cutting damage of 4d and impaling damage of 2d. Fortunately, it cauterizes the wounds it creates. A waldo's grip can be power-locked onto something (with its ST of 20). Usually the one not in use is locked onto a structure (e.g., a ship's hull) to hold the suit steady while the other two are used for work.

A worksuit includes life support for two weeks. A small (eight-inch diameter) airlock in its side is used to transfer small items (such as tools or food/air supplies, etc.) without breaking suit integrity. It may have standard vacc suit options (see p. 271), but it always has a communicator at no extra cost. The suit has DR 25 (15 for the helmet). It takes 20 seconds to climb in and ready it for use (five seconds to get inside and seal the suit), or 10 seconds to get out. The suit is powered by a D cell, giving a week of steady use; it has sockets for a second cell, for safety. Cost is $3,750; weight is 150 pounds.

TL9: Cost is $15,000.

PERSONAL WEAPONS

WEAPON STATISTICS

Weapon tables provide the items of information explained below. A given column will only appear on a table if it is germane to the weapons on that table. In *all* cases, "–" means the statistic does not apply, and "var." means the value varies.

TL (Tech Level)

The tech level at which the weapon first becomes widespread. You may only buy weapons of your campaign's TL *or less,* unless you have the High TL trait (p. 33).

Weapon

The general class of weapon in question; e.g., "shortsword" or "assault rifle." Each entry represents a wide range of individual types.

For guns, this entry includes a projectile diameter, or "caliber," given in millimeters (e.g., 9mm) or fractions of an inch (e.g., .50), as customary for the weapon.

Damage

For muscle-powered melee and missile weapons, such as swords and bows, damage is ST-based and expressed as a modifier to the wielder's basic thrusting (thr) or swinging (sw) damage, as given on the *Damage Table* (p. 26). For example, a spear does "thr+2," so if you have ST 11, which gives a basic thrusting damage of 1d-1, you inflict 1d+1 damage with a spear. Swung weapons act as a lever, and so do more damage.

For firearms and some powered melee weapons, damage is given as a fixed number of dice plus adds; e.g., a 9mm auto pistol lists "2d+2," which means that any user would roll 2d and add 2 to get damage.

Armor Divisors: A parenthetical number after damage – e.g., (2) – is an *armor divisor.* Divide the target's DR from armor or other sources by this number before subtracting it from your damage (or adding it to the target's HT roll to resist an affliction). For instance, an attack with a divisor of (2) would halve DR.

Damage Type: An abbreviation indicating the *type* of injury or effect the attack causes.

Abbreviation	Damage Type
aff	affliction
burn	burning
cr	crushing
cut	cutting
imp	impaling
pi-	small piercing
pi	piercing
pi+	large piercing

A victim loses HP equal to the damage that penetrates his DR. Halve this for small piercing attacks; increase it by 50% for cutting and large piercing attacks; and double it for impaling.

Reach

Melee weapons only. This is the distance in yards at which a human-sized or smaller wielder can strike with the weapon. For example, reach "2" means the weapon can only strike a foe two yards away – not a closer or more distant one.

"C" indicates you can use the weapon in close combat.

Some weapons have a continuum of reaches; e.g., a spear with reach "1, 2" can strike targets either one *or* two yards away. An asterisk (*) next to reach means the weapon is awkward enough that it requires a Ready maneuver to change reach (e.g., between 1 and 2). Otherwise, you can strike at foes that are at any distance within the weapon's reach.

Parry

Melee weapons only. A number, such as "+2" or "-1," indicates the bonus or penalty to your Parry defense when using that weapon (see *Parrying,* p. 212). For most weapons, this is "0," meaning "no modifier."

"U" means the weapon is *unbalanced:* you cannot use it to parry if you have already used it to attack this turn (or vice versa).

"No" means the weapon *cannot parry at all.*

Acc (Accuracy)

Ranged weapons only. Add Accuracy to your skill if you took an Aim maneuver on the turn prior to your attack. If the weapon has a built-in scope, the bonus for this appears as a separate modifier after the weapon's base Acc; e.g., "7+2."

Range

Ranged weapons only. If a weapon has only one range number, this is the *Maximum Range* (Max) in yards at which it can attack a target. If two numbers appear, separated by a slash, the first is *Half-Damage Range* (1/2D) and the second is Max. Damaging attacks on targets at or beyond 1/2D inflict half damage.

Muscle-powered weapons usually list 1/2D and Max as multiples of the wielder's ST, not as a fixed range. For example, "×10/×15" means 1/2D is 10×ST and Max is 15×ST, so someone with ST 10 would have 1/2D 100 and Max 150. For crossbows, use the *weapon's* ST in these formulas.

RoF (Rate of Fire)

Ranged weapons only. The maximum number of shots an ordinary shooter can fire in a one-second turn. A weapon can normally fire fewer shots (to a minimum of 1), if you wish, but some special notes apply:

Shots

Ranged weapons only. The number of shots the weapon can fire before you must reload or recharge it. "T" means the weapon is *thrown.* To "reload," pick it up or ready a new weapon!

The parenthetical number following Shots indicates the number of one-second Ready maneuvers needed to reload *all* of the weapon's shots (e.g., by changing magazines) – or, for a thrown weapon, the time needed to ready another weapon. An "i" next to this means you must load shots individually: the time listed is *per shot* rather than for all shots.

A crossbow takes the indicated time to ready (4 turns) only if its ST is no greater than yours (see *Crossbows and ST*, below). *Double* this if the bow's ST is 1 or 2 greater. If its ST is 3 or 4 greater, you need a "goat's foot" device to cock it; this takes 20 turns, and requires you to stand. If its ST is 5 or more above yours, you cannot reload it at all.

Cost

The price of a new weapon, in $. For swords and knives, this includes a sheath or a scabbard. For firearms, this includes the minimal necessary cleaning kit.

Weight

The weight of the weapon, in pounds. For missile weapons with Shots 2+, this is *loaded* weight. The weight of one full reload appears after a slash.

ST (Strength)

The minimum Strength required to use the weapon properly. If you try to use a weapon that requires more ST than you have, you will be at -1 to weapon skill per point of ST you lack *and* lose one extra FP at the end of any fight that lasts long enough to fatigue you.

For a melee weapon, your effective ST for damage purposes cannot exceed *triple* the weapon's minimum ST. For instance, a large knife has minimum ST 6, so its "maximum ST" is 18; if your ST were 19+, you would compute your damage as if you had ST 18. *Natural* weapons (e.g., a punch or kick) have neither minimum nor maximum ST.

"†" means the weapon requires two hands. If you have at least 1.5 times the listed ST (round *up*), you can use a weapon like this in one hand, but it becomes *unready* after you attack with it. If you have at least *twice* the listed ST, you can wield it one-handed with no readiness penalty. But if it requires one hand to hold it and another to operate a moving part, like a bow or a pump shotgun, it *always* requires two hands, regardless of ST.

"‡" means the weapon requires two hands *and* becomes unready after you attack with it, unless you have at least 1.5 times the listed ST (round *up*). To use it in one hand without it becoming unready, you need at least *three times* the listed ST.

"B" indicates a firearm with an attached bipod. When firing from a prone position using the bipod, treat the weapon as if it were braced *and* reduce its ST requirement to 2/3 of the listed value (round *up*); e.g., ST 13 becomes ST 9.

"M" means the weapon is usually mounted in a vehicle or gun carriage, or on a tripod. *Ignore* the listed ST and Bulk when firing the weapon from its tripod or mount; the ST requirement only applies when firing the weapon *without* its mount. Removing the weapon from its mount (or reattaching it) takes at least three one-second Ready maneuvers.

Crossbows and ST: Crossbows and prodds have their *own* ST value. Use this instead of your ST to determine range and damage. You must specify the ST of such a weapon when you buy it. You can always use a bow that is *weaker* than you. If you use a stronger bow, it does more damage but take longer to cock (see *Shots,* above).

Bulk

Ranged weapons only. A measure of the weapon's size and handiness. Bulk modifies your weapon skill when you take a Move and Attack maneuver (see *Move and Attack,* p. 205). It also serves as a penalty to Holdout skill when you attempt to conceal the weapon.

Rcl (Recoil)

Firearms only. A measure of how easy the weapon is to control when firing rapidly: the higher the value, the less controllable the weapon. Rcl 1 means the weapon is recoilless, or nearly so.

When firing at RoF 2+, every *full* multiple of Rcl by which you make your attack roll means you score one extra hit, to a maximum number of hits equal to total

shots fired; see *Rapid Fire* (p. 209). (Firearms with RoF 1 still list Rcl, for use with certain rules.)

LC (Legality Class)

This is only noted for firearms and grenades. All melee weapons and muscle-powered ranged weapons intended for combat are LC4. *Ignore* LC for "weapons" intended as tools, or for hunting or recreation, and for those that are completely improvised (like a wooden stake). See *Legality* (p. 246).

Notes

The numbers listed here refer to applicable footnotes (if any) at the end of the table.

Personal weapons for other empires will be dealt with in the supplements for those empires.

MELEE WEAPONS

Melee weapons are grouped under the skills required to use them. Skill names appear in capital letters, with defaults in parentheses; e.g., "**AXE/MACE (DX-5)**." If there is more than one way to use a weapon, each method gets its own line. If multiple skills let you use a weapon, the weapon appears under each skill. For example, both Staff skill and Two-Handed Sword skill let you wield a quarterstaff – and either lets you swing the staff or thrust with it.

Federation Marine Dress Saber (TL10+)

Federation Marine officers wear a dress saber as part of their full dress uniform, and most of them know how to use it. Many Marine officers thus have added the Saber skill beyond what they learned at the Federation Marine Academy. (Marine enlisted members often choose to learn the Knife skill.) While it may seem odd to maintain a tradition of using an archaic weapon in an age of phasers and disruptors, Marine officers argue that training with a saber promotes fitness and discipline. Fencing practice is also very practical in often-cramped starship quarters, and when done with practice blades can serve as a valuable way of letting off steam or settling disputes between Marines before they become too serious.

Note that any Marine dress saber intended for combat use is not made of steel, but of a special high-tech durasteel alloy that is considerably sharper and harder than normal steel. In ***GURPS*** terms, it is built as a weapon of super-fine quality (p. 278). The saber has a max thrust damage of 1d+2.

Cost is $1200; weight is 2 pounds.

TL12: Cost is $300.

Federation Marine Combat Knife (TL10+)

This is a large combat knife, suitable for use as a tool or a silent weapon. It can be thrown. Note that cloth-like Star Fleet Uniform (p. 269, each branch has its own version) is only DR 2 against impaling attacks, explaining the continued popularity of the knife as a weapon for close fighting.

Note that the combat knife is not made of steel, but of a special high-tech durasteel alloy that is considerably sharper and harder than normal steel. In ***GURPS*** terms, it is built as a weapon of super-fine quality (p. 278).The combat knife has a max damage of 1d+2 and is throwable for max damage 1d+2.

Cost is $320; weight is 1 pound.

TL12: Cost is $80.

Stun Baton (TL9+)

This weapon is used to subdue people without great physical harm. It uses the character's Shortsword skill, and deals sw-2 of crushing damage to the target. In addition, the target must make a check against HT-2 to avoid falling unconscious for 20-HT minutes, with a minimum time of 1 minute. If the HT roll was a critical failure, the stun effect last three times as long. Cost is $100; weight is 3 pounds.

It uses one B cell which provides power for two hours use.



Melee Weapon Table

AXE/MACE (DX-5 or Two-Handed Axe/Mace-3)

TL	Weapon	Damage	Reach	Parry	Cost	Weight	ST	Notes
0	Axe	sw+2 cut	1	0U	$50	4	11	
2	Mace	sw+3 cr	1	0U	$50	5	12	[1]

BOXING, BRAWLING, KARATE, or DX

TL	Weapon	Damage	Reach	Parry	Cost	Weight	ST	Notes
	Punch	thr-1 cr	C	0	-	-	-	[3]
1	Brass Knuckles	thr cr	C	0	$10	0.25	-	[3]

BRAWLING-2, KARATE-2, or DX-2

TL	Weapon	Damage	Reach	Parry	Cost	Weight	ST	Notes
	Kick	thr cr	C, 1	No	-	-	-	[3, 4]
	Kick w. Boots	thr+1 cr	C, 1	No	-	-	-	[3, 4]

BRAWLING or DX

TL	Weapon	Damage	Reach	Parry	Cost	Weight	ST	Notes
	Blunt Teeth	thr-1 cr	C	No	-	-	-	[3]
	Fangs	thr-1 imp	C	No	-	-	-	[3]
	Sharp Beak	thr-1 pi+	C	No	-	-	-	[3]
	Sharp Teeth	thr-1 cut	C	No	-	-	-	[3]
	Striker	var.	var.	var.	-	-	-	See p. 103
1	Blackjack or Sap	thr cr	C	0	$20	1	7	[3]
8	Stun Gun	HT-3(0.5) aff	C, 1	No	$100	1	2	[5]

BROADSWORD (DX-5, Rapier-4, Saber-4, Shortsword-2, or Two-Handed Sword-4)

TL	Weapon	Damage	Reach	Parry	Cost	Weight	ST	Notes
0	Light Club	sw+1 cr	1	0	$5	3	10	
	or	thr+1 cr	1	0	-	-	10	
2	Broadsword	sw+1 cut	1	0	$500	3	10	
	or	thr+1 cr	1	0	-	-	10	
3	Bastard Sword	sw+1 cut	1, 2	0U	$650	5	11	
	or	thr+1 cr	2	0U	-	-	11	

GARROTE (DX-4)

TL	Weapon	Damage	Reach	Parry	Cost	Weight	ST	Notes
0	Garotte	spec.	C	No	$2	neg.		[7]

KNIFE (DX-4 or Shortsword-3)

TL	Weapon	Damage	Reach	Parry	Cost	Weight	ST	Notes
0	Large Knife	sw-2 cut	C, 1	-1	$40	1	6	
	or	thr imp	C	-1	-	-	6	[1]
0	Small Knife	sw-3 cut	C, 1	-1	$30	0.5	5	
	or	thr-1 imp	C	-1	-	-	5	
1	Dagger	thr-1 imp	C	-1	$20	0.25	5	[1]
10	Marine Combat Knife	sw cut	C, 1	-1	$320	1	6	
	or	thr+3 imp	C	-1	-	-	6	[1]

KUSARI (DX-6 or Whip-3)

TL	Weapon	Damage	Reach	Parry	Cost	Weight	ST	Notes
3	Kusari	sw+2 cr	1-4*	-2U	$70	5	11	[6]

RAPIER (DX-5, Saber-3, or Smallsword-3)

TL	Weapon	Damage	Reach	Parry	Cost	Weight	ST	Notes
4	Rapier	thr+1 imp	1, 2	0	$500	2.75	9	

SABER (DX-5, Broadsword-4, Rapier-3, Shortsword-4, or Smallsword-3)

TL	Weapon	Damage	Reach	Parry	Cost	Weight	ST	Notes
4	Saber	sw-1 cut	1	0	$700	2	8	
	or	thr+1 imp	1	0	-	-	8	
10	Marine Dress Saber	sw+3 cut	1	0	$1200	2	7	
	or	thr+4 imp	1	0	-	-	7	

SHORTSWORD (DX-5, Broadsword-2, Knife-4, Saber-4, Smallsword-4, or Tonfa-3)

TL	Weapon	Damage	Reach	Parry	Cost	Weight	ST	Notes
0	Baton	sw cr	1	0	$20	1	6	
	or	thr cr	1	0	-	-	6	
2	Shortsword	sw cut	1	0	$400	2	8	
	or	thr imp	1	0	-	-	8	
9	Stun Baton	sw-2 cr, aff	1	0	$100	3	6	[8]

SMALLSWORD (DX-5, Rapier-3, Saber-3, or Shortsword-4)

TL	Weapon	Damage	Reach	Parry	Cost	Weight	ST	Notes
4	Smallsword	thr+1 imp	1	0	$400	1.5	5	

SPEAR (DX-5 or Staff-2)

TL	Weapon	Damage	Reach	Parry	Cost	Weight	ST	Notes
0	Spear	thr+2 imp	1*	0	$40	4	9	[1]
	two hands	thr+3 imp	1, 2*	0	-	-	9†	

STAFF (DX-5 or Spear-2)

TL	Weapon	Damage	Reach	Parry	Cost	Weight	ST	Notes
0	Quarterstaff	sw+2 cr	1, 2	+2	$10	4	7†	
	or	thr+2 cr	1, 2	+2	-	-	7†	

TWO-HANDED AXE/MACE (DX-5 or Axe/Mace-3)

TL	Weapon	Damage	Reach	Parry	Cost	Weight	ST	Notes
1	Great Axe	sw+3 cut	1, 2*	0U	$100	8	12‡	
1	Scythe	sw+2 cut	1	0U	$15	5	11‡	
	or	sw imp	1	0U	-	-	11‡	[2]

TWO-HANDED SWORD (DX-5 or Broadsword-4)

TL	Weapon	Damage	Reach	Parry	Cost	Weight	ST	Notes
0	Quarterstaff	sw+2 cr	1, 2	0	$10	4	9†	
	or	thr+1 cr	2	0	-	-	9†	
3	Bastard Sword	sw+2 cut	1, 2	0	$650	5	10†	
	or	thr+2 cr	2	0	-	-	10†	
3	Klingon Sword	sw+2 cut	1, 2	+2	$650	4	10†	
	or	thr+2 cr	1, 2	+2	-	-	10†	

WHIP (DX-5 or Kusari-3)

TL	Weapon	Damage	Reach	Parry	Cost	Weight	ST	Notes
1	Whip	sw-2(0.5) cr	1-7*	-2U	$20	2	var	[9]

Notes

[1] Can be thrown. See *Muscle-Powered Ranged Weapon Table* (p. 279).

[2] May get *stuck;* see *Stuck Weapons* (p. 278).

[3] Brawling (p. 156) increases *all* unarmed damage; Claws (p. 84) and Karate (p. 167) improve damage with punches and kicks (Claws *don't* affect damage with brass knuckles or boots); and Boxing (p. 155) improves punching damage.

[4] If you miss with a kick, roll vs. DX to avoid falling.

[5] On a failed HT roll, victim is stunned for as long as weapon is in contact plus (20 - HT) seconds longer, and then can roll vs. HT-3 to recover.

[6] Attempts to *parry* flails‡ are at -4! Attempts to *block* flails are at -2. A nunchaku‡ is small, and gives half these penalties.

[7] A piece of rope used to strangle; see *Garrotes* (p. 218).

[8] The target must make a check against HT-2 to avoid falling unconscious for 20-HT minutes, with a minimum time of 1 minute. If the HT roll was a critical failure, the stun effect last three times as long.

[9] Specify maximum reach (up to 7 yards) when bought. Cost and weight are *per yard.* ST is 5, +1 per yard. Many special rules apply; be sure to see *Whips* (p. 218).

Stuck Weapons

At the start of the turn following any attack that penetrates the foe's DR and inflicts damage, you must either relinquish your weapon and leave it stuck in your foe (a free action), or attempt a ST roll to free it (a Ready maneuver).

On a successful ST roll, your weapon comes free. If it is one that must be readied after an attack (any weapon with "‡" next to its ST statistic), you can ready it *next* turn. On a failure, it is *stuck.* You can't use it or ready it – and if you wish to move, you'll have to let go. On later turns, you have two choices: let go of your weapon or try another ST roll. Should you ever get a critical failure on the ST roll, the weapon is *permanently* stuck (but you can retrieve it from a fallen foe after the battle).

When the weapon comes free, it does *half* as much damage as it did going in. For example, if the original wound was 4 points, it does another 2 points. Failed ST rolls cause no extra damage.

If your foe tries to move away while your weapon is stuck in him, roll a Quick Contest of ST. If *he* wins, he pulls the weapon from your grasp! If *you* win, your foe can't move. On a tie, the weapon comes free and does damage as above.

Melee Weapon Quality

Muscle-powered melee and thrown weapons come in several quality grades, described below. Quality influences the odds of breakage when you parry a very heavy weapon; see ***Parrying Heavy Weapons‡, GURPS Basic Set,*** p. 376). The prices listed on the weapon tables buy good-quality weapons at TL6 or less, fine-quality ones at TL7+.

Cheap: A cheap weapon is +2 to break – and if it can be thrown, it has -1 Acc. It costs 40% of list price at TL6 or less, or 20% of list price at TL7+. The mass-produced swords issued to ordinary soldiers are often of cheap quality.

Good: A good weapon has no breakage modifier. This is the standard quality through TL6. At TL7+, good-quality weapons cost 40% of list price.

Fine: Any fine weapon is -1 to break. A fine *blade* (cutting or impaling weapon) also gets +1 to cutting and impaling damage. At TL6 or less, a fine-quality fencing- or sword-class weapon of any type costs 4 times list price. Other weapon types cost 3 times list price if they do only crushing or impaling damage (e.g., a mace or spear), or 10 times list price if they can do cutting damage (e.g., an axe or scythe). At TL7+, all weapons are "fine" at no extra cost.

Very Fine: Only fencing weapons and swords can be very fine. A very fine weapon is -2 to break and gets +2 to cutting and impaling damage. At TL6 or less, very fine weapons cost 20 times list price; at TL7+, they cost only 4 times list price.

Super-Fine: At TL8+, durasteel knives and blades can be made, adding +3 to damage and costing 20 times list price.

Presentation weapons (decorated, bejeweled, gilded, etc.) are also available. This will further increase cost (and resale value) by 5-20 times.

MUSCLE-POWERED RANGED WEAPONS

Muscle-powered ranged weapons are hurled weapons (axes, spears, etc.) and low-tech missile weapons such as bows and slings. Weapons appear under the skill required to use them, along with skill defaults. Some thrown weapons also appear on the *Melee Weapon Table;* use the statistics below when they are thrown.



Muscle-Powered Ranged Weapon Table

SLING (DX-6)

TL	Weapon	Damage	Acc	Range	Weight	RoF	Shots	Cost	ST	Bulk	Notes
0	Sling	sw pi	0	×6/×10	0.5/0.05	1	1(2)	$20	6	-4	[1, 2, 3]

THROWN WEAPON (AXE/MACE) (DX-4)

TL	Weapon	Damage	Acc	Range	Weight	RoF	Shots	Cost	ST	Bulk	Notes
2	Mace	sw+3 cr	1	×0.5/×1	5	1	T(1)	$50	12	-4	

THROWN WEAPON (HARPOON) (DX-4 or Thrown Weapon (Spear)-2)

TL	Weapon	Damage	Acc	Range	Weight	RoF	Shots	Cost	ST	Bulk	Notes
2	Harpoon	thr+5 imp	2	×1/×1.5	6	1	T(1)	$60	11	-6	[4]

THROWN WEAPON (KNIFE) (DX-4)

TL	Weapon	Damage	Acc	Range	Weight	RoF	Shots	Cost	ST	Bulk	Notes
0	Large Knife	thr imp	0	×0.8/×1.5	1	1	T(1)	$40	6	-2	
0	Small Knife	thr-1 imp	0	×0.5/×1	0.5	1	T(1)	$30	5	-1	
1	Dagger	thr-1 imp	0	×0.5/×1	0.25	1	T(1)	$20	5	-1	
10	Marine Combat Knife	thr+3 imp	0	×0.8/×1.5	1	1	T(1)	$320	6	-2	

THROWN WEAPON (SHURIKEN) (DX-4 or Throwing-2)

TL	Weapon	Damage	Acc	Range	Weight	RoF	Shots	Cost	ST	Bulk	Notes
3	Shuriken	thr-1 cut	1	×0.5/×1	0.1	1	T(1)	$3	5	0	

THROWN WEAPON (SPEAR) (DX-4 or Thrown Weapon (Harpoon)-2)

TL	Weapon	Damage	Acc	Range	Weight	RoF	Shots	Cost	ST	Bulk	Notes
0	Spear	thr+3 imp	2	×1/×1.5	4	1	T(1)	$40	9	-6	

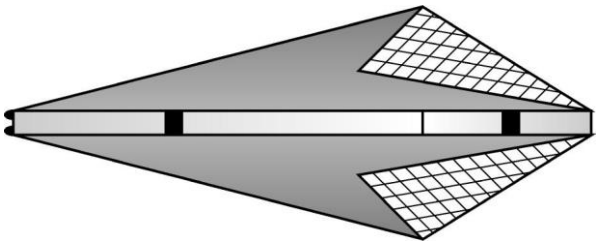
Notes

[1] Requires *two* hands to ready, but only *one* hand to attack.

[2] A lead pellet for a sling, is $0.1.Sling stones are free.

[3] Can fire stones (TL0) or lead bullets (TL2). Lead bullets give +1 damage and *double* range.

[4] Tethered. Requires a Ready maneuver and a successful ST roll to pull out (if you fail, you may try again next turn). Does *half* the damage coming out that it did going in.



Tholian Patrol Corvette

HAND GRENADES AND INCENDIARIES

Hand-tossed bombs date to the earliest introduction of gunpowder; improvised gasoline bombs ("Molotov cocktails") remain popular. See *Throwing* (p. 193) to determine how far you can throw such a device. In the ***Star Fleet Universe*** these have a special background; see below. "Fuse" is the number of seconds it takes for the weapon to detonate once readied.

Grenades

Grenades exist for various military uses; civilians and criminals might obtain them by illegal means. Marines and ground combat units will have them as a matter of course (issuing four to each Marine) but starship crews will keep only a few in the armoury for special purposes. Two general types will be sufficient for most situations. All are Legal Class 0 (government and military only). Commercial explosives (for excavation work) are available only to licensed contractors with special permits.

Stun Grenades

First becoming available at TL11, these grenades do not cause any damage. Stun grenades are used and function the same as their explosive cousins until they go off. When a stun grenade detonates, any person within range is affected as if he had been shot by a phaser on stun.

Hand Grenade and Incendiary Table

THROWING (DX-3)

TL	*Weapon*	*Damage*	*Weight*	*Fuse*	*Cost*	*LC*	*Notes*
6	Molotov Cocktail	spec. (1 yd.)	1	spec.	$2	3	[1, 3]
7	Chemical	spec. (2 yd.)	1	2	$10	3	[2, 4]
7	Flash Bang	HT-5 aff (10 yd.)	1	2	$20	0	[2, 5]
8	Concussion	6d×2 cr ex	1	4	$20	0	[2]
8	Satchel Charge	6d×8 cr ex	4	1-60	$50	0	[2]
9	Concussion	6d×3 cr ex	1	4	$20	0	[2]
10	Concussion	6d×3 cr ex	0.5	4	$10	0	[2]
10	Flash Bang	HT-5 aff (10 yd.)	0.5	2	$10	0	[2, 5]
11	Stun Grenade	Stun	0.5	3	$100	0	[6]

Notes

[1] Takes a Ready maneuver to light the fuse (impossible in rain, etc.) – or *five* Ready maneuvers if you must insert the fuse first! A Molotov cocktail shatters on impact.

[2] Takes one Ready maneuver to draw the grenade and a second Ready maneuver to pull the pin. Detonates 2-4 seconds later, depending on grenade type.

[3] A glass bottle filled with gasoline, lit by a burning rag. See *Area and Spreading Attacks* (p. 221).

[4] Fills a 2-yard radius with smoke, teargas, etc. The cloud lasts about 80 seconds under normal conditions. Exotic chemicals may cost more or have a lower LC.

[5] A Vision and Hearing-Based affliction that affects a 10-yard radius. The Protected Hearing and Protected Vision advantages each give +5 to the HT roll (eye *or* ear protection provide +3; both give +5). If you fail to resist, you are stunned; roll against HT-5 to recover each turn. Critical failure means five turns before the next recovery roll. Also creates smoke in the area of effect.

[6] The HT roll is determined by the person's distance from the grenade when it detonates:

Less than 2 yards: HT-6
2-4 yards: HT-3
4-6 yards: HT
6-8 yards: HT+3
8+ yards: no effect

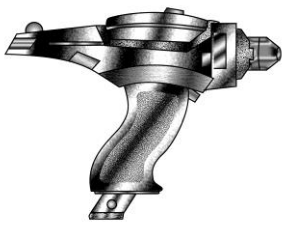
If the character makes the roll, then the attack has no effect. If the character fails the roll, note the Degree of Failure; the character falls unconscious immediately, and the Degree of Failure is the number of minutes the character remains unconscious. After that, he is stunned until he can make a HT roll (roll once per second). On a critical failure, the character remains unconscious until medical assistance is received.

FIREARMS

A "firearm" is any gun, rocket, or beam weapon that does not rely on muscle power. Guns are commonly available by TL4 and ubiquitous at TL5+. Beam weapons are common in the ***SFU*** at TL10.

Phasers (TL10+)

There are several types of phasers used as personal weapons. The phaser-I (used as a "courtesy sidearm" for non-infantry personnel) can be held in the palm of a hand. The phaser-II, shown here, is a standard "handle and barrel" military handgun. The other weapons are normally held with two hands. The phaser-I/II and phaser rifle become available at TL10.



At TL11 two additional types of phasers become available: the pulse phaser and repeating phaser. The pulse phaser is an upgraded version of the phaser rifle. As its name implies, the repeating phaser can fire more rapidly than the other types of phasers, making it the favorite weapon of Star Fleet Marines. The basic stats of phasers are on the chart on p. 283.

Phasers have a variety of power settings; a Stun-1 setting on a phaser-I produces the same effect and damage as the Stun-1 setting on a phaser rifle, for example.

Prices for Federation phasers are listed for reference; they are not for sale, except on the black market for astronomical prices, and *then only rarely!*

Phaser Overload: Phasers can be set for overload; after a few seconds, all of the energy remaining in the power cell is released as an explosion. As there are safeguards to prevent this, a successful Beam Weapons skill roll for the type of phaser (pistol or rifle) is required; to disable the overload (by restoring the safeguards) a similar skill roll is required. The damage is resolved as concussion damage equivalent to the number of charges remaining in the weapon times 1d.

Phaser Stun: Phaser weapons can be set to stun. This is treated as an Affliction with Unconsciousness (p. 82) and Follow-Up (p. 112), as modified:

When a person is hit by a phaser stun attack, he must make an HT roll with a penalty based on the stun

setting; for example, a phaser set on Stun-1 requires a HT-1 roll, Stun-2 a HT-2 roll, etc. If a person is hit by more than one phaser stun attack, then increase the penalty to the HT roll by 2 per additional hit taken. Ignore any DR for the HT roll; however, the person gets a bonus (or penalty) based on his Size Modifier.

If the character makes the roll, then the attack has no effect. If the character fails the roll, note the Degree of Failure; the character falls unconscious immediately, and the Degree of Failure is the number of minutes the character remains unconscious. After that, he is stunned until he can make a HT roll (roll once per second). On a critical failure, the character remains unconscious until medical assistance is received.

Note that in addition to phasers, there are other weapons (such as riot control guns and stun grenades) that also have stun settings. These weapons function similarly.

Heating Inanimate Objects: Phasers can be used to heat inanimate objects. This is done on the Stun-1 setting. (Repeating phasers may not be used for this purpose.) A one-foot-diameter rock would have its surface heated to about 500° Fahrenheit. The heat will last about 30 minutes, less if the wind is blowing.

The following chart lists the various settings of phasers, the damage that setting inflicts and which settings are available on various phasers.

PHASER SETTINGS, DAMAGE, AND AVAILABILITY

Setting	*Damage*	*Type*	*Phaser-I*	*Phaser-II*	*Phaser Rifle*	*Pulse Phaser*	*Repeating Phaser*
Stun-1	*	Stun	x	x	x	x	-
Stun-2	*	Stun	-	x	x	x	-
Stun-3	*	Stun	-	-	x	x	-
Kill-1	1d	Burn	x	x	x	x	-
Kill-2	2d	Burn	-	x	x	x	-
Kill-3	3d	Burn	-	-	x	x	x
Kill-4	2d(2)	Burn	-	-	-	x	x
Kill-5	4d(2)	Burn	-	-	-	x	x
Disint-1	4d(3)	Burn	-	x	x	x	x
Disint-2	6d(3)	Burn	-	-	x	x	x
Disint-3	8d(3)	Burn	-	-	-	x	x

* The victim must make a HT roll to avoid being “stunned;” see *Phaser Stun* above.

An “x” indicates settings available for that type of phaser; “-” means that phaser cannot fire that setting.

The number of charges consumed each time a phaser is fired is equal to the setting number; e.g., Stun-1 or Kill-1 consume 1 charge, Stun-3 or Kill-3 consume 3 charges, etc. Exception: Disint consumes two charges times the setting number per shot (Disint-3 uses six charges).

Disruptors

The disruptor is the weapon of choice for many species and empires. The Federation is the only faction that, as a matter of policy, regularly arms its personnel with weapons that have stun settings. Disruptor weapons lack a stun setting and are therefore less expensive to build and make more efficient use of their batteries.

Most disruptor-using empires have settled on three basic versions: a holdout version, a pistol, and a rifle. The holdout disruptor is designed to be easily concealed and so is +4 to Holdout. The basic stats of disruptors are in the chart on p. 283. Disruptors have only a basic disrupt setting. Unlike phasers, a disruptor cannot be set for overload, nor can it heat inanimate objects.

Rocket Launchers

Star Fleet Marines and other military ground forces will be issued rocket launchers for most missions; these can be available to civilians, criminals, and military personnel not normally involved in ground combat under various circumstances defined by the GM. There are many types, but two will suffice for most purposes.

Light Rocket Launcher

This is an 80mm shoulder-fired one-man weapon. Every squad of five Marines will have one of these weapons (with five rockets) in addition to their phaser (or disruptor) rifles. (The assigned rocket gunner will carry the launcher instead of a phaser rifle, and will have a Phaser-2 pistol for self-defense. He will be fully qualified on a phaser rifle for use in ship boarding actions where there is no room to employ rocket launchers.) Each round has to be loaded into the launcher (which holds one round at a time) as a separate action.

Medium Rocket Launcher

This is a 120mm crew-served weapon. Each heavy weapons team (five Marines) has one of these weapons. It is divided into several sections (the barrel, the mounting, and the computer module) for transporting by individuals (one per man) with the other two

members of the heavy weapons team carrying ammunition. At TL10, it has the same warhead and seeker options as the light rocket launcher. It has more range and explosive force. The medium rocket launcher at TL11 can be used in another mode, in which the rocket fuel is detonated inside the barrel, turning the MRL into a howitzer with considerably more range (This is what is referred to as a "howitzer" on the *Heavy Weapon Table*.) The gun crew will need to be in contact with someone who has the Forward Observer skill (p. 163) and can see the target to use it in this manner.

Notes: The weight of the launcher does not include missiles.

Active guidance requires the gunner to keep his eyes on the target (through the sight) while the rocket is in flight. Self-tracking missiles will find their own targets once they have been locked on. The gunner decides (as a separate action before firing) if the warhead will be set for penetrating or blast-frag and (as part of the same action) if it will be set for proximity or impact detonation. Proximity detonation cannot be used with penetration. See **Explosions,** p. 222.

Ammunition

For a given gun, the *weight* of one full load of ammunition, in pounds, appears after the slash in its "Weight" statistic. Assume that ammo *cost* is $20 times this weight.

Example: The 5.56mm assault rifle has a weight of "9/1." Thus, a full reload weighs 1 lb. and costs $20.

The statistics given on the tables assume that guns are firing ordinary, solid projectiles (usually lead). At TL6+, this means the common "ball" or "full metal jacket" round, but other ammo types are possible. A few examples for pistols, submachine guns, rifles, and machine guns (but *not* shotguns and dart rifles):

Hollow-Point (HP): Bullets designed to expand in flesh, causing bigger wounds. This improves damage type: pi- becomes pi, pi becomes pi+, and pi+ becomes pi++. (HP ammo is not available for guns that already inflict pi++ damage.) However, HP ammo has trouble penetrating barriers or armor; add an armor divisor of (0.5). HP ammo is available at TL6+. It has normal cost and LC. It is the most common ammo type used by hunters and police.

Armor-Piercing Hard Core (APHC): Solid bullets with a dense, armor-piercing core. Add a (2) armor divisor, but if the gun caliber is below 20mm (.80), damage type degrades: pi++ drops to pi+, pi+ to pi, and pi to pi-. (There is no effect on pi-.) APHC ammo is available at TL7+. It has *double* normal cost and is LC2.

Armor-Piercing Discarding-Sabot (APDS): A small tungsten dart encased in a larger plastic sheath that peels away when the round leaves the barrel, increasing velocity. APDS works like APHC, but also adds 50% to range and +1 damage per die. Used by tanks at TL6-7 and machine guns at TL8, it is available for small arms by TL9. It has *five times* normal cost and is LC1.

Firearm Quality

Fine firearms cost *double* list price, and get +1 to Acc and +1 to Malf. *Very fine* firearms cost 5 times list price, and get +2 to Acc and +1 to Malf. Should this result in a Malf. of 19 or more, the weapon *will not malfunction* unless lack of maintenance lowers Malf.

Presentation firearms (decorated, gilded, etc.) are also available. This will further increase cost (and resale value) by 2 to 20 times.

Pistol and Submachine Gun Table

GUNS (PISTOL) (DX-4, or most other Guns at -2)

TL	Weapon	Damage	Acc	Range	Weight	RoF	Shots	ST	Bulk	Rcl	Cost	LC	Notes
5	Derringer, .41	1d pi+	1	80/650	0.5/0.1	1	2(3i)	9	-1	2	$100	3	
6	Auto Pistol, 9mm	2d+2 pi+	2	150/1,850	2.4/0.4	3	8+1(3)	9	-2	2	$350	3	
7	Revolver, .357M	3d-1 pi	2	185/2,000	3/0.21	3	6(3i)	10	-2	3	$500	3	
8	Auto Pistol, .44M	3d pi+	2	230/2,500	4.5/0.6	3	9+1(3)	12	-3	4	$750	3	

GUNS (GYROC) (DX-4, or most other Guns at -4)

TL	Weapon	Damage	Acc	Range	Weight	RoF	Shots	ST	Bulk	Rcl	Cost	LC	Notes
9	Gyroc Pistol, 15mm	6d pi++	1	1,900	1/0.4	3	4(3i)	9	-2	1	$200	3	[1]

GUNS (SMG) (DX-4, or most other Guns at -2)

TL	Weapon	Damage	Acc	Range	Weight	RoF	Shots	ST	Bulk	Rcl	Cost	LC	Notes
7	SMG, 9mm	3d-1 pi	4	160/1,900	7.5/1.2	13	30+1 (3)	10†	-4	2	$1,200	2	[2]

Notes

[1] Rockets take time to accelerate. Divide damage by 3 at 1-2 yards, and by 2 at 3-10 yards.

[2] Civilian semi-automatic version is RoF 3, -25% to cost, and +1 to LC.

Rifle and Shotgun Table

GUNS (RIFLE) (DX-4, or most other Guns at -2)

TL	Weapon	Damage	Acc	Range	Weight	RoF	Shots	ST	Bulk	Rcl	Cost	LC	Notes
5	Lever-Action Carbine, .30	5d pi	4	450/3,000	7/0.3	1	6+1(3i)	10†	-4	2	$300	3	
6	Bolt-Action Rifle, 7.62mm	7d pi	5	1,000/4,200	8.9/0.3	1	5+1(3)	10†	-5	4	$350	3	
6	Self-Loading Rifle, 7.62mm	7d pi	5	1,000/4,200	10/0.5	3	8(3)	10†	-5	3	$600	3	
7	Assault Rifle, 5.56mm	5d pi	5	500/3,500	9/1	12	30+1 (3)	9†	-4	2	$800	2	[1]
8	Sniper Rifle, .338	9d+1 pi	6+3	1,500/5,500	12.5/ 0.8	1	4+1(3)	11B†	-6	4	$5,600	3	

GUNS (SHOTGUN) (DX-4, or most other Guns at -2)

TL	Weapon	Damage	Acc	Range	Weight	RoF	Shots	ST	Bulk	Rcl	Cost	LC	Notes
6	Pump Shotgun, 12G	1d+1 pi	3	50/125	8/0.7	2×9	5(3i)	10†	-5	1	$240	4	

Notes

[1] Civilian semi-automatic version is RoF 3, -25% to cost, and +1 to LC.

Ultra-Tech Firearm Table

BEAM WEAPONS (PISTOL) (DX-4, other Beam Weapons-4, or Guns (Pistol)-4)

TL	Weapon	Damage	Acc	Range	Weight	RoF	Shots	ST	Bulk	Rcl	Cost	LC	Notes
10	Disruptor Holdout	2d(2) burn	1	20/50	0.1/0.1	1	10(5)	4	1	1	$3,000	0	
10	Disruptor Pistol	4d(3) burn	5	300/600	2	3	100(2)	4	-1	1	$2,500	0	

BEAM WEAPONS (PISTOL) (DX-4, other Beam Weapons-4, or Guns (Pistol)-4)

TL	Weapon	Damage	Acc	Range	Weight	RoF	Charges	ST	Bulk	Rcl	Cost	LC	Notes
10	Phaser-I	Spec	2	50/100	0.1	1	100(2)	4	-1	1	$2,000	2	
10	Phaser-II	Spec	5	200/500	1	3	100(2)	4	-2	1	$3,000	1	

BEAM WEAPONS (RIFLE) (DX-4, other Beam Weapons-4, or Guns (Rifle)-4)

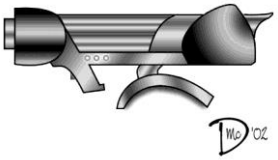
TL	Weapon	Damage	Acc	Range	Weight	RoF	Shots	ST	Bulk	Rcl	Cost	LC	Notes
10	Disruptor Rifle	6d(3) burn	8	600/1,200	6	5	200(2)	4	-6	1	$4,500	0	

BEAM WEAPONS (RIFLE) (DX-4, other Beam Weapons-4, or Guns (Pistol)-4)

TL	Weapon	Damage	Acc	Range	Weight	RoF	Charges	ST	Bulk	Rcl	Cost	LC	Notes
10	Phaser Rifle	Spec	8	500/1,000	4	5	100(3)	5	-6	1	$4,500	0	
11	Pulse Phaser	Spec	10	800/1,200	4	5	100(2)	5	-2	1	$5,500	1	
11	Repeating Phaser	Spec	12	600/800	4	8	500(2)	7	-8	1	$7,500	1	

HEAVY WEAPONS

The next table gives a few examples of the heaviest weapons that adventurers are likely to carry or encounter. Police and ordinary criminals rarely use such weapons – but any infantry/Marine squad or well-funded terrorist group might have access to them!



Rocket Launcher



Heavy Weapon Table

ARTILLERY (GUIDED MISSILE) (IQ-5)

TL	Weapon	Damage	Acc	Range	Weight	RoF	Shots	ST	Bulk	Rcl	Cost	LC	Notes
8	SAM, 70mm	6d×3 cr ex[6d]	7	1,000/8,800	18/22	1	1(20)	10†	-8	1	$38,000	1	[1, 2, 4]
9	Light Rocket Launcher, 80mm	6d×8(10) cr ex	6	200/1,000	13/2	1	1(20)	7	-5	1	$825	1	[1, 2, 3]
9	Medium Rocket Launcher, 120mm	6×20(10) cr ex	11	500/5,000	60/4	1	1(20)	-	-7	1	$2,750	1	[1, 2, 3, 5]
10	Light Rocket Launcher, 80mm	6d×9 cr ex[6d]	6	300/1,500	10/2	1	1(20)	7	-5	1	$850	1	[1, 2, 4]
10	Medium Rocket Launcher, 120mm	6×20 cr ex[8d]	11	500/9,000	40/4	1	1(20)	-	-7	1	$4,400	1	[1, 2, 4, 5]
11	Howitzer, 120mm	6d×20 cr ex[8d]	11	500/20,000	40/4	1	1(20)	-	-7	1	$4,400	1	[1, 4, 5]

GUNS (GRENADE LAUNCHER) (DX-4 or most other Guns at -4)

TL	Weapon	Damage	Acc	Range	Weight	RoF	Shots	ST	Bulk	Rcl	Cost	LC	Notes
7	Under-Barrel, 40mm	4d(10) cr ex[2d]	2	150/440	7	1	1(3)	11		2	$500	1	[1, 6, 7]

GUNS (LAW) (DX-4 or most other Guns at -4)

TL	Weapon	Damage	Acc	Range	Weight	RoF	Shots	ST	Bulk	Rcl	Cost	LC	Notes
8	LAW, 84	6d×6(10) cr ex	3	330/2,300	14.7	1	1(--)	10†	-5	1	$750	1	[2, 7]

Notes

[1] Has a minimum range: 200 yards for 70mm SAM or 80mm Light Rocket Launcher, 300 yards for 120mm Medium Rocket Launcher, and 500 yards for 120mm Howitzer.

[2] Hazardous back-blast: 1d burn damage to anyone behind firer and within 15 yards.

[3] Guided attack. Gunner uses Artillery (Guided Missile) to *attack.* "1/2D" range is *speed* in yards per second. Weight is for empty launcher/one missile. For more information, see ***GURPS Basic Set,*** p. 412.

[4] Homing Attack at the missile's skill of 10. Firer rolls against Artillery (Guided Missile) to *aim.* On a success, the missile gets its Acc bonus. "1/2D" range is *speed* in yards per second. Weight is for empty launcher/one missile. For more information, see ***GURPS Basic Set,*** p. 413.

[5] Weight of the barrel (first number), weight of the mounting (second number), and weight of the computer-sighting system (third number). TL9 Medium Rocket Launcher, 20+20+10; TL10 Medium Rocket Launcher and TL11 Howitzer, 20+15+5.

[6] Can clamp under the barrel of any TL7+ rifle or carbine. Use the rifle's Bulk.

[7] Damage is not halved at 1/2D range, but loses its armor divisor of (10).





GAMES OF THE *STAR FLEET UNIVERSE*

Prime Directive is a game of the ***Star Fleet Universe,*** an interrelated system of games with a common background. These include the classic ***Star Fleet Battles,*** the fast-playing ***Federation Commander,*** the strategic ***Federation & Empire,*** the card game ***Star Fleet Battle Force,*** and others. Because these games all have a common background, they all use the same ships, history, and technology. History puts the Klingons and Kzintis at war from Y169-Y185, so ***SFB*** and ***F&E*** both have battle scenarios for that period. A Klingon D7 battlecruiser has twice the combat power of a Romulan SeaHawk frigate, and this is reflected in ***SFB*** and ***FC*** by their Basic Point Values, in ***F&E*** by their combat factors, in ***SFBF*** by the number of icons on their respective cards, and so forth. This is good in that players can move between games and reasonably expect the same things to work the same ways (albeit on a different scale). Of course, for your own campaign, you can ignore these implications.

STAR FLEET BATTLES

This game is the patriarch of the ***Star Fleet Universe.*** First published in 1979, it has undergone several revisions and new editions. The current rules set has over 40 modules with many pages of rules and different starships. It is a tactical space combat game. Each player commands a ship (veteran players often command entire fleets) as they seek to out-fly, outfight, and out-think their enemies in a warp-speed dogfight.

Having been around the longest, most of the history and background of the entire ***Star Fleet Universe*** first appeared in *Star Fleet Battles.* The primary reference source for any ***SFU*** research, ***SFB*** has the most complete database of ships, weapons, and technology. We have reprinted most of the relevant data from ***SFB*** in this product (and there is more in sourcebooks) so players of ***GURPS Prime Directive*** need not fear being required to buy hundreds of dollars of tactical space games just to get the maps, histories, timelines, and other background data.

A detailed explanation of ***SFB*** is on the next page, and we invite all players of ***GPD*** to pick up a copy of ***SFB Basic Set*** or the free ***Cadet Training Handbook*** and experience driving a starship for themselves. Experienced players can also enjoy this game via the Internet at ***Star Fleet Battles Online:*** (www.sfbonline.com/index.jsp).

FEDERATION COMMANDER

This fast-playing game is the game of choice for RPG players who find their characters involved in battles between starships. This game has an introductory set of rules which may be freely downloaded from our website at http://www.starfleetgames.com/federation/. An example of play is included on p. 288-289. ***Communique,*** a free online monthly newsletter, keeps ***FC*** players up to date.

FEDERATION & EMPIRE

The strategic game of the ***Star Fleet Universe, F&E*** was first published in 1986 and has (like ***SFB***) been upgraded in several subsequent editions. On a map five feet long (the ***F&E*** map is re-created later in this book), players move thousands of die-cut counters representing ships, squadrons, groups, and fleets.

F&E is primarily a game about money. You collect taxes from your planets and provinces and then use the money to buy, upgrade, and repair starships. After that, you send your ships off to war to conquer your enemies. For those who are interested in this game, we have a detailed description of ***F&E*** on our website: www.StarFleetGames.com.

STAR FLEET BATTLE FORCE

In this card game you control a group of starship cards from several empires. Each ship card has icons showing the weapons the ship can use. Each turn, you check your hand for weapon cards that match the icons on your ships, and fire the weapons at the enemy. The game system is similar to ***Modern Naval Battles*** or ***Naval War*** but with improvements and new concepts. While there are several kinds of phasers, the bigger ones can fire the cards from the smaller ones, and, larger plasma torpedo launchers can use the smaller torpedo cards. As your starships take damage, red plastic markers cover some of the icons, preventing you from using those weapons. See our website for more information.

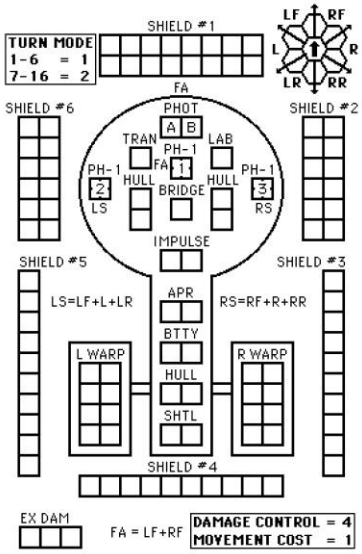
OTHER GAMES AND PRODUCTS

We have pewter starships available through our shopping cart: www.starfleetstore.com/. We are adding ships and figurines for gamers in our shop on Shapeways: https://www.shapeways.com/shops/amarillo-design-bureau-inc.

LET'S PLAY...

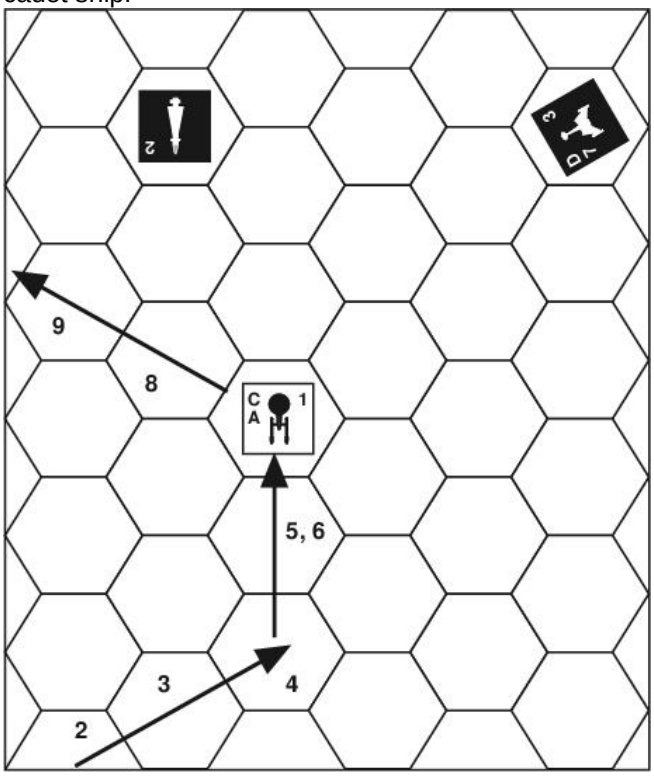
STAR FLEET BATTLES

Let's play a sample turn of ***Star Fleet Battles,*** using the rules and ships from the ***Cadet Training Handbook*** which is available as a free PDF on both ***DriveThru RPG*** and ***Warehouse 23.*** The Cadet book is specifically designed to teach you the game, and opens the doors to the entire ***Star Fleet Universe.*** Here is your ship, the Federation heavy cruiser (CA) *Eagle* (the card is called an "SSD").



The first action in each turn is to determine how much energy you have available. In this case, you can see the 16 boxes of warp power, two impulse boxes, and two APR (auxiliary power reactor) boxes, for a total of 20 points of power. (This is a "cadet ship" for beginners; the ships in ***Basic Set*** are larger and have more systems.)

A Klingon D7 is out there, so arm the weapons! Two points of warp energy go into each photon, and one point goes into each phaser. This leaves 12 points of warp and one point of impulse, for a total speed of 13, fairly fast for a cadet ship.



As you can see in the map above, your ship is maneuvering toward the Klingon. Looking at the turn mode chart (part of the SSD), you see at a speed of 13 your ship has a turn mode of 2, meaning that it must move two hexes forward in a straight line before it can turn. The cadet game turn is divided into 16 impulses, and your ship will move during 13 of these, not moving during Impulses #1, #6, and #11. The map shows only part of the action during the game turn, during which you moved toward the Klingon, turned across his bow, and achieved the position shown by the counter on Impulse #7.

During each impulse, you will have the opportunity to fire your weapons. At the particular point shown on the map (which is Impulse #7), you have two possible targets, the Klingon ship and a nuclear-armed drone which is maneuvering to hit your ship. You will engage both targets.

Note the small six-pointed firing arc diagram above the ship, indicating the six possible arcs into which weapons can fire.

The drone will be engaged by phaser #2, the left side phaser. Note that this phaser can fire into the three 60° arcs designated LF (left front), L (left), and LR (left rear), and that the drone is in the left front firing arc. To fire a phaser-1, you will of course use the Phaser-1 Table, which is shown below:

TYPE I OFFENSIVE PHASER TABLE

DIE ROLL	RANGE 0	1	2	3	4	5	6-8	9-15	16-25	26-50	51-75
1	9	8	7	6	5	5	4	3	2	1	1
2	8	7	6	5	5	4	3	2	1	1	0
3	7	5	5	4	4	4	3	1	0	0	0
4	6	4	4	4	4	3	2	0	0	0	0
5	5	4	4	4	3	3	1	0	0	0	0
6	4	4	3	3	2	2	0	0	0	0	0

You roll one six-sided die, and the result is a 4. As the drone is three hexes away (Range 3), you cross-index the die roll with the range to determine that the phaser scored 4 damage points on the drone. Since a drone is killed by 4 damage points, the drone is destroyed and will not threaten your ship again.

Now you will fire at the Klingon ship itself. There are two phasers (#1 and #3) able to fire on the Klingon, which is in the right front firing arc (RF). (Note that phaser #2 could not have fired at the Klingon ship in any case, since it cannot fire into the RF arc.) Roll two dice, one for each phaser. You get a 1 and a 5, scoring (at Range 4, as you can tell by the map) 4 damage points.

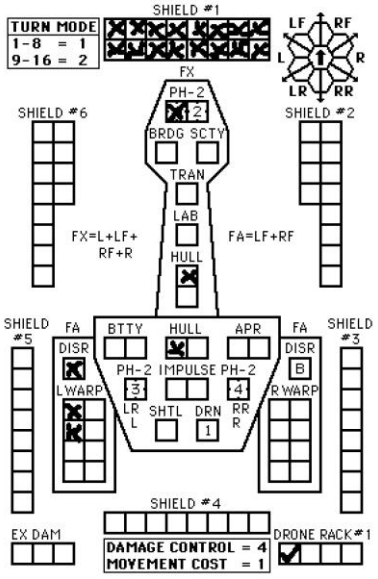
Now for the photon torpedoes! These work differently than phasers. If they hit, they will do 8 damage points regardless of the range (up to a maximum of 30 hexes).

PHOTON TORPEDO TABLE

RANGE	0-1	2	3-4	5-8	9-12	13-30
HIT	NA	1-5	1-4	1-3	1-2	1
DAMAGE	NA	8	8	8	8	8

You roll one die for each photon, with results of a 2 and a 3. Since both of these results are within the hit range (1-4) for this range, both have hit! This scores another 16 points of damage on the Klingon D7, for a total of 24.

Notice from the map that the Klingon ship's #1 shield (the one covering the 60° hex side facing forward) is facing your ship. This shield stops the first 16 points of damage you caused, but is now "down." The Klingon also used the reserve power from his two batteries to block another two points of damage, leaving six to be resolved internally. This damage is resolved by die rolls on a Damage Allocation Chart, destroying two hull boxes, two engine boxes, and two other boxes, which you can see marked on the SSD. Note that one drone has been fired from the rack.



Having inflicted severe damage on the Klingon ship, you now turn 60° away from him and move out of his range.

The Klingon retreats, giving you control of the star system! You have saved another planet from tyranny.



This is a Starline 2500 miniature of the Federation heavy cruiser.



This is the matching Klingon D7 in the Starline 2500 line of miniatures.

CAPTAIN'S LOG AND OTHER PRODUCTS

Captain's Log is the primary way Amarillo Design Bureau, Inc. releases new material for either playtest or use by players. While its focus is on the wargames ***Star Fleet Battles, Federation Commander,*** and ***Federation & Empire,*** it usually has an article pertaining to ***Prime Directive.*** Sometimes it is introducing a new species, sometimes we provide information about a new weapon, sometimes we provide a planetary survey, and sometimes we provide more information about a known species. Many times the fiction can be used to spark an adventure. The system agnostic book ***Away Team Log*** collects many of these articles from earlier ***Captain's Logs.*** It is available in paper or PDF.



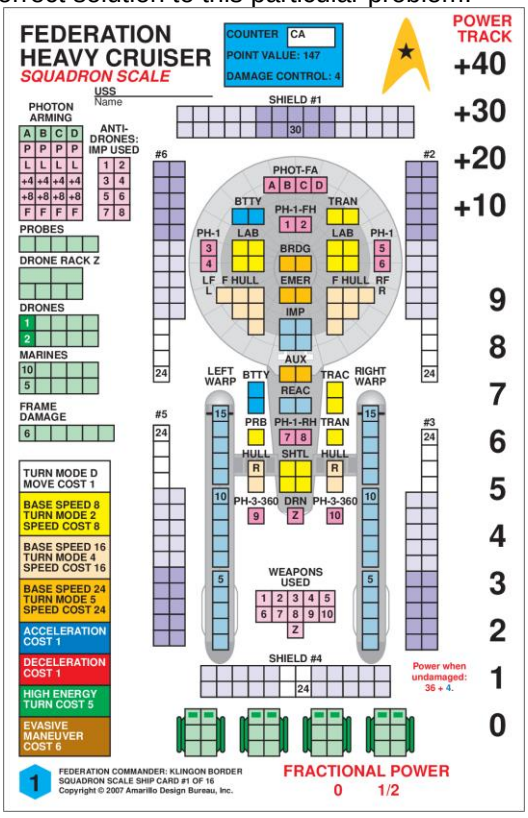
LET'S PLAY...

FEDERATION COMMANDER

Your starship, the *USS Saratoga,* is patrolling the area when the Class I alarm comes through via subspace. A deadly space amoeba is wandering through an inhabited region of the Federation, its deadly energy field causing death and destruction wherever it goes. This monster is dangerous, but not particularly evil; it is in fact simply a wild animal that is not aware of how many sentient beings it has killed.

Saddened that you may have to kill the creature to stop its attacks, but outraged by the number of Federation citizens already killed, your ship accelerates to warp seven. Arriving at the last planet devastated by the monster, you follow its ion trail until at last you make contact.

What to do? While space amoebas are common enough, there are many different kinds, and what will kill, or drive away, one species will have no effect on another. You must approach the monster and gain scientific information points before you can discover the correct solution to this particular problem.



Take Command!

You are playing ***Federation Commander,*** the latest starship combat game from Amarillo Design Bureau, Inc. In fact, you are using a starship from the first product in the ***FC*** line ***(Klingon Border)*** and a monster from the fourth ***(Romulan Attack).*** This is no problem as all elements of the entire line work together. You could play the scenario using a Klingon, Gorn, Romulan, or Tholian cruiser and you could be fighting the Planet Killer, Death Probe, Space Dragon, Juggernaut, or even one of the other cruisers. For that matter, an entire fleet of a dozen ships could be attacking a planet defended by a starbase and a smaller squadron of enemy ships, but save that for your next game. Right now, you have a space amoeba on your scanners and a populated planet only minutes away.

Target in Sight!

You place the six mounted map panels in a rectangle on the gaming table, and decide to use the side with the smaller hexes (and the corresponding smaller counters) in order to give yourself plenty of room. During the game, the space amoeba (using an optional rule) will continue to move in one direction (toward the nearby colony). As it approaches the edge of the map, you simply move the panels on the opposite side to extend the map in the direction the monster is moving, and slide the whole array so it stays on the table.

Your ship begins 200,000 kilometers (20 hexes) away from the monster. At the start of the turn, you count your power (the blue boxes on your ship card) which comes to 36 points (the four batteries are not available as you used them to pre-load your photon torpedoes). You pay 24 points for a baseline speed of 24 (to close in on the monster) and head straight for him. The problem is that the monster is moving eight hexes per turn away from you, meaning you will still be four hexes away at the end of the turn. That would give you only 32 points of lab information, and you need at least 40 (since you need 200 total and the most you can get in one turn is 80). During this first turn, you pay five points of power (during five of the eight impulses) to move faster, and end the turn three hexes away. The rest of your power holds the armed photon torpedoes ready to fire.

As this is your closest approach during the turn, you gain (see the chart in the amoeba diagram) six points for each of your eight labs, for a total of 48 points. The amoeba scores four points of damage on your forward shield, reducing it from the original 30 boxes to 26. No worries.

During the second turn, you pay for a baseline speed of 16, enough to catch the amoeba and fly directly through his hex. This produces 10 points for each of your eight labs, and your total is now 128. Unfortunately, that close approach cost you eight points of damage. Because you "side-slipped" into the amoeba hex, you take this on the #6 shield, preserving as much as you can of the vital #1 shield. You end Turn #2 five hexes away and pay some leftover energy to fix the shields.

Plotting 16 points of speed during Turn #3, you make a series of turns to fly back into the amoeba's hex, again gaining 80 points of information (you now have 208 and the science officer wants to talk to you).

Your ship takes another eight points of damage, this time on the #2 shield. While you didn't need the extra speed to get to the amoeba, you needed it so you could fly past him and reverse course, bringing your forward weapons to bear at the end of the turn.

If this turns out badly, you have to be ready to attack.

What Is This Monster Made Of?

A die roll will now reveal what the science officer has found out. You are hoping to get a "6" which will mean telepathic contact with the amoeba and allow your science officer to ask him nicely to go away. You'll settle for a "2" or a "4" which would be a relatively easy kill; you would just have to pay a few points of power to load a probe with anti-matter or rip the amoeba's skin apart with a tractor beam. What you do not want is a "5" which will require more laboratory study. This has taken too long as you have a poker game with the planetary governor to get to!

You get a "3" which means you are going to have to shoot this poor amoeba to death. While the duty is sad, it must be done to save sentient lives. Maybe your lab reports will help scientists learn more and future amoebas can be controlled? No matter, the deed must be done.

Ok, who's kidding themselves here? We're going to go blow this monster into small pieces, and we're going to enjoy doing it!

Closing in for the Kill

You have already decided on a close-range gunfight, which is why you are only a few hexes from the monster and pointed directly at him. If you had plenty of time, you could stay out of the range where the amoeba can damage your ship (say, 11 or 12 hexes) and pick the monster to death. At that range, you'll do an average of 20 points of damage per turn, and will need five or six turns to finish this battle.

Who wants to wait that long?

You pay eight points for speed, and that leaves you with 28 points of power and the four batteries. Your ship has four photon torpedoes, which were armed when the game began. To cause maximum destruction, you pay another 16 points (four per torpedo) to "overload" the tubes, doubling their damage output from eight to 16 each. (This leaves you with 12 points of power to spend this turn. Until you started firing weapons, you really didn't have any kind of power shortage to worry about.)

Closing to a range of one hex (10,000 kilometers), you fire all four photons with an automatic chance of a hit, scoring 64 of the 100 points of damage needed to kill the amoeba.

You next fire the six phaser-1s that aim forward (paying one point of energy each, leaving yourself with only six), scoring another 28 points of damage. Note that you had to aim your entire ship directly at the amoeba so that the phasers on both sides of the saucer could fire forward.

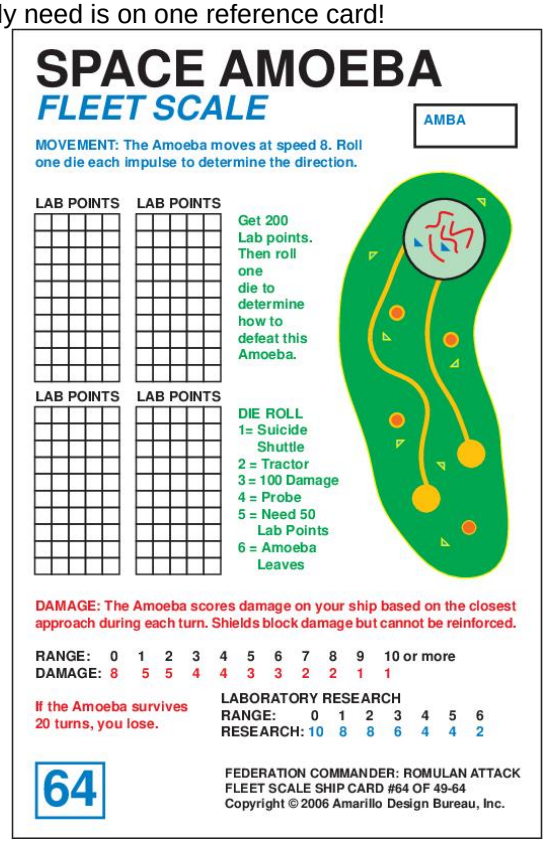
That's 92 damage points, not enough for a kill! (You were hoping for a bit better than average die rolls to cover that deficit, but the dice were not with you.) However, you are not out of phasers yet!

There are two small "defensive" phaser-3s (designed as a last ditch defense against Klingon nuclear missiles and Romulan plasma torpedoes) which can fire in any direction. Each costs half of an energy point to fire, and each of them could score four points, but (bad die rolls!) one of them scores only three. Your total is 99, and that's not enough!

Flying directly over the amoeba, you wait until you are on the other side and use your rear arc "tail guns" to score the final points of damage. The amoeba will never harm anyone again! Of course, this was a very easy "beginner" battle. Most space amoebas are twice this big!

Run and Gun!

Everything about ***Federation Commander*** is designed for fast play. Energy allocation (after selecting a speed) is done "on the fly," paying for weapons, acceleration, deceleration, tractors, shield reinforcement, transporters, or special maneuvers as you use them. If you run out of power before the end of the turn, your original speed will carry you out of the way (or so you hope!) so you can attack again on the next turn. Ships come in two scales (so battles with larger fleets can still be played in an hour or two). The entire rulebook is only 64 pages (in very big type) and everything you really need is on one reference card!



STANDARD PLANETARY CLASSES

For purposes of reference, Vulcan scientists established a number of broad categories of planetary types. Some very different planets can fit into a single category, and some planets at the limits of one category may be similar to planets in an entirely different category. The categories are:

Class A: This is a "hot" gas giant such as Jupiter which generates internal heat. There is no "surface" per se, just an increasingly dense atmosphere.

Class B: This is a "cold" gas giant (does not generate internal heat), smaller and farther from the star, such as Uranus. It also has no surface.

Class C: This is a "hothouse" planet such as Venus, with a corrosive and/or toxic atmosphere.

Class D: This is an airless rock such as Luna. Classes D, I, and J are three different points on the same spectrum of airless rocks floating in space.

Class E: This is a "super-terrestrial" world, basically a larger-than-Earth planet with an atmosphere and biosphere and at least marginally habitable.

Class F: This planet has a sulfurous atmosphere.

Class G: A dry desert planet with no oceans, such as Mars. It may be cold or hot. Its atmosphere may be thin or without oxygen. There is rarely a biosphere.

Class H: This is an "early Earth" planet with a developing biosphere (mostly bacteria, some low-grade plants). The atmosphere will be unbreathable.

Class I: A rocky planet hot enough to melt lead, such as Mercury. The atmosphere (if any) will probably be thin and there will be no recognizable biosphere.

Class J: This is a cold rocky planet with thin-to-no atmosphere. Temperatures are below freezing, any water (and there may be none or very little) will be frozen, and there will be no recognizable biosphere.

Class K: This is a desert world with a breathable atmosphere and a working biosphere, such as Vulcan. There will be some small oceans, lakes, or seas, but these will be limited and brackish.

Class L: A world like Earth, but with far less water. Oceans cover less than 30% of the surface; there will be a breathable atmosphere and a working biosphere.

Class M: This planet is Earth-like.

Class N: Like Earth, but oceans cover 90% of the surface and humidity is high.

Class O: Like Earth, but much colder, with extensive glaciers trapping most of the water.

Class P: Most of the atmosphere is frozen into glaciers of carbon-dioxide or other gases.

Class Q: A frozen iceball that is more of a huge comet than a small planet. The orbit will often be erratic, and this is usually the outermost planet.

Class R: A toxic atmosphere on a planet that is otherwise Class J, Class K, Class L, Class M, Class N, or Class O.

Class S: Frozen methane oceans with floating continents, such as Hydrax.

Class T: A semi-molten planet, such as Tholia in the M81 Galaxy, with high temperatures (above 212°F) and with inorganic life.

A FEW INTERESTING PLANETS

There are plenty of planets and GMs should have no difficulty creating whatever kind of planet is desired for an adventure. Here are a few of the more interesting planets found in the ***Star Fleet Universe.***

Mad Jack's Hole (1706) is an airless rock with a self-contained Orion colony. This is known as "the most bizarre bazaar in the galaxy" where anything could be bought and sold if you had enough cash.

Circle Trigon (5109) is a neutral Class-F planet in the Romulan-Gorn-ISC Neutral Zone. Originally an Orion colony, it functions in a similar role to Mad Jack's Hole, an open marketplace where all manner of stolen and otherwise discovered things can be found. It is a den of thieves, spies, and pirates run by a Klingon renegade who has amassed enough weapons to ensure only a major fleet can challenge his power over the planet.

The Romulan-Federation Neutral Zone is host to relatively few interesting planets.

Helvetia (3912) and **Denebola** (3415) are former Orion colonies which now function as independent trading planets. Federation and Romulan merchants bring their goods here to exchange to avoid tedious customs and security requirements of actually getting a visa. These are lawful, civilized planets (but of course are awash in spies).

The Klingon-Federation Neutral Zone is host to no end of amusing and entertaining planets for adventurers.

Adanerg (1909) is a Class-M Federation colony.

Bezwell Index (2214) is a neutral planet, but Klingons kidnapped some of their leaders in Y162 to stop a treaty with the Federation.

Iridima (1912) is a rich source of iridium for which the Klingons and Federation are in a bidding war.

Leebyahh (2013) is a Class-M planet, populated by a humanoid species regarded as comically paranoid. They bought billions of credits worth of cheap Klingon weapons to defend against a Federation invasion that never came.

Organia (1913) has a population thought to predate the Old Kings. Using powerful mental abilities, they were able to prevent any combat within 500 parsecs of their planet and served as the intermediaries in the Organian Ceasefire Accord.

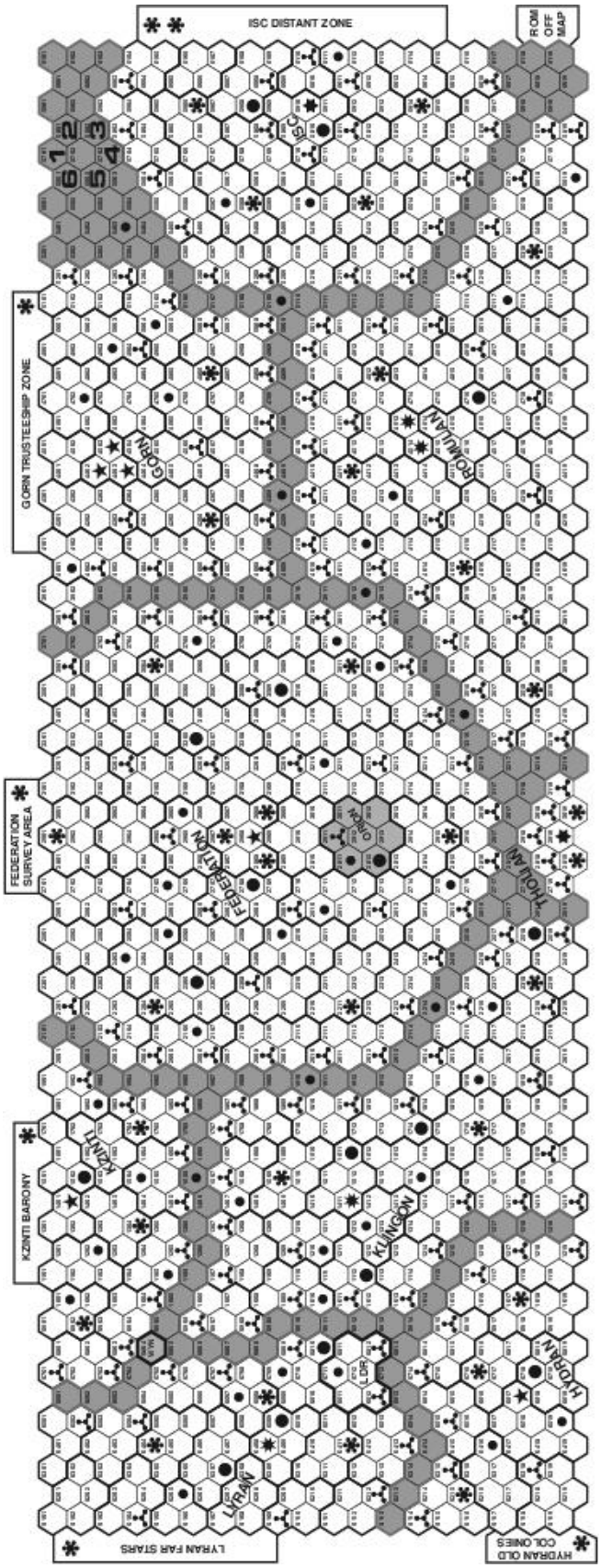
Sherman's Planet (1910) was in the unfortunate position of being the perfect place for a naval base to support attacks on the Klingon Capital. The Federation insisted that its colony there was purely nonmilitary, but the Klingons continually objected as (innocent intentions or not) it was a direct threat. Numerous Klingon raids (Y165-Y170) failed to disrupt the colony.

Rita's World (2114) is a Class-M Federation colony.

Tyson's Star (2315) includes a Federation agricultural colony on the third planet and a Klingon mining colony on the fourth.

Vanecek (2315) is an unoccupied Class-M planet suitable for colonization.

MAP OF THE ***STAR FLEET UNIVERSE***



The map at left shows the main area of the ***Star Fleet Universe,*** which is also known as the Alpha Octant of the Milky Way Galaxy. To be technically accurate, the map should be curved (as it is a section of the outer rim of the galaxy) but the distortion is minimal and can be ignored.

This is, literally, the map of the game ***Federation & Empire,*** and is used in that game to define everything from ownership to economic power, from supply lines to travel distances, from planetary locations to areas of pirate activity. Larger scale versions of this map are shown on subsequent pages; this small version is provided to show the overall sweep of the Alpha Octant. The map shows the borders that were in effect from the end of the Early Years (about Y125) through the start of the General War (Y168).

The Federation occupies the center of the map. The Kzintis are to the left of the Federation and the Gorns to the right, both along the top edge, which is toward the center of the Milky Way Galaxy. (The bottom edge of the map is the Galactic Rim.) Enemies are also nearby, the Klingons to the left and the Romulans to the right.

The Lyrans (allied with the Klingons only because of the Lyrans' hate for the Kzintis) and the Hydrans (allied with the Federation if only because the Klingons and Lyrans keep invading Hydran space) are to the left (west) end of the map. The Inter-Stellar Concordium is to the right/east.

Small neutral powers are scattered across the map. The Tholians are in the bottom center; they occupy territory that once belonged to the Klingons and were briefly allied with the Federation. Mostly, the Tholians (refugees from another galaxy) just wanted to be left alone. The Seltorians (former slaves of the Tholians) set up a base in Klingon space near the Tholians. The Lyran Democratic Republic (lower left) is a rebellious province of the Lyrans who broke away to form an independent nation; the county got away with this only because two rival Lyran factions could not afford to see the LDR join the other side. The WYN Star Cluster (upper left) is populated by rebels, refugees, and renegades from the Kzintis, Lyrans, and Klingons. The Orions (just below the map center) are a member of the Federation but declared themselves neutral during parts of the General War.

The Carnivons once occupied the upper left (north-west) corner of the map but were driven away (or destroyed) decades earlier. The Paravians once occupied some territory in the upper right (part of Gorn space, as well as areas later occupied by the Romulans or ISC).

The Orion Pirates (who are, and are not, linked to the Orion planet and enclave) operate over the entire map (although not in Tholian territory as the Tholians aggressively patrol and protect their small area). Orion Pirates are divided into cartels, each of which controls about 10% of the Alpha Octant. The boundaries between these cartels are fluid and constantly changing.

The Andromedans invaded our galaxy from outside and operated across most of the Alpha Octant.

The Omega Octant is to the right of this map, east of the Inter-Stellar Concordium.

ISC DISTANT ZONE
ROM OFF MAP AREA
GORN TRUSTEESHIP ZONE
Starbase
Station
Planet
Capital
ISC
GORN
ROMULAN
FEDERATION
ORION

Neutral zones separate the empires. Adjoining empires can send a limited number of ships into these areas and can develop colonies there under various treaty limitations. Neutral zones are not "free highways" that would allow, for example, the Federation to attack the Lyrans without going to war with the Klingons.

Only major industrial planets are on the map. Every hex has a thousand stars and a hundred planets, at least a few of which are occupied by colonists or native sentient species. Most stars that can be seen from Earth are in hex 2908. Some names of nearby stars and features have been reused for more distant stars and features.

Mention should be made of the handful of "free planets" which existed in neutral zones. They often provided the only direct communications between opposing empires, and the only trade. They were all awash in spies, and everyone tolerated the enemy spies in the hope that their own spies could do a better job. The balance of power made these planets safe havens for Orion Pirates, and they became an open market for stolen weapons and pirate loot. The odd stolen freighter could, for a price, be reregistered at these planets under a number of national flags.

Mad Jack's Hole is on a small moon. Ships of many empires made port calls there (the entertainment facilities were legendary). When the General War began and the Klingons captured most of Kzinti space, they left Mad Jack's Hole as a "free zone" since they could at least count the pirate ships coming and going. A major battle was fought around this base in Y175 when the Federation became annoyed to find its latest fighters on sale to its Kzinti allies and Klingon enemies.

Denebola was an important trading post between the Federation and Romulans, and was solely responsible for the Federation taste for Romulan Ale. Spies knew each other on a first-name basis, and what passed for peace talks (military conferences to reduce tension) took place here. On the Day of the Eagle (the Romulan invasion of the Federation in Y173), one of the first battles took place at Denebola.

The planet Revlis is in Romulan space, but was so infested with Orion Pirates that the Romulans (who had only a tenuous hold on the outer areas of their empire) knew better than to try to control it. Pirates used it as an exchange point, buying and selling loot taken from Federation and Romulan convoys. The last Klingon ship operating in Romulan space was able to obtain replacement drones at this bizarre bazaar, and used them when it stopped a Romulan attempt to negotiate a separate peace with the Federation at Oxvind V.

EASTERN AREA

The map at left shows the eastern half of the Alpha Octant of the Milky Way Galaxy. This area was dominated by two empires (the Romulans and the Gorns) although about a third of the Federation is here. The neutral ISC did not even become known to the Romulans and Gorns until Y169 and did not expand to the size shown on the map until the early years of the General War.

EASTERN AREA INDEX

Aberdeen (Federation colony)	3411
Aliser VI (primitive)	3404
Andichron VI (Federation colony)	3309
Ankrogea (ancient, dead)	3301
Aurellius (Romulan minor planet)	4313
Bazaligth (ISC major planet)	5908
Cestus (Gorn minor colony)	4007
Chicago (Federation major colony)	3306
Circle Trigon (neutral)	5109
Corrieth (ISC minor planet)	5510
Dastaal (ISC colony)	5313
Debrock (Federation protectorate)	3514
Denebola (neutral)	3415
Filsingth (ISC minor planet)	6111
Fornax (Federation protectorate)	3413
Frallia (Federation associate member)	3201
Geslok (Gorn minor planet)	4001
Geydar (Ghdar II, Gorn major system)	4403
Ghdar (Ghdar I, Gorn capital)	4402
Gihdahr (Ghdar III, Gorn major system)	4503
Gijard III (Gorn minor planet)	4705
Gistardistang (Gorn minor planet)	4702
Golgotha (Gorn minor planet)	4903
Gordan's Planet (Federation planet)	3612
Gorngella (Gorn colony)	4108
Gornshima (Romulan colony)	4512
Gyrennia (Gorn minor planet)	5004
Helvetia (neutral)	3912
Hokan (Gorn mining colony)	4408
Justinia (Romulan minor planet)	4112
Korlivala (ISC member system)	5910
Midketh (neutral)	4309
Morkedia III (Federation mining colony)	3414
Mynie (Federation associate member)	3204
Naramar III (Federation minor planet)	3005
New Marseilles (Federation colony)	3504
Oxvind (Romulan minor colony)	3615
Pavarak (neutral)	5403
Pronhoula (ISC member system)	5910
Q'naabia (ISC member planet)	5810
Remus (Romulan secondary capital)	4514
Revlis (free planet in Romulan space)	4018
Romulus (Romulan primary capital)	4613
Rovilla (ISC member system)	5910
Scylla-Charybdis (navigational feature)	3506
Sebelia IV (Federation minor planet)	3711
Sigma Draconis (Federation major planet)	3509
Skoleos (Federation planet, Gorn mercenaries)	3704
Tellarite Prime (Federation associate member)	3706
Tiberius (Romulan major system)	4514
Tibernia IV (Romulan major planet)	4716
Trajanus (Romulan minor planet)	5619
Tuscana (uninhabited)	4209
Veltressa (ISC member system)	5910
Vespasia (Romulan minor planet)	5117
Vesuvius (Romulan major system)	4613
Vidalia (Federation minor planet)	3210
Voabalt (ISC minor planet)	5507

FEDERATION SURVEY AREA
KZINTI BARONY
Capital
Planet
Station
Starbase
NEUTRAL ZONE
ORION
THOLIAN
KZINTI
KLINGON
LDR
WYN
LYRAN
HYDRAN
LYRAN FAR STARS
HYDRAN OLD COLONIES

WESTERN AREA

This area is actually "older" than the eastern half; the empires here were fighting wars before the empires in the eastern half of the Alpha Octant had established contact with each other. The current borders were defined by the Four Powers War which preceded the General War.

Airsis IV (neutral)	2113
Aklar III (Klingon Ockt-tah Academy)	1513
Allen's Planet (Federation colony)	2002
Alpha Centauri (Federation member system)	2908
Altroth (Hydran Lost Colony)	Off Map
Andor (Federation member system)	2908
Annox (Federation colony)	2209
Antares (Federation member system)	2610
Anthraxan (Hydran major system)	0617
Arcturia (Federation associate member)	2715
Bakuria (Klingon warrior colony)	1210
Bargantine (Klingon subject world)	1114
Bcalath (Lyran colony)	0604
Bezwell Index (neutral)	2214
Big Valley (Federation colony)	2106
Blackfoot Pass (navigational feature)	1909
Bolmark (Lyran major planet)	0408
Byrantan (Lyran major planet)	0307
Codimark (Federation minor colony)	2510
Cromarg (Klingon subject race)	1513
Darmot (Klingon colony)	1416
Degomark (Lyran minor planet)	0205
Demorak (LDR capital)	0711
Diablo Asteroid Field (Orion base)	2106
Dimitris (Kzinti minor planet)	1802
Dunkaria (Klingon subject race)	1112
Earth-Sol (Federation member system)	2908
Farlin (Klingon colony)	1407
Foremark (Lyran minor planet)	0607
Frakmark (Lyran major system)	0408
Garar VI (Lyran minor planet)	0709
Hilidaria (Klingon subject race)	1010
Hycoman (Hydran colony)	0516
Hydrafahl (Hydran minor planet)	0519
Hydramax (Hydran major system)	0617
Hydrax (Hydran capital system)	0617
Hydraxaport (Hydran major planet)	0718
Hyurdju (Hydran colony)	0814
Iridima (neutral)	1912
K'brogrh (Klingon minor planet)	2216
K't'tothos IV (Klingon mining colony)	2316
Kadrak (Klingon major system)	1411
Kalesta (Klingon colony, held by Tholians)	2919
Kangor (Klingon major system)	1411
Keevarsh (Kzinti major system)	1401
Kelanon (Klingon colony, held by Tholians)	2919
Kindlai (Kzinti major planet)	1502
Klardon (Klingon major system)	1411
Klegarine (Klingon planet)	1611
Klinshai (Klingon capital system)	1411
Klomarth (Klingon major planet)	1714
Kordahn (Klingon colony, held by Tholians)	2919
Krooth (Hydran Lost Colony)	Off Map
Kypruss (Klingon major planet)	2518
Kzintai (Kzinti capital system)	1401
Landfalk (Klingon colony)	1114
Leebyahh (neutral, pro-Klingon)	2013
Lumien (Kzinti minor planet)	1504
Lyrantan (Lyran capital system)	0408
Mad Jack's Hole (neutral-pirate)	1706
Meva (Federation planet)	2704
Minxitith (Hydran Lost Colony)	Off Map
Novorosibirsk (Federation minor planet)	2509
Organia (neutral)	1913
Orion (Orion capital planet)	2812
Osiris (Orion minor planet)	2811
Pacifica (Federation major planet)	2708
Paktar (Federation member system, Deians)	2505
Phtha III (Hydran minor planet)	0416
Phylos (Klingon system)	1707
Pleiades Star Cluster (astronomical feature)	2011
Pollux IX (Federation minor colony)	2213
Ponderosa IV (Federation colony)	2106
Prelaria (Federation associate member)	2705
Rigel (Federation member system)	2908
Rita's Planet (Federation colony)	1912
Roon (developing planet)	2805
Sefaria (Klingon warrior colony)	1312
Selnar (Klingon minor colony)	1110
Sentria (primitive)	2803
Sheboygan III (Federation minor planet)	2403
Sherman's Planet (neutral)	1910
Shiloh (Federation colony)	2106
Shresha-Cygnus (Federation member)	2306
Silmark (Lyran major planet)	0810
Skagmark (Lyran major planet)	0509
Slirdaria (Klingon subject race)	1511
Southfork IX (Federation colony)	2106
Thetis (Federation colony)	2314
Tholia (Tholian Dyson sphere)	2919
Tyson's Star (disputed)	2315
Valoria (Klingon warrior colony)	1514
Vanecek (disputed)	2315
Vielsalm (Kzinti major system)	1401
Volmark (Lyran major system)	0408
Vronkett (Kzinti major planet)	1401
Vudar (Klingon subject race)	1619
Vulcan (Federation member system)	2908
Vultrax (Vulcan secondary planet)	2908
Walkuria (Klingon warrior colony)	1916
Zamyan (Kzinti minor planet)	1001
Zelkrat (Kzinti minor planet)	1105
Zilmark (Lyran minor planet)	0709
Zimdars (Kzinti minor planet)	1202
Zoolax (Klingon subject race)	1210
Zursk (disputed)	1506

WARP FACTORS & SPACE MOVEMENT

Starship movement is needed in ***Prime Directive*** to get the characters from one place to another (usually from where they are to where the planned adventure takes place). This is a factor of how far you need to travel (including any detours to avoid enemy territory, ongoing wars, active piracy zones, or whatever), what kind of ship you have (cargo and merchant ships cannot go as fast as warships), and whether it is using its normal cruising speed (which has the most economical fuel consumption) or its faster "dash" speed (which burns fuel and spare parts like crazy). Warp Factors are one term in a complex equation defining speed, but are the most easily grasped term in common speech. For movement in ***GPD,*** however, calculations are done in parsecs (a measure of distance rather than speed).

The following chart provides the relevant data.

Freighters include standard commercial ships not intended for combat. They have no "dash speed."

Non-Tactical Warp is the earliest form of warp drive, e.g., used by Romulan sublight ships.

Auxiliary Warp is used by naval auxiliaries, basically freighter hulls with military-grade engines. Some civilian-owned ships have this type of engine.

Early Tactical Warp is used around Y100-Y125 by the first ships built "from the keel up" for warp.

Standard Warp is the military grade engines seen on most starships. Note that a few civilian ships have this type of engine.

Fast Warp is used only by fast cruisers, light dreadnoughts, Federation Express high-speed transports, and the later X-ships.

Dash speed (shown for auxiliary, standard, and fast ships) is explained under Dash Speed below. Early and non-tactical warp ships cannot use dash movement. Note that auxiliary ships cannot "dash" more than 1,004 parsecs in a 30-day period as their engines cannot take the heat.

Drive Type	Warp Factor	Parsecs per Month	Parsecs per Day
Freighters	4.5	149	4.97
Non-Tactical Warp	5.5	272	9.07
Auxiliary Warp	5.5	272	9.07
Early Tactical Warp	6	353	11.77
Standard Warp	7	561	18.7
Fast Warp	7.25	623	20.77
Auxiliary Dash	8.5	1,004*	108.41
Standard Dash	9.25	13,088	436.27
Fast Dash	9.5+	14,094	469.80

*Note that auxiliary ships can only use dash speeds for fewer than 10 days in any 30-day period.

Calculating Movement

You are playing ***GURPS Prime Directive*** and you need to get your ship from where it is to where you want to be. This is a relatively simple procedure. First, find the origin and destination on the map. For simplicity, just count the hexes (each is 500 parsecs across). (See *Precise Distance* on p. 297 for more complex calculations.)

Determine whether your ship will use normal cruising speed or (if it can) dash speed. Get the relevant number from the chart, and divide it into the distance.

For example, you need to get from Earth (hex 2908) to Orion (hex 2812) in order to foil a plot to secretly build a new pirate starship. This is a distance of 5 hexes or 2,500 parsecs. You are flying in a Free Trader with military auxiliary engines (9 parsecs per day). Divide 9 into 2,500 and it will take you 277 days to reach there. Or perhaps you are in a Prime Trader with standard starship engines (18 parsecs per day). This will take you only 134 days. Even this is still too slow; the pirates must be stopped! Dash speed for your standard engines is 436 parsecs per day, so you will need only a little under six days to get there, but this will burn a lot of fuel and spare parts (5% of the cost of your ship!). But you're on government per diem, so go right ahead.

Having foiled the pirates, you now need to go from Earth to the Klingon capital (hex 1411) in the company of a special ambassador. This is a distance of 15 hexes (7,500 parsecs) and travel at dash speeds will take 17 (7,500 ÷ 436) days plus a few hours. The only problem here is that you will need to stop and refuel twice in this trip (as dash speed is limited to 3,000 parsecs without more fuel) and each refueling will take half a day (plus time for side trips, adventures, bar fights, etc.). Figure 20 days and you'd be about right. You can get fuel at the Federation base in 2308 and (since you have been invited) can buy fuel at the Klingon base at 1809. You could also get fuel from the neutral planet in 1910.

Dash Speed

The concept of "dash speed" is one that is important to understand. Dash speed is used only when the ship has a clear path, a known and well-marked destination, and a serious need to be somewhere else in a major hurry. It is much faster than normal cruising speed, but the penalties are severe (and most of them do not show up in game terms, causing players to believe, incorrectly, that dash speed is free and the most common way of moving around). Dash speed means, literally, driving the ship to its maximum speed, going "hell for leather" or "riding with wild abandon." The distortion of space needed for this speed is so severe that navigation is difficult (requiring outside help) and the ship is nearly blind and defenseless (meaning that

dash speed is rarely used to get into trouble). The engines will be strained (causing a serious maintenance cost and shortening the time to the next dockyard overhaul) and tremendous quantities of fuel are used.

Dash speed is often used for emergency strategic redeployments; Fleet headquarters really needs more ships in the other part of the Federation (or Empire, or whatever) and really needs them to be there right now. (Sometimes this would happen in peacetime, when a special ship or team of experts is needed to deal with an immediate crisis.) There must be a navigational beacon at the destination (of the kind only provided by major industrial planets, starbases, and other major bases; minor colonies do not have this capability). Fortunately, such redeployment is made along a network of bases, which provide the fuel, quick maintenance overhauls, and navigation beacons needed for dash speed. Warships can conduct extended strategic movement only if they make a half-day "pit stop" at a base every 3,000 parsecs (or whatever the normal six-month movement distance is). This type of movement is known as "Strategic Movement" in the strategic game system ***Federation & Empire;*** such redeployment is also just about the only time that dash speed is used for extended periods. For price comparison, each month of this movement would typically cost 10% of the price of the ship.

Dash speed is used for shorter periods in an operational context. This could be broken into three types of operational maneuver.

The movement of reserve ships to a critical sector is controlled by bases with powerful scanners to guide their movement, and a wartime fleet of 200 ships would be able to maneuver no more than a dozen ships by this method in any six-month period. This would be limited to a maximum of 3,000 parsecs for normal warships (basically, six months of movement in a single week). In peacetime, this might be used to get a special ship, team, or supplies to a critical planet. Civilian ships could in theory use this for some reason important to their adventure or enterprise. For price comparison, a trip at this speed would typically cost 5% of the price of the ship.

The movement of warships to intercept enemy forces or to respond to a crisis often uses dash speed, but this is limited to 500 parsecs (1,000 parsecs if the maneuver is guided by the powerful sensors of a base or scout-ship). This type of maneuver can also be used to retreat from the immediate area of a battle or threat (up to 500 parsecs). For price comparison, a maneuver at this speed would typically add 3% of the cost of the ship to the trip.

Warships which have been damaged in battle or which are trying to escape from an area where the enemy has overwhelming force might use retrograde movement. This allows warships to move up to 3,000 parsecs (basically, a distance equal to their normal operational movement) but only out of combat or danger and only when moving to a major base or industrial planet or a specialized fleet repair facility. In peacetime, characters might use this type of movement trying to rush a wounded person to a specialized medical facility, or to return key items (evidence, artifacts, witnesses, whatever) to a major headquarters. For price comparison, a maneuver at this speed would typically add 5% of the cost of the ship to the trip.

In all cases, the GM may decide to waive the cost if the characters are using a government ship for the convenience and business of the government in question, or if the government has some reason to reimburse them for the cost. If a ship is hired to carry something somewhere, and the people doing the hiring want delivery right away, the characters need to be sure to make them pay the cost. If you are a Star Fleet crisis team and Star Fleet Headquarters wants you on Rigel-IV, then Star Fleet can (and will) pay for it. If you are the only engineer who knows how to fix an old Mark-II reactor and somebody wants it fixed, they can pay to get you there. In some cases, however, when a team is conducting a mission within a defined budget, the GM may decide that even though the cost doesn't come out of the characters' personal funds, it does come out of their operating budget, and using dash speed may mean that they don't have money they will later wish they had saved.

Precise Distance

There are two methods for improving accuracy in distance calculations; either or both may be used.

In one case, do not count hexes but measure the distance from the center of the starting hex to the center of the destination hex with a ruler (or marks on a slip of paper) and then transfer this to a straight row of hexes and determine the equivalent number of hexes (including fractions). By this method, the distance from Earth to Orion is about 4.6 hexes (2,300 parsecs) and from Earth to Klinshai is 13.7 hexes (6,850 parsecs).

The second method is to assume that the origin and destination are not in the center of the hex. The GM might want to define the precise point in space for each planet (as a distance from each hex side) or you could simply calculate the nominal distance and roll 2d6 on this chart:

Die Roll	Modify Distance by
2	-400 parsecs
3	-300 parsecs
4	-200 parsecs
5	-100 parsecs
6	-50 parsecs
7	No change
8	+50 parsecs
9	+100 parsecs
10	+200 parsecs
11	+300 parsecs
12	+400 parsecs

GMs might want to keep a record of such distances for future use, or assume that temporary local conditions along the route mean that every trip between two points takes a slightly different route and a slightly different distance.

Interstellar Communications

Subspace radio will allow two-way communications without time-lag anywhere in the same hex. After that point, assume a time-lag of one quarter-hour per hex. And by all means, if the pace of the adventure means that the team should not be able to talk to base so easily, all kinds of ion storms can cause havoc with communications. Messages might have to be rerouted through bases not in a direct path to the characters.

CIVILIAN TRANSPORTATION

The ***Star Fleet Universe*** is at the same time a very large and a very small place. Long-range transport requires a starship, but short-range travel (within a single 500-parsec map hex) is handled by a variety of ships, shuttles, and systems. There is very advanced transportation technology available and the implications of this technology are not always obvious. This article will explain transportation options that are available for use and, where possible, refer to historical methods of transportation to illustrate what the raw numbers represent.

On major planets, characters have several options to get from here to there: they can avoid going altogether and instead trivideo conference, or get anywhere on the planet or within 50kkms via transporters, or they can use shuttlecraft. The GM will need to determine the availability of transporters on each world (transporters do take trained people to operate them which limits their use somewhat). The standard administrative shuttlecraft is a very versatile craft and, while it is not designed for high-speed travel in the atmosphere, it has plenty of power to reach orbit. Regular commercial travel by these shuttles (mostly the much larger size-4 versions) is as available as current air transport. A yacht has much more room and comfort, but is the same speed as a shuttlecraft. To get to the other side of the typical Class-M world only takes about 20 minutes: 7 minutes to climb from sea level to 50 miles altitude at 400 mph (a conservative subsonic speed), 6 minutes to get clearance from the local traffic control and orbit the planet at high speed, and 7 minutes to descend back to sea level. As a point of comparison, in the early 21st century a person who only had to spend 20 minutes each way getting to work in a major city would be considered lucky.

As you move beyond 50kkms, the transporter ceases to be an option and you are left with trivideo conferencing or shuttlecraft. Major planets strongly discourage use of high warp within 15 light-hours from the system's sun (this is approximately a second of travel for a ship at high warp), some to the point of firing on any craft that hasn't identified itself and is using high warp within this distance (and since the slightest amount of damage will vaporize a large ship at high warp, it's not something to risk). Even without using high warp, a solar system is still a fairly small place. Using a shuttle's tactical warp engines (Warp 2.5), a trip from Earth to Luna will take approximately eight minutes (seven minutes to clear Earth's atmosphere and a second to get to Luna and then a minute to land). Traveling out to any point in Sol's asteroid belt could take as long as nine minutes. Even the outer planets are not far away; traveling from Earth to Pluto will take about 30 minutes by shuttle at Warp 2.5. The high-warp limit of 15 light-hours will take less than an hour to travel by shuttle.

Once you leave a solar system, a shuttle starts to become much more inconvenient. While shuttles and yachts can be equipped with a "long-range" pod to provide the fuel and supplies for such a trip, traveling to other star systems by shuttle/yacht takes a lot more time. A trip from Sol to Alpha Centauri at Warp 2.5 will take approximately 36 hours; traveling from Earth to Vulcan will take about six days. While these times don't seem completely unreasonable (on 21st century Earth, trips by automobile of such durations were common for things like annual vacations), for the similar passage a shuttle or even a yacht will seem very small after a few days. (Remember that even a large yacht is only about three times the size of an admin shuttle so it would have about 258 square feet of floor space).

However there are many other options available for interstellar travel. Numerous companies run regularly scheduled trips between systems. The craft used for this are a mix of passenger liner and ferry designs, often based on the standard small freighter with its 98.4 feet x 656.2 feet cargo pod. (Such a ship already has no less than 16 docking ports able to handle shuttlecraft, and by simply removing some interior partitions on Decks 5 and 6, dozens of shuttles could be parked inside, leaving the other 70% of the ship to carry standard cargo.) For short duration runs, you will see craft that have large shuttle bays. People just fly their shuttles up to the ship, dock, and stay in the shuttle the entire trip (with a small lounge for people who board by transporter). For longer trips, you will have more space allocated to lounges, sleeping quarters, etc.

The various types of ships available and the transit times for the design are (in order of increasing cost):

Slow freighter, Warp 4.5: Earth-Alpha Centauri, 6 hours; Earth-Vulcan, 24 hours.

Fast freighter, Warp 5.5: Earth-Alpha Centauri, 3 hours 20 minutes; Earth-Vulcan, 13 hours 10 minutes.

Surplus Early Years-era warship conversion, Warp 6: Earth-Alpha Centauri, 2 hours 30 minutes; Earth-Vulcan, 10 hours 10 minutes.

Surplus General War-era warship conversion, Warp 7: Earth-Alpha Centauri, 1 hour 35 minutes; Earth-Vulcan, 6 hours 30 minutes.

Federation Express, Warp 7.25: Earth-Alpha Centauri, 1 hour 25 minutes; Earth-Vulcan, 5 hours 45 min.

In addition to the standard high warp speeds listed above, some ships can also operate at dash speed. This is very expensive as it costs the base cost of the ship in supplies over five years of operation. Because of this, only smaller starships are used for dash transit, and this reduces the cargo that can be carried and drives up the ticket costs. Such service is normally only available on the highest-traveled routes (similar to the use of the supersonic Concorde aircraft in the early 21st century). It does significantly cut down on the travel time, but the craft requires about eight hours of maintenance for every 16 hours in flight. A ship of this type makes a lot of short fast trips with long delays in between. For extremely short trips, the ship could potentially make several trips before requiring maintenance.

A Federation Express Courier operating at dash speed (Warp 9.5+) will make the Earth-Alpha Centauri run in about 4 minutes and the Earth-Vulcan run in about 16 minutes (not counting loading/unloading, docking, and the hour to enter and leave each solar system, surface-to-orbit, etc.), which could easily extend the travel time by several hours.

USING ***SFB*** AND ***FC*** FOR SPACE COMBAT

Those groups who want to use ***Star Fleet Battles*** or ***Federation Commander*** to resolve space combat can do so with these rules. First, assign each character a job on the ship. The jobs to be done include Captain, Weapons Officer, Navigator, Engineer, Science Officer, Marine Officer, Communications Officer, Fighter Squadron Leader, and First Officer.

If your group has fewer members, you could use an NPC or characters will have to double up but will have a -1 penalty on both jobs. (The Captain will have no penalty on two jobs.) Anyone with three jobs will have a -2 penalty on all three (and any additional) jobs. If your group has more players, divide the weapons or engineering job between two characters. Players could agree to divide up the jobs in other ways, e.g., give Fred control of the left-bearing weapons, tractors, and electronic warfare. Players might agree that each job is assigned to one primary officer and one backup; conducting a backup job action would have a -1 penalty while conducting an action not part of your assigned job would have a -2 penalty.

Each officer on a starship with a large NPC crew can conduct three actions in a given impulse (e.g., fire weapons at three targets, adjust electronic warfare levels, tractor a drone). A subsequent action in the same impulse has a penalty of two applied; this doubles for every subsequent action in the same impulse. If the PCs (and NPCs they control) are the entire crew of the ship, then each can conduct as many actions in an ***SFB/FC*** impulse as he can in a ***GURPS*** combat turn.

Most officers will be on the bridge but some (engineer, Marines, doctors, scientists) could be in other appropriate locations around the ship.

The enemy starship or monster can be controlled by the GM, or by an ***SFB/FC*** player the GM recruits for this task.

Jobs for Players

Captain

The captain decides on maneuvers (e.g., “Helmsman, turn left!”) and weapons (e.g., “Gunner, shoot at that fighter!”). In ***SFB,*** he does Energy Allocation each turn after listening to each officer request power. (In ***FC,*** he makes decisions on the fly as each officer requests power.) Each impulse of ***SFB/FC,*** the captain can give no more than three commands. (If the captain has a Leadership skill of 16 or more, he can give four commands. If this skill is 11 or less, he can give only two.) To get more done with those commands, he might give sweeping authority to an officer (e.g., “Gunner, don’t let those drones hit us!”) and hope that the gunner uses the available weapons wisely. ***GURPS*** skills don’t really apply here; he either tells the gunner to shoot or he doesn’t. Of course, the other officers might act on their own initiative without orders, or disobey orders. The captain may have to roll a quick contest (Leadership vs. the other officer’s Will) to force an officer to obey. In the place of one of his orders each impulse, the captain may attempt to encourage one of his officers with Leadership (or threats). The captain makes a Leadership roll; if successful, the officer adds one to his skills (not his ***SFB/FC*** die rolls) for that impulse. Rival captains could conduct a quick contest of Tactics skills to resolve “you first” situations.

Weapons Officer

This officer fires the weapons and controls seeking weapons in flight. Typically, the minimum Gunner skill for a professional military officer firing a starship weapon is 12 in that weapon. If there are more than one type of weapon (for example, phasers and photon torpedoes), then it is expected that the officer will have at least 12 in each weapon. For skill levels above and below this point, die roll modifiers are used as per the chart on p. 300. Each target engaged with direct-fire weapons is one action. If seeking weapons are in flight, all of them (combined) count as one action each (and every) impulse, even if they are not actually moving.

Navigator

This character actually steers the ship, which uses two of his actions on any given impulse (i.e., he cannot do more than one other thing without a penalty for “too many actions at once”). When he tries to turn or perform some other movement function (other than moving straight ahead), roll against Piloting skill pertaining to the craft. Success means the ship performs the

normal ***SFB/FC*** maneuver, but failure means that the maneuver will be delayed to the next impulse; a critical failure means the order is ignored (but can be reissued).

Engineer

Typically, the minimum Engineer (Starships) skill for a starship's chief engineer is 12. For every point less than 12, he must roll against his skill at the start of each turn during ***SFB***'s Energy Allocation; fail and the ship has one power-producing SSD box that just doesn't produce any power this turn (critical failure loses two points of power). In ***FC,*** this roll occurs at the start of each turn; failure means a loss of one in available power. If his skill is 15 or more, the engineer can coax one extra point of power out of the warp engines each turn. In ***SFB,*** if his skill is less than 10, the ship has one less point in the first damage control track box; if his skill is 15 or more, it has one extra point in that box. In ***FC,*** this applies to the Frame Damage track. Monitoring the engines takes up all of his time, but he can handle one tractor beam, damage control, and any reserve power decisions at the same time.

Science Officer

This officer makes the die rolls for lab information, identifying drones (as well as plasmas, shuttles, etc.), and tracking cloaked ships. This officer also controls electronic warfare. In ***SFB,*** if his Electronics Operations (Sensors), skill is less than 10, the ship's limit on combined ECM and ECCM is reduced by one; if his skill is 15 or more, it is increased by one. (***FC*** has no equivalent ability.)

Marine Officer

This officer makes the die rolls for boarding party combat and hit-and-run raids, with bonuses and/or penalties based on his skill as in the chart to the right. In ***SFB,*** if using the advanced system, this character also controls the deployment and movement of boarding parties between the areas of the ship. Transporter operation involves rolling against Electronics Operation (Transporter). This officer controls manned shuttles in flight (one of his actions for all of them) and must roll against his Leadership skill to change the mission of any shuttle in the bay. He assigns and releases guards.

Communications Officer

This officer rolls against his Electronics Operation (Communications) skill to communicate with other starships, bases, planets, etc. This character uses his Cryptography skill to try to intercept and decode enemy communications. (The GM decides what data is learned.)

Fighter Squadron Leader

This officer controls all of the fighters, using his own Piloting or Gunner skill as needed. (To be a "good" pilot, a character must have Gunner (each fighter weapon)-12, Pilot (Shuttlecraft)-14, and Tactics-12. To be an Ace, he must have Gunner (each fighter weapon)-16; Pilot (shuttlecraft)-18; Tactics-15.

First Officer

This officer controls any non-player characters who are part of the crew and deserve special notice. Alternatively, the GM may assign NPCs to the relevant department head above. NPCs use their own stats and skills for their actions.

SFB/FC *Skill Levels and Effects on Die Rolls*

Skill Level	Effect
20+	Bonus of 2
16-19	Bonus of 1
12-15	Roll normally
10-11	Penalty of 1
7-9	Penalty of 2
4-6	Penalty of 3
1-3	Penalty of 4

Whether a given bonus is plus or minus depends on the chart in question. In ***SFB*** and ***FC,*** low die rolls are generally good and higher ones are bad. So a skillful weapons officer with a "bonus of 1" would get a -1 when firing a phaser. These shifts are not cumulative with the ***SFB*** rule (G22.0) concerning legendary officers, but could cancel them out if one is negative and the other positive. If both are the same, use the larger one.



PRIME TEAMS

All species and empires have formed special elite teams of highly trained and capable individuals to take on special missions. Often a few elite characters can do things entire starships would fail to accomplish. These teams are formed from the most elite personnel available, and in ***GURPS PD*** are usually 175-point or higher characters. The Federation knows these as "Prime Teams" (since they were originally formed to enforce the Prime Directive); other empires have other names for them as are listed below.

Prime teams are multi-mission units capable of an incredible variety of tasks. A team might face missions as diverse as hostage rescue, planet survey, treaty negotiations, first contact, espionage, prisoner snatches, crisis resolution, or disaster relief. A starship carries a prime team and uses it as a troubleshooter on various missions.

Federation Prime Teams are trained at Prime Central (on Earth's moon) and contain four to eight people with a wide variety of skills. Many teams remain as intact units for decades (with new people replacing those who are lost, transferred, or retired); relatively few teams are disbanded. New teams are formed as needed; the number doubled during the first three years of the General War.

Klingon Dagger Teams are more rigidly organized, including 10 people (when at full strength) in two teams of five: commander, sergeant, combat specialist (scout or heavy weapons), engineer, doctor (or scientist). Despite this organization, only some members of the team (selected by the commander) go on each mission. Due to Klingon politics, each service (Fleet, Army, Police, Intelligence, and Security) has its own Dagger Teams, but all Dagger Teams have at least one member of the ESS. Two humans known to have defected to the Klingons served on a Dagger Team for Klingon Intelligence.

Romulan Praetorian Teams have four to eight members, and always come in pairs of two teams. One team conducts a mission; the other provides support and backup. The second team is always ready to take over the mission should the first team fail. Some work for great houses.

Kzinti Cabals include two five-member elements. The "Left Hand" includes the field commander, engineer, scientist, doctor, and combat specialist. The "Right Hand" includes the intelligence specialist, communications specialist, armorer, tactical coordinator, and combat trainer. Sometimes members will move between the two Hands of a Cabal or the Left Hand may borrow a specialist from the Right Hand.

Gorn Vanguard Teams are not pure prime teams but specialize in mission types. Diamond Teams deal with recon, raids, and search & rescue. Circle Teams deal with first contact, exploration, and scientific research. Oval Teams deal with diplomatic missions and espionage. Slash Teams are pure combat units.

Tholian Wolfspider Teams consist of eight members, including the field commander, engineer, commando-scout, weapons specialist, scientist, and doctor, plus the tactical planner and armorer (who rarely go on missions).

Orion Pirate Crime Teams usually consist of about five members: commander, scientist-doctor, engineer, combat specialist, and covert specialist.

Hydran Triads consist of three sub-teams. The First includes the commander, scientist, and doctor. The Second includes the scout, technologist, and weapons specialist. The Third includes the executive officer, logistics specialist, and communications specialist.

Andromedan Invader Teams consist entirely of robots, usually a mixture of various types.

Lyran Stalker Teams consist of six members: leader, scientist, doctor, scout, combat specialist, and engineer.

WYN Rogue Teams have no set organization.

Inter-Stellar Concordium Marshals come in teams of five or six, always of mixed species and various skills.

Seltorian Avenger Teams rarely undertook "prime" missions and functioned mostly as pure commandoes.

Jindarian Salvager Teams vary from caravan to caravan and have no universal organization.



THE PRIME DIRECTIVE

This is a much misunderstood Federation doctrine, not least because it becomes confused with the different (and unrelated) Federation policy on non-interference. The basic text of the Prime Directive is brief, leading to arguments over its interpretation:

"The Federation believes in the right of all pre-spaceflight societies to develop at their own pace and in their own way. Members of the Federation will avoid contact with such societies. When such contact is necessary or is authorized by the Federation Council for scientific purposes, the people and government of such societies are not to be told that the visiting Federation citizens are from another planet, nor that there are societies on other planets with spaceflight capabilities, nor is any Federation citizen to take an action which would make known their presence as aliens capable of spaceflight. Federation members, citizens, and officials are to take steps to prevent any such contact by other spaceflight-capable species, and to remove or balance such contamination if it occurs. The governments of societies which achieve spaceflight may be contacted if authorized by the Federation Council, and societies within the Federation Treaty Zone which achieve warp-capable spaceflight will be contacted and encouraged to join the Federation, including the acceptance of its laws. Violation of this Directive is subject to the harshest penalties available under Federation law."

The intent is clear: species which haven't achieved warp-capable spaceflight are to be left alone. When study of them is authorized (which might be done under standing policies) or when emergency situations place Federation citizens on such a world, they are not to tell the locals about other species. Most societies which can see stars and have telescopes have guessed that other societies exist on other planets, but guessing and knowing are two different things. Pirates and criminals often try to contact such planets to sell them "miraculous" items of common TL12 technology and cheat them out of resources. As unscrupulous local businessmen or officials usually keep their contacts with off-world pirates secret, cleaning up such contamination is usually possible when detected. A Federation starship could destroy an asteroid about to hit a populated pre-spaceflight planet so long as it could do so without exposing itself to detection. A Federation starship would not normally intervene in a situation of a natural disaster or intra-planetary war if its presence would become known, but exceptions are sometimes granted by the Council (rarely, retroactively) under the doctrine of "exigent circumstances". More than one starship captain has convinced himself that he must violate the Prime Directive to save millions of lives, even if it means that the surviving society cannot continue normal independent development as it would learn of other starfaring species. In some cases, captains have been imprisoned, dismissed from the service, or transferred to non-starship jobs, and in rare cases a captain is found to have done the right thing. It's a case-by-case evaluation; a society which is unable to develop because of some enslaving force might be "rescued" by Star Fleet, but usually after months of debate in the Federation Council.

A more complex issue, beyond the scope of the Prime Directive, is the non-interference policy, which changes periodically. The Federation expects all planetary societies which become members to adhere to a certain standard of rights for sentient beings, including a multi-party free-market democracy. Planetary governments which are dictatorships are not invited to join the Federation, and no planet within the Federation Treaty Zone would be allowed to join any other empire (e.g., the Klingons, Romulans, etc.). Many planets within the Federation Treaty Zone which have spaceflight and have been contacted remain as nonmembers for a variety of reasons, some permanently and others for a period of adjustment and transition. The Federation tries to avoid interfering in the internal affairs of nonmember planets even if they do not meet the standards of the Federation, but intervention has been authorized in extreme cases (usually involving nuclear wars or genocide). The problem is not so much a principle of avoiding intervention because intervention is "evil" as it is due to limited Federation resources (Star Fleet cannot send entire fleets of ships and divisions of Marines to *every* planet which has a rotten government) and the fact that intervention often does more harm than good. The Federation can and will intervene in the case of a member planet which violates Federation standards of law, human rights, and fair government.

KLINGON SUBJECT RACES



Much confusion relates to the concept of Klingon "subject races." These are not slaves and, in most cases, not even conquered -- they simply inhabited planets that happened to be within the borders of the Klingon Empire. Members of subject races have various degrees of rights on their own planets (where each government manages its own affairs) although the Empire Security Service (the ESS) acts to prevent any rebellion.

Citizens of subject race worlds must get permission to travel to other planets and get such permission only when the Empire finds that such travel or emigration suits its own ends of economic development.

Members of subject races are clearly second-class citizens of the Empire (after ethnic Klingons), with



fewer rights than Klingons. Many subject race personnel join the Klingon military, but only a few are allowed to become officers and only the most trusted are given training in how to actually navigate the ship or fire its weapons. The Empire Security Service has a detachment on every ship to prevent mutiny by subject races (or cowardice by Klingons). But it is not a crime to simply be a member of a subject race.

This social stigma is ignored by the Orions, WYNs, and the Federation. Indeed, sentient beings rights groups in the Federation often make it a point to treat the oppressed subject race members better than ethnic Klingons.

SENTIENCE, SAPIENCE, & INTELLIGENCE

The ***Star Fleet Universe*** uses the term "sentient" to describe "intelligent" species which are capable of space flight or at least have that potential. This is the way the term is used in most science fiction. There are those who define the term differently, and they could be right. Sentient means "self-aware" and some argue that dogs, dolphins, and earthworms qualify; others argue that they do not. There are those who argue that plants are self-aware and those who disagree. Within the ***Star Fleet Universe*** (and Star Trek for that matter), the term "sentient" would apply to only one species on Earth: *Homo sapiens,* or Human beings. (One could argue that dolphins are smarter, as they never invented the income tax, but we digress.)

Sapient means "intelligent" and could be considered a more precise term for the "sentient" term used by science-fiction writers, but it isn't commonly used.



The Semi-Intelligent Terrilek Boar

Sentience, sapience, or intelligence is hard to define because it is a sliding scale. The most basic and simple test is: can the species communicate, make and use tools, create and use fire, pass their knowledge to their offspring, and alter their environment? The problem is that a lot of species on Earth (and, presumably, trillions of species on other planets) can do some or all of these things *to some degree.* Hundreds of Terran species communicate, otters use selected rocks to open clams, packs of hunting dogs will take advantage of a grass fire to corner their prey, dolphin mothers can teach their children to attack sharks even with no shark in sight, and wasps can keep out the cold with nests made of mud.

In the final analysis, whether we can define it with a tidy rule or not, everyone gets the point. A species that can do all of the skills to some degree and shows the potential to build spaceships within ten thousand years could be safely assumed to qualify. The heck of it is, a few more would also be able to build spaceships eventually, and it would be impossible to predict the forces of evolution. GMs can, in questionable cases, simply tell the characters if that thing they just ate was a sentient being or not.

THE ROMULAN CODE OF HONOR

The following comprises the Code of Honor to which all Romulans adhere (at least nominally). Each of the four points of the code is taken in order from the first to the last, with the earlier points taking priority over the later ones.

1. Defend the honor, territory, and property of the Empire from all enemies, internal and external.

2. Always be prepared to give your life for the Empire, but never give it frivolously.

3. In all of your actions, be honest and courageous. Display integrity at all times and in all things.

4. Defend the position of your House and its importance to the Empire.

For many Romulans, there are informal fifth and sixth points, such as taking care of the family, loyalty to a particular commander, or personal decisions not to engage in certain behaviors (e.g., drinking ale).

MARINE UNIT ORGANIZATIONS

Each empire (or species) organizes its military forces in its own way, but all begin at the lowest level with a squad or team of five Marines. (This is because a standard transporter holds six, and with each squad having five there is space for the various attachments such as command or medical personnel.)



The Federation has a squad of five (led by a sergeant), a platoon of 18 (including a lieutenant, gunnery sergeant, and medic), and a company of 55 (three platoons plus a heavy-weapons team and a command element). Most companies are independent; larger units are formed as needed.

The Klingons have a squad of five (led by a corporal), a platoon of 18 (led by a sergeant), a company of 50 (led by a lieutenant). The company has no heavy weapons but the battalion has a weapons platoon, a commando platoon, and an independent infantry platoon.

The Romulans have a platoon of four squads and a century of five platoons. A cohort consists of two centuries plus attached weapons and commando units.

The Kzintis have a platoon of five squads and a company of two platoons. A battalion has three companies plus heavy weapons and commandoes.

A Gorn battalion has three command units, six platoons (each with four squads), plus commando and heavy-weapons units. The battalion is continually reorganized under the three command units as the mission requires.

A Tholian company consists of two platoons (each four squads) and a weapons squad; a battalion consists of two, three, or four companies plus a commando unit.

An Orion company consists of two platoons (each four squads), a weapons squad, and a commando squad.



A Hydran Light Company consists of three platoons, each three squads, with no heavy weapons. Each battalion has two light companies, plus a heavy company including three platoons (command, weapons, and assault).

Andromedan ground units consist of robots which are continually reorganized into teams and elements of widely varying sizes as each mission requires.

A Lyran company consists of two large platoons (five squads each) plus a weapons squad. A battalion consists of four such companies, plus two assault platoons (each four squads and a weapons team). The Lyrans often use Tarakaz ("Half Battalions") with two companies and one assault platoon. The LDR uses the same organization.

A WYN platoon has four squads; a company has two such platoons and a weapons squad. A battalion will include two, three, or four companies and a commando unit.

An ISC company includes two platoons (each three squads), plus a support platoon (two squads and a weapons team). Battalions have three companies.

Seltorian companies have two huge platoons (six squads) plus a weapons team. Battalions have two companies, plus weapons, commando, and infantry squads.

Every Jindarian ship uses its own organization.

Paravian companies have four platoons (two squads each) plus a weapons team.

Each Carnivon Horde uses its own organization.

COMMERCIAL PASSENGER SERVICE

From time to time, player characters may want to travel to a new star system but not have a ship (or even a shuttle) to do so on their own. Commercial travel is readily available (at least inside any given empire, and across or between empires assuming visas and the lack of open war).

As a general rule of thumb, commercial passenger service is available on a regularly scheduled basis between any planets with a significant population (say, over one million). Business-class travel can be had for $250 per hex on the map (see p. 291) including the hex you start in, the hex you end in, and all hexes in between. The maximum charge for travel would be $2,000 (all the way across the map) plus $250 for each national border crossed. First class travel would be twice this expensive (express travel at "fast dash" speeds would cost four times the base rate) and economy class would be two-thirds this cost. Characters might have to wait up to a week to catch the next ship headed in their direction. Calculate the time of the travel based on the data on p. 291 using "Aux Dash" speed.

Travel to minor planets not on regularly scheduled routes would involve using a regularly scheduled trip to the hex and then paying an additional $250 fee for a "commuter spaceline" or "space taxi" to take you to the minor planet by a "scheduled as needed" route. Figure a week to find such a connection and actually make the trip (with several stops en route). This fee can be modified for first class or economy class travel as above.

Of course, a helpful GM could arrange for you to travel on a military or commercial ship that just happens to be going to your exact location.

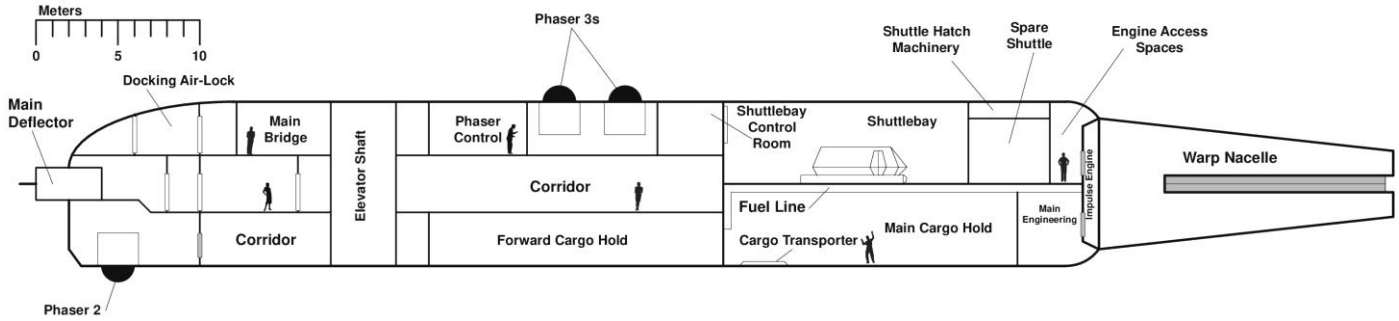


SAMPLE DECK PLANS: FREE TRADER

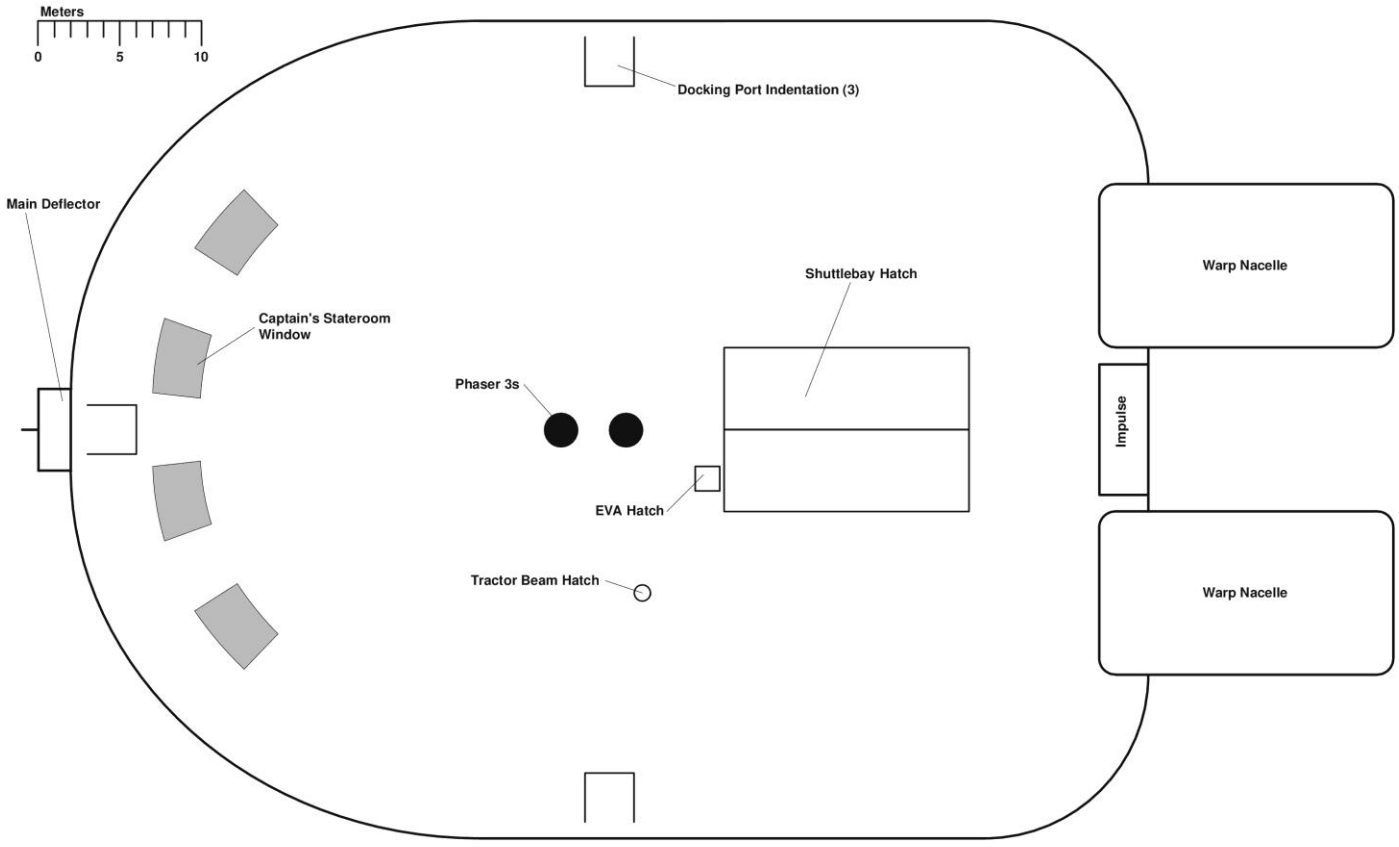
The “Free Trader” is one of the most common cargo ships used by independent (non-governmental) operators. The design is fairly common and is built (under license or otherwise) by many different empires. The advantage of a common (or nearly common) design is that spare parts and docking facilities are easily available anywhere in the Alpha Octant of the galaxy, encouraging free trade and efficient commerce.

The ship is fairly small as ships go, being only 68 meters long (not counting engines) and 50 meters wide. There are three decks in the forward half of the ship, and two decks (with higher ceilings) in the rear half. The ship has an oversized shuttle bay on the upper rear deck (with a large hatch). The Free Trader can land on skids or directly on its belly. Loading ramps are built into the skids, and the cargo doors on the sides of the lower aft deck can function equally well when the ship has landed on skids or on its belly. The two large cargo elevators can drop through hatches in the bottom of the ship to load cargo directly from the surface when the ship is landed on skids.

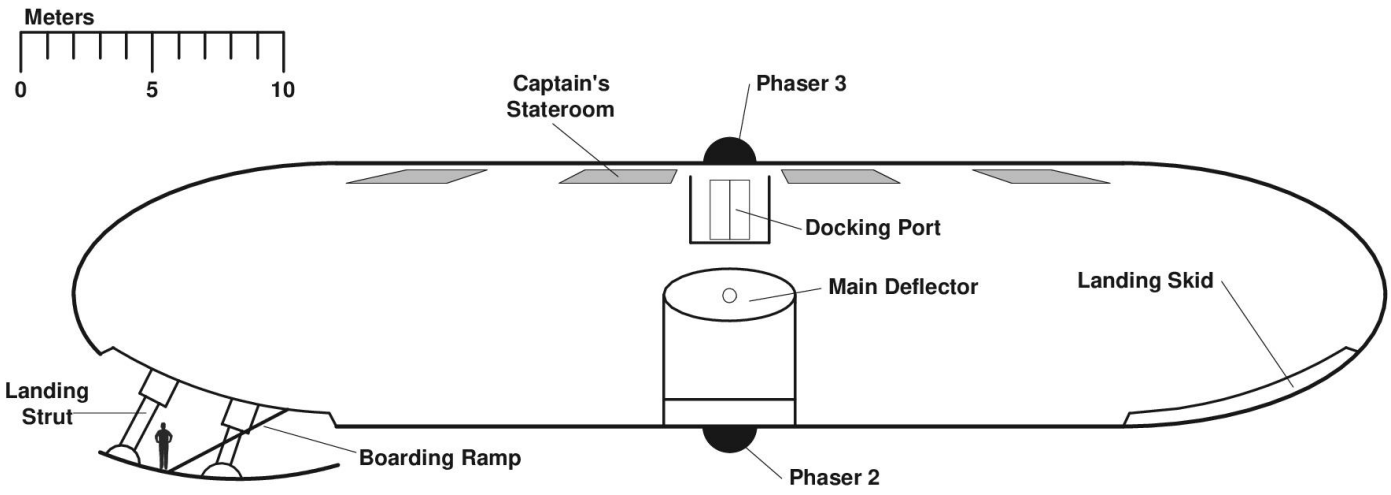
There are “space docking” facilities on either side of the top forward deck with flexible extending tubes (two meters in diameter) which allow convenient docking to various kinds of spaceports. Space docking can also be achieved through hatches in the forward landing skids, and the lower cargo hatches will mate with the same type of cargo loading docks on bases designed to handle the standard small freighter.



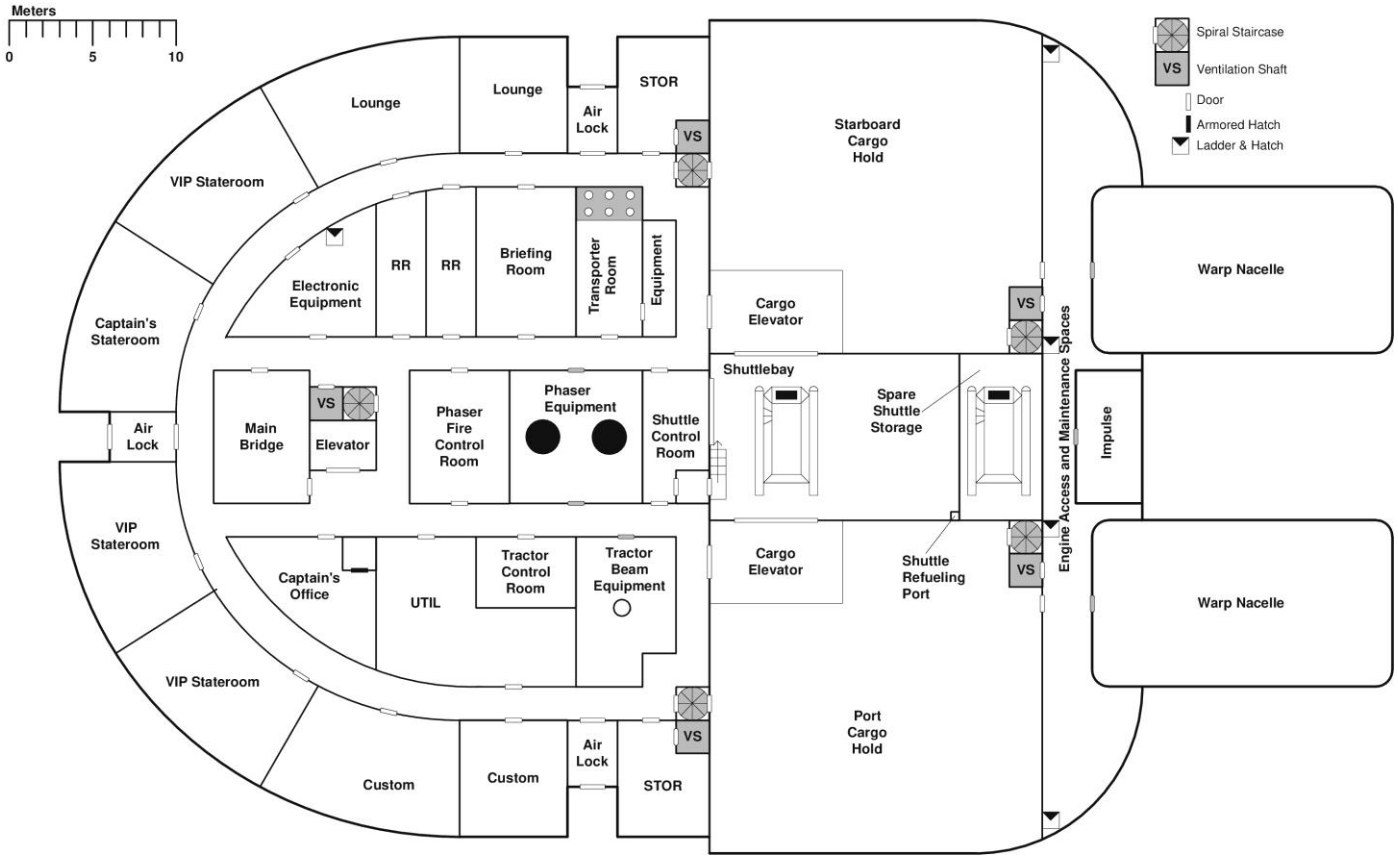
Side



Top



Front



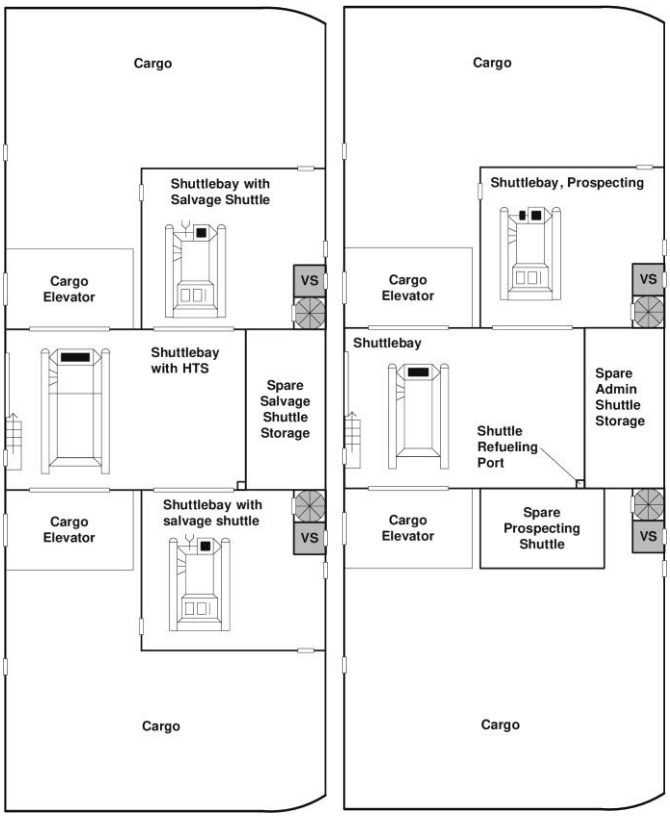
Upper Deck

There is no turbolift due to the relatively small size; elevators behind the bridge and spiral staircases suffice for vertical access. The large cargo elevators can also be used to move large items between the upper and lower cargo bays. The side airlocks lead to the stored extendable tubes which can dock with most standard airlocks.

The top-forward deck includes the bridge, captain's and VIP staterooms, the "office" where the ship's business is conducted, lounges, briefing room, the transporter room, the phaser and shuttle bay controls, the phaser mounts, the tractor beam and its controls, the electronics compartment, and the utility compartment. There are also two "custom" compartments which are fitted out as the owner wants.

The top-rear deck includes the shuttle bay, spare shuttle, and upper cargo bays, as well as the upper

engineering access deck. VS = ventilation shaft, RR = restroom.



Free Salvor *Free Prospector*

Salvage and Prospecting Variants

Above are the overlays for the upper deck for two variants, the Free Salvor and Free Prospector. In practice, the two types are interchangeable and the designation is almost arbitrary; the difference (obviously) is that one has three working shuttles with one spare and the other has two working shuttles with two spares. Ships of this type are used for asteroid mining and for the salvage of wrecked ships. Most empires have ships of this type in their regular navy fleets for use in rescue and recovery work; many more serve as prospectors in peacetime and as salvage ships in wartime (wherever the profit is greatest).



Shuttle

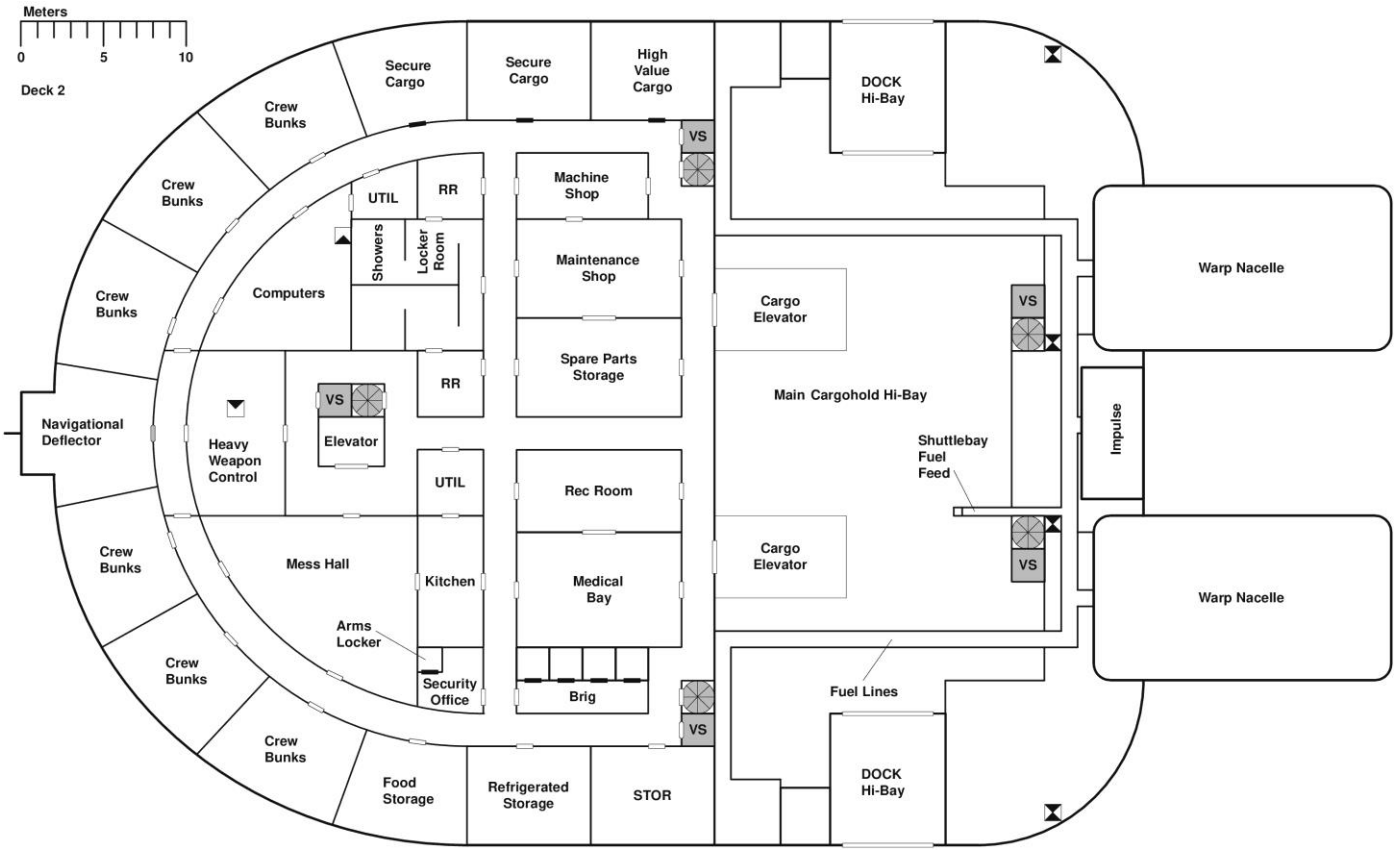
Notes on Free Traders

Furnishings vary radically from ship to ship, and most of them have been "redecorated" many times since being built. Some ships use built-in desks, bunks, and even chairs while others have freestanding furniture in the rooms.

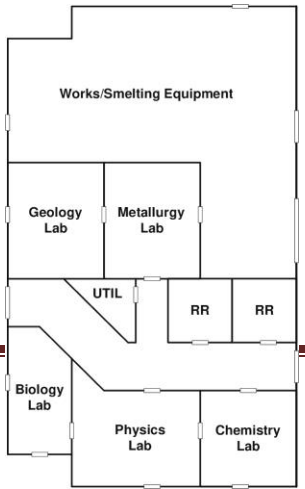
Most Free Traders make their living from trading, i.e., from being able to take whatever they can buy at one planet and sell it on some other planet. Profit is not so much in packing every cubic foot of the ship with cargo as in having the right kind of cargo for the market. In cases where there is a virtually limitless supply of a commodity (e.g., grain, metals, other materials) and an endless market, the more efficient standard freighters are already serving these sources and markets on regularly scheduled routes. Free Traders must be nimble. They must be able to recognize a bargain and already know of an opportunity. Even if they planned to go to Cygnus, if they find a supply of something that would turn a tidy profit on Argela they must be ready to change their plans in an instant. In some cases (e.g., a newly opened titanium mine on a new colony world) the ship might well be packed as full as it can be with the ore from this mine, refining it en route to the Rigel system where titanium finds a ready market. Such opportunities are rare, but Free Traders must (frankly) find such rare opportunities for profit as a regular course of business. A Free Trader that suddenly leaves for or arrives at any port is not an unusual event deserving extra attention; that provides cover for whatever *your* group is really doing and could give you an opportunity to do your business unnoticed and leave.



"Wanna buy a tribble? It's going cheap!"



Middle Deck



The mid-forward deck includes the heavy weapon controls, crew quarters, secure cargo lockers (for high value items that cannot just be left lying around), maintenance and machine shops (which can manufacture spare parts as needed; they are often used during travel to convert something bought at the last planet into something that can be sold at the next one), medical bay (which, in emergencies, can expand into the adjacent recreational facility), mess hall, galley, food storage, and navigational deflector. The large shower facility is used only when large numbers of people are on board since each bunkroom has shower and toilet facilities. The brig is rarely used for prisoners

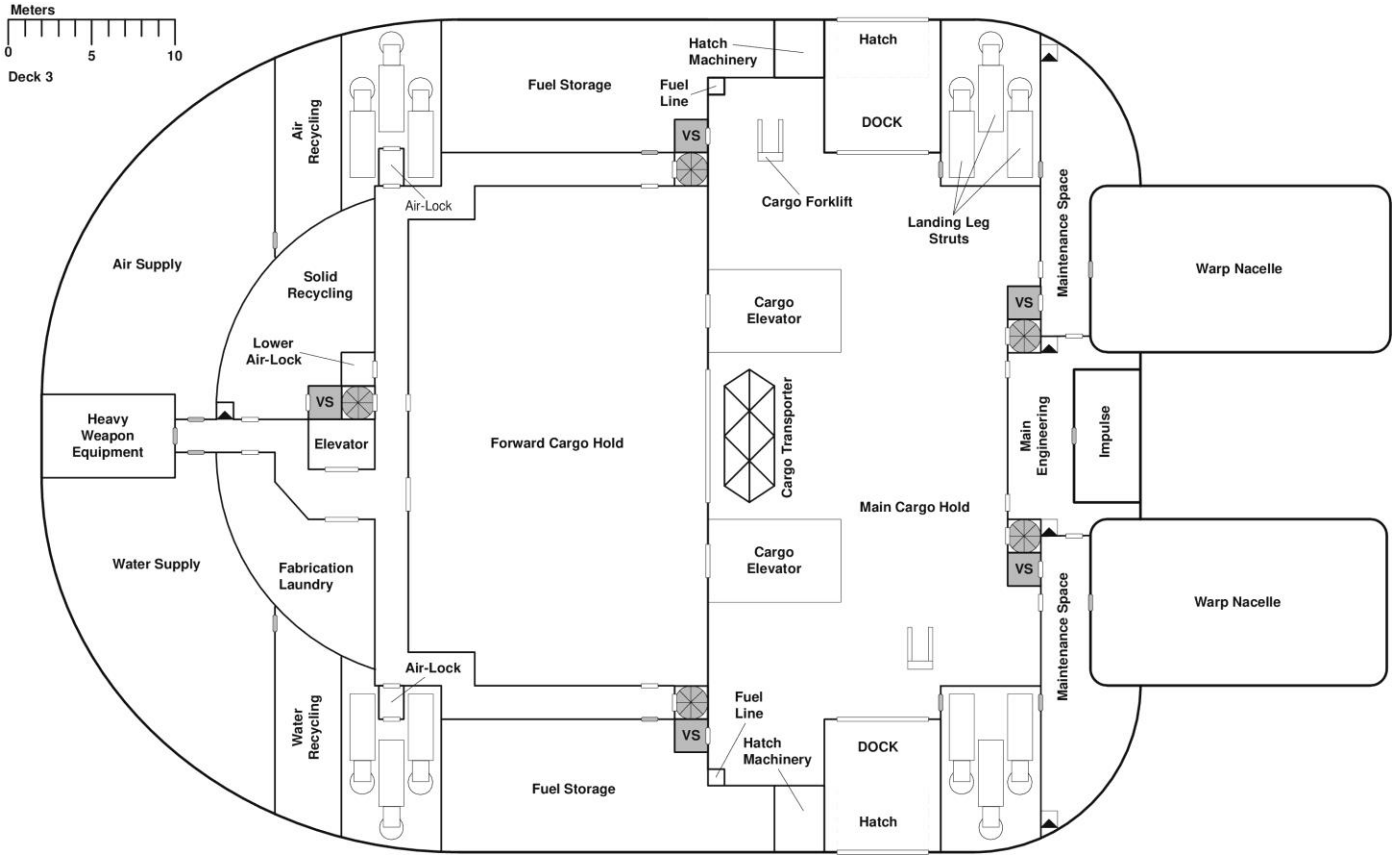
(more likely, for valuable cargo kept locked up). On some Free Traders, the showers and/or brig were instead fitted out for other uses (storage, machine shops, passenger quarters, etc.). VS = ventilation shaft, RR = restroom.

At right is the lower deck used on both the Free Salvor and the Free Prospector. Note that it includes laboratory space needed for these types of missions and a smelting facility allowing ore and salvage to be processed on the ship. (Finished metal takes less space than raw ore; salvaged components take less space than big chunks of wrecked warships.)

The lower deck includes the air and water supplies and recycling systems, fuel storage, landing skids, cargo docking ports, main engineering, and the forward cargo hold (which has a lower ceiling as it is forward of the transverse bulkhead; it is often used when carrying large numbers of passengers), the main cargo hold (with the higher ceiling of the rear half of the ship), the cargo transporters, and the ship's main armament (usually a phaser-2).

The nominal crew of the Free Trader is 30; this varies widely and may be as large as 60. (Commercial shipping must make a profit, and paying people to ride along to the next planet isn't profitable. It is easier to travel with a minimal crew and hire dock workers at each planet to load and unload the cargo. Some ships do manufacturing en route and will have two dozen machinists and technicians aboard for this purpose. Some ships make space for paying passengers.) A typical crew includes several officers (captain, engineer, navigator, and others), maintenance technicians, a small security detail (which often doubles as cooks or technicians when not actually guarding something), and "business" people (officers and others) who keep track of the cargo, operating costs, and other such matters. There is no standardization, as there are thousands of Free Traders, doing hundreds of different kinds of business. Some ships are owned by the captain, others have an owner (or the owner's agent) on board and the captain is an employee. Most are owned by individuals or small companies, but some large transport and trade companies own dozens of these ships plus many other ships of various different classes.

Numerous variants of the Free Trader exist for military and pirate use, all being indistinguishable from the outside. VS = ventilation shaft, RR = restroom.



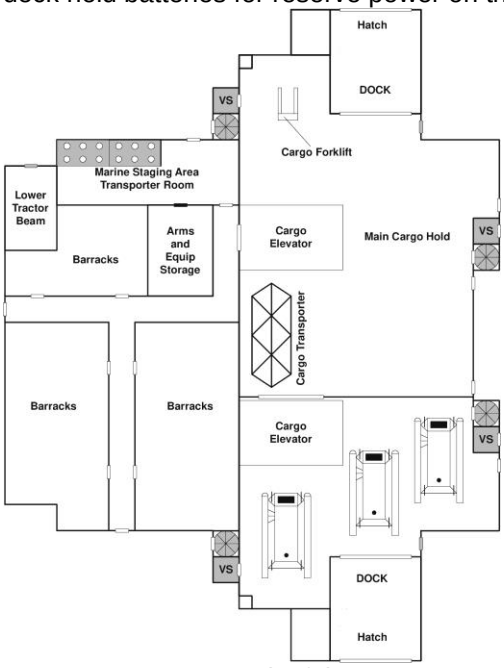
Lower Deck

Free Trooper

Used primarily by the military, the Free Trooper and Free Tanker variants are used for transporting large numbers of personnel and heavy ground vehicles (respectively).

The Free Trooper (which is also used by corporations to move seasonal workers from planet to planet)

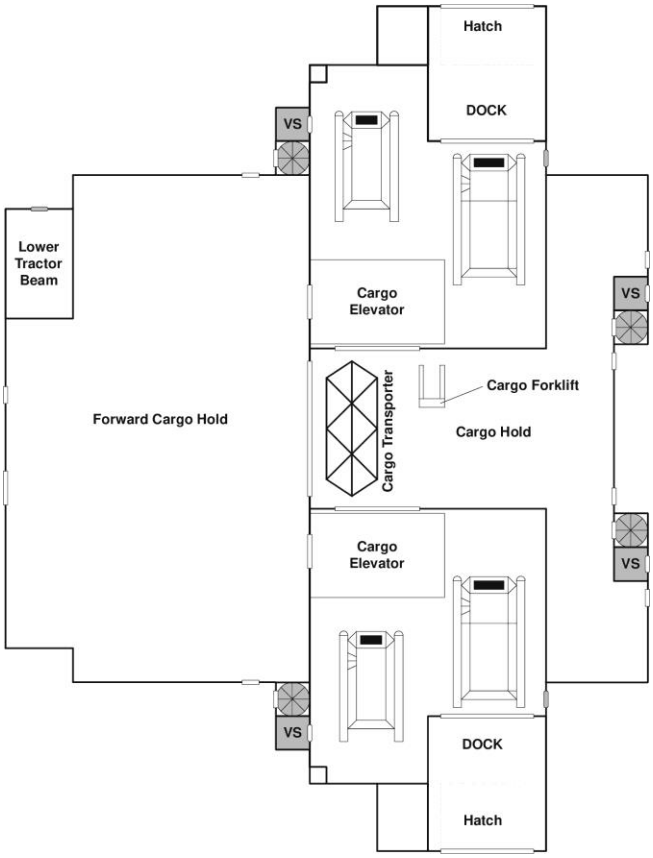
replaces the lower forward cargo bay with barracks space, including an extra tractor beam (used for landing the ship on planetary surfaces). It also has a securely locked arms room and extra facilities for transporters. (On the civilian version, the arms room is used for expensive tools during transit.) There are extra shuttles in one side of the main rear cargo bay which are used to move passengers. On some military ships, these shuttles have been lost in combat (forcing the ship to land itself or use its transporters) while some civilian ships skip the extra shuttles in favor of more cargo (such as ground vehicles used in construction or agriculture). The "custom" compartments on the upper deck hold batteries for reserve power on this variant.



Lower Deck of the Free Trooper

Free Tanker

The Free Tanker (used in peacetime to move heavy construction equipment) has two heavy transport shuttles (which can carry a ground combat vehicle, even a tank, on their open rear deck) and two standard shuttles stored in the rear cargo deck. (The upper shuttle deck is used only for cargo in this variant; the "custom" areas on the upper deck hold batteries for reserve power.) The vehicles themselves can be stored in the upper or forward cargo bays. In many cases, the ship does not have the extra shuttles (using the space for more tanks or other vehicles) and lands directly on the planet. Some military ground vehicles can be landed in sections via the cargo transporter.



Lower Deck of the Free Tanker

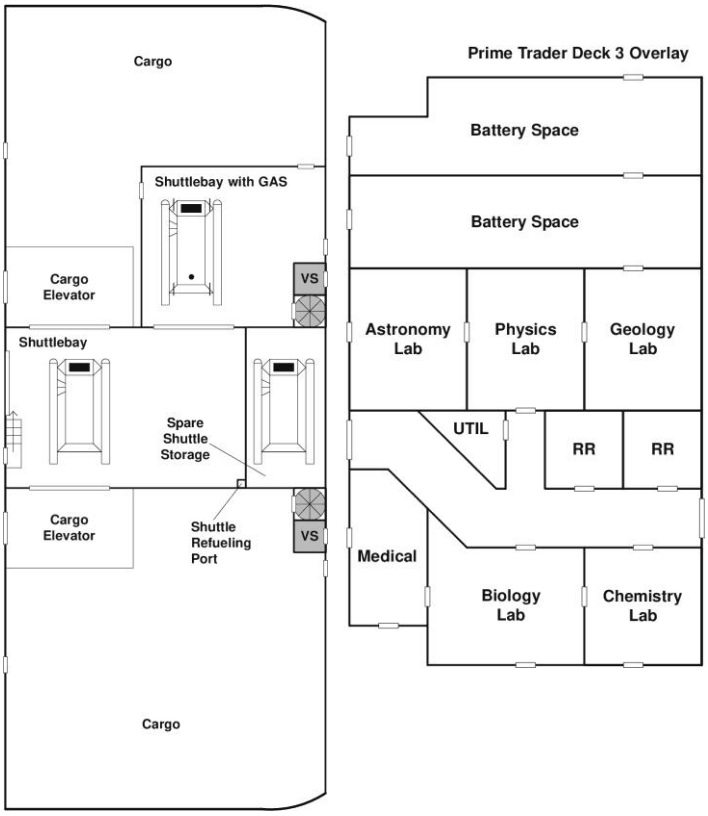
Prime Trader

One variant of the Free Trader of particular interest to the players of ***Prime Directive*** is the Prime Trader. This is used by owners who want more capability in their ship, and is often used for exploration and other tasks.

The overlays to the right above show changes to portions of the upper and lower decks. The upper rear deck shows space for an extra shuttle (which would be whatever suited the mission, or was available) such as a ground assault shuttle, prospecting shuttle, or other special type. This variant has considerably less cargo space.

The lower deck shows that the forward cargo hold is fitted out as compartments for the laboratories. This variant has two weapons in the forward part of the ship rather than only one, and has added batteries for reserve power. The engines are more powerful, but are the same physical size as they are more efficient military-grade types.

Ships of this type are often used by governments (or by government-funded exploration and survey missions); a few are run by major universities; many are run by corporations which find a need for special research facilities when exploring new colony worlds for commercial development. Your party might want to buy or get assigned to such a ship, as it has nearly the non-combat capabilities of a Star Fleet cruiser at a fraction of the cost. It also looks (from the outside) just like a few thousand standard Free Traders.





Federation Police Cutter

ADVENTURE SEEDS

There is no end of ideas for adventures, but here are a few that might help you get started.

Beyond the Border

Your group gets tourist visas into Klingon space to see the sights and spend some tourist dollars. Of course, what you are really doing is trying to stir up trouble. Don't those "subject races" realize how horrible it is to be subservient to the Klingon Empire (when they could be tax-paying members of the Federation instead?). You travel around trying to sound like a tourist while you search for signs of unrest, subject race members willing to sell out the Klingons, or chances to start a riot.

For King and Country

After the Klingons conquered Hydran space in Y87, and again during the General War, the Hydrans in the Lost Colonies prepared for their return to power. One way to do this was to send teams of spies, saboteurs, and commandoes into Klingon-occupied space to conduct special missions (or just cause as much trouble as they can).

Similar adventures could be run for Federation teams going into space occupied by the Klingons during the General War's darkest years, Y171-Y180.

The Derelict

Who can resist a derelict starship? This might be from an ancient empire, or a Romulan Warbird disabled in some battle, or an Orion smuggler that hid out too long. Any ship could have undergone a mysterious catastrophe, with the crew missing or dead or insane or just waiting for you. You could even imagine a ship that lost engine power a century ago and is now occupied by the grandchildren of the original crew, who may or may not have developed a unique culture. The derelict spaceship could be floating in space or crashed on a planet, or even at the bottom of an ocean!



The Evil Alien Entity

This is one of the most overworked plot devices to be sure, but it can still be a hoot. The GM gives each player a written note to read silently and then return. Some of the notes are blank, some provide a secret (bootleg IRD chips with Klingon operas are in your knapsack and they are worth a bunch of money if you keep them to the end of the adventure), but one of them says "Your character is possessed by the Evil Alien Entity. You must not let anybody know this, but must secretly work to accomplish this goal. If the goal

is accomplished by the end of the adventure, your character will be returned to you unhurt."

The Lost Weapons

Federation Marines under orders from the Council have landed on the planet of Andiraq after the Andorian warlord of this planet threatened to bombard nearby planets with weapons of mass destruction. The Marines haven't been able to actually find these WMDs. Can you?



Crystal Rain

For the past few months, a drug that is incredibly addictive has been on a steady rise through all layers of the Cygnan population. Federation police have determined that a single Cygnan drug syndicate is responsible. The Cygnan government has been trying to stamp this out, but corrupt officials leak plans for government raids to the cartel, which moves its inventory one step ahead of the police. Desperate, the Cygnan President asks the Federation to send in a team from off-world, a team with no connection to any Cygnan official or organization, a team that by definition are the only people he can really trust. You have to find the stockpile of the drug and arrest the cartel that is importing it without the help of the Cygnan police. Some of the Cygnan police will resent your interference and try to arrest you, and some of the Cygnan police are corrupted by the drug syndicate and will try to kill you!

And just who is shipping the drug to Cygnus? Is it an Orion cartel? Or Klingon military intelligence? Or a Kzinti warlord wanting a return to the old days when his father was the Hegemonic Governor of the Cygnan Slave Colony?



The Missing Fighter

The prototype of the Federation's new stealth fighter has been stolen! Go to one of the Neutral Zone bazaars (Mad Jack's Hole, Denobola, Circle Trigon, Revlis, even Leebyaah) with a GIA guide and an open checkbook and try to buy it back before the enemy can grab it. While you are at it, try to identify the group or individual who stole it and determine if the missing pilot is a hostage or a traitor.



The Truth about Plasma

Scientists have always noted that the plasma torpedo, quantum wave torpedo, and plasmatic pulsar device were all extrapolations of the same principle. Were they independently derived based on the available resources (the distribution of which made drones common in the Gamma Sector and plasma common in the Alpha Sector)? Or was there some connection? There are rumors that the ISC got their plasma technology from a wrecked Paravian ship, and an "information broker" (or con artist?) has just sold you the location of the crash site. Go there and find out if there is a wreck (or was) and if the ISC know it yet.

Stuplich's Lost Ark

As detailed in ***GURPS Klingons,*** a human explorer named Stuplich tried (in the earliest days of warp travel) to establish a series of six colonies on a straight line from Earth into (what he didn't know was) Klingon space. Five of these have since been found (including #5, which was deported by the Klingons), but the fate of the sixth group of colonists has never been established. As a profit-making venture, the Klingons (during peacetime) issue permits to Federation amateur archaeologists to explore empty worlds and look for signs of this lost colony. With a Klingon as a guide, begin an adventure on an empty planet in the Klingon Empire and see if you can find anything of interest (ancient civilizations, lost colonies). The Klingons pay rewards for the best finds.



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THE *STAR FLEET UNIVERSE* TIMELINE

The timeline and history for the ***Star Fleet Universe*** is one which has been firmly established in the many years since the birth of ***Star Fleet Battles,*** and it is included here to allow you to establish a setting for your adventures. It does not follow the standard anno Domini system, but instead features a 225-year period that begins with Y1, when Humans had their first contact with the Vulcans.

*Please note: The numbers and letters in parentheses, such as (SL11) or (SH8), refer to scenarios in the **Star Fleet Battles** game wherein these historical events are recreated in a boardgame setting.*

-Y? (Date Unknown) A group of Vulcan rebels flees its home planet and eventually settles on the twin planets of Romulus and Remus. The Vulcans (and Romulans) have non-tactical warp spaceflight from at least this time.

-Y117 Seltorians revolt in M81, the Tholian home galaxy. Most Tholians are wiped out but some escape in various directions. Two groups (a small Dyson Sphere and the 312th Battle Squadron) head for the Milky Way Galaxy. Seltorians later send expeditions to other galaxies to hunt down and destroy the last of the Tholians.

-Y25 (Date Approximate) The Old Kings return their Klingon starship crews to Klinshai, abandon some of their obsolete or inoperative equipment in various locations, and leave for parts unknown.

Y1 First contact between Humans and a neighboring species (the Vulcans) as the Humans develop what will be known as non-tactical warp. The Vulcans are already in contact with other spacefaring species in the immediate vicinity (Andorian, Rigellian).

Y2 (Date Approximate) Klingons build chemical-energy rocket boosters and primitive space capsules, and use these to reach the obsolete ships left in their system by the Old Kings. Within a few years, the Klingons have been able to make some of the old ships operational.

Y4 The Humans, Vulcans, Andorians, Alpha-Centaurans, Rigellians, and others form a loose pact (cooperation, trade, and non-aggression) which over time evolves into the Federation. While it is not clear exactly when each of the other species began expanding into space, it can be reasonably assumed that (with the exception of the Vulcans) they began their expansion during about this same time period.

Y5 Tractor beams enter service in the Federation. Other species develop them about the same time.

Y8 Klingons, using star maps drawn by the last of the Klingons who served on ships of the Old Kings, contact the first of the other Old King subject races (the Dunkars) and begin to use them as subject race crewmen, just as the Old Kings had used both species.

Y10 Klingons re-contact the Vergarians, another Old King subject race, and quickly dominate them.

Y12 After an unsuccessful fleet-wide mutiny by Vergarian crewmen, the Klingons execute all Vergarians on their ships, bombard Vergar, and install security stations on all ships to prevent any further mutinies. Vergarians are not allowed into space for decades, and the planet is forced to pay huge tributes to the Empire.

Y17 The Klingons are able to reverse-engineer the abandoned ships and produce their own primitive starships. Unlike the Old King ships the Klingons inherited, the new ships are patterned on a predatory marine reptile found in the oceans of the Klingon homeworld.

Y21 The Federation encounters the Orions, a smaller starfaring culture on their border. The Orions quickly set up trade relations.

Y24 Gorns and Paravians first meet. Early discussions quickly determine that neither species is native to its home planet, but had been brought there at some point in the ancient past. The Paravians, it is found, are the successors to a Gorn-like species that had been destroyed by an asteroid. War breaks out by Y30; the conflict lasts for decades at a relatively low level. As with most conflicts in this period, lasers and atomic missiles are the predominant weapons.

Y33 First Gorn-Romulan contact. Relations are tense as both sides almost automatically assume that war between them is inevitable.

Y36 First Gorn-Romulan War begins. They begin to develop the first of what will become permanent borders. The Gorns lose this war in Y39 at the Battle of Gorn-Shima, but Gorn-Romulan skirmishes and raids continue indefinitely.

Y38 First Lyran-Klingon War begins. While few details are known, it is clear that both have been expanding for some time from their respective homeworlds (now imperial capitals). While these expansions were not at the same rate in each direction, this was the first contact either species had with a military-capable spacefaring species. (If either species previously encountered any minor planet-bound species, it presumably absorbed and/or enslaved them.)

Y39 The Klingons and Lyrans, each trying to outflank the other, expand their "frontline" (eventually to be their border) toward the core and rim.

Y40 First Federation-Romulan War starts as the ex-Vulcans (now the Romulans) begin what they see as a historic march back to their original home planet. The Federation fleet uses a variety of weapons, as each planet has built its own ships. During this war, the Romulans and Federation never actually meet face to face, thus the Federation does not realize that the Romulans are the long-lost Vulcan renegades.

Lyrans, trying to outflank the Klingons, attack what they believe is a Klingon mining colony. The outpost is, instead from a previously unknown species the Hydrans. The attack starts the First Lyran-Hydran War. The Hydrans had been expanding from their own homeworld, which is now the Royal Capital.

Y42 Lyran-Klingon War ends when several Lyran counties abandon the war to protect their homes from the Hydrans. Lyrans are forced to accept an unfavorable settlement.

Y43 Lyrans defeat Hydran invasion, but reach a negotiated settlement rather than continue the war. First Lyran-Hydran War ends.

Y44 Gorns battle a mysterious ship which they later learn is a time-traveling Federation cruiser.

Y45 A treaty between the Federation and the Orions effectively brings the Orions into the Federation, albeit preserving some legal semblance of a semiautonomous zone. This language, all but forgotten over the years, will come back to haunt the Federation 126 years later when the Orions invoke a clause of the treaty to become independent and neutral.

Y46 First Federation-Romulan War ends with a ceasefire; Orion support for the war effort has given the Federation a major advantage. Because of the Romulan threat in this direction, the Federation develops more rapidly in its "southeast" area as the need for fleet support infrastructure drives the creation of colonies and bases.

Y48 Lyrans, trying to outflank the Klingons by moving around the (then unoccupied) WYN Cluster, run into the previously unknown Kzintis. The first Lyran-Kzinti War breaks out almost immediately and ends eight years later (Y56) with both empires suffering devastation of their thinly settled worlds in the region.

Y50 First Klingo-Kzinti War begins as the Klingons, unaware that the Lyrans are fighting the Kzintis, also encounter this new foe. The Kzintis are confused by the attack, and assume that this is the second prong of a joint invasion by the "allied" Klingon and Lyran forces. The Kzintis do not learn until many years later that the Klingons and Lyrans were bitter enemies at this point in time.

Romulans deploy the Vulture-class dreadnought, their largest ship until the later Condor.

Y55 First known contact between the Kzintis and Carnivons (a canine species), and between the Lyrans and the Carnivons. Some earlier contacts may have occurred, but if so the Kzinti or Lyran ships did not survive to report. The Lyrans and Kzintis are, apparently, both trying to outflank the other when they encounter the new foe.

Y56 The First Kzinti-Lyran War ends. The Carnivons begin attacking both felinoid species, taking advantage of their exhausted forces in the region.

Y62 First cruiser capable of tactical warp is launched by the Federation; it is also the first ship not to

be under command of any specific planet (although the formal creation of the Star Fleet is almost a decade away). This ship is, in fact, a conversion of a sublight cruiser of the class known much later as the "Old Light Cruiser." (Tactical warp allows ships to fight at warp speed, although only up to Warp 3.2.) This ship includes the first tractor beam that could be used by ships traveling at warp speed, but its range was limited to 10,000km and it could only function in the rear arc.

Developed in conjunction with tactical warp, the transporter first enters service. It is limited to a range of 10,000km. Federation ships refitted with tactical warp had their heavy weapons replaced by photon torpedoes.

Other empires develop tactical warp power over the next several years, although the Romulans fail to develop this technology and remain limited to non-tactical warp power, putting them at a significant disadvantage. Until the Treaty of Smarba, the Romulans are limited to non-tactical warp and the original tractors, limited to 1,000km and dead-astern towing only. The other empires begin converting existing NTW ships into TW technology. As each empire moves to tactical warp, it develops transporters and extends the range of its tractor beams to 10,000km (still dead-astern towing only). Most also replace their earlier heavy weapons with new ones (disruptors, plasma bolts, etc.).

Second Gorn-Romulan War begins. Both empires have made their first progress toward tactical warp. Each has a breakthrough in a different area. The Romulans, having fought the Federation before (and knowing that the Federation now has tactical warp capability), focus on ways their existing ships can deal with tactical warp ships. The Gorns, unaware of the Federation, use tactical warp drive as a means of positioning themselves to launch sublight missiles.

Y63 Klingons convert the first of their sublight D3 cruisers to use tactical warp and disruptors.

Y65 Drones are first used in combat. Klingons and Kzintis deploy these new weapons simultaneously in an outgrowth of tactical warp technology. For a brief period, both empires are deploying non-tactical warp ships (which fight at sublight) armed with warp-speed weapons.

Carnivon forces reach the WYN Cluster, having driven a wedge between the Lyrans and Kzintis and having occupied several of their border provinces. The Kzintis and Lyrans will not regain direct contact until Y106, the longest period of peace between each other in their histories.

Y66 Gorns develop tactical warp power, but their ships are still armed with sublight weapons (atomic missiles and lasers). The Romulans, on the other hand, have ships unable to use tactical warp, but have developed plasma bolts and systems to target ships moving at warp speed in combat. The conflict between the Gorns and Paravians sharply accelerates at this time, which may explain why the Gorns did not press the Romulans.

Incidents erupt along Hydran-Klingon border. Klingons want settlement rights on oxy-nitrogen planets in Hydran territory; Hydrans want the same rights on Klingon methane worlds. The Klingons cannot tolerate the idea of foreign worlds inside the Empire, and the Hydrans cannot tolerate the idea of "foreign corporations" in their space either.

Y67 Gorn Vanguard Teams conduct lightning raids on numerous vital Romulan research facilities, stopping the development of tactical warp technology. Romulan research has been hampered by the system of great houses. Each house does its own research, often refusing to exchange progress reports with other houses. Some houses even go so far as sabotaging the work of other houses, or blocking them from getting enough government money to proceed with possibly successful research. This may have been exacerbated by an especially weak emperor (Ruvellus) who could not force the houses to cooperate. Ruvellus appointed seven praetors in less than two years as powerful great houses maneuvered to depose (or assassinate) any praetor controlled by another great house.

Y68 Ruvellus appoints his eighth and last praetor.

Gorns win the Second Gorn-Romulan War.

Gorns turn to deal with Paravian raids. Most Gorn ships have already been upgraded with TL10 tactical warp and begin receiving plasma bolt refits at forward bases, while the TL9 Paravian ships must return to their home planet to get tactical warp and the new quantum wave torpedoes. Using this decisive advantage, the Gorns quickly destroy virtually every unrefitted Paravian ship. Many Gorn ships, hurriedly refitted, are sent into combat with tactical warp and plasma bolts, but without their phasers. The first Paravian tactical warp ships give these semi-refitted Gorn ships a rough time, but there are relatively few mismatches of this type.

Second Lyran-Hydran War begins.

Y70 The Paravians fully deploy tactical warp, phasers, and quantum wave torpedoes.

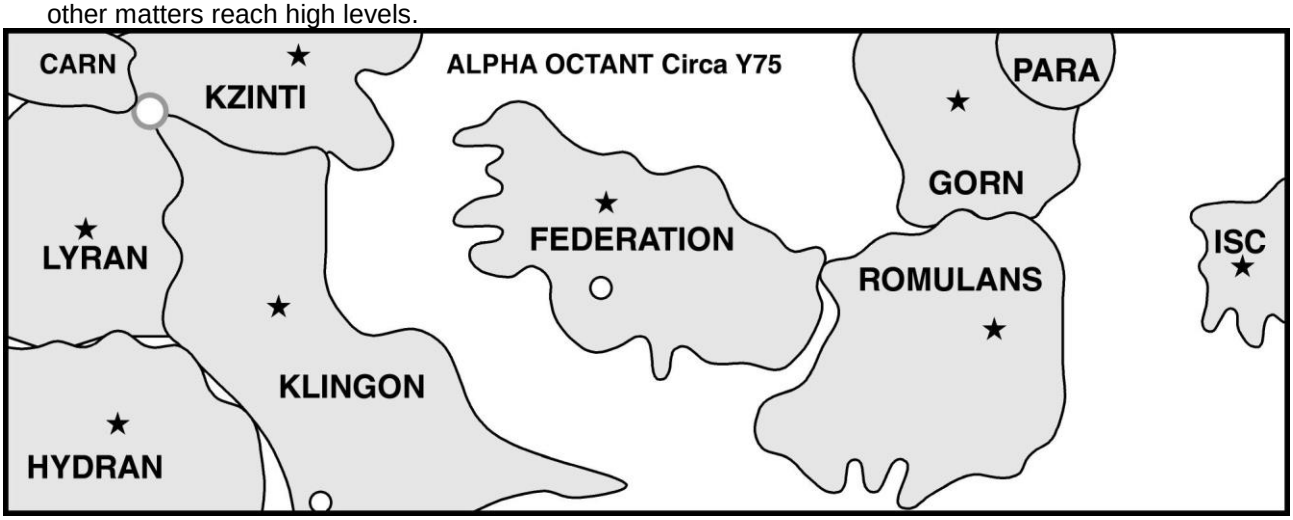
Y71 Federation forms the United Star Fleet. Member planets begin disbanding their "national" fleets (comprised of NTW ships) in favor of the United Star Fleet, which consists exclusively of photon-armed tactical warp ships. This is

one of the cornerstones of Federation cohesiveness, as the United Star Fleet makes the national fleets obsolete. To "facilitate training" however, the Federation Council agrees to allow each planet to convert a few old ships to tactical warp and photon torpedoes. In fact, the member planets still do not entirely trust each other and these refitted ships are a symbol of political power. While there will never be a Federation civil war, there are moments in which tensions over trade concessions and other matters reach high levels.

Second Lyran-Hydran War ends when improved Hydran weapons (e.g., nova cannon) give them a decisive advantage over the Lyrans.

Y72 Klingon-Hydran "incident" (brief border war).

Y73 Hydrans attack the Klingons. They do not have a formal alliance with the Kzintis (who are still at war with the Klingons), but are considered as cobelligerents. Klingons are hard-pressed to fight a war on two fronts and outgunned by the new Hydran nova cannon.



Y75 A badly outnumbered Klingon fleet defending the Hydran Frontier is decisively defeated. Klingons agree to a settlement granting Hydrans trade concessions and allowing them to colonize several methane-atmosphere planets within the Empire. Kzintis howl with rage because Hydrans will not continue the war. Klingons purchase war material (at ridiculously inflated prices) from Hydrans and launch a renewed offensive against the Kzintis.

Y76 Klingons, expanding their territory to the Galactic Rim, encounter the Vudar, and later absorb them into the Empire under special semiautonomous conditions. Only the Vudar can survive for extended periods in the radiation zones along the Rim (their home). Other Klingon explorers contact the Romulans, and report that the backward state of Romulan technology makes them ripe for conquest. Several Klingon ships raid Romulan territory, and Romulan ale becomes a trophy much in demand in the Klingon fleet. The Romulans are not entirely certain who this new enemy is.

Y78 Based on lessons from the Hydran War, the Klingons launch the D4 class cruisers, the first designed from the keel up to include tactical warp. The Lyrans, Hydrans, and Kzintis follow suit with their own ships of this type.

Y79 Tholians arrive in the Milky Way Galaxy, settling in the tip of the same spiral arm that includes the Klingons. The Klingons explored and claimed this territory only a few years previously, and had set up a few colonies there, but no Klingon ships were present at the precise point of Tholian arrival so they remain undetected.

Federation launches the first of the *Republic*-class cruisers and begins refitting the older *Province*-class cruisers to the improved (and faster) tactical warp engines.

Y80 At about this time, most empires develop tractor beams able to function in a 360° arc, but this technology is still limited to 10,000km. Also at about this time, most empires are able to extend the range of their transporters to 20,000km. The Gorns do not reach these technological goals until Y90; the Romulans do not reach them until the Treaty of Smarba in Y159.

Y82 First Klingo-Kzinti War ends. Klingons capture three key planets.

Y83 Tholians make their first known contact with the Klingons and establish the borders of the Holdfast. First of several vicious border wars lasts two years, causing heavy losses among the Klingon ships (who cannot fight the new technology effectively). Tholians wipe out three minor Klingon colonies, the largest of which is Kalesta (intended as the jumping-off point for the conquest of the Romulans). The Klingons will forever after regard the Tholians as "foreign invaders." The shame of having a part of the Empire occupied by a foreign

power will stain the honor of the warrior class forever. Although no one knows it at the time, the Tholians probably saved the Romulans from being conquered by the Klingons. Missing the chance to conquer the Romulans will give the Klingons much anguish. Had they done so, they might have had the resources to dominate the entire Alpha Octant.

The Long Lance (type-III) drone enters service.

Federation Marine Major General Kripney delivers the famous report "Case for Primary Contact Action Teams in Novel Contact Environments" to Star Fleet Command.

Y84 Klingons, having defeated the Kzintis, attack the Hydrans. This is known as the "Second Klingo-Hydran War" to Federation historians, as the "War of Retribution" to the Klingons, and as the "War of Infamy" to the Hydrans.

Lyrans attack the collapsing Hydran border (Third Lyran-Hydran War) and capture several planets, but are not formal allies of the Klingons.

First contact between the Tholians and Federation. The Tholians have no interest in suggestions for commerce and the free exchange of ideas.

In the Federation, Tumball Massi is placed in charge of the Primary Contact program; this is the genesis of the later Prime Teams.

Y85 First contact between the Klingons and Federation (although the Vulcans had previously told the other Federation members of past meetings with the warrior empire). The Klingons, involved in a war with the Hydrans, furious with the Tholians, and still watching the Kzinti border, decide not to provoke this new enemy but instead send Klingon civilians and diplomats to hold trade talks and discuss cooperation treaties. For several years, the Klingons and Federation remain on friendly terms, which are increasingly strained as both try to snap up good colony worlds in the relatively unexplored territory between them. While both assume the other empire is not particularly warlike, both note that the other is positioning colonies for strategic advantage and both quickly intensify intelligence-gathering efforts.

Ground-breaking ceremonies for the Cultural Indoctrination Center and for the Prime Central facility on the Moon.

The Gorns succeed in blockading the Paravian homeworld (in the process destroying all orbital and space-related facilities) and begin hunting down the surviving Paravian ships. Unknown to the Gorns, some Paravians escape to the Omega Octant. The Gorns, unwilling to actually annex territory claimed by the Paravians, set up the Trusteeship Zone covering the Paravian areas. In theory, this territory (and profits from it) will be returned to the Paravians when they agree to peaceful coexistence.

Y87 Klingon forces smash the Hydran fleet and destroy Hydran colonies. Many atrocities are committed by the Klingons. All Hydran ships larger than police corvettes are destroyed, and the Hydran Kingdom is reduced to a Klingon client. (Later analysts will note that only the presence of Klingon colonies inside Hydran space made such a rapid advance possible, as all wars were limited to how far ships could be supported by supplies from prewar bases.) The Klingons establish governors over Hydran planets. Due to the difference in atmospheres, however, these governors are never really able to control the populace and rule from orbiting satellites. These satellites have powerful weapons aimed at the planet below, but are poorly defended against attack from space.

Y88 First Federation-Kzinti War begins as Kzintis attack. The Klingons provide the Federation with useful intelligence and tactical advice, and for a few years Klingon officers are honored guests on Federation cruisers fighting the Kzintis. The Klingons expect to eventually fight the Federation simply because they have fought all of their neighbors, but do not do so at this point because there are no bases on the Federation border to support fleets, and there is enough trouble with their other neighbors.

Under tremendous pressure, the Federation Council agrees to allow each member planet to keep a "squadron" of old ships refitted with tactical warp and photon torpedoes. As the size of these squadrons is not defined, the move in effect legalizes the "training" units that had grown far larger than the original law of Y71 intended. Some of these ships will serve in combat later. These squadrons will, in Y113, evolve into the National Guard.

Second Lyran-Klingon War begins in arguments over the division of the Hydran Empire. In the confusion, the Hydran colonies of Altroth, Minxitith, and Krooth are not found or occupied by the Klingons or Lyrans. These colonies were established much earlier by the Hydran merchant guilds, and the later power of the guilds stems from this period. The guilds maintain the monarchy through Prince S'Lenthna, the last heir of Hydraxan IX. As the guilds hold the real power, the Prince is a virtual puppet, but his presence is important in rallying the Hydrans. The guilds begin converting merchant shipyards into facilities able to produce warships.

Romulans develop seeking plasmas and the masking device (an early version of the cloaking device), installing them in their ships.

Y89 Kzintis make gains against the Federation, capturing several planets.

Romulans attack Tholians in order to test their new weapons, but abandon the "First Romulan-Tholian War" in less than a year, as winning this war is never their real objective.

Y90 Third Gorn-Romulan War begins with Romulan attack. The Romulans, using their new technology, drive deep into Gorn territory despite the fact that they are practically sitting ducks in combat. The Romulans will, for the next 35 years, plunder their own resources trying to fund wars of aggression using inferior ships, reducing their empire to near the poverty level.

Civil wars erupt in the Hydran "Lost Colonies" as Prince S'Lenthna tries to break the guilds' power.

Y91 Klingons and Lyrans settle their differences by negotiation. The Klingons are anxious to do so because they plan to rid the galaxy of the "Tholian Menace." The Klingons and Lyrans become firm allies, finally cementing their good relations about Y100.

Federation begins counter-offensive to regain Kzinti-occupied territory and makes steady progress.

Greatest extent of Romulan gains into Gorn territory. Gorns rush the first of the new cruisers designed "from the keel up" for tactical warp into service.

Y92 The Great Klingo-Tholian War begins; it lasts 10 years and accomplishes nothing.

First Federation-Kzinti War ends, with the Federation frontier re-established in the original location, creating a temporary "border."

A Federation Primary Contact Team (the Wraiths) encounters energy creatures on Vetrised IV.

Last known battle between Gorn ships and Paravian raiders outside of the Blockade.

Y93 Extended-range drones enter service.

Y94 A sun snake plunges into the Paravian home star, causing it to go nova and effectively destroying the Paravian species in the Alpha Octant. The Gorns are overcome with shock, shame, and guilt.

Y95 Star Fleet Marine Corps and the Federation Merchant Service are formally brought under the umbrella of Star Fleet Command.

Y96 Third Gorn-Romulan War ends as the Gorns drive the Romulans back to the original border and (suffering from "Paravian Guilt") refuse to advance beyond it. The Romulans continue attacks, raids, and harassment along the border at varying levels over the next 24 years, often blaming the attacks on "Privateers" (the Romulan government denied the attacks were government-sanctioned), an excuse they will use again and again.

Y98 Klingons attack the Tholian homeworld. While causing much damage, they cannot destroy it, and are forced to withdraw.

Y100 At about this time, most empires are able to extend the range of their transporters to 30,000km.

Y101 Hydran civil wars intensify. Much of Minxitith is rendered uninhabitable.

Y102 Klingons abandon the Great War against Tholians.

Noting the problems of an undefined Klingon border, the Federation Council declares the border of the Federation to be 4,750 parsecs from the center of the Primary Member Zone (an area that will later be known simply as "the capital"). This declaration is announced as a great peacemaking effort, in that the Federation will not attempt to control territory beyond this limit. The limit, defined by the distance from the capital to the Romulan Neutral Zone, includes territory occupied by the Kzintis and disputed by the Klingons, neither of which is impressed with Federation diplomatic statements.

Federation Primary Contact teams are officially renamed Prime Teams, a designation they have carried unofficially for several years.

Y103 Second Klingo-Kzinti War begins.

A series of incidents on the Federation-Klingon "border" begins with the declaration by the Federation; the frequency increases over the next six years.

Y105 Gorn Confederation is the last major empire to extend the range of its transporters to 30,000km. The Romulans still do not have transporter technology.

Federation colony on Aberdeen III is found to be completely abandoned under mysterious circumstances that are never explained.

Y106 Kzintis win the second Klingo-Kzinti War and regain the planets. They immediately launch an attack on the Carnivons. Sensing the weakness of the Carnivons, the Lyrans attack them as well. Over the next few years, the Carnivons are defeated decisively and annihilated. While rumors of surviving Carnivons will continue for a century, no confirmed contact is ever made and the species is presumed to be extinct.

Y109 Second Lyran-Kzinti War begins when a Kzinti strike cruiser destroys a Lyran exploration ship. The Lyrans claim a moral outrage over the attack, but ignore the fact that their "exploration ship" was exploring Kzinti territory (albeit just liberated from the Carnivons) for new colony sites.

Y110 First Federation-Klingon War begins with Klingon attack on territory claimed by the Federation Declaration of Y102.

Tholians capture disruptor technology from the Klingons in a daring raid. The Klingons are furious but unable to react due to their new war with the Federation. The fact that the Tholians

had weapons superior to the Klingons (e.g., phaser-1s) may have been the reason that the Klingons abandoned the war with the Federation so quickly.

Romulan Senate votes to launch a new war against the Federation, but after the sudden death of Emperor Ramillius, the Senate reverses its decision and recalls the ships sent to the Federation border. At least one Federation ship is destroyed in a skirmish with the initial Romulan probes, but the Romulans withdrew before the Federation detected any Romulan attack and the ship (which was unable to transmit a warning) was written off as "fate unknown." This is, much later, spoken of as "the forgotten war."

Y111 First Federation-Klingon War ends as the Klingons abandon their attacks and launch diplomatic protests over the new Federation border.

Y112 The planet Aurora III is colonized. To date, this system is the most coreward that the Federation has colonized.

Y113 When Federation member planets stall on the mandated scrapping of their "national" fleets, the Federation Council passes the Federation Defense Act, creating the National Guards of each planet. These are, officially, a reserve for the Star Fleet, but this will not become fact for a generation. In the interim, each planet regards its National Guard as its defense against domination by other members of the Federation and for local defense (as some doubt that Star Fleet can or will protect every member planet equally).

Sixteen Orion ships and 9,000 skilled crewmen mutiny and disappear. These actually go to secret Orion colonies in Romulan space and become the nucleus of the Orion Pirates.

Y114 Second Lyran-Kzinti War ends.

Klingon-Tholian "Incident" shows their conflict is not over.

Y116 Kzinti Civil War. The Usurper attempts to overthrow the Patriarch and fails. After his defeat, the Usurper flees to WYN Cluster.

Y117 Orion Pirates are in widespread operation and begin eliminating or co-opting non-Orion pirates who had been in operation for decades.

Y119 Romulans replace the masking device with the improved veiling device and they develop mauler technology.

Y120 Fourth Gorn-Romulan War begins and continues for five years.

At about this time, most empires are able to extend the reach of their tractor beams to 20,000km and the range of their transporters to 40,000km. All empires begin building base stations along their borders, replacing previous haphazard networks of various types and sizes of bases. This tends to solidify the borders over the next two decades.

Y121 The Klingo-Tholian "Incident" renews border tensions.

Y123 Third Klingo-Kzinti War begins.

Y124 The last of the Romulan "Old Series" mauler ships is destroyed in combat. The weapon, which needed too much power to be used effectively, was regarded as a failure. The design will be resurrected when Klingon warp engines provide the Romulans with a better source of power for their ships.

Y125 Fourth Gorn-Romulan War ends in a Gorn victory. Gorns occupy some Romulan territory to establish a clearly defined border, and destroy Romulan bases used to launch aggression.

Lyrans attack Kzintis (Third Lyran-Kzinti War) with part of their fleet, taking advantage of the Klingo-Kzinti War.

The Federation Council votes for a massive program of exploration toward the unexplored and uninhabited coreward regions. Aurora III becomes the staging area for this program. A fleet base station is built there, and supplies for the program are stockpiled as explorers, traders, colonists, and Star Fleet await final approval of the campaign.

The Klingons launch the first of the new D6 class.

Y126 The first of the new Federation heavy cruisers known as the *Constitution* class is launched.

Y128 Hydran civil war ends as Prince S'Lenthna abdicates in favor of his underage grandson. All of the boyking's regents are heads of guilds.

Y129 Hydran "Lost Colonies" begin preparations for restoration of the kingdom. Technology is acquired from unknown foreign sources, later said to be Kzinti or perhaps Orion.

Y130 Federation *Constitution*-class heavy cruisers are simultaneously inaugurated as the flagships of all of the numbered fleets. Some have been *de facto* flagships for some time.

The Federation Aurora colony disappears mysteriously after sending a report of a very unusual cosmic storm. Every starship in the sector is sent to investigate but finds nothing; the entire Aurora system has disappeared, star, planets, asteroids, bases, colonists -- everything! The Federation Council attempts a cover-up, but the news leaks. The resignation of pro-exploration members of the Council delays such exploration for decades. A century will pass before Aurora is found in the Omega Octant.

Y131 The Third Klingo-Kzinti War ends; the results are inconclusive.

Third Lyran-Kzinti War ends.

Orion Pirates board a Federation commercial starliner, *The Celestial Queen,* with numerous dignitaries on board. Highlanders Prime Team, under the command of Sheroc Kelleret, liber-

ates the Starliner with no civilian fatalities. While the Orions fought to the death rather than surrender, Orion propaganda convinces many that a vengeful Prime Team executed the pirates.

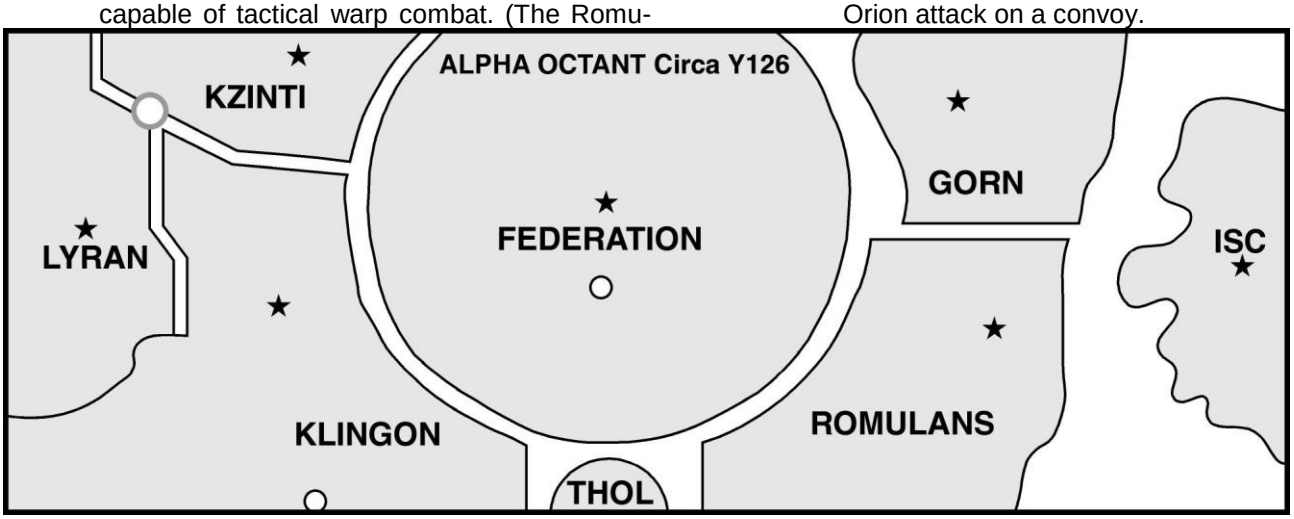
Y132 Hydran agents from the Lost Colonies begin infiltrating Klingon-occupied planets of the Kingdom.

Y133 Gatling phaser is developed by the Hydrans.

Y134 New Hydran ship classes (Ranger, Lancer, Scout) are in service in the Lost Colonies, along with the first fighters in the Alpha Octant capable of tactical warp combat. (The Romulans had used sublight fighters to provide local planetary defense for decades.)

Y135 Hydrans from the Lost Colonies under King Hydraxan XI attack the Klingon satellites over the Hydran planets. In a swift campaign lasting only a few weeks, the Hydran Kingdom is restored. The personal popularity of Hydraxan XI makes him "unacceptable" to the guilds, and he dies under mysterious circumstances. While Hydraxan XII ascends the throne, the guilds solidify their power.

Kzintis field the first battle tug, which defeats an Orion attack on a convoy.



Y136 Second Federation-Kzinti War begins as Kzintis attack Federation border stations.

Orions discover the Kzintis living in the WYN Cluster and establish their first base there.

Y137 Third Klingon-Hydran War begins as the Hydrans attack the Klingons.

Y139 Klingon-Tholian Incident (yes, another one).

Y141 Third Klingon-Hydran War ends. Hydrans have gained no territory but have regained their self-respect. For reasons that remain obscure, four new kings take the throne in less than a year. The last, Hydraxan XVI, lasts for two years.

Y142 Second Federation-Kzinti War ends with no change in the border.

Y143 The brief Fourth Lyran-Hydran War begins and ends as Hydrans recapture two planets from the Lyrans. Lyrans are unable to devote full attention to the war due to troubles on Kzinti border.

Y144 Fourth Lyran-Kzinti War begins.

Y145 Kzinti renegades (of a neo-samurai cult) raid Allen's Planet, slaughtering all 3,000 colonists with the exception of one human infant, William S. Gerard, whom they take with them. The Marquis (the Kzinti noble in charge of the Federation border) captures and executes the renegades to preserve peace, but he cannot return Gerard without explaining what the samurai had planned to do with him. Gerard is raised as a son of his own house.

The Revolt in the Lyran Dark Star County results in a democratic government still loyal to the Lyran Empire.

Y146 Hydran "civil war" begins, but all combat will take place within the palace over the next five years.

Y149 Klingon-Tholian Incident. A Klingon fleet slips into Tholian territory to capture a patrol corvette and the secret of web technology, but Tholian ships surround the Klingons, and the captured ship must be abandoned during the retreat.

Y152 Hydraxan XXIII ("The Great") ascends the throne, which he will hold for almost two decades.

Y153 Lyrans face off against the rebellious Dark Star County at the Battle of Vandha.

Y154 Second Federation-Romulan War begins.

Lyran Dark Star County declares independence and becomes the Lyran Democratic Republic.

Y155 Treaty of Pelione re-establishes the Neutral Zone and ends the second Fed-Romulan War.

Fourth Lyran-Kzinti War ends.

Orions destroy Federation border station K4 (SH49).

Y156 Second Federation-Klingon War begins. War ends the same year with the Organian Treaty.

Orions destroy a Kzinti border station in a raid (SH8).

Lyran Civil War; one of many, few details known.

Kzinti-Hydran Treaty signed. Each pledges to attack the Klingons and/or Lyrans if the other is attacked by them. The Klingons and Lyrans sign a joint defense treaty six weeks later. Many Lyran nobles oppose this treaty, resulting in a sporadic civil war.

Y157 Gorn-Federation "war" starts as the result of a small incident where two brash young captains shoot first and face embarrassing questions later. Both fleets mobilize, but no space combat takes place. The Romulans attempt to disrupt treaty negotiations (SH52), but the "war" ends six weeks later with the Treaty of Algoran. The Federation apologizes for entering the territory of the previously unknown Gorns, while the Gorns pay reparations for the colony destroyed in a ground raid and imprison an officer who used excessive force.

Fifth Lyran-Hydran War begins.

Lyran Civil War ends abruptly.

Klingons launch an abortive attack on the LDR.

Y158 Fourth Klingon-Kzinti War begins. Citing their treaty, the Hydrans almost immediately launch an attack against the Klingon border squadrons.

The Lyrans join the Klingons in fighting Hydrans and Kzintis. This is known as the Four Powers War and is regarded as a prelude to the later General War. All previous wars had been small (mostly consisting of border raids) but new logistical systems developed in this war (notably the semi-portable "mobile base") will make actual invasions of enemy territory possible. Fighters are deployed by the Kzintis in large numbers for the first time, establishing the concept of "attrition units" which make it possible to fight savage battles without losing quite so many ships that take years to build.

The Federation, anxious to reduce the threat posed by the Klingons, shifts fleet units to the Klingon border and discusses a limited action with the Organians to restore the balance of power. This is, however, a "hoax" intended to influence the Klingons to negotiate an immediate settlement to end the war, as the Federation would never consider military power as a solution to the problem. The plan backfires.

Y159 Klingon-Romulan Treaty of Smarba signed. Klingons begin supplying advanced technology to the Romulans, allowing the conversion of old Warbirds into War Eagles. These increase pressure on the Federation border. The Federation transfers ships back from the Klingon border to the Romulan border. This allows the Klingons to transfer ships to fight the Kzintis. The Federation's attempt to use the "threat of force" as a substitute for simple force has failed and planted the seeds of the General War.

Y160 Minor skirmish on the Gorn-Romulan-Federation border (SH53).

ISC forces observe a Gorn-Romulan battle.

Phillip Kosnett becomes captain of the heavy cruiser *Kongo.* In one of his first missions, he protects the planet Pollux IX from a meteor set on course by the Klingons (SH3).

Marcus Tal is selected by the Romulan Preditrate for Praetorian duty (equivalent to Prime Teams).

Y161 The *Kongo* under Captain Kosnett is sabotaged while on a special mission and attacked by a Klingon battlecruiser (SH1). Kosnett rescues Federation hostages held by the Klingons (SH7).

Y162 *Kongo* converted to a command cruiser.

The Kzinti noble known as "The Marquis" (in failing health) sends William S. Gerard home in an AAS fighter, the first time the Federation has seen a craft of this type.

Fifth Lyran-Hydran War ends.

Romulans begin mass conversion of Warbirds to War Eagles and update other old ships.

The Fourth Klingon-Kzinti War ends with inconclusive results.

Y163 Klingon-Tholian Incident.

The Federation Galactic Survey cruiser *Marco Polo* is attacked by the Romulans and rescued by the cruiser *Hood* (SL44).

Romulan Praetorian Marcus Tal distinguishes himself during the Sherioki Incident.

Y164 The Federation tug *Al Rashid* is disabled near the Kzinti-Klingon border (SH55). Kzinti ships arrive to rescue the ship; Klingons arrive and claim that the Kzintis are pirates.

The Klingon D6 *Gnasher* raids Rita's Planet in the Neutral Zone, massacring the Federation colonists. The *Kongo* arrives and rescues Burt Engles, the only survivor, and takes him to Organia to testify against Klingon Commander Kremler; the *Gnasher* tries but fails to stop the *Kongo.*

Ardak Kumerian assumes command of frigate *Vigilance.* Due to a combination of circumstances, history will record more about him than any other Klingon officer. As an admiral, his most famous quote will be "Never fight a battle you do not have to win."

Y165 The Romulans begin building the new generation of ships known as "the Hawk series."

Federation begins "refits" that add improved systems to their ships; other empires follow suit. Destroyer *Kublai* intercepts the Klingon D6 *Devastation,* which had been harassing shipping (SH56).

Andromedans build a base in the Lesser Magellanic Cloud and begin conquering it.

Y166 Series of incidents on Klingon-Kzinti border (undeclared war). Kumerian destroys Kzinti shut-

tle squadron #26 (SH5) and is promoted to command the D6 *Destruction.*

Klingon D6 *Devastation* operates as experimental semi-carrier and conducts several raids on Kzintis to test fighters.

William S. Gerard graduates from Star Fleet Academy.

First encounter with an Andromedan Intruder.

Federation-Kzinti ambassadors sign articles of agreement and become allies.

Ensign Peltier graduates from Star Fleet Academy.

Y167 Kumerian and the *Destruction* are sent to the prestigious Tholian Border Squadron, where he serves as commander of the 2nd Fighting Division. He destroys the Tholian 3rd Patrol Squadron after it forms a pinwheel; he is promoted to commodore in command of the Squadron. In the flagship *Darkslayer,* he leads a demonstration attack against a Tholian base (SH6). Threlvis Kren, an officer under Kumerian's command, starts an incident with the Tholians that backfires. Needing a scapegoat to quiet Federation complaints, the Klingons pick Kumerian. He is stripped of his position as commodore, but is allowed to retain his rank as captain and command of his original ship *Destruction.* The ship is sent to the Western Fleet. Korath replaces Kumerian in command of the Tholian Border Squadron.

Romulan attempt (with Klingon help) to ambush the Gorn cruiser *Reptilicon* fails when the ships enter Federation territory and the Federation command cruiser *Lexington* intervenes.

Deth O'Kay's ship, the *Hammerfield* (an Orion Pirate heavy cruiser), attacks a convoy.

Y168 On the Tholian border, the Federation destroyer *Ares* is destroyed. *Excalibur* rescues the crew (SH59) from Tholian slavery.

The Federation CC *Excalibur,* the Klingon D7C *Darkslayer,* the Tholian CA *Arrrakk,* and the Orion raider *Gossamer Phoenix* defeat the extragalactic Juggernaut. The *Darkslayer* is destroyed, but Korath is given the new *Direslayer* and a Federation commendation. Korath has, however, sworn revenge against Federation Captain Gray for calling him a coward during the battle.

The General War begins when war erupts on the Lyran-Kzinti border. This is at first known as the Fifth Lyran-Kzinti War. Technology improves during the course of the war.

Y169 Klingons join Lyrans and declare war on Kzintis. Korath, the *Direslayer,* and the Tholian Border Squadron deploy to the Kzinti border where Korath eventually becomes an admiral commanding that sector.

The Hydrans launch a preemptive strike on the Lyrans and begin their attempted breakthrough to Federation territory.

William S. Gerard serves as an "observer" with the Kzinti fleet, where he exhibits his skill as a fighter pilot.

To atone for his failure and to gain revenge against the Federation, Kumerian raids Sherman's Planet where he personally leads Marines in hand-to-hand combat.

Klingons begin construction of the B10 battleship *Invincible* and obtain mauler technology from the Romulans.

ISC forces defeat a Romulan squadron and make initial contact with the Gorns.

The Federation tries to capture the pirate raider cruiser *Berol Turquoise,* but the pirate cruiser *Hammerfield* intervenes.

Y170 Klingon D6 battlecruiser *Destruction* mutinies and is interned at Federation Starbase 16. It is returned to Klingons the next year. The Klingons are outraged that the Federation dismantled the Ubitron Interface Module and want to declare war, but are restrained by the Organians. Kumerian, captain of the *Destruction,* is demoted in disgrace and sent to command the penal frigate *Insufferable.* His son, Kollos, graduates from the Deep Space Fleet Academy but is refused a naval commission. He transfers to the Internal Security (Police) Forces.

The Kzintis attack the Klingon carrier *Berserker* (SH15).

The Klingon advance into Hydran territory depends on a tenuous supply line (SH18).

Y171 The Organians disappear. Several empires are blamed for this, but none know the true situation.

Kraknora, a Klingon penal colony, revolts. A task force is sent to quell the rebellion, but is never heard from again. ISF ships sent to investigate find the entire star system missing. Klingon scientists compare this event to the disappearance of the Federation's Aurora colony 41 years earlier, but remain as baffled as their Federation counterparts.

Klingons declare war on the Federation and attack the border with hundreds of ships. This had been planned before the Kraknora colony disappeared.) (It is unknown if the Klingons took advantage of the Organian departure or if the Organians left because they knew the Klingons were going to start a major war.) The Federation cruiser *Hood* is reported destroyed by three Klingon cruisers (SH19), but the saucer returns to Federation lines in Y174.

Under pressure from the invading Klingons, the Orion semiautonomous zone within the Federation briefly declares its independence and neutrality.

Seeking an alliance, the Klingons send Ambassador Thad Vak Kaleen to the Romulans. The Federation attempts to intercept Kaleen (SH80), but he succeeds in reaching Romulus.

While the Romulans do not yet declare war on the Federation, they launch a series of raids (SH60, SH69).

Y172 The Federation responds to the Klingon attack with raids by new carriers. Federation fleets are sent to assist the Kzintis, and a Federation expedition (Operation Hydra) unsuccessfully attempts to reach the Hydrans. In an unusual case, a group of pirates is trapped between Klingon and Federation fleets (SH61) fighting on the border.

Deth O'Kay carries a contract cargo to Hydran territory; he is betrayed and attacked by the Hydrans, but wins.

Y173 With their invasion running out of steam, the Klingons convince the Romulans to declare war on the Federation and to launch a massive attack. Federation Commodore Stocker discovers the invasion and launches a preemptive attack with *Lexington,* catching a Romulan squadron unprepared and badly mauling it (SH2). Another Federation squadron is ambushed at Denebola during treaty negotiations with an Orion base. The old cruiser *Republic* fights two groups of Romulan raiders.

Lieutenant Peltier completes Prime Central training with honors and rejoins the *Saratoga* as leader of the Black Eagles Prime Team. Deth O'Kay is captured by Stocker but rescued by his own ship and resumes his command.

Y174 The Gorns ally with the Federation. The General War has now reached virtually complete escalation. The Grand Alliance (Gorn-Federation-Kzinti) fleets battle Coalition (Romulan-Klingon-Lyran) fleets. Hydrans have co-belligerent status with the Grand Alliance but are not formal allies.

Orions begin operating against the Grand Alliance, using unprecedented numbers of ships.

Y175 The Klingon D7C *Demonslayer* mutinies (SH62).

Klingons trap a Federation fleet in a stasis field; Rear Admiral John "Cracker Jack" Radey and his carrier group rescue them (SH81).

Federation Police Commissioner Robert Scorpio orders the construction of the first Federation police carrier.

Black Eagles Prime Team disrupts dangerous spy operations on Data Processing Station 119.

Y176 Alliance forces recapture large areas of Federation territory, reaching the Tholian border and cutting off contact between the Klingons and their Romulan allies. The Tholians tentatively accept membership in the Grand Alliance.

ISC begins incursions into Romulan and Gorn territory. These increase over time.

Y177 Vulkalis Kurlak, commander of the Tholian Border Squadron, finds himself as a fleet commander without ships in a backwater of the war. Amassing hundreds of fighters, he attacks the Tholians, exposing their weakness. Exploiting his success, the Coalition launches "Operation Nutcracker" to destroy the Tholians once and for all. Besieged, the Tholians allow ships of their allies to enter the Holdfast, but only those of the Gorns and Kzintis (since they would not pose as much of a threat after the War).

The Romulans attempt a long-range cloaked attack on Rigel IV (SH63), throwing the Federation into a panic.

Ardak Kumerian is restored as captain of D6 *Destruction,* and fights on the Federation front.

Y178 The Neo-Tholian 312th Battle Squadron arrives. After these ships get into action, "Operation Nutcracker" begins to break down (SH22).

Direct contact between Klingons and Romulans is broken and will never be reestablished. This causes serious logistical problems for the Romulans; they can no longer obtain an adequate supply of spare parts for their Klingon-built ships, and there is insufficient Romulan production available to make up for the lost shipments.

A Gorn offensive culminates in the disastrous Battle of Delmac. The Gorn carrier *Archaeopteryx* (SH21) escapes from a Romulan trap.

PX123, an ISC mining colony, disappears in the same fashion as the Aurora and Kraknora systems did in earlier years. Investigations reveal nothing until decades later when all three systems are found in the Omega Octant.

Y179 Ardak Kumerian is re-promoted to commodore, but in a staff position under the commander of the Western Fleet. While an average ship captain, he proves to be a genius at staff work, even if he hates the assignment.

Y180 Romulans penetrate the Gorn lines and are engaged by support forces (SH64). Later, the Gorns and Romulans fight a major battle over the planet Hokan. A Romulan ship disappears on the frontier (SN19).

Klingon political prisoners revolt on K't'tothos IV (SH65).

Deth O'Kay, the chief "enforcer" ship captain for the Orion Hamilcar Cartel, and his ship, *Hammerfield,* disappear under mysterious circumstances. (They were kidnapped by a species known as "the Masters" who used entire ships to play wargames for their own amusement.)

The Red WYN Express (an Orion convoy) delivers high-technology equipment to the WYN Cluster, but not in the quantities wanted (T6).

Y181 The Alliance launches "Operation Remus": the Federation and Kzintis attack the Romulans from the west while the Gorns drive from the north. The Kzinti fleet surprises a Romulan fleet at anchor and destroys it. Reasoning that

their mission to guard the flank of the Federation fleet has been fulfilled, and responding to reports of Klingon attacks on their territory, the Kzintis withdraw without warning, collapsing an Alliance drive that could have captured the Romulan capital. Facing heavy pressure, the Gorns are diverted westward and cannot reach Remus. The Federation Fleet reaches Remus alone; forces of both sides annihilate each other. CVA *MacArthur* crashes into the planet, rendering it almost uninhabitable.

Ardak Kumerian promoted to admiral and made the commander of the Red Fleet, which is the Klingon training command for its new ships, not a tactical formation.

Phil Kosnett promoted to commodore on the Klingon frontier.

Y182 "Operation Cavalry" is launched. Gorn fleet units transfer to the Klingon frontier for a major assault in cooperation with Kzinti and Federation units. Kumerian and his Red Fleet are hastily reorganized as a tactical formation and sent to stop the "Cavalry." His fleet is all but destroyed, and he is reported missing in action. The Alliance forces attack a Klingon starbase and are themselves badly beaten.

The Amazons, an all-female Alpha-Centauran Prime Team, foil an attempt on the life of the Federation President during the Susturia Conference. Although the culprits are Orion mercenaries, Romulan involvement is suspected.

Y183 Battles between Federation/Kzinti and Klingon forces. Fed CVA *Napoleon* is heavily damaged and forced out of the war. Kzinti forces trap the Klingon 701st PF Flotilla. Battles are fought at Blackfoot Pass. The cruiser *Australia* rescues the tug *Messier,* which had been trapped by the Klingons (SH23).

Kosnett launches an attrition campaign (U5). Kzinti, Federation, Klingon, and pirate forces battle for control of a key sector on the triple border.

On the Hydran front, PFs raid an advanced Klingon base. The Klingons track down the PF tenders that carried them into range.

Y184 Pleiades Turkey Shoot (SH17). The Klingons launch a massive fighter attack on the Federation *Zhukov* carrier group, reasoning that if they can destroy it, they can win the war. "Cracker Jack" Radey bets the entire General War on a single battle and wins.

The Black Eagles Prime Team uncovers the source of the mysterious disappearances of Federation citizens on Meva Station.

Romulans launch a series of raids to keep the Gorns off balance. One notable success is at Gijard III (SH28).

Foreshadowing the Invasion, Andromedan *Dominator*-class dreadnoughts appear for the first time. One Dominator suffers an inexplicable breakdown and explodes; its satellite ships flee for a rendezvous point with help from the Orion Pirates, but stumble into one of the last major battles on the Federation-Romulan front (T7).

Y185 Klingons launch a desperate final attack on the Kzintis, which is blocked by the White Elephant Squadron of fighter-conveyor PFs (SH32).

Organians return and halt the General War. They offer no explanation for their absence, but express hope that the "Lower Empires" (as they call the others) have "learned the futility of war." This hope is in vain.

The Romulan Civil War begins between the Imperial and Republican factions.

Y186 ISC forces begin occupying Gorn and Romulan territory and enter Federation territory.

Y187 Federation forces dispute the ISC-mandated neutrality of the Fornax star system (SH24).

ISC briefly attempts to pacify the Tholians but decides that the Tholians really do want to be left alone.

Romulan Civil War ends as a powerless Empress becomes head of the Republican state.

Federation Prime Team Templars, under the command of Lt. Commander Jerod Kent, uncovers a plot by the Governor of New Marseilles to hide the existence of a primitive sentient species on his world.

Y188 The ISC completes its "conquest" of the galaxy, effectively occupying the Neutral Zones between most of the warring parties. The Klingons resist ISC interference (SH25).

Y190 The Andromedans launch a full-scale galactic invasion.

The ISC Echelon of Judgement (consisting entirely of new X-ships) arrives at the ISC capital barely in time to halt an Andromedan Dominator.

The Andromedans raid Hydraxaport (SH26).

Y192 The Andromedans attack the Federation.

Y195 Survey ships discover the first Andromedan base on the Rapid Transport Network.

Y197 The height of Andromedan power is reached.

Y198 Andromedan power begins to decline sharply as the Rapid Transport Network is heavily disrupted.

Y201 The Galactic Powers launch "Operation Unity" in an effort to destroy the primary Andromedan base (U6) in the Lesser Magellanic Cloud.

Y202 Final defeat of Andromedans as Operation Unity destroys the *Desecrator* (the starbase in the Lesser Magellanic Cloud).

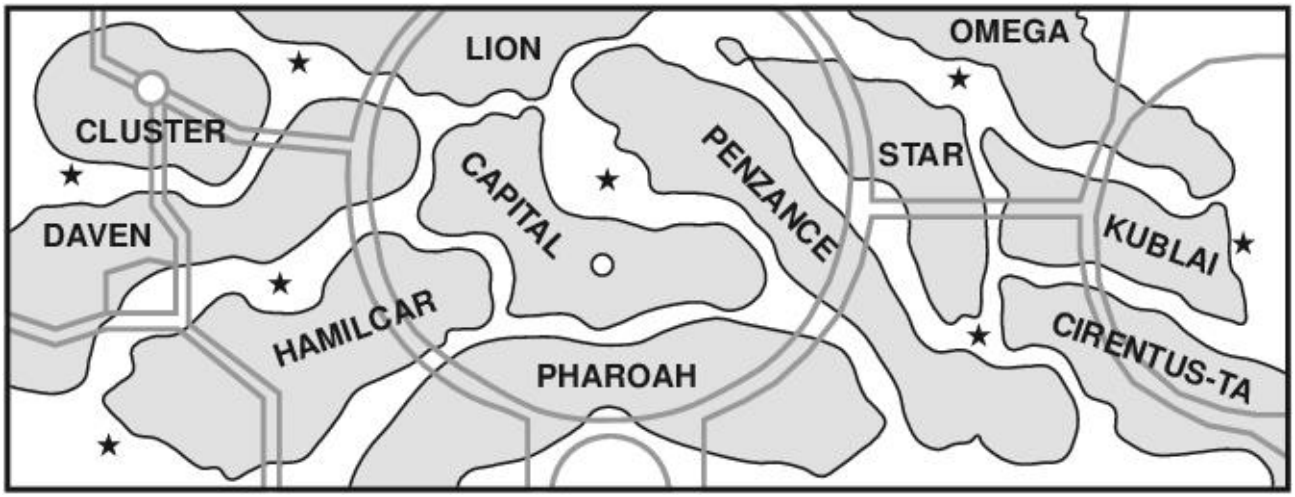
Y203 Organians declare "Era of Tranquility."

Y205 Era of Second Generation X-ships and Trade Wars begins.

Klingon X-frigate *Vandal* disappears into a time warp.

Y225 End of recorded history. Presumably a third generation of X-ships was developed, but The

Next Generation is not within the scope of the ***Star Fleet Universe.***



Orion Cartels circa Y176



The ships of the ***Star Fleet Universe*** were designed to interact with each other via the ***Star Fleet Battles*** rules (see p. 286 for an introduction to the free Cadet version of this game) or ***Federation Commander*** (see p. 288). However, some GMs may prefer to use the native ***GURPS*** system for starship combat. To do that, you will need ***GURPS Spaceships*** (4e) and may also want to have ***GURPS Space*** (4e) available.

The SSDs that go with the free ***SFB Cadet*** game are included with that download. Many of the ***Federation Commander*** ship cards can be found on ADB's website. An index to these cards can be found in the "Master Ship Chart" located here: http://www.starfleetgames.com/federation/Commanders%20Circle/resources.shtml

This chapter provides details on how the space combat system, provided in ***GURPS Spaceships*** (4th edition), can be modified to fit better with the ships, weapons, and technology of the ***Star Fleet Universe.*** This chapter is not a complete combat system hence the need for ***GURPS Spaceships.***

Battles in the ***Star Fleet Universe*** take place at tactical warp speeds, and within two light seconds of distance. Ships and other manned vehicles cannot participate in combat if their speed is greater than 31 times the speed of light. Some seeking weapons are able to move faster. Most long-range weapons are not able to fire more than 185,000 mile or 300,000 kilometers. Note that all weapons in this section are faster than light (FTL).

It should be noted that ships in the ***Star Fleet Universe*** come with one or more of several types of engines:

Impulse engines are used by most ships for low-speed maneuvers. Some ships have only this type of engine and cannot perform range-changing maneuvers except against other such impulse-only ships.

Freighter-type engines are relatively slow (Warp 4.5), and are not designed for the constant speed changes that warships make.

Military-Auxiliary engines are used by those freighters and cargo ships operated by the military (and some wealthier planets and corporations). They have more power (Warp 5.5) and can maneuver more easily.

Starship-type engines are powerful (Warp 7) and capable of all maneuvers. Some ships have "hot," "fast," or "X" types of engines, but these are considered standard starship engines for combat purposes.

INITIATIVE

As per ***GURPS Spaceships*** surprised crews may find some or all crew members not at their normal station. Ambushes and surprise have a greater effect on ships in the ***Star Fleet Universe,*** as weapons will take some time to arm. It could be several turns before a surprised ship would be able to return fire.

Weapon Status

Ships do not cruise around with their weapons armed waiting for an enemy to show up. This costs power, which ultimately translates into fuel and then into money. A ship could enter combat in one of three conditions (the GM can rule which is the most logical, as well as on any special cases or conditions):

Unprepared: No enemy was thought to be in the area, so no energy-based weapons are armed and no combat shuttles are prepared. Batteries are fully charged at any level. A ship which is completely surprised would have this weapon status.

Normal: The enemy was thought to be somewhere around, so energy-based weapons are armed and phaser capacitors are fully charged. One shuttle can be prepared for a special role (p. 333). A ship which is partly surprised would be at this level.

Deliberate attack: You know exactly where the enemy is and can accurately predict when combat will start, so you have everything ready and the energy-based heavy weapons can be overloaded (which causes more damage but has a limited range) and phaser capacitors are fully charged. Two shuttles can be prepared for special roles and every plausible preparation for combat has been made.

Space Combat Turns

In the ***SFU,*** the actions are structured in a particular order. On a vessel's turn, the following activities take place:

1. Maneuvering: The captain picks a Pilot Maneuver. Any contest of skill that particular maneuver requires is resolved. This is also when Tholian ships may construct webs.

2. Missile Attack: Missiles the vessel launched on its last turn which were not shot down now attack their targets.

3. Beam and Gun Fire: The vessel's gunners may fire railguns, torpedoes, anti-drones, and beam weapons. Tractor beam locks may also be attempted on this phase.

4. Missile Launch: The vessel's gunner may launch missiles (which will reach their targets on the vessel's next turn). After the launch of all drones targeted on ships, units can launch drones targeted on enemy drones. The next turn, the drone trying to hit the other drone is resolved first, after which surviving drones conduct attacks on ships.

5. Other Actions: The vessel¹s crew may perform other actions (repair, moving about the ship, etc.). This includes the use of transporters. The GM may have characters roll against skills to repair equipment damaged in combat.

After this, the active part of the vessel's turn is over and the next vessel in the sequence takes its turn. However, the maneuver the vessel chose is considered to remain in effect until the start of its next turn.

Additional Maneuvers and Actions

All of the maneuvers and actions from ***GURPS Spaceships*** (4e) are available. Range, Pilot Maneuvers, and Space Movement are handled as in those rules. Ships with freighter-type engines cannot use the "Closing" maneuver with unfriendly ships.

Ships with Military-Auxiliary engines cannot use the "Closing" maneuver except against a base or against a ship with auxiliary or freighter engines.

Collision Course

Ships with freighter-type engines or Military-Auxiliary engines cannot select Collision course after choosing the Closing maneuver. Ships with Starship-type engines can select Collision course only if they have expanding sphere generators (ESG).

Note: A collision course, sometimes called ramming, is impossible in the ***Star Fleet Universe*** except with the Lyran ESG weapon. The mechanics of warp and impulse movement simply do not allow ramming; the warp bubbles slide past each other. Ships at warp or impulse speeds can collide with items too large to avoid, such as planets, moons, or asteroid/dust fields. Low-speed collisions due to sloppy docking are possible. If you want to ram anyway, rules exist in ***GURPS Spaceships*** for this.

Evasive Action (Web Defense)

Tholian ships may use an existing web as a defensive shield. A web must already be in place before this maneuver can be made. It works just like the Evasive Action, except that if the Tholian ship successfully evades, he passes through the web, using it as a barrier between the ships, and may remain at short range. The enemy ship may not fire any weapons at the Tholian ship, but the Tholian ship may fire back with phasers only. (This is due to the interaction of web and all weapons.) If a non-Tholian ship using an attack vector rolls a Critical Failure during its Quick Contest, it gets stuck in the web. (Note: There is no way around this, no way to "trick" the web. Only a Tholian ship with a Tholian crew firing Tholian phasers can fire through a web. There are no exceptions or qualifications.)

Web Construction

Any ship with the Tholian web device may attempt to construct a new web or maintain an existing web. This is a form of Hold Course maneuver because while constructing the web no sudden maneuvering may be attempted. A Tholian ship may not be protected by a web evasive action since the web is not yet complete.

Types of Webs

The device can be used to create two types of webs. While "spinning" the web with the Web Construction maneuver, no other maneuver may be taken until its completion, or the web collapses. The time needed to spin a web listed below includes all necessary "starting" and "stopping" activities. Ships engaged in spinning web can be fired upon and if their web generators are destroyed, they would not be able to spin web but could still serve as an anchor.

Linear web: This type of web can be created by one ship. A linear web extends between two anchor points. These may be asteroids, anchor buoys, stations, or other Tholian ships including the ship itself. It can take one to three turns to connect the web between the two anchor points. (If anchor points are pre-existing, the GM will determine how many turns apart they are. If anchor points are laid by the Tholians, the Tholian player may place them at a distance of his choosing up to three turns apart.) If an anchor point is destroyed, the web collapses. Enemies of the Tholians would need a number of combat turns equal to three times the length of the web to maneuver around it and have a clear shot at the Tholian ship.

Globular web: This type of web takes two ships with web devices to create. (More than two ships cannot be used.) It is laid in a sphere and anchored to itself. It takes two turns to make one globular web; the resulting sphere is about 20,000km in diameter. A globular web could be used to protect Tholian ships or planets or bases inside, or could be formed around a stationary enemy ship (those using only the Controlled Drift maneuver).

Effects of Webs

A Tholian ship may pass through a web with no penalty, enabling it to use it as a protective barrier [see *Evasive Action (Web Defense)* above]. A linear web protects the ship for only one turn because the enemy may maneuver around it, but a globular web may protect the Tholian ship indefinitely if the ship stays within the web's protective circle. To maintain this protection, the Tholian ship may make no other maneuvers besides Controlled Drift.

An enemy ship may attempt to break through a web by entangling itself for two turns using 80% of its

energy to push through. No weapons may be fired at this time and only the Controlled Drift maneuver may be taken while trapped. Non-Tholian shuttles and seeking weapons cannot move through web at all. After four turns the web will dissipate into nothing unless a Tholian ship spends one turn with a Web Construction maneuver strengthening it. An unmaintained web will dissipate four turns after it was last maintained. A ship performing this maneuver could be on either side of the web, and thus would be protected from enemy ships on the opposite side, but not from enemy ships on the same side.

Advantage, Disadvantage

Under the ***GURPS Spaceships*** combat system, ships might be "advantaged" (in a good firing position) or "disadvantaged" (in a bad firing position). Weapons are presumed to be hull-mounted and firing only in the "advantaged" direction unless otherwise noted. Some phasers are marked 360° (able to fire when advantaged or disadvantaged) or "REAR" in which case they can only fire if the ship is "disadvantaged."

Scaling Damage

Large vehicles such as tanks, warships, and starships can have huge DR and HP scores, and their weapons can inflict massive amounts of damage. To avoid excessive die rolling, it is best to adjust the damage scale.

Decade Scale (D-Scale): Use this for battles involving tanks or ships. Divide DR, HP, and damage dice by 10 before combat starts. Round fractions of 0.5 or more *up.* (*Exception:* If the converted damage is under 1d, treat fractions up to 0.25 as 1d-3, fractions up to 0.5 as 1d-2, and larger fractions as 1d-1.) Convert damage multipliers to dice first; e.g., 6d×25 becomes 150d, which scales to 15d. Do *not* divide armor divisors.

Century Scale (C-Scale): Use this for combats involving *huge* vehicles, such as giant space battleships. Follow the rules above, but divide by 100 instead of by 10.

Example: A tank has DR 700 and 300 HP; its main gun does 6d×30(2) and its machine gun does 7d. In D-scale, it would have dDR 70 and dHP 30; its main gun would do 6d×3(2) and its machine gun would do 1d-1.

After the battle, multiply remaining HP by 10 or 100, as appropriate, to convert back.

WEAPON TYPES

Weapons in the ***Star Fleet Universe*** are divided into two groups: direct-fire weapons (photons, phasers, disruptors) which are fired in the *Beam Weapon and Gun Fire* stage, and seeking weapons (drones and plasma torpedoes) which are launched in the *Missile Launch* stage of the turn. (See p. 325 for the stages.) Direct-fire weapons strike their targets simultaneously, while seeking weapons must travel to the target. Seeking weapons can be intercepted by various counter-weapons, while direct-fire weapons cannot be intercepted. All weapons can be affected by electronic warfare, terrain, shield reinforcement, and some other conditions. The following are the most common weapons in the ***Star Fleet Universe.*** All of these weapons can be used at speeds up to Warp 3.2.

Beam and Gun Fire (Direct-Fire Weapons)

The term "heavy weapon" for these purposes includes photon torpedoes, disruptors, and phasers. Phasers and most heavy weapons can fire at a target at any range (see specific weapon descriptions for details), but firing at targets that are at point-blank or short range is easier. Guns or beams might be in one of three possible mounts:

Hull: These can fire only at targets to the front.
360°: These can be fired at any targets.
Rear: These can be fired only at targets behind the ship (e.g., against which you are disadvantaged).

The phasers on a starship are positioned around the hull in different areas to protect the vessel from all directions. Some face the front, some the rear, and some are 360° mounts. Most heavy weapons face the front. If the ship is advantaged it can fire all "hull mounted" or "forward" weapons, plus the 360° weapons. If disadvantaged, it can only fire "rear" phasers and the 360° phasers (which can always fire). If neither ship is advantaged, then before firing, a Quick Contest of Tactics Skill must be made between captains (or Piloting skills on smaller ships or fighters, GM's decision). The winner of this contest may fire all of his forward and 360° weapons. The loser may fire only 50% of his forward phasers (and all of his 360° phasers), and may not fire any of his heavy weapons (except those designated as firing to the rear. If a given ship wins by 5+, then the other ship may fire only 25% of its "forward" weapons and all of its 360° weapons.

If an enemy has left the battle through Retreat (the start of the *next* turn after Retreat), vessels still in the original battle cannot fire at it (and vice versa).

Each gunner may make one attack roll per turn for each type of weapon. When one gunner fires multiple identical weapons, only one roll to hit and one damage roll are made, but if the attack hits, damage that penetrates cDR is multiplied by the number of weapons fired. Thus, four phasers in a quad mount do four times damage after cDR.

SFB *Option:* To simulate how weapons are used in the ***Star Fleet Battles*** board game, each weapon's "to hit" and cDAM are rolled separately. One gunner may fire and control as many weapons as needed on one particular ship, or at multiple targets. This option is contrary to the rules ***GURPS Spaceships,*** and GM's may feel this is an unrealistic option.

Weapons vs. missiles: Certain weapons may be fired at incoming missile attacks. If a hit is scored on a

missile, score damage as normal. Most drones are built to take a considerable amount of damage and may actually survive some attacks. Certain drones are armored to absorb even more hits, usually wasting enemy phaser fire.

Drones may be shot down by phasers, drones, plasma torpedoes, or anti-drones. Each tractor beam, if it is not doing anything else, could grab one drone and hold it until its fuel is exhausted.

Plasma torpedoes may only be damaged by phasers. No other weapon will damage them.

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While the weapons don't match neatly to the weapons in ***GURPS Spaceships,*** the *Heavy Weapons Table* below provides the information you would need for them.

Phasers

Phasers are used by virtually all empires. These are beam weapons of phased energy. Phasers fire every turn.

Energizing Phasers: Before phasers can be fired, they must be energized (i.e., warmed up). Ships do not normally cruise in peacetime with their phasers energized because they are not expecting to face combat. If using *Energy Allocati*on (p. 332), it costs one point of power for one turn to energize *all* the phasers on board the ship. After this the phasers can be fired normally. GMs might rule that the ship had adequate time to do this before combat actually started.

Low-Power Phaser Fire: Any phaser can be powered as any smaller phaser if needed. This may be done to save power because there is not enough power or because of some special circumstances.

Firing a Phaser: Phasers are unlike any beam weapon in ***GURPS Spaceships.*** Instead of firing a concentrated beam directly at a target, it sweeps the general area with an arc, almost guaranteeing a hit. Damage is determined by how much of the beam hits the target. Phasers automatically hit to some degree, but a Gunner skill roll is still made to determine how effective the hit was. For every point the gunner makes his skill roll, add 5% cDAM points per phaser. For every point the gunner missed his skill roll, subtract 5% cDAM. No more than 25% can be added per phaser with this bonus.

Photon Torpedoes

These are the primary heavy weapons of the Federation. Some Tholian and Orion ships use them as well. They are basically an antimatter bomb in a propulsive shell. For purpose of ***GURPS*** they could be considered beam weapons (they cannot be intercepted or shot down), although they are more properly an extremely fast projectile. Photon torpedoes are unable to fire upon incoming missile attacks. Usually, photon torpedoes can only fire at targets to the front of your ship. (Battleships have some rear-firing photon torpedoes; bases have ones that are 360°.)

Arming Photon Torpedoes: Arming photon torpedoes requires two turns. This means that a photon torpedo tube may only fire every other turn. Double the amount of energy may be spent each turn to increase the damage of the photon torpedo; this is called overloading. An overloaded photon torpedo cannot be fired at long range. Once an overloaded photon torpedo is armed, it cannot be converted to a normal photon torpedo.

Heavy Weapons Table

TL	Weapon	Damage	sAcc	cDam P	cDam C	cDam S	cDam L	cDam X	Rcl
10	Disruptor-30	burn	-6	40+2d	35+2d	30+2d	20+2d	10+1d	1
10	Phaser-2	burn	0	5d×2	(5d-3)×2	(4d-3)×2	4d-3	1d-2	1
10	Phaser-3	burn	0	3d×2	3d	(2d-3)×2	2d-3	0	1
10	Photon	exp	-8	80	80	80	80	80	1
12	Disruptor-30 (overloaded)	burn	-6	80+4d	70+4d	60+4d	0	0	1
12	Phaser-1	burn	0	6d×3	6d×2	(6d-3)×2	6d-3	3d-2	1
12	Photon (overloaded)	exp	-8	160	160	160	0	0	1
12	Photon (proximity)	exp	-2	0	0	0	40	40	1

sAcc: The weapon's Space Accuracy. (To find normal Acc, subtract 18.)

cDam: Century Damage. See *Scaling Damage.* Damage is shown for each range. (P is point-blank, C is close, S is short, L is long, X is extreme).

All malfunctions are considered "Critical Failure."

On the above chart (and others), "(2d-3)×2" means to roll two six-sided dice, subtract 3 from the total, and multiply that total by two.

Holding a Photon Torpedo: After a photon torpedo is completely armed, it must be fired that turn or the power is lost, unless additional power is used to hold the photon torpedo in the launcher. Overloaded photon torpedoes may be held for a higher power cost. If using the optional *Energy Allocation* (p. 332) below, it would cost a ship one point of power per photon torpedo to arm them (on each of two turns) and one point per photon torpedo to hold the loaded photons for the third and any subsequent turns. It would cost a second point of power per photon torpedo to overload them only for one turn and it would cost two points to hold the overloaded photons (which includes the one point for holding standard torpedoes).

Proximity Option: Photons may be fired with a proximity option. Rather than detonating when they hit a target, their proximity system detonates the warhead when it is close to a target. This allows them a greater chance to hit long-range targets, but sacrifices damage potential. The blast radius is too small to damage more than one target. The sAcc and cDam are listed under "Photon (proximity)" in the *Heavy Weapons Table* (p. 328).

Disruptor Bolts

Disruptors are the most common starship weapon after phasers. They are used by Klingons, Kzintis, Lyrans, WYNs, LDR, and Tholians. These are discharges of raw energy ("bolts") which have reduced effects at longer ranges. For purpose of ***GURPS*** they could be considered beam weapons. Disruptors can fire every turn and take a point of power each to arm.

A disruptor can be overloaded, increasing the cDAM of the weapon, but this option prevents it from being used at long range.

Disruptor bolts are unable to fire upon incoming missile attacks. Disruptors can only fire at targets to the front of your ship (e.g., if you are advantaged). (There are exceptions such as battleships and bases.)

Missile Launch

Unless otherwise stated in the rules, a vessel may launch one missile (drone or plasma torpedo) per launcher on its turn subject to ammunition and arming limitations. (See individual descriptions for details.) The number of drones in a rack varies with type (Type-A has four, Type-B has six) while plasma torpedo tubes must be armed with power one shot at a time. Drone racks must be taken out of service to be reloaded; they can load a volume of 0.5 spaces of drones each turn the rack is out of service.

The type of missile and its target must be specified at launch ("We are firing six type-I drones at the Klingon D6 battlecruiser"), but must be of a type loaded on the drone rack being used.

Missiles launched this turn will not impact their targets until the missile attack phase of the firing ship's next turn. This gives the target (and perhaps other vessels in the formation) time to shoot at them.

Note: Some people think missiles fired at point-blank range impact before they can be fired at. This is not the case in the ***Star Fleet Universe,*** where plasmas or drones may always be fired at regardless of the range of launch. This is necessary due to the arrangement and power of these types of weapons.

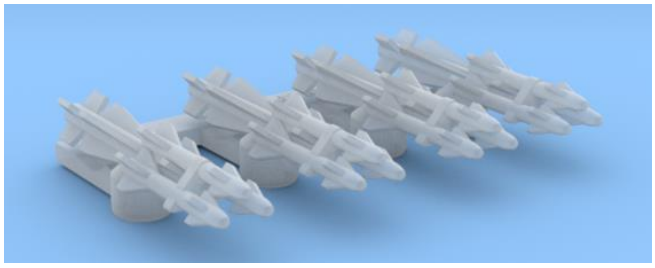
Missile Attack

This is handled as per *Ballistic Attacks* in ***GURPS Spaceships*** (4e). The ***Star Fleet Universe*** includes two primary seeking weapons: drones (which are, truly, missiles in the sense most people think of missiles, but here just a subtype of ***GURPS "***Missiles") and plasma torpedoes (which are more dangerous but have a shorter range and take power to load). Skill values for ***SFU*** weapons are on the respective drone or plasma tables.

Seeking weapons in the ***SFU*** can stay active for several turns; each has an endurance (End), listed on the tables for plasma torpedoes and drones. If a seeking weapon fails its roll, it may try again on subsequent turns, until its endurance runs out, with a +2 modifier for each subsequent turn of flight. In the case of critical misses, ***SFU*** weapons do not lock-on to a different target by accident. A critical miss disables the weapon or causes it to self-destruct harmlessly, even if it has not completely run its full endurance.

Drones (Missiles)

In the ***Star Fleet Universe,*** missiles are called "drones" since they were originally used as target practice drones. These were later adapted to deliver nuclear warheads and became the missiles more familiar to ***GURPS*** players. The table on p. 334 shows several types of drones used in the ***Star Fleet Universe.*** Drones are used by the Kzintis and Klingons and (to a lesser extent) by the Federation. Drones can be targeted on targets in any direction from your ship. Each drone rack can launch one drone each turn unless otherwise stated in the rules.



Type-III Drones



Type-IV Drones

Drone Rack Ammunition

Drone	Vol	Mass	Cost	Speed	SM	Skill	cHP	End	cDam
Type-I	0.25	0.2	0.03	1	0	16	40	3	2d×10
Type-II	0.25	0.25	0.045	2	0	18	40	2	2d×10
Type-III	0.25	0.3	0.085	2	0	18	40	25	2d×10
Type-IV	0.5	0.4	0.06	1	2	16	60	3	4d×10
Type-V	0.5	0.4	0.075	2	2	18	60	2	4d×10
Type-VI	0.125	0.1	0.015	2	-2	18	30	1	(1d+2)×10

Vol: Volume (in spaces).
Mass: Mass of ammunition in tons.
Cost: Cost of ammunition in Millions of dollars.
Speed: Warp speed, used to compare against target.
SM: Size modifier.
Skill: A number indicating the accuracy of the targeting system of the missile (drone or plasma).
cHP: The hit points of the missile (drone).
End: The amount of turns the missile is able to continue to hit its target until the fuel is exhausted.
cDAM: The amount of damage caused by the missile.

Plasma Torpedoes

These are used by the Romulans, Inter-Stellar Concordium, and Gorns (and some Orion Pirate ships) as primary weapons. These are balls of plasma with a target-seeking ability. Different types of plasma torpedoes require different amounts of power, but all of them take three turns to arm. Plasma torpedoes can only be launched at targets to the front of your ship (e.g., when you are advantaged) unless the ship data provides otherwise.

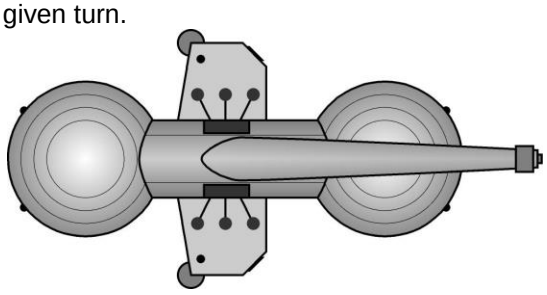
Firing at Plasma Torpedoes: Because a plasma torpedo is considered a missile weapon, it may be fired upon before it actually hits its target. Only phasers can damage plasma torpedoes. For every two points of cDAM done to the plasma torpedo, 1 point of cDAM is subtracted from the warhead strength of the weapon. The plasma can only be completely destroyed if double the warhead strength is scored.

Pseudo Plasmas Torpedoes: Due to the slow firing rate of plasma torpedoes, the pseudo-plasma torpedo was developed by the Romulans to improve the flexibility of the weapon. (Other plasma-using empires then copied or developed the technology).

The device simulates a plasma torpedo, making it more difficult to time attacks on a plasma-armed ship and drawing enemy fire. The pseudo plasma torpedo is a "fake" torpedo that takes no energy to arm and acts exactly like the real thing until it hits its target … at which time it inflicts no damage and the deception is exposed. A pseudo plasma torpedo may be fired from any type of plasma launcher, but loading a new pseudo plasma torpedo and making the necessary adjustments to simulate a true warhead takes well over an hour. This means only one pseudo plasma torpedo may be launched from each launcher per combat situation. (The ship's crew will reload the pseudo plasma tube between battles unless the GM decides that there was not time or there was some reason it was not done.) Pseudo plasma torpedoes will appear to be reduced by phaser fire as if they were real torpedoes.

Anti-Drones

Some ships are equipped with anti-drones. These are short-range defensive weapons. Each anti-drone defense (ADD) system holds six anti-drones. The gunner rolls against his skill. The impact of an anti-drone will destroy any drone or cripple any fighter or shuttle; they cannot damage ships. An ADD rack holds six anti-drones and could fire every single one of them during the Beam and Gun Fire phase of a given turn.



Gorn Battlecruiser

Plasma Torpedo Table

Type	Speed	Skill	SM	End	cDam P	cDam C	cDam S	cDam L	cDam X
Plasma-R	3.5	24	6	1	500	500	500	6d×10	2d×10
Plasma-S	3.5	24	6	1	300	300	300	5d×10	1d×10
Plasma-G	3.5	24	6	1	200	200	200	4d×10	0
Plasma-F	3.5	24	6	1	200	175	150	3d×10	0

Other Systems

Tractor beams: These use the rules from ***GURPS Spaceships*** 4e (p. 66). In the ***Star Fleet Universe,*** there are numerous types of tractors, representing upgrades over time. For standard "General War Era" tractors, the maximum range is 30,000kms. Power is proportional to range, and one point of power (see the optional rule *Energy Allocation,* p. 332) provides tractors able to reach 10,000kms. It would take a second point to reach 20,000kms and a third to reach 30,000kms. Use the Electronics Operation/TL (Tractor Beams) skill for these. Note that in the ***SFU,*** tractor beams cannot cause damage.

Transporters: These are covered in Chapter 7 and in ***GURPS Spaceships*** 4e (p. 18, called teleport projectors). In the ***Star Fleet Universe,*** transporters have a range of 50,000km (30,000 miles, more or less) in the General War Era and other ranges earlier and later. To operate them, use Electronics Operation/TL (Transporter) skill. Modifiers are -1 per 10,000 miles. There is a bonus of +10 if whatever is being transported starts on one transporter and ends on another one. Transporters cannot work through shields. At TL 11+, transporters cannot (Due to structural integrity fields) remove things from another starship unless your own personnel are on that starship and handling these items. (Otherwise, you would simply transport the entire crew of a Klingon battleship onto an asteroid and steal their ship.)

Cloaking Device: Most Romulan ships (and some Orion ships) are equipped with this device, which makes detection of the ship very difficult (but not impossible, since the effect of its magnetic field on light from distant stars can be measured). This invisibility comes at a price; the ship cannot fire weapons, or launch seeking weapons (missiles: drones, plasma torpedoes, suicide shuttles) or use active fire control while cloaked. (They can raise shields.) Even worse, if the ship is accurately spotted, it could be badly damaged by enemy weapons while trying to uncloak. The cloaking device may be activated at the end of the Missile Attack stage of the turn. The cloaking ship is considered "fading out" from this point on until the end of its turn, at which time it is completely cloaked. The cloaking device may be deactivated at the end of the Other Actions stage of the turn. The "fade in" period lasts through the enemy's turn. At the end of the enemy's turn, he has completed the "fade in" and is uncloaked, lifting any firing restrictions. While the device is active, the cloaked ship subtracts -3x(TL-4) from rolls to detect the ship with an active sensor scan, thus preventing any enemy vessel from "locking on" and firing weapons at it. During the fade period, use a minus TL-4 to hit penalty. You must have Electronics Operation/TL (Electronic Warfare) to operate a cloaking device.

Probe Launchers: Probes are small unmanned warp vehicles generally used for collecting information remotely. To operate them, you must have Gunner/TL (Cannon). Each probe launcher on a ship can launch one probe every two turns, and will have room to store five probes. Probes will move to a point that is close range to the target or object of interest and report the data that the ship would obtain if the ship moved that close.

In combat, desperate captains have also utilized probes as a weapon of last resort. To use a probe as a weapon, the ship must use one unit of power (see *Energy Allocation,* p. 332) and must be at short range to the target. It also cannot be disadvantaged to its target. Probes are fired during the Beam and Gun Fire phase of the turn. The low accuracy, limited range, and high power requirement should be enough to keep players from wanting to use this weapon. It is generally only employed where a ship has lost all other weapons, is crippled, or vastly outmatched. GM¹s should feel free to limit the use of this weapon accordingly. sAcc: -10, cDam: 2dx10.

Damage Control: A specialized workshop/engineering facility designed for maintaining the integrity of ship functions during combat, most importantly the vessel's deflector shields. One space of damage control will regenerate one cDR of the ship's shields at the end of each turn if powered. Electronics Repair/TL (Force Shields) is required to repair shields.

Other Weapons

The ***Star Fleet Universe*** includes numerous other weapons, including expanding sphere generators (ESGs), hellbores, fusion beams, plasmatic pulsar devices, web casters, web fists, shield crackers, web breakers, warp-augmented railguns, maulers, particle cannons, tractor-repulsor beams, displacement devices, and many more. These will be explained in future books.



DAMAGE

Weapons damage is scored as in ***Spaceships*** 4e except as noted below. Subtract the target's combined armor and shield cDR. If damage penetrates armor and shields, the excess hits are taken as damage. Apply damage against the target's hit points (normally the hull's hit points unless external systems were targeted).

Shields

Shields work differently in the ***Star Fleet Universe*** than force screens in ***GURPS Spaceships*** 4e. If shields of a ship are hit, subtract the cDAM from the total cDR; the result is the new cDR of the shields. Damage control may attempt to restore them up to optimum level at the end of the turn. For example, a Federation Heavy Cruiser with shield strength of 450 cDR, is hit on the second round of combat with 200 cDAM. First we note that the shields held, protecting the Federation ship from any internal damage, but its shield strength is now down to 250 cDR, and will remain that way until damage control repairs 40 cDR at the end of this turn (this costs one point of power). This means that the Federation ship will enter the next turn with shield strength of 290 cDR.

Collision and Ramming Damage

Ramming at warp or impulse speed is impossible in the ***Star Fleet Universe.*** If a ship collides with its target accidentally (due to a critical failure during a docking attempt or Attack Run), it inflicts cDAM equal to 1d×5 times smaller ship's cHP. If the collision is due to a deliberate attempt to ram and the GM allows this, consult the rules in ***Spaceships*** 4e.

Damage Effects

These can be resolved in the same way as ***Spaceships 4e*** or you can use the table below. Roll 3d and the total will tell you what part of your ship is damaged.

3 - Battery: 50% of ship's original energy banks or batteries are destroyed.
4 - Bridge: One command station (bridge, flag bridge, emergency bridge, auxiliary control) has been knocked out. The ship is crippled if all command stations are destroyed.
5 - Weapon: One heavy weapon (not a phaser) is destroyed.
6 - Shuttle: A shuttle or auxiliary vehicle inside the ship is destroyed.
7 - Power: Half of either the impulse engines or auxiliary power reactors is destroyed. Output by those engines is cut in half. A second hit to the engine will destroy them completely.
8 - Warp: 25% of the warp drive is damaged. Cut warp power output by 25%. Additional hits to warp engines will destroy another 25% of the original engines until completely destroyed.
9 - Phasers: 33% of phasers (randomly chosen) are destroyed.
10-11 - Accessory: One accessory is destroyed and 10% of crew quarters are destroyed. Some accessories may include transporter rooms, tractor beams, labs, medical bays, probe launchers, recreational facilities, brigs, security stations, computers, sensors and gravity generators.
12 - Phasers: 33% of phasers (randomly chosen) are destroyed.
13 - Warp: 25% of the warp drive is damaged. Cut warp power output by 25%. Additional hits to warp engines will destroy another 25% of the original engines until completely destroyed.
14 - Power: Half of either the impulse engines or auxiliary power reactors is destroyed. Output by those engines is cut in half. A second hit to the engine will destroy them completely.
15 - Cargo: 25% of the cargo holds and their contents are destroyed.
16 - Weapon: One heavy weapon (not a phaser) is destroyed.
17 - Damage Control: 50% of damage control systems are destroyed.
18 - Life Support: 20% of the original capacity of the life support system is destroyed. When the entire life support system is destroyed, the crew will perish in two rounds if they do not get into pressure suits or some other environmentally controlled area. If there are no items remaining for the die roll result, then move to the next line closer to the "10-11" row. Players might also want to review the "cascading" *Advanced Damage System* in ***GURPS Vehicles*** (p. 182).

ENERGY ALLOCATION (OPTIONAL)

Although spacecraft produce a tremendous amount of power with their warp engines, impulse engines, and reactors, they are unable to generate enough power to simultaneously charge all phasers, arm and overload all heavy weapons, power shields, use tractor beams and transporters, maintain electronic sensors, and maintain top tactical speed. To simulate the decisions a captain must make about powering his vessel, the Energy Allocation option can be used.

While ***Star Fleet Battles*** includes a detailed energy allocation system, we will use a simplified system adapted from the prototype ***Star Fleet Squadrons*** game as it is vastly simpler. Each ship is assumed to have enough power to operate life support and fire control every turn. Everything else (move, shoot), is extra and costs power! A ship is assumed to have five "units of power" which are not consumed by the above, and which the owning player or team can spend below, at one point per item unless noted otherwise:

Powering all phasers.

Powering heavy weapons for one turn (see the list below).

Overloading the heavy weapons (this is in addition to powering the heavy weapons).

Powering shields.

Repairing shields.

Moving at an additional 25% of total Tactical Warp (up to 100%).

Recharging all batteries.

Powering tractor beam.

Powering the ship's ESGs.

Powering cloaking device (this takes two power units).

Powering damage control, wild weasel, transporters, and other smaller systems (all of these can be powered with this one unit.)

Powering web device (this takes two power units, to create or strengthen web).

Arming a suicide shuttle (one unit of power on each of two turns).

If all the batteries are undamaged and fully charged, then for one turn, one additional power unit can be used. Using the batteries in this manner depletes the level of charge. The additional power unit cannot be used again until the batteries have been returned to full charge.

As the ship takes damage, certain power systems may be destroyed, limiting power available. If all the impulse engines and APR engines/reactors are destroyed, subtract one from the total amount of allocation units available. For every 25% of the warp drive damaged, subtract one from the total allocation units above.

Arming Cycles

One turn of arming: Phasers, disruptors.

Two turns of arming: Photon torpedoes.

Three turns of arming: Plasma torpedoes.

SPECIAL SHUTTLECRAFT MISSIONS

The ubiquitous shuttlecraft that most empires use were originally designed simply to take personnel or cargo to and from places the ship itself could not land. Over time, other uses were found for them. All of these special functions use an unmanned shuttle which cannot fire its phaser.

Wild Weasel

A shuttle can be used as a "wild weasel," a decoy used to distract enemy seeking weapons. This is an extreme tactic as it destroys a valuable shuttle and puts the ship at a maneuver disadvantage. Any available shuttle can be configured as a wild weasel during the Other Actions phase and then launched as a wild weasel in the Other Actions phase of a subsequent turn. The ship must make a successful Piloting or Tactics skill roll with the following modifiers: +2 if the ship originally used the Drift maneuver this turn and -2 if it originally used the Attack Run maneuver. It the GM allows the Ram maneuver, then that is a -4.

The ship will be forced to use the Drift maneuver as long as the wild weasel is functioning; any other maneuver voids the wild weasel (losing its benefit). Any position advantage is lost. Scanners must be turned off, so any seeking weapons controlled by the ship must be released to their own guidance (only plasma torpedoes and type-III drones are self-guiding) or transferred to the control of another ship or they will be removed from play. The ship cannot fire any weapons while under the protection of a wild weasel; to do so voids the wild weasel immediately.

If the roll succeeds, the ship may stay under the protection of the wild weasel for as many turns as the roll was made by up to a maximum of five turns. If the roll fails, the number it failed by is the number of seeking weapon attacks which continue; once they are resolved, all other seeking weapons are removed from play and the effect lasts only that turn. In the event of a critical failure, the weasel has no effect (but is still lost, and the ship is still at drift with inactive scanners for one turn).

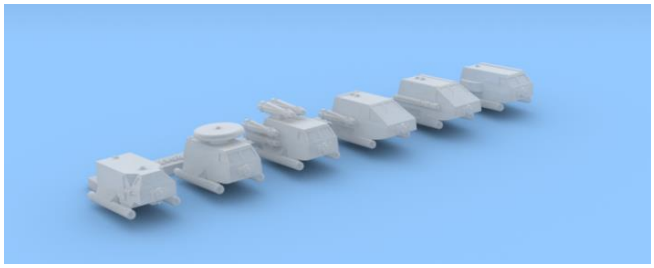
For as long as the wild weasel remains active, all missile (drone or plasma) attacks on the protected ship will automatically fail and all beam attacks or scans are at a -4 penalty. At the end of its active period, the shuttle used as a wild weasel is destroyed.

Suicide Shuttle

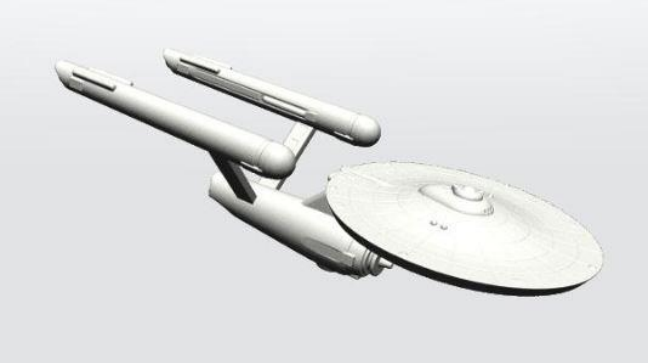
This is an admin shuttle loaded with an antimatter warhead and launched as a missile. These are launched as any other shuttle, during the Other Actions phase. The target is designated at the time of launch, and the suicide shuttle is thereafter treated as a missile. All skill rolls are made using the Piloting (Shuttlecraft) skill, but the shuttle can only use the Closing maneuver. If you reach short range from the target, the suicide shuttle does 3d×10 cDAM.

Scatter-Pack

This is an unmanned admin shuttle loaded with 1.5 spaces of drones. It is prepared during the Other Actions phase of one turn and can be launched during the Other Actions phase of any subsequent turn. Once launched, it can launch its drones in the Missile Launch phase of any subsequent turn. It cannot be distinguished as a scatter pack until it launches its drones (and will maneuver like a manned shuttle), but could be attacked as a separate vessel. It must be set in one of two modes (random or specific target) before launch. In random mode, its drones will be distributed one at a time to enemy targets with no target receiving a second drone until all possible targets have received the first one (and so on). In specific mode, all drones will be targeted on an enemy vessel selected before the time of launch. In either case, all drones are launched at the same time and the shuttle then becomes inert (makes no further maneuvers); it could be picked up and reused.



From left to right, these shuttles are a ground assault shuttle, space warning and control shuttle, scatter-pack, multi-role shuttle (drone-armed), multi-role shuttle (plasma-armed), and wild weasel.



Federation Heavy Cruiser

SAMPLE STARSHIPS

The ***Star Fleet Universe*** includes thousands of different starship types. These are a few of them. Ships larger than skiffs include items (recreational facilities, galleys, gardens, swimming pools, bowling alleys) and other incidental features that are not listed.

Statistics Table

A spacecraft's key performance statistics are summarized as detailed below:

dST/HP: The Strength/Hit Point statistic in decade scale.

Hnd/SR: The spacecraft's Handling and Stability Rating.

HT: The spacecraft's Health.

Tac Warp: The speed at which a ship of this type can be in battle in the ***Star Fleet Universe.***

Cruise Warp: The typical speed that starships of that type travel in the ***Star Fleet Universe.***

Max Warp: The fastest speed that a ship of that type can muster to get out of Dodge in the ***Star Fleet Universe.***

Load: This is the maximum load in tons the spacecraft carries, and is the sum of the rated capacities of all payload systems (cargo holds, hangar bay, etc.).

SM: This is the spacecraft's Size Modifier.

Occ: The occupancy rating gives the number of people the spacecraft supports, derived from its chosen systems. Vessels with long- term accommodations (e.g., cabins) just list the number of people they can provide ongoing full life support for, followed by the suffix "ASV."

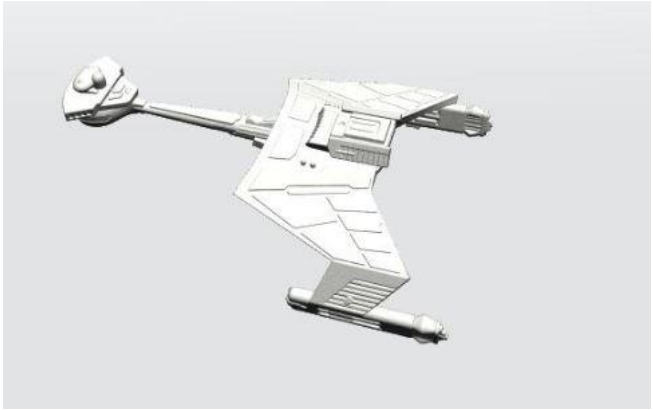
Hull dDR: The decade-scale Damage Resistance of the hull.

Shield dDR: The decade-scale Damage Resistance of the shields.

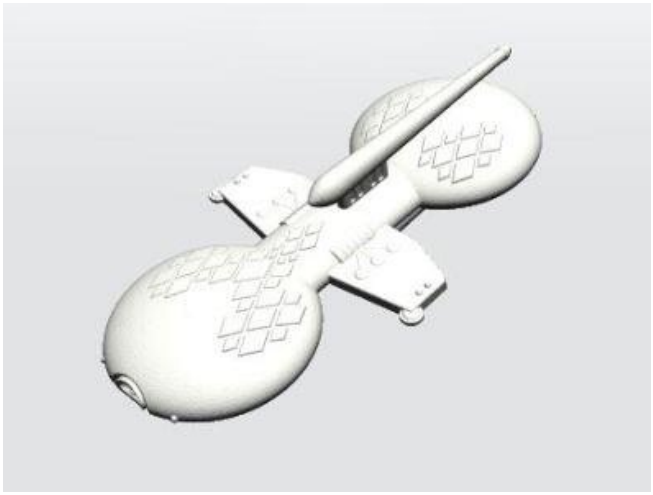
Cost: The dollar cost of a new spacecraft in millions ($M), billions ($B), or trillions ($T). Military ships do not have a cost as they are never legally for sale – pirates may try to sell them for what they think they can get for them.

Ship Cards

Now that the ship cards for the ships here are included with GURPS Prime Directive, the long textual descriptions of the ships have been abbreviated. After all, it is easy to see how many warp or impulse engines the ship has. Batteries and reactors are on the ship. The different types of bridges (main, emergency, auxiliary, and flag) are clearly marked with locations. The weapons are listed for convenience. "Accessories" lists only things that are not visible on the card such as quarters, medical facilities, entry modules, shuttle data, and whether a turbolift system is included.



Klingon D7



Gorn Allosaurus Battlecruiser

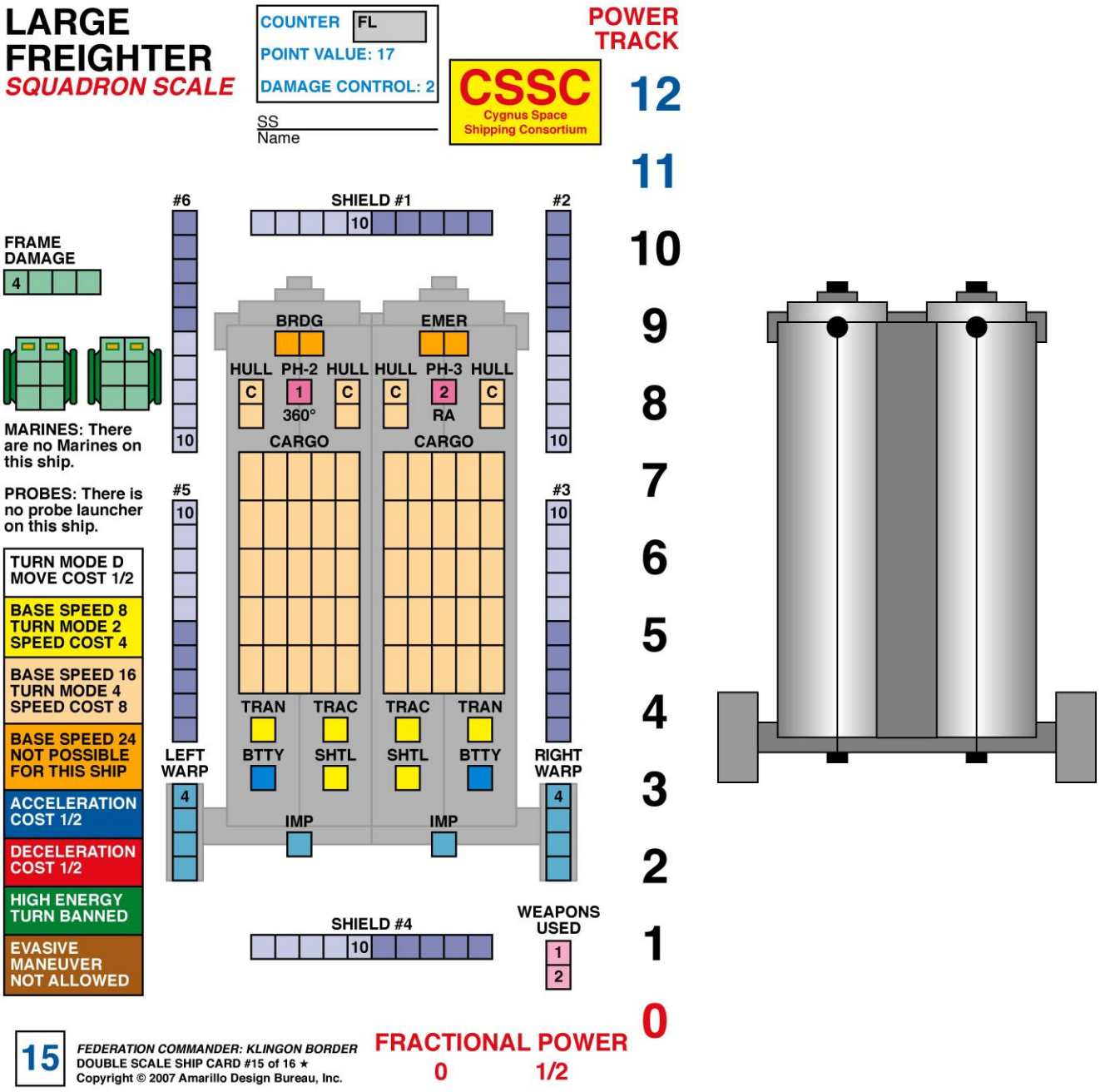
This is the standard two-pod freighter used across the galaxy. There are dozens of functionally similar types using whatever pods the local empire uses or the universal 40m×200m cargo pod. The freighter itself consist only of the drive unit (engines and supporting structure), the command module (bridge, scanners, defensive phasers, and crew quarters), and a turbolift tube installed along the top of the pods to connect the forward and aft components. While the standard crew is 20, the ship can be handled by as few as four or five (assuming nothing breaks).

Weapons: 1 bank of 1×phaser-2 (360°), 1 bank of 1×phaser-3 (rear).

Accessories: Total life support with emergency supplies for 20 crew. 20 cabins, 3 luxury cabins. Turbolift system. 2 entry modules. Cargo 7,500,000 cubic feet (15,000 spaces). 1 large hanger bay with room for 1 shuttle (no shuttles in storage).

Piloting/TL11 (Starship)

TL	*Spacecraft*	*dST/HP*	*Hnd/SR*	*HT*	*Tac Warp*	*Cruise Warp*	*Max Warp*	*Load*	*SM*	*Occ*	*Hull dDR*	*Shield dDR*	*Cost*
11	Large Freighter	17	-1/5	12	2.6	4.5	4.5	80,000	+12	20ASV	20	1,350	$61M



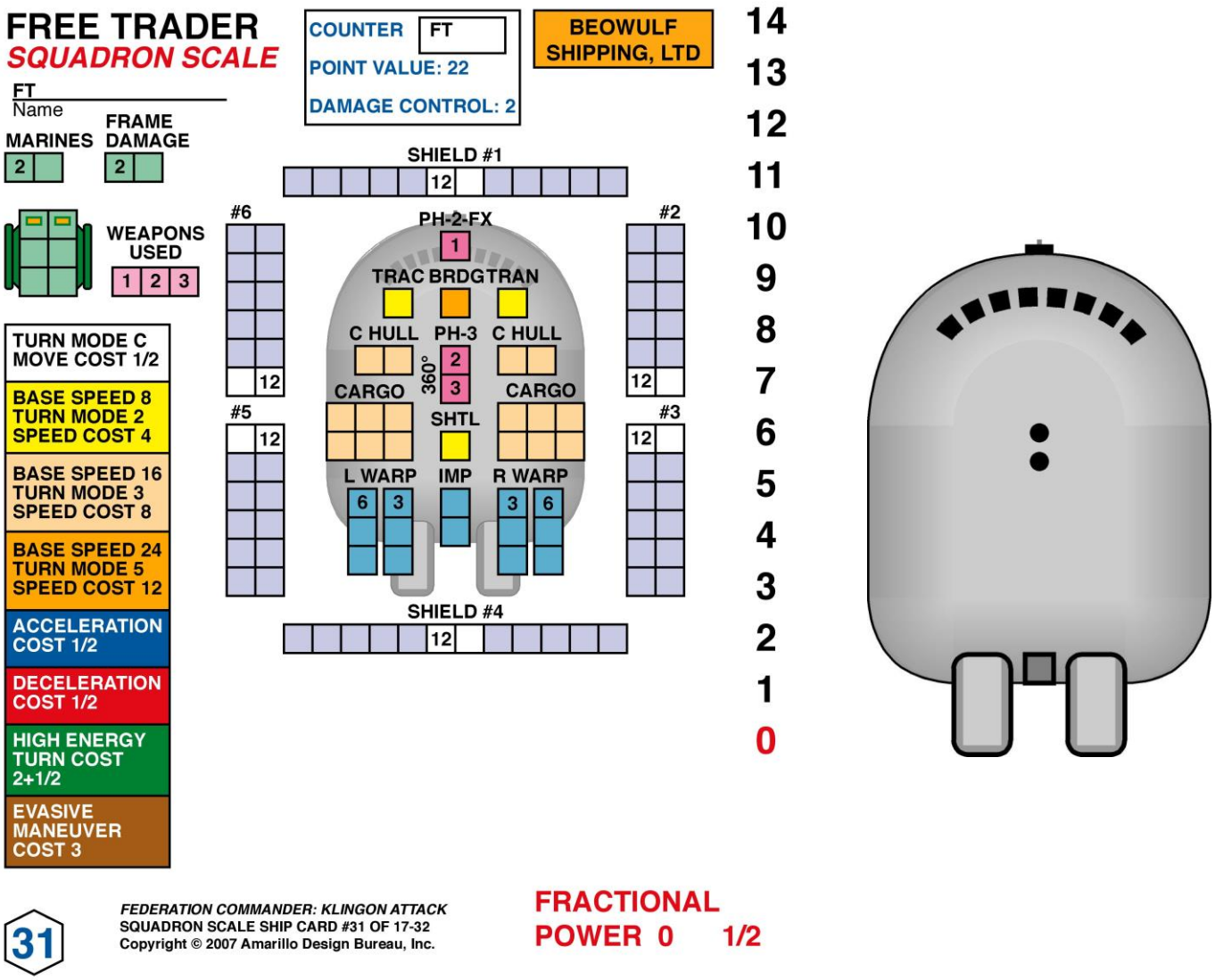
Thousands of these ships are all over the Alpha Octant of the Milky Way Galaxy, used as cargo and passenger ships, transports, prospectors, naval auxiliaries, troop transports, and many other missions. It can land on planets. The ship needs a minimal crew of 5 to operate but the normal crew is 30, and there is space for 20 passengers.

Weapons: 1 bank of 2×phaser-3s (360°). In place of the phaser-2, some ships of this type mount a photon torpedo, disruptor, drone rack, or plasma-F torpedo in addition to the two phaser-3s.

Accessories: Total life support with emergency supplies for 30 crew. 6 large long-stay quarters; 4 luxury cabins. 1 full medical bay, 1 medical lab. 3 entry modules. No turbolift system. Cargo 1,800,000 cubic feet. 1 large hangar bay with room for 1 shuttle, shuttle storage with workshops for 2 shuttles (1 shuttle in storage). See deck plans, p. 305-310.

Piloting/TL12 (Starship)

TL	*Spacecraft*	*dST/HP*	*Hnd/SR*	*HT*	*Tac Warp*	*Cruise Warp*	*Max Warp*	*Load*	*SM*	*Occ*	*Hull dDR*	*Shield dDR*	*Cost*
12	Free Trader	22	0/5	12	2.92	5.5	9.25	75,000	+10	30ASV	50	1,800	$70M



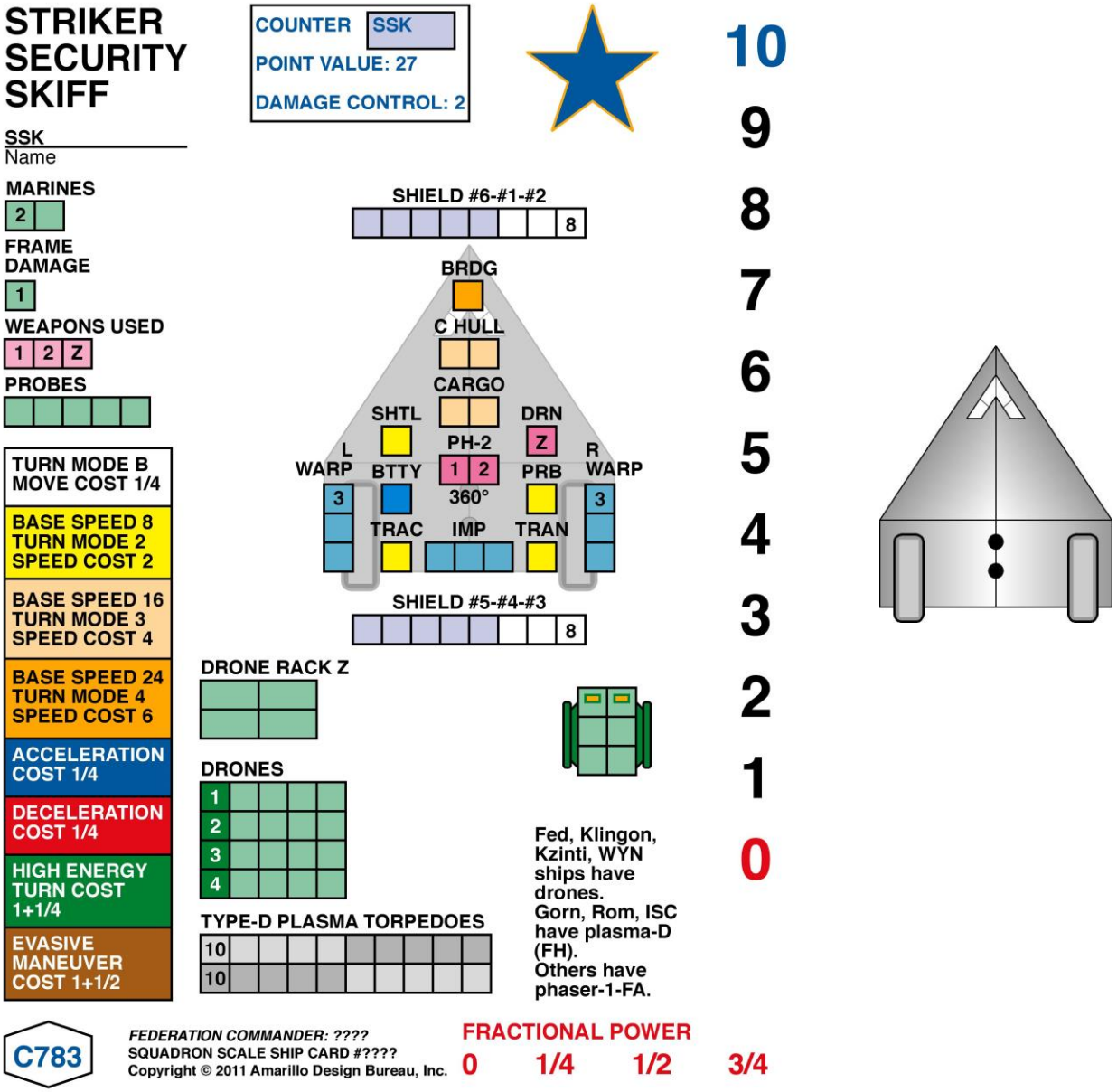
Used for local patrols by planetary police, this ship is one of the smallest seen here. It can land on planets. The crew is normally 30 but this includes Marines (or police) to board suspect freighters; the ship can be handled on most patrols by as few as four people.

Weapons: 1 bank of 2×phaser-2s (360°), 1 type-A drone rack. In place of the drone rack, some ships of this type mount a phaser-1 or plasma-D torpedo

Accessories: Total life support with emergency supplies for 30 crew. 6 large long-stay quarters, 4 luxury cabins. 1 automed bay. 2 entry modules. No turbolift system. Cargo 225,000 cubic feet.

Piloting/TL12 (Starship)

TL	*Spacecraft*	*dST/HP*	*Hnd/SR*	*HT*	*Tac Warp*	*Cruise Warp*	*Max Warp*	*Load*	*SM*	*Occ*	*Hull dDR*	*Shield dDR*	*Cost*
12	Security Skiff	27	+1/5	12	2.92	5.5	9.25	30,000	+8	30ASV	50	1,200	$25M



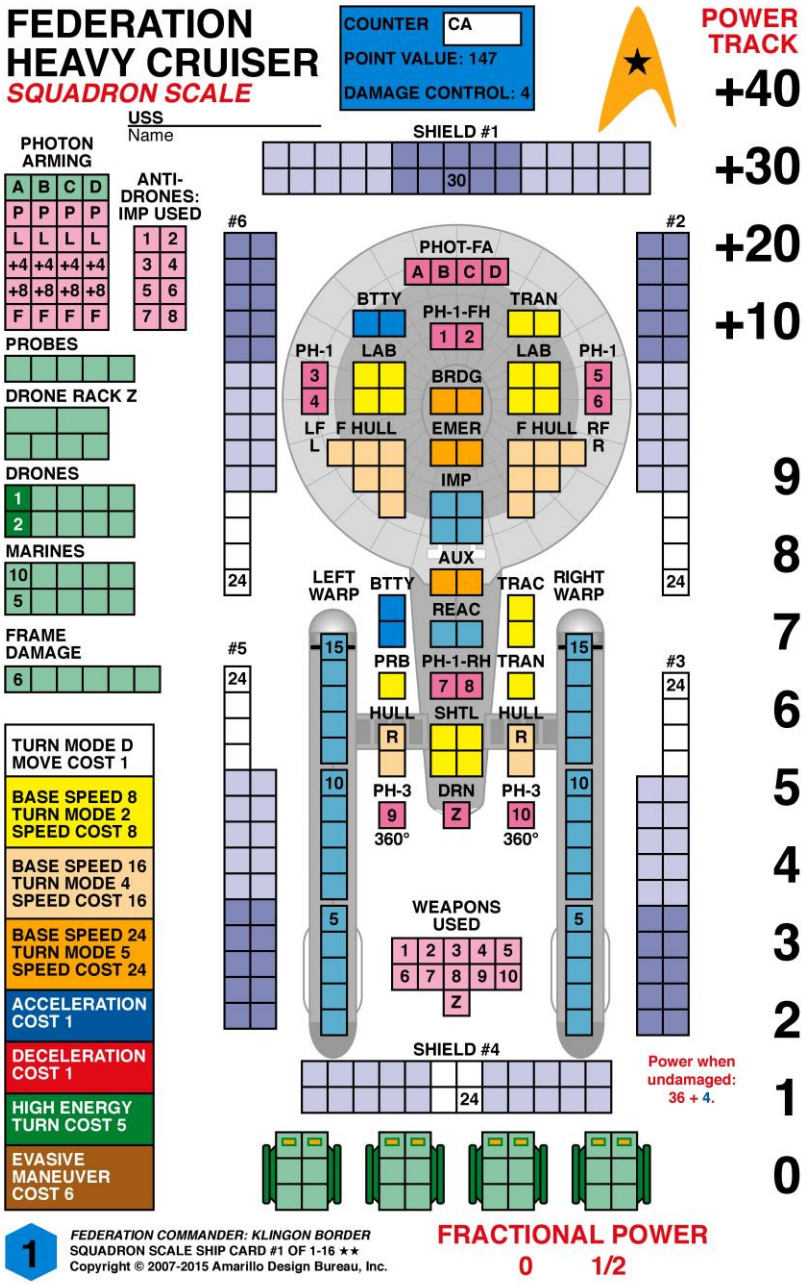
The most famous starship in science fiction, this is the standard starship that patrolled the Federation's borders and interior regions. Equally capable of combat, exploration, and support, it was a workhorse.

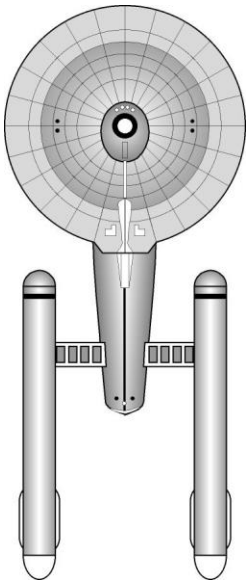
Weapons: 4 banks of 2×phaser-1s, 2 banks of 1×phaser-3 (360°), 4 photon torpedo tubes.

Accessories: 200 large long-stay quarters, 30 long-stay quarters, 10 luxury cabins. 4 full medical bays, 2 medical labs. 6 entry modules. 1 probe launcher. Turbolift system. Cargo 500,000 cubic feet. 1 large hangar bay with room for 4 shuttles, shuttle storage with workshops for 7 shuttles (3 shuttles in storage).

Piloting/TL12 (Starship)

TL	*Spacecraft*	*dST/HP*	*Hnd/SR*	*HT*	*Tac Warp*	*Cruise Warp*	*Max Warp*	*Load*	*SM*	*Occ*	*Hull dDR*	*Shield dDR*	*Cost*
12	Federation Heavy Cruiser	147	-1/5	13	3.2	7	9.25	160,000	+12	450ASV	50	4,500	N/A





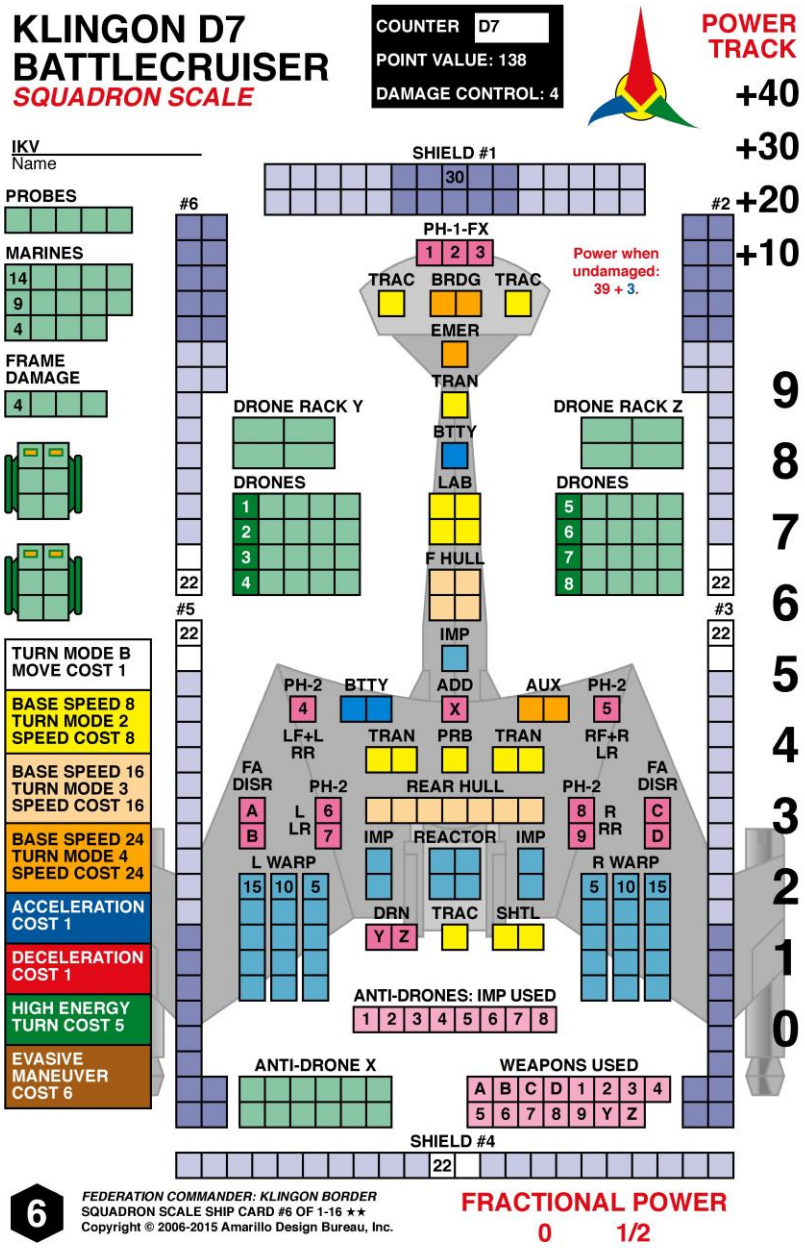
This is the classic aggressor starship, built for battle with exploration and support a secondary consideration. Less expensive than most other heavy cruisers, it lacks the full range of scientific capabilities and crew living conditions are Spartan. The crew of 450 includes a company of 75 Marines. The number of Marines, combined with the number of transporters, makes this ship efficient at hit-and-run raids and boarding actions.

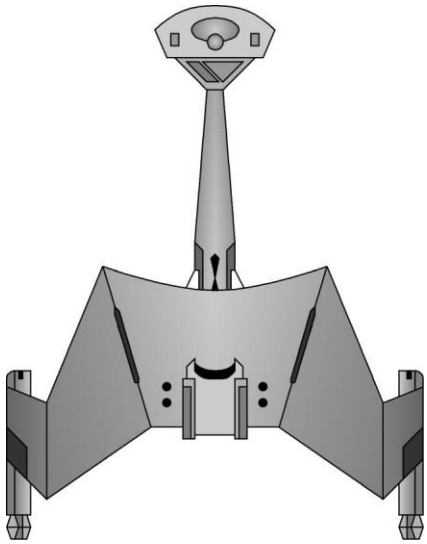
Weapons: 4 disruptor bolts, 2 type-A drone racks, 1 bank of 3×phaser-1s, 2 banks of 2×phaser-2s (rear), 2 banks of 1×phaser-2. Due to the unique weapons arrangement, all phasers on this ship can fire to the rear if they need to.

Accessories: 86 large bunkrooms, 20 luxury cabins. 4 full medical bays, 2 medical labs. 5 entry modules. 1 probe launcher. Turbolift system. Cargo 500,000 cubic feet. 1 large hangar bay with room for 2 shuttles, shuttle storage with workshops for 4 shuttles (2 shuttles in storage).

Piloting/TL12 (Starship)

TL	*Spacecraft*	*dST/HP*	*Hnd/SR*	*HT*	*Tac Warp*	*Cruise Warp*	*Max Warp*	*Load*	*SM*	*Occ*	*Hull dDR*	*Shield dDR*	*Cost*
12	Klingon D7 Battlecruiser	138	+1/5	13	3.2	7	9.25	110,000	+12	450ASV	50	4,500	N/A





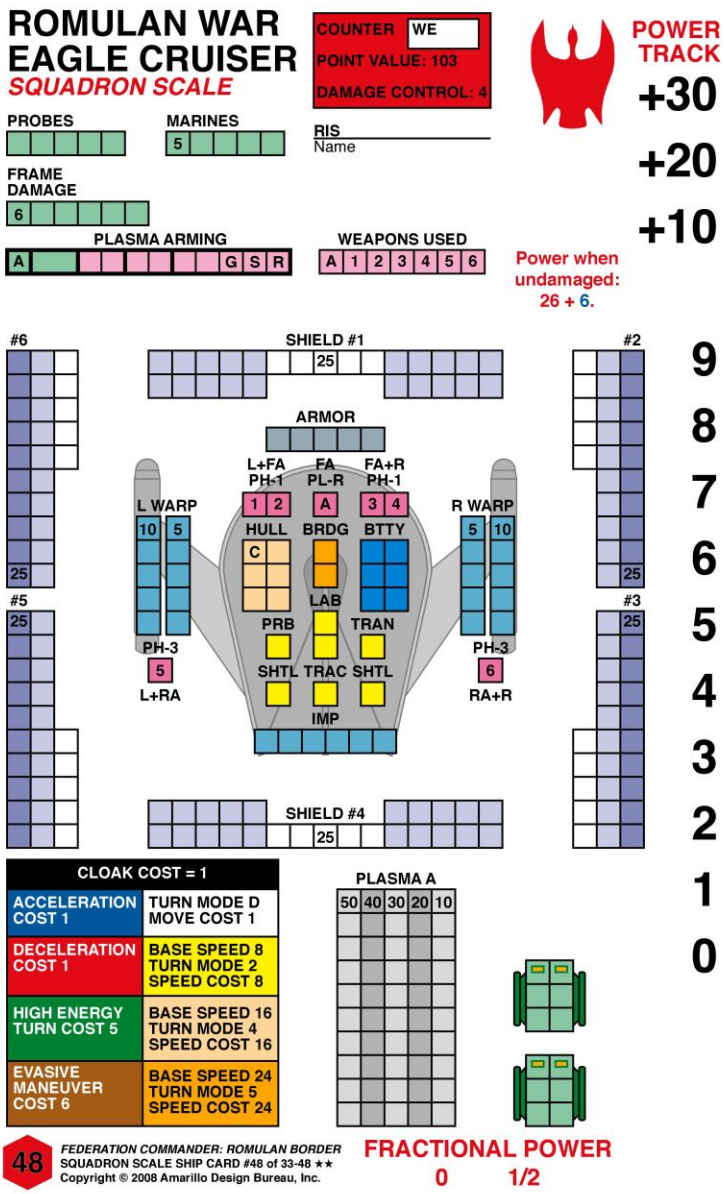
An ancient design refitted for warp, this ship would be irrelevant except for the massive type-R plasma torpedo. These ships are critically undersized and, despite the improvement to the War Eagle class, are not capable of standing up in combat to another cruiser. Usually, one good blast from any heavy cruiser is enough to cripple a War Eagle. These ships were kept in service because of the incredible power of the type-R plasma torpedo. Their saving grace is the cloaking device, which allows the ship to move to close range, fire, and then evade reprisal. The War Eagle can land on planets. This Romulan ship has the normal damage resistance from its hull and additional DR for extra armor.

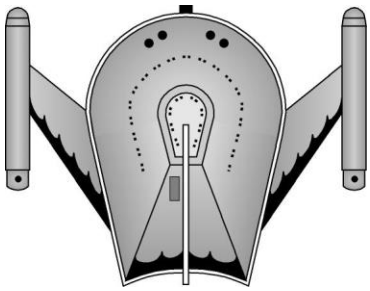
Weapons: 2 banks of 2×phaser-1s, 2 banks of 1×phaser-3 (rear), 1 type-R plasma torpedo launcher.

Accessories: 50 long-stay quarters, 10 luxury cabins. 2 full medical bays, 1 medical lab. 3 entry modules. 1 probe launcher. Turbolift system. Cargo 50,000 cubic feet. 1 large hangar bay with room for 2 shuttles, shuttle storage with workshops for 3 shuttles (1 shuttle in storage).

Piloting/TL12 (Starship)

TL	*Spacecraft*	*dST/HP*	*Hnd/SR*	*HT*	*Tac Warp*	*Cruise Warp*	*Max Warp*	*Load*	*SM*	*Occ*	*Hull dDR*	*Shield dDR*	*Cost*
12	Romulan War Eagle	103	-1/5	13	2.76	7	9.25	120,000	+11	450ASV	20+ 750	3,750	N/A





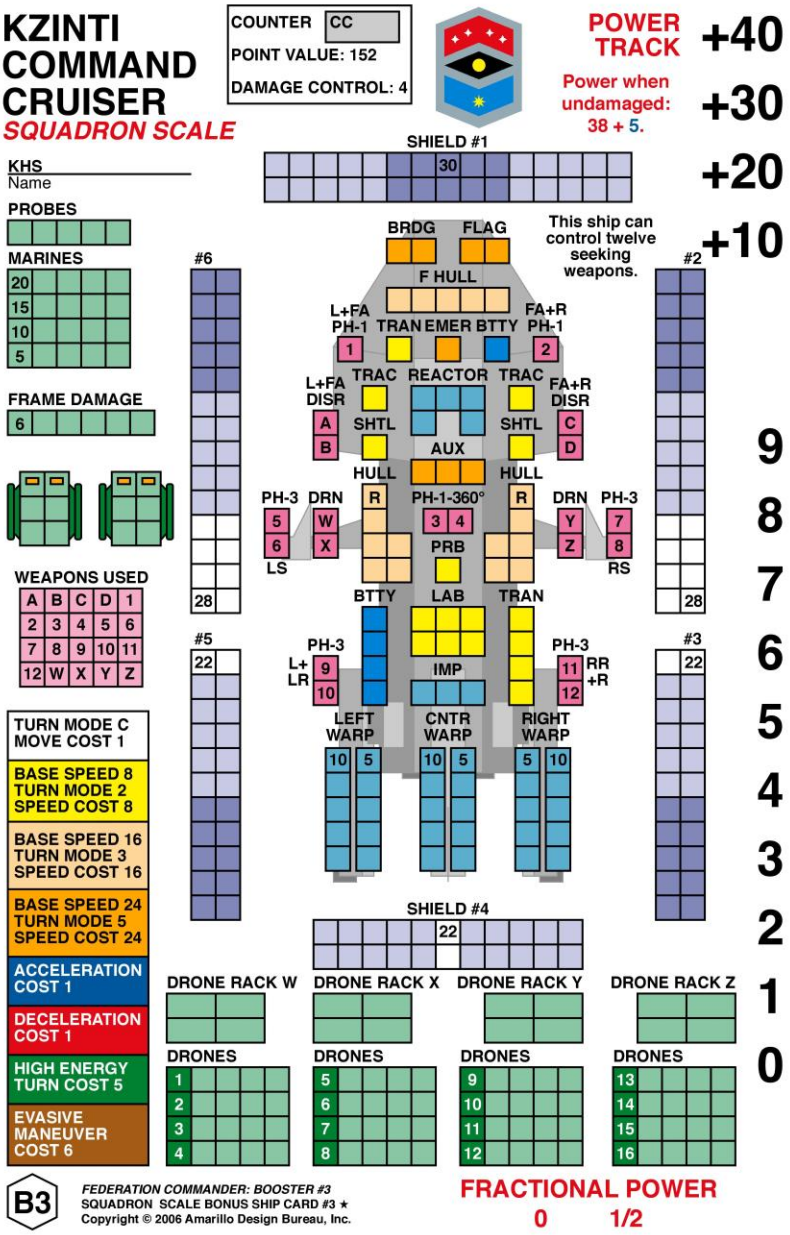
A workmanlike cruiser, it is highly regarded. The command cruiser was an extremely powerful ship and was vital to the salvation of the Hegemony during the early wars with the Klingons and Lyrans as it could engage the best enemy cruisers on equal terms. The command cruisers were often used as flagships in preference to the early dreadnought. The point defense phasers (on the wing tips and either side of the tail) are designed to defend the ship against missiles, but the Kzintis are the premier missile-using empire (i.e., the ship is designed more for civil wars than for national defense).

Weapons: 4 disruptor bolts, 2 type-A drone racks, 2 type-B drone racks, 1 bank of 2×phaser-1s (360°), 2 banks of 1×phaser-1, 2 banks of 2×phaser-3s, 2 banks of 2×phaser-3s (rear).

Accessories: 200 large long-stay quarters, 40 long-stay quarters. 4 full medical bays, 2 medical labs. 6 entry modules. 1 probe launcher. Turbolift system. Cargo 500,000 cubic feet. 1 large hangar bay with room for 2 shuttles, shuttle storage with workshops for 4 shuttles (2 shuttles in storage).

Piloting/TL12 (Starship)

TL	*Spacecraft*	*dST/HP*	*Hnd/SR*	*HT*	*Tac Warp*	*Cruise Warp*	*Max Warp*	*Load*	*SM*	*Occ*	*Hull dDR*	*Shield dDR*	*Cost*
12	Kzinti Command Cruiser	152	0/5	13	3.2	7	9.25	180,000	+12	440ASV	50	4,500	N/A



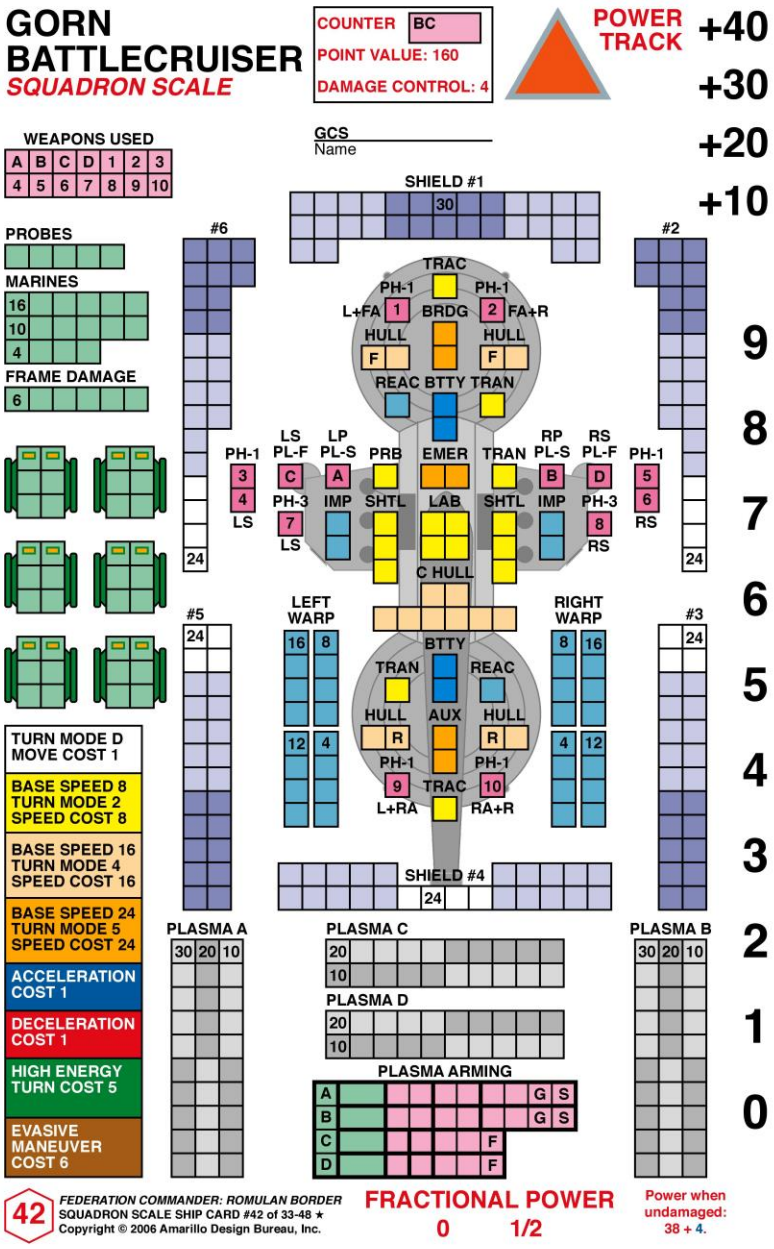
Solid as a brick and just about as maneuverable, the Gorn ships are feared for their heavy weapons load. The Allosaurus battlecruiser lacked concentrated firepower, making the ship awkward to use in battle although its powerful phaser suite partially made up for this problem. The standard tactic for these ships was to cycle the torpedoes to be ready at different times. The ship would make a pass toward one side of the enemy, firing the torpedo on that side, then turn away and circle to pass the enemy on the other side, firing the second torpedo.

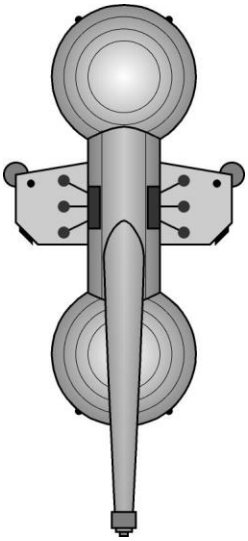
Weapons: 2 plasma-S torpedo launchers, 2 plasma-F torpedo launchers, 2 banks of 2×phaser-1s, 2 banks of 1×phaser-1, 2 banks of 1×phaser-1 (rear).

Accessories: 200 large long-stay quarters, 40 long-stay quarters. 4 full medical bays, 2 medical labs. 4 entry modules. 1 probe launcher. Turbolift system. Cargo 500,000 cubic feet. 2 large hangar bays, each with room for 3 shuttles, shuttle storage with workshops for 9 shuttles (3 shuttles in storage).

Piloting/TL12 (Starship)

TL	*Spacecraft*	*dST/HP*	*Hnd/SR*	*HT*	*Tac Warp*	*Cruise Warp*	*Max Warp*	*Load*	*SM*	*Occ*	*Hull dDR*	*Shield dDR*	*Cost*
12	Gorn Allosaurus Battlecruiser	160	-1/5	13	3.2	7	9.25	165,000	+12	480ASV	50	4,500	N/A





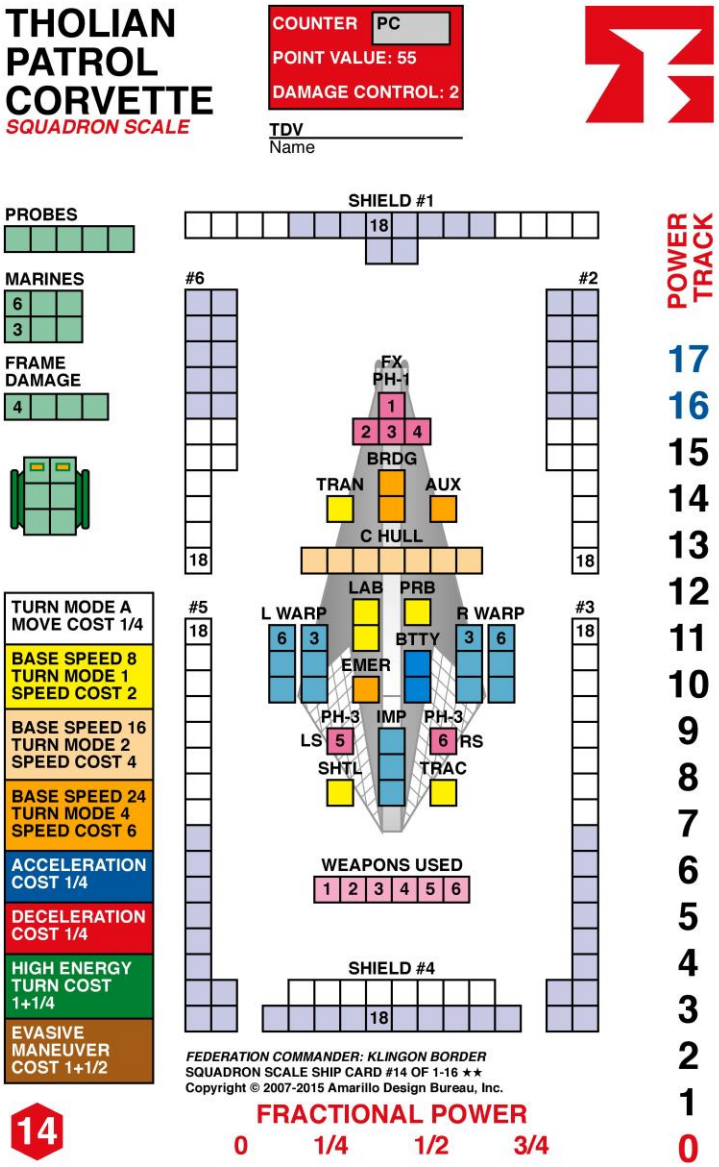
The Tholian Patrol Corvette was (or is?) the Tholians' most numerous ship, being the size of a small frigate. When the Tholians first arrived, it was one of the most powerful ships in the galaxy, but Tholian technology did not advance while the native empires of this galaxy raced to catch up. The problem was that the Tholians who got here were not a major part of the empire, just an isolated industrial world with only a small shipyard able to produce small ships primarily for the local police forces. They could build endless PCs, but nothing bigger until (decades later) their engineers figured out how to combine PC hulls into larger ships. The Patrol Corvette was small, but it was deadly in packs. While the crew needed was only 120, it had life support and supplies for 125. It can land on planets.

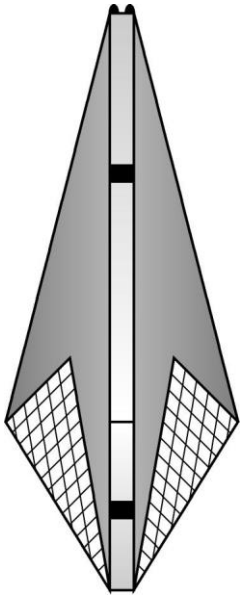
Weapons: 1 bank of 4×phaser-1s, 2 banks of 1×phaser-3.

Accessories: 24 large bunkrooms, 10 cabins. 1 full medical bays, no medical lab. 2 entry modules. 1 probe launcher. Turbolift system. Cargo 50,000 cubic feet. 1 large hangar bay with room for 1 shuttle (1 shuttle in storage).

Piloting/TL12 (Starship)

TL	*Spacecraft*	*dST/HP*	*Hnd/SR*	*HT*	*Tac Warp*	*Cruise Warp*	*Max Warp*	*Load*	*SM*	*Occ*	*Hull dDR*	*Shield dDR*	*Cost*
12	Tholian Patrol Corvette	59	+3/5	13	3.2	7	9.25	68,000	+11	125ASV	50	2,700	N/A





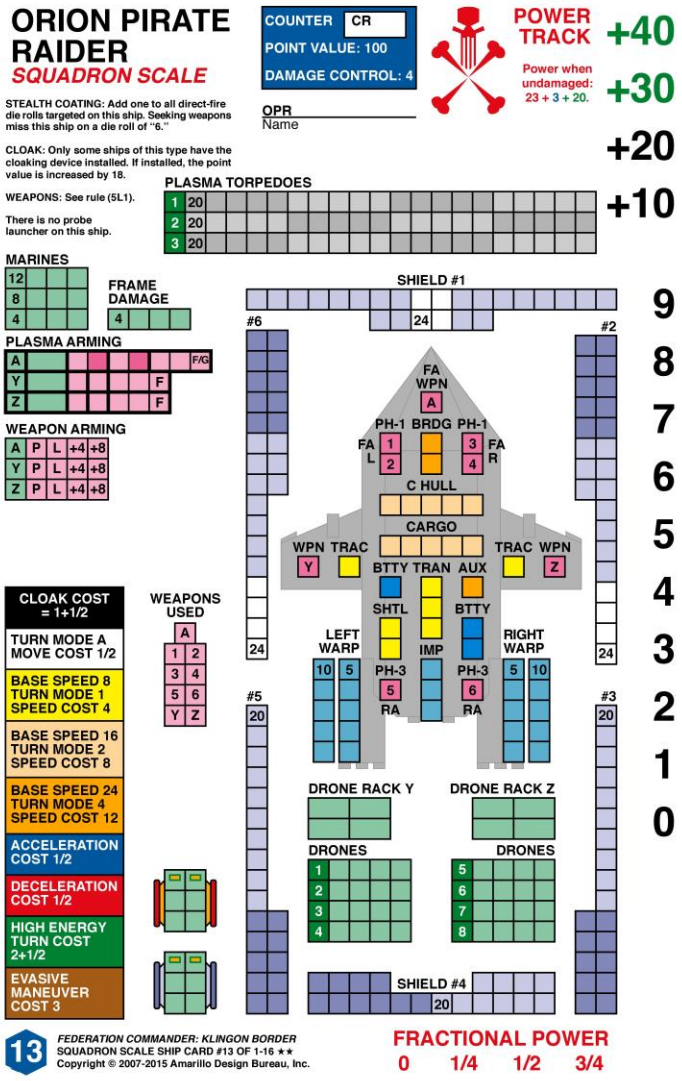
The *Raider*-class light cruiser (sometimes called the "Raider Cruiser") was the backbone of the Orion Pirate forces during the period before the General War. It is the classic pirate ship: big enough to tackle an escorted convoy while small enough to build in quantity. It is equivalent to the light cruiser of most fleets in firepower although (like all Orion ships) it quickly becomes combat ineffective when damaged. It is an excellent ship for its purpose: attacking cargo ships. Orion ships are designed to avoid detection, being basically flat with angled hull plates to scatter any scanner beam that touches them. Internal volume is half as much as a regular warship of the same class, but this comes at the cost of miniaturized systems, high maintenance costs, and a distinct lack of crew comfort. While most pirates prefer to prey on unprotected ships, this vessel can defeat or disable most pre-war escorts and police ships. These ships became increasingly ineffective during the General War when freighters tended to move in convoys. There are three optional weapons mounts, one in the nose and one in each wing. The wing mounts cannot hold heavy weapons. Heavy weapons are usually ones "acquired" in the area in which the Orion ship operated. This ship can land on planets.

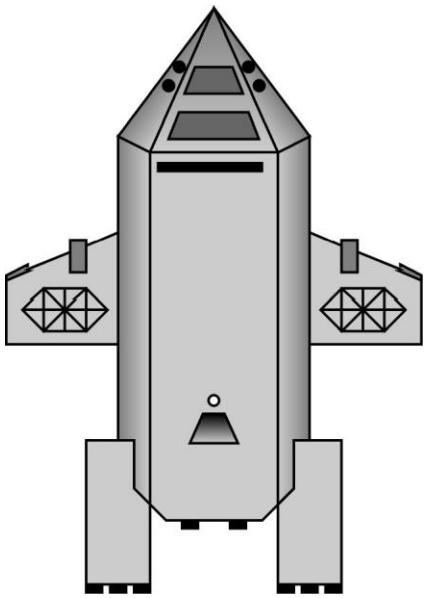
Weapons: 2 banks of 2×phaser-1s, 2 banks of 1×phaser-3 (rear). Optional heavy weapon mount (forward), two optional weapon mounts (wings).

Accessories: 30 large bunkrooms; 20 long-stay cabins. 2 full medical bays, 1 medical lab. 3 entry modules. No probe launcher. Turbolift system. Cargo 750,000 cubic feet. 1 large hangar bay with room for 2 shuttles (1 shuttle in storage).

Piloting/TL12 (Starship)

TL	*Spacecraft*	*dST/HP*	*Hnd/SR*	*HT*	*Tac Warp*	*Cruise Warp*	*Max Warp*	*Load*	*SM*	*Occ*	*Hull dDR*	*Shield dDR*	*Cost*
12	Orion Pirate Light Cruiser	92	+3/5	13	3.2	7	9.25	60,000	+11	200ASV	50	2,700	N/A





Standard Administrative Shuttlecraft

The basic people and small items mover of the *Star Fleet Universe,* shuttles are designed to carry two crew and six passengers comfortably. They can carry up to 10 people in relatively crowded comfort, and two or three times as many for very short flights such as an emergency evacuation. Almost all starships carried these shuttlecraft, which could be used as wild weasel distraction vehicles, suicide shuttle bomb delivery vehicles, or as scatter-pack weapons-release vehicles. The shuttle is armed with a single self-defense phaser-3 in a 360-degree mount, making it the lowest form of fighter craft. For pricing, see *Civilian Shuttlecraft,* p. 346. The shuttle only has six boxes on its SSD.

Weapons: 1 bank of 1×phaser-3 (360°).

Accessories: Total life support for 8 crew.

Piloting/TL11 (Shuttlecraft)

TL	*Spacecraft*	*dST/HP*	*Hnd/SR*	*HT*	*Tac Warp*	*Cruise Warp*	*Max Warp*	*Load*	*SM*	*Occ*	*Hull dDR*	*Shield dDR*	*Cost*
11	Administrative Shuttlecraft	2	0/4	12	2.5	2.5	2.5	30	+5	8ASV	1	150	*



Terms found on Ship Cards and in Descriptions

Reactors (Reac): Additional power.

Battery (Btty): Capable of storing power from the engines for use later.

Bridge: The command compartment, airlock, consoles, etc.

Brig: Room for 1-4 prisoners with alarm and guards.

Damage Control: A specialized facility to maintain the ship's functions (and shields!) during combat.

Impulse Engines: Nuclear, reactionless engines

Labs: An equipment-filled laboratory designed for specific scientific research in several of many fields.

Long-Stay Quarters: 14×18 feet, bedroom, sitting room, and sanitary facilities for 1-2 crew members. Large version (15×30 feet) can hold 4-8 people.

Medical Bay (full): Intensive care unit with five diagnostic beds, one surgery room, and doctor's office.

Security Stations: Used to prevent mutiny.

Tractors (Trac): Tractor beams.

Transporter Room (Trans): A six-person transporter pad and controls, plus enough space to organize troops or cargo.

Warp Engines: Primary power source and propulsion.

CIVILIAN SHUTTLECRAFT

While ships like freighters and Free Traders form the backbone of interstellar commerce, tens of thousands of civilian shuttlecraft are used for short-range commerce and travel. While shuttlecraft are relatively slow (at warp-2.5 it would take a week to travel from Earth to Vulcan), short-ranged (they have to refuel every 500 parsecs), and uncomfortable (less room than a Winnebago, albeit more than a minivan), they have the advantage of being cheaper than starships and able to go wherever and whenever the pilot wants to fly them. Most maintenance is within the abilities of a qualified pilot and every civilized planet will have service and fuel facilities.

Shuttlecraft come in a variety of sizes. The smallest ones (as seen on the original TV series) are "single-sized;" there are also double, triple, and quad-sized shuttlecraft. Larger shuttlecraft than quads are simply unfeasible. While the different sizes are similar in many respects, there is one important division: single-sized and double-sized shuttlecraft can dock inside a starship's shuttlebay, while triple-sized and quad-sized shuttlecraft cannot – they are just too large. Triples and quads can only dock to a stationary ship or station externally (and would be catastrophically undocked if the ship went to high warp), and can only dock internally at bases which can also dock starships internally. As a result, triples and quads operate from ground bases almost all of the time.

Types of Shuttlecraft

There is no such thing as a "standard" civilian shuttle. While they emerge from the factory in one of a few "stock" designs, all are individually customized by their owners, often over a decade or two of service. All shuttlecraft have the following in common:

- They have a "flight deck" in the bow with two seats for pilots. These seats can also operate the navigation, weapons, and other systems. While the base price of all shuttles includes two seats, some (particularly "used") shuttles have only one (deduct $5,000) and a few have a third pilot seat installed (add $5,000).
- They have an "engine" compartment at the very rear with access to the engine controls, phaser (if any), toolboxes, and other systems. This small compartment is usually locked.
- They have a "main compartment" which is for the payload (cargo, passengers, other systems). The "base price" of the shuttle includes only a "bare deck" (suitable for stacking cargo) but most leave the factory with built-in seats, cargo storage bins, or other fixtures. This always includes a fold-down lavatory.
- They have an equipment bay which is "beneath the floorboards" and in the two cylindrical pods on either side of the bottom. This contains the sensors, computer, avionics, warp engines, batteries, fuel, life support, etc. All shuttles have two low-power warp engines; few have any other source of power other than emergency power cells.
- They may have external cargo pods (up to four on single-sized and double-sided, six on larger) each holding half a cubic yard of cargo.

Within these parameters, there are a small number of standard "stock models:"

- The standard "administrative" shuttle is designed for short duration flights, mostly carrying a few passengers and their personal gear or luggage from a ship to a planet, or from planet to planet inside a system. These will never have bunks, food replicators, etc.
- "Transport" shuttles are designed to carry cargo. They may or may not have uncomfortable fold-down "combat seats."
- "Business" shuttles (single/double-sized) and "Yachts" (triple/quad-sized) are fitted for longer flights with varying degrees of luxury. They may or may not have cargo space beyond the need for personal luggage.
- "Commercial" shuttles are used by interplanetary traders. These will be mostly cargo volume, with space for a bunk and food supply, and long-duration supplies for the one/two-man crew.
- "Exploration" or "adventure" shuttles will have space for cargo, equipment, bunks, long-term supplies, food, etc. They may also have minimal laboratory facilities. Most of these are used by independent operators (since corporations only like to pay for things actually found and don't like to finance treasure hunts) but in cases where a corporation is developing a planet or system, some of these could be used by teams of corporate employees. Most of these are double or triple size, just to have enough room to accommodate the required systems.

Sticker Shock

The dimensions below are in meters (length-width-height). All have an internal height of two meters. The overall internal dimensions include the flight deck which is 1×2 meters with two pilot seats. The basic price for a new shuttlecraft with two pilot seats, artificial gravity, life support, auto-pilot, engines, a lavatory, and an unfinished main compartment is:

- Single-size, 2×3 meters, $100,000.
- Double-size, 3×4 meters, $250,000.
- Triple-size, 3×6 meters, $600,000.
- Quad-size, 4×6 meters, $1,250,000.

Dimensions may vary by as much as 20% between different manufacturers. Given a 20-year life,

used shuttles deduct 5% of the cost for each year of "average" use (but are never cheaper than 20%). Refurbishing (5% of the "original" cost) can reduce the "age" by one year (up to half of the actual years of service).

Dealer Options

The available space within the main compartment of a shuttlecraft can be used for other things:

- folding "combat" seats, 1 cubic meter, 0.5 square meters of deck space, $500.
- economy airline seat, 1 cubic meter, 0.5 square meters of deck space, $750.
- first-class airline seat, 1.5 cubic meters, 0.75 square meters of deck space, $1,500. (Note that personnel in unsecured seats, say household dinner chairs, would be seriously injured by even moderate maneuvers.)
- pilot/control seat with consoles, 2 cubic meters, 1 square meter of deck space, $5,000.
- standard bunk, 2 cubic meters, 2 square meters of deck space (stackable, so two fit in the same deck space), $1,000. For Luxury status, add another $2,000. If you only want one bunk, the space under it can be used only for storage or equipment, not for seating. A double bed (for couples) is twice as big/expensive.
- economy bunk, 1.33 cubic meters, 2 square meters of deck space (stackable, so three fit in the same deck space, $1,000 (just not as comfortable).
- standard lavatory without shower, 2 cubic meters, 1 square meter of deck space, $1,000.
- standard lavatory with compact shower, 2 cubic meters, 1 square meter of deck space, $2,000.
- first-class lavatory with shower, 4 cubic meters, 2 square meters of deck space, $5,000. For luxury version, add another $5,000.
- airlock, single person, 2 cubic meters, 1 square meter of deck space, $5,000.
- airlock, two-person, 4 cubic meters, 2 square meters of deck space, $6,000.
- food replicator, 1 cubic meter, $5,000.
- laboratory equipment, $5,000 per cubic meter.
- office, entertainment, and similar amenities, $200 per cubic meter (for luxury class, add $300 per cubic meter).
- short-range tractor beam (to tow something that is within a few meters), 2 cubic meters, $7,500.
- cargo bins, lockers, etc. $100 per cubic meter.
- refrigerated or other special storage, $500 per cubic meter.
- hidden cargo bins, $1,000 per cubic meter.
- point-defense phaser, 2 cubic meters, $50,000. This burns one hour of fuel for every shot fired.
- bulkhead to separate the flight deck from main cabin, $1,000 on single/double-sized; standard on triple/quad-sized. This takes up no space.
- External storage pod, 0.5 cubic meter, $1000. These cannot be accessed from inside the shuttle but only when it is landed. They are insulated against cold and heat and air tight (also water tight and gas tight).
- life support for two people for one month; fuel for one week of cruise speed: included as standard.
- each additional week of fuel, 0.5 cubic meter (can be in external pods), $2,000.
- each additional week of food and life support, per person, 0.2 cubic meter, $500. This can be in external pods and piped into the shuttle's on board systems.

All of the above items include necessary ancillary equipment such as additional life support, water tankage, recycling, power conduits and control interfaces, etc. Hidden and special cargo areas hold one-half of the capacity they use. Operating expenses are typically 1-2% of total (new) cost per month, not counting battle damage and other "unscheduled repairs." All prices are given for TL10.

Weaponry

Phasers: all shuttlecraft may carry a single shipboard phaser-3 (point defense) cannon which can fire in any direction. Not every shuttlecraft carries one, however. Phaser-3 cannons are Legal Class 3.

While some empires (and pirates) arm their military shuttlecraft with missiles, they are too expensive for civilian use and are Legal Class 1 anyway. Heavy weapons like disruptors and larger phaser cannons are simply too big to mount on a shuttlecraft, or have excessive power requirements, and are Legal Class 0 in all cultures – no exceptions!

Prospecting Shuttlecraft

While these use the same engine and some common chassis elements, these are highly specialized shuttlecraft designed for asteroid mining and prospecting. Most are single-sized; a few are double-sized. Larger shuttles could be custom converted but are very rare. Prospecting shuttlecraft differ from standard shuttlecraft in many ways.

- The single-sized prospector has one seat (one-man crew), a prospecting cannon, a one-cubic meter geology lab, a one-cubic-meter airlock (for bringing rocks on board), a tractor-grappler, and 4 cubic meters of storage (consumables, mined materials). Cost is $250,000.
- The double-sized prospector has two seats (two-man crew), a prospecting cannon, a one-cubic meter geology lab, a one-cubic meter materials processor (to remove waste rock from valuable metals or minerals), a two-

cubic-meter airlock, and 11 cubic meters available for storage. Cost is $400,000.

A prospecting charge launcher is basically a "mortar" used to propel a mining charge to an asteroid, breaking it up so the valuable bits can be brought aboard. The unguided projectile can hit a stationary target within 100 meters; forget trying to hit a moving target. Prospecting/TL skill is used to aim and fire the cannon. On a critical miss, the weapon jams and must be repaired. Charges for a prospecting cannon cost $100 at TL10 and take up 0.2 cubic meter. They can be reloaded from inside the shuttle.

The tractor-grappler is short-ranged (10 meters) and is used to bring aboard rocks (or chunks of a wrecked space ship) for investigation or recovery. For an extra $50,000, the boom arm of this system can be fitted with a laser-cutter able to dismantle space wreckage for salvage. Prospecting shuttles can buy any of the listed upgrades (including the phaser-3) they have room for. For that matter, standard shuttles could buy the geology lab and materials processor ($5,000 each) for surface exploration.

CUSTOMIZED CIVILIAN SHIPS

While military ships have a high number of variants, civilian ships have an even wider array of customized special-purpose designs. While any civilian ship can be modified to suit any purpose (to one degree of success or another), none received more special-purpose conversions than the Free Trader.

This was because the Free Trader was faster than a freighter, could land on planets, was a true starship hull rather than a cargo pod to which drive and command modules were attached, and it was ubiquitous. At least 20,000 Free Traders of all variants were operational during the period from Y120 to Y200, and they were converted (some of them many times) to an endless array of special purposes and missions. At one point, the flagship of the Romulan fleet (which at the time consisted entirely of sublight Eagle-series ships) was a warp-powered Free Trader bought from a Federation broker under false paperwork. It allowed the Admiral Commanding to quickly visit his various fleet headquarters starbases and personally supervise the activities of the fleet.

Several versions of the Free Trader exist, including the Free Trooper (which could carry large numbers of military troops or civilian colonists), Free Tanker (which could carry dozens of ground vehicles of military or civilian types), Free Prospector (used to explore new worlds), and Free Salvor (used to gather salvage from wrecked starships). Medical versions existed for government use in natural disasters.

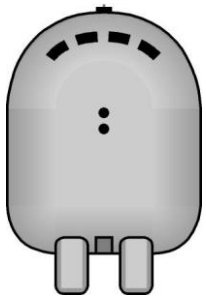
Examples abound but we can only scratch the surface.

Some Free Traders were modified for the tourist trade. The *Starlight Princess* (owned by Royal Cruise Lines) was built to carry 100 passengers in airline-style seats on a trip to Mars that took only a few hours. Her sister *Venera Prince* carried 100 tourists on day trips to Venus including an exciting dive into the atmosphere. (She had special shielding and large windows. The *Jovian Queen* carried 40 passengers in cabins on week-long trips to Jupiter and rarely to the outer planets.

Some universities owned Free Traders and would carry graduate students on a semester abroad to study whatever their fields of study needed to see. The *Harvard Outreach* was configured as a flying classroom, travelling from planet to planet to conduct special seminars or research projects. The *Chapel Hill Library* was both a ship and a traveling research library which would visit colony planets a month at a time so that local students could conduct special research projects and improve their education. The Mars Institute of Technology operated several modified Free Traders (including *Mitty Mouse* and *Mittle Earth* among others) as flying classrooms and research labs. These ships traveled from planet to planet to help train local technologists and conduct unique research opportunities. The experts on board (along with their databases, machines, and instruments) could produce unique technological solutions to local problems.

In one case, the agricultural colony on Roanoke (due to their unique combination of soil types and a long growing season) needed larger-than-standard combines (harvesting machines) to harvest their crops of quatro-triticale grain. The most cost-effective design was too large to fit through the doors of the standard Free Tanker. The manufacturer of the combines (on Rigel V) bought a Free Tanker and paid to have the doors enlarged. The *Roanoke Argosy* made over a hundred trips to Roanoke carrying these machines along with additional colonists and other designs. Once a final assembly facility on Roanoke could put together disassembled sections of these uber-combines on site, the *Roanoke Argosy* (worn out by constant service) was landed on Roanoke to become a museum of the colony's history.

No matter what civilian job you could imagine, someone, in some empire, modified a Free Trader to do that job. The possibilities are limited only by the imagination of the players and budget of the characters.





INTRODUCTION TO ROON

A Federation delegation is on the neutral planet of Roon to conduct trade negotiations. The planet is inside Federation territory and had just been contacted, but it is not (yet) a member. Christopher Plemmons, the son of the senior member of the delegation – a Federation Trade Commissioner – has been kidnapped. The ransom demand stated that he will be released only after the trade negotiations fail, so the Commissioner had better make sure they do, *or else.* The commissioner, knowing that his son will probably be killed in any event, has asked for help . . . and that is where the player characters enter the picture.

The adventure takes place on a world called Roon; it is an independent world, primarily an agricultural exporter. It is only TL8, which will give the PCs a major advantage! The trade negotiation in progress is to negotiate a new trade treaty; both sides want this treaty, and the details being argued over revolve around both sides wanting to make a bigger profit, thus making it difficult to arrive at an arrangement that both sides can agree to.

GMs: MAKE IT DIFFICULT ENOUGH!

An adventure should never be easy; the players will have more fun completing a difficult mission. The GM should make it as hard as possible, but should be careful not to make it too hard – after all, this is supposed to be fun for everyone, right?

As written, the easiest possibilities are given; in many cases there are notes on how to make it more difficult for the PCs, and the GM should consider using them. It's also a good idea for the GM to pay attention to what his players are talking about during the game. Sometimes, their paranoid expectations about what is going to happen next may provide ideas on how to improve the game, not to mention new ideas that weren't thought of.

GMs should look for opportunities to liven up, change, personalize, or otherwise change the adventure. Most of the players have read the story, so they think they know what to expect. All manner of things can be done to throw the players a curve; here are just a few suggestions:

• One of the enemy gang is a spy for . . . someone. Who? The Orions? The Klingons? The Federation GIA? Another faction of the Roon government?

• Just when the characters thought they were trapped, they find a box of something useful which the Orions left hidden in the room.

• One member of the enemy gang is something of a hothead and likely to do something spectacularly stupid.

• The hostage has succumbed to the Stockholm Syndrome and has joined his captors!

• The hostage is female, or a brother and sister, or twins, or the trade rep's mistress who must be rescued unofficially by an off-the-books operation.

SETTING UP THE ADVENTURE

The GM does not have to use this adventure verbatim; any number of things may be changed to suit the GM and the campaign setting. For example, if the PCs are all Lyrans, then the GM should adjust the adventure so that the trade delegation is from the Lyran Empire, not the Federation. Or the GM could decide that the trade delegation *is* from the Federation, but the signing of the trade agreement would serve the interests of the Empire in some fashion, so the PCs must make sure the treaty is signed.

In the same fashion, the identity of the bad guys might also be adjusted. While it is easy for the Orion Pirates to fill that role, the GM may choose to use an enemy of the PCs that is unique to his campaign.

WHAT'S MY MOTIVATION?

One question the GM will have to answer is: why are the PCs doing this? If they are Star Fleet, Marine, or other Federation officers, then it becomes easy: the PCs are doing this mission because they have been ordered to do so – as in the story. If the PCs are ex-military, then Commissioner Plemmons could be someone they met while they were still "in the service," and the PCs feel indebted to him for some reason. If the PCs are mercenaries-for-hire, then they were hired by someone who would stand to lose money if the trade agreement did not get signed, etc.

Whatever the GM chooses, one other factor is going to revolve around the reaction of the local police force to the PC's raid: are the PCs acting in some official capacity, or not? If they are cooperating with the police, then the GM should make the police "obstructionist" in some way. For example, the police are willing to let the PCs do the dirty work, but will take custody of the kidnap victim from the PCs if they get a chance. Or a senior police official could be in the pay of the Orions, and wants to stop the PCs from rescuing the kidnap victim in order to keep his paycheck from going up in smoke. The GM is highly encouraged to come up with something that the players are simply not expecting!

On the other hand, if the PCs are *not* in an official capacity, then the police are going to want to arrest them and "ask them a few questions" (a thought which should motivate the PCs into avoiding any official entanglements); a really nasty GM could have the police mistake the PCs for the real criminals and arrest them for the kidnapping! At the least, no police force wants a bunch of cowboys running around their turf with weapons; innocent people could get hurt.

In the event that the PCs are a GIA team or other undercover group who are acting in an official capacity but do not want their activities made public, then a truly sadistic GM might consider combining the worst features of all of the above!

BRIEFING THE TEAM

The briefing will have to be tied to the PCs' composition, and the GM will have to adjust it as necessary. In any event, the following should be made clear to the PCs:

Their primary goal is to rescue the kidnap victim, alive and unharmed, and return him to safety. That means either working their way out of the warehouse compound or getting to a point where they can be pulled out by transporter. Because of the trithallium ore, this means either reaching the top of the elevator shaft or reaching the bottom of it *and* using a transporter beacon to enhance the signal.

Their secondary goals include: the elimination of the bad guys, either killing them or capturing them as appropriate; shutting down their operation; taking possession of as much contraband, intelligence material, and so forth as possible (and making sure they get credit for it!); and generally avoiding any complications once their other goals have been met, i.e., getting off-world without being arrested by the police, etc.

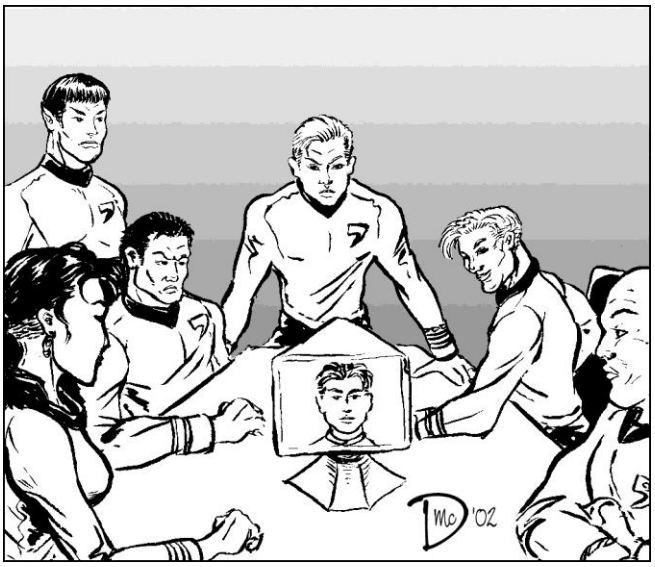
WHAT THE CHARACTERS KNOW

The kidnappers were not terribly bright, so it was relatively easy for the PCs to learn where the kidnap victim was taken, i.e., to a warehouse complex owned by the kidnappers. With their advanced technology, the PCs quickly learn that the victim is not being held anywhere they can scan, but the warehouse complex is located on top of an outcropping of trithallium ore, and there is an elevator shaft going deep underground from one of the buildings. The victim must have been taken down there!

One of the properties of trithallium ore is that it will block sensor scans, including those from a tricorder or from shipboard sensors. This is very significant, as a TL8 civilization should *not* be aware of this feature! This tells the PCs that the warehouse complex belongs to someone with access to TL9+ technology, which strongly implies an off-world connection of some kind. And the Federation does not want planets inside its space having connections to foreign governments or criminal organizations.

One of the other properties of the trithallium ore layer is that transporters cannot penetrate it easily; require an Electronics Operation (Transporter) skill roll with a -16 penalty. If that does not dissuade them, well . . . they've got to learn sometime!

Note: it should not be difficult for the players/PCs to figure out where to start looking. An obvious starting point for the game can save hours of the players mucking around, and as they are going to arrive at the same place eventually, why not cut to the chase?



STARTING POINT FOR THE ADVENTURE

If they have access to a transporter, the PCs have *already* gotten past the rent-a-cops and other security measures above ground (which may include the local police) without incident; if not, the GM may require the PCs to play this activity out. As an accident might reveal TL9+ technology, the warehouse complex is only protected by TL8 security measures.

See the floor plan (p. 351). The PCs have arrived in a 70 x 150 yard warehouse, the one with the elevator going deep underground. There is one guard, a hulking Roonian youth named Chucst (see the NPC data below). He is in the lobby area just in front of the elevator, which is empty except for Chucst, his equipment and weapons, the security camera, and the elevator door. The PCs are in Storage Bay #4. (Note to GM: Feel free to replace Chucst with an alien mercenary, such as a Lyran, just to liven things up and to warn the players that you have changed the adventure from what they read in the story.)

As the only way underground is through the elevator or the ventilator shaft, the PCs are going to have to get past Chucst somehow. If the PCs have not defeated the security camera, roll 3d. On a 12 or less, the person monitoring the cameras sees what the PCs do to Chucst, and immediately sets off the alarms; on a 13+ the person isn't alert, and doesn't notice Chucst is down for 1d minutes.

If the GM wants to make it more difficult for the PCs, move Chucst farther away from them, or make him more alert. Or have his teenage cousin, Granst, help him guard the elevators. Granst isn't going to be

much good in a fight but he is an extra pair of eyes, ears, and hands.

SECURITY CAMERAS

These are marked on the map with a black disk; they sweep the entire field of view. In the story, the ship used its communications and computer abilities to tap into the system and feed a recorded loop into the monitors. That will work for the upper cameras. For the lower cameras (and for the upper ones if you don't have a handy starship) you can deal with them in several ways, each with its own requirements and problems. The team could use a tricorder to jam the signal, or a weapon to destroy a camera, but when the monitor screens go blank, the bad guys are going to know something is up. They won't know *what,* but they will be on alert. On a lucky roll they may just assume an equipment malfunction and send somebody to check.

THE ELEVATOR

This is marked "E." It is a metal box (10' x 10' wide, with an 8' ceiling) made from thin steel; each wall, the ceiling and floor of the elevator, and the door are DR6; each has 20 hit points. It is mechanically operated, hanging on the end of a 1" steel cable (DR6, 30HP). The walls of the elevator shaft itself are 6" concrete (DR4, 60HP). There is a security camera inside the elevator with a wide-angle lens, and another at the top of the shaft looking straight down. While it is easy to get into the elevator itself, there is a numeric keypad instead of the expected buttons for each floor. The PCs have the following choices:

• Get the PIN number from Chucst (good luck!). Perhaps a mind-meld might work.

• Use a tricorder to try and crack the code using Electronics Operation (Security Systems); don't forget the penalties for TL differences; this system is TL8 like everything else!

• Forget about the elevator and use the ventilation shaft.

To make it more difficult for the PCs, make the keypad a thumbprint or voiceprint lock, which will add a -2 or -5 penalty to the skill roll, respectively.

THE VENTILATION SHAFT

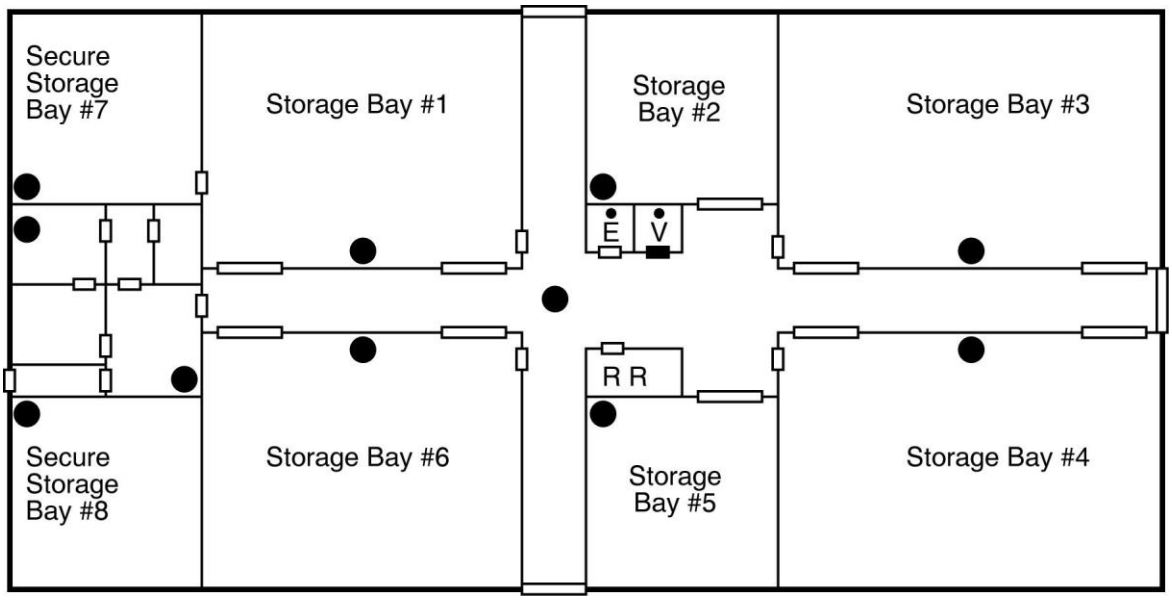
The vent shaft, marked V, goes from deep underground to the roof of the building; it is 3 feet square and is empty except for slime and dust on the walls, and various security sensors including a TV camera.

There is an air-conditioning unit (weighing 4,000 lbs.) sitting on the top of the shaft; the PCs must remove it if they want to enter the shaft that way. There is also an inspection hatch facing the lobby, which can be removed easily, but the question is what kind of security sensors are in the vent shaft itself. These are up to the GM; motion or heat detectors, trip-wires or laser beams, or just heavy iron bars are all possibilities, depending on how difficult the GM wants things.

The inside shaft walls are bare metal, with no handholds or ladder rungs. While going down the shaft is easy for someone with minimal climbing equipment, climbing up the shaft without a rope is difficult and requires a Climbing skill roll for every three feet; as the shaft is 25 yards high, the PCs will have to make 25 skill rolls and will take quite some time to accomplish. Equipment such as suction cups will give bonuses to the Climbing rolls, but not eliminate them entirely.

If a Climbing skill roll is failed, the PCs will slide back down the shaft 1d feet before stopping themselves; on a critical failure, they fall all the way back down the shaft to the bottom, taking damage per the Falling rules . . . and the "thump" might be audible if the guards are still active!

The ventilation and elevator shafts have security systems installed. There is a transporter-jammer system that will prevent transporters from working down the shaft unless it is disabled [roll vs. Electronics



Operation (Transporters) or Engineer (Electronics) skill] or destroyed by an explosion or weapon. If an alarm is tripped, a metal plate will slam shut closing off the ventilation shaft. This plate is steel, DR3, 30HP.

THE UNDERLEVEL

See below; all ceilings are 10 feet high (unless otherwise noted). The corridors are 10 feet wide.

There is a guard in area "G." Note that there are no doors between area "G" and the corridor, so if the PCs make a lot of noise when they take out the guard, everyone underground will hear them and will be alerted!

All interior doors (including the elevator doors) are steel, DR2, 20HP. The floor, ceiling and all interior walls underground are made from 6" steel-reinforced concrete (DR4, 60HP). The walls help support the roof, so if anyone gets trigger-happy the ceiling may cave in at that point!

All doors have mechanical locks which require a Lockpicking/TL8 skill roll to bypass; to make it more difficult for the PCs, improve the quality of the locks.

The rest of this level is described below. There are several of each kind of room, allowing the GM to "mix up" the map and confuse the players (who have almost certainly read this chapter and memorized the floor layout . . . sorry, guys!)

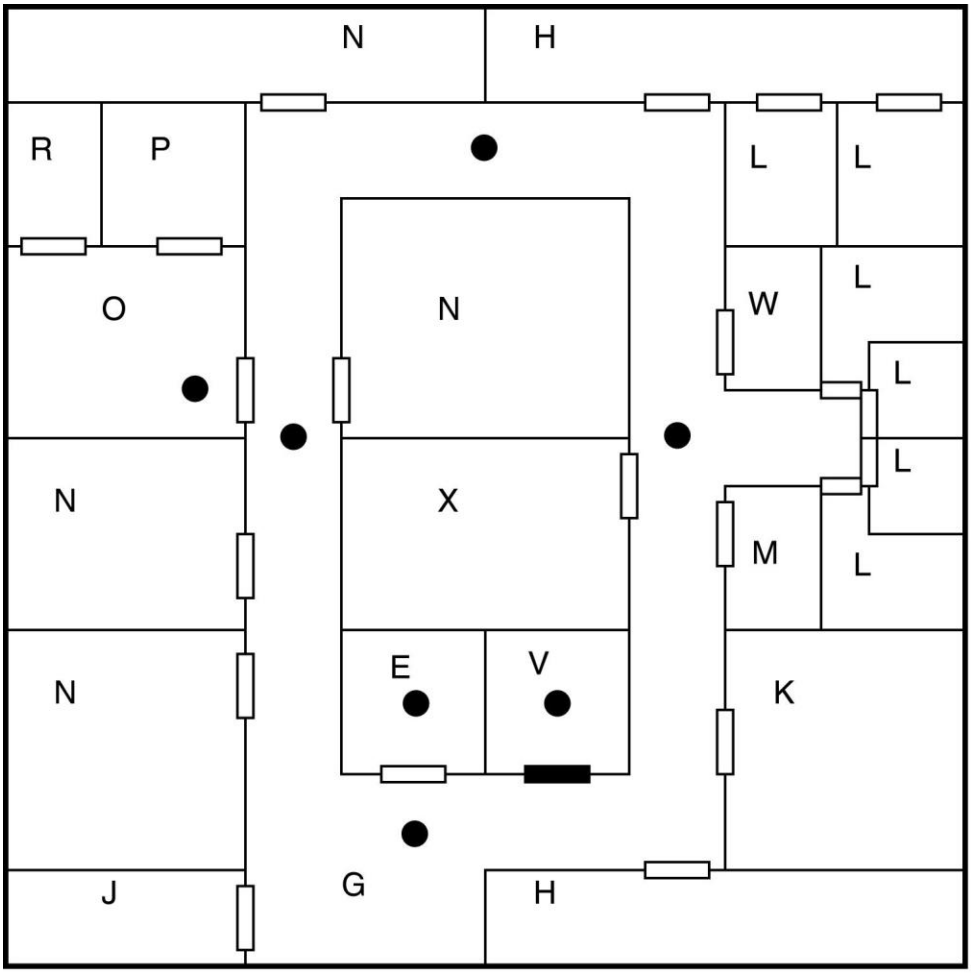
Area G: As stated, area "G" is more a widening of the corridor than anything else. It contains a desk and a chair. On the desk are a number of video monitors, which are tied to the various security cameras. These allow the guard on duty to keep an eye on things. Also in this area is a TL8 electrically powered forklift; there is a heavy electrical cable leading from it to a box on the wall (its battery charger). To make things more difficult, move the guard from area "G" to a more remote room, make the guard more alert, or have two guards on duty, or have backup sensors that the PCs didn't detect.

Room H: Both are 50 x 10 feet. These are a combination lunchroom and lounge area. The one near the elevator is for the guards while the one at the top end is for the family. In the story, most of them are there.

Room J: This is a storage area for cleaning supplies and other items, spare parts, etc.

Room K: This is a barracks for the guards. It has eight double bunks in it. To confuse the hostage rescue team, feel free to move this to some other compartment.

Rooms L: These are individual rooms for the senior personnel. One is assigned to each major PC listed at the end of this adventure including Chucst and Ted N'Korl, but not Dahlen (as he is a visitor). Each room has what you'd expect to find in a bedroom/living quarters, except for toilet facilities.



Room M is the men's room, complete with showers.

Rooms N: These are just storerooms. The lights don't work very well in either, as boxes and crates have been stacked all over, and some block the light fixtures. Lots of dark shadows for things to lurk in – did we mention the Roonian three-legged rats?

Room O: This is the office where the accountants who work on the illegal deals, schemes, and imports work.

Room P: This is the private office for Ted N'Korl, the head accountant.

Room R: This is a unisex bathroom for the accountants and office workers.

Room W is the women's room, also with showers.

Room X: There is only one of these. It contains the elevator machinery, electrical boxes for the level, pumps and tanks, and other equipment to make this level habitable.

INFORMATION FOR THE GM

WHERE IS EVERYBODY?

There are six members of the smuggler gang. Depending on the setup (and the difficulty level the GM has chosen) they may all be related to the owner of the warehouse complex, members of a professional criminal organization, enemy military personnel, or anything else the GM may select. In the story, these are of course the adult children of the owner of the warehouse complex, and partners in his criminal conspiracy to profit from illegal off-world imports.

One of the gang members has brought a visitor, named Dahlen. He looks somewhat like the kidnap victim, and the PCs may mistake Dahlen for the real victim. Dahlen and one of the gang members are in one of the "L" rooms. They are enjoying each other's company, and will be taken by surprise by the PCs unless the alarm has sounded.

The story in this book covers a fairly easy mission, in which an ad hoc team of Star Fleet personnel, with only a few hours for planning, rescues the hostage from a few civilian criminals who are not trained for combat. For purposes of this adventure, however, we can make things much harder. There are 2d+4 (6-16) guards in the bunk room, all armed with TL8 weapons, mainly sub-machine guns. They have DR2 body armor, but half of them won't be wearing it and will have to take time to put it on or do without it. The caliber of the weapons is chosen by the GM based on the difficulty of the adventure, but should be in the 2d to 5d range. To make it really difficult, the GM may give some or all of the guards TL9+ weapons such as disruptor pistols, better armor, etc. As they are in an underground area, none of the guards will have any heavy weapons; maybe a hand grenade or two, but nothing heavier.

Ted N'Korl is an accountant who is working for the bad guys. On an easy mission he is being forced to work for the bad guys and is willing to give the PCs information. On a hard mission, all he will say is "I want to speak to my lawyer." The GM should feel free to have his attitude change in reaction to things going on around him. He will be in the "P" room (which is kept spotlessly clean) and has a small laptop computer which contains the bookkeeping records for the bad guys. On an easy mission the important records will be on the hard drive; on a hard mission those same records will be on removable media (for example, a CD-RW or data cartridge) and he might be unwilling to cooperate with the PCs to the point that he will try to destroy the CD-RW so that records implicating himself are destroyed.

Christopher Plemmons is the kidnap victim. The GM should decide which room he is being held in; the only rooms he should *not* be held in are the two toilets and the guard barracks. In the story, young Mister Plemmons is in one of the "L" rooms which open off of the family "H" lounge.

WHERE IS EVERYTHING?

There are any number of items in this secret facility. Most are considered to be illegal under Roon law. Other items cannot legally be imported to a neutral planet like Roon under Federation law. The GM is encouraged to add items to this adventure that are unique to his campaign.

One storeroom contains (among other items) 50 pounds of Kirian Redbloom; this is a plant that can be used as a mind-altering drug and is illegal to possess on Roon and on most Federation planets.

Another storeroom contains a stockpile of over 500 pounds. of Estallian Fireweed. Estallian Fireweed is a plant which, while native to Roon and quite legal to possess (on Roon!), can be used as a drug on some Federation planets, particularly Rigel. Discovery of this stockpile and the fact that Roon is the source for it, when communicated to the proper authorities, will earn the PCs a reward or a medal, depending on their background.

Yet another storeroom holds a stockpile of Kresian Taliate. This is similar in both texture and appearance to both plants listed above, but is merely a very expensive spice that is entirely harmless and 100% legal. In order to tell these three plants apart (and identify their characteristics) a skill roll must be made against Pharmacy or Biology.

NON-PLAYER CHARACTERS

All of these non-player characters assume that the GM has chosen to run an easy mission for the players. Increase the stats and skill levels, and/or the equipment, to make the mission more difficult.

Gang Members

There are six of them, all in their 20s. Each has a special item; choose from a tricorder, a disruptor pistol, three flash-bang hand grenades, or Dahlen. The gang member who "has" Dahlen is the one that will be found with him in one of the "L" rooms, as described above.

All have the same armor and weapons as the guards but may not be wearing it when the PCs attack. Skills include Guns/TL8 (Submachine Gun)-12. The one with the disruptor pistol also has Beam Weapon/TL10 (Pistol)-13. The original cast includes:

Melika: Female, oldest of the sisters, least tolerant of immature behavior: ST 10; IQ 13; DX 13; HT 9.

Annitha: Female, the middle daughter, she does what she is told by Melika or Michalik, without objection: ST 10; IQ 11; DX 13; HT 8.

Besslith: Female: ST 11; IQ 12; DX 13; HT 10. Has an ongoing romance with an Orion pirate officer who has promised to take her away with him. The most "military" of the females, she was assigned to guard the lower elevator lobby. She has skill 13 with her weapon.

Michalik: Male, 28 years old, son and heir of the owner of the illegal business: ST 12; IQ 12; DX 12; HT 10. He is the clear leader, although Melika might dispute that status – out of his hearing.

Kaelyn: Female, youngest of the sisters, unusually attractive, she uses her sex appeal as a weapon: ST 9; IQ 12; DX 13; HT 8. She was the one who lured Plemmons out of town so he could be kidnapped.

Chucst: The younger brother, he got more than his share of brawn but is clearly not an intellectual: ST 12; IQ 10; DX 10; HT 11.

Chucst might be assisted by his teenage cousin Granst, who is always looking for "real, adult, jobs" to do for the family: ST 8; IQ 11; DX 10; HT 9. Granst will not be issued a weapon, but will pick one up if it's lying around loose.

For variety, however, Chucst could be replaced by Chrowl, an ethnic Lyran mercenary, and not a particularly bright member of that species: ST 14; IQ 12; DX 15; HT 13. He wears DR2 armor and carries a TL10 disruptor rifle and an assortment of knives. His skill level with all of his weapons is 16, and he also has Brawling-16. Note that Lyrans possess Sharp Claws and Sharp Teeth, and he has skill 16 with them. He also has fur. See the Lyran template in Chapter 2.

Guards: Thugs on Call

ST 12; IQ 10; DX 12; HT 13. All have TL8 submachine guns and DR2 armor. All have the following skills: Brawling 15, Guns/TL8 (Submachine Gun)-15. You could make one of them a sergeant with an extra point of IQ. The same stats can be used for the above-ground guards, or you could reduce those to the level of rent-a-cops: ST 10; IQ 10; DX 10; HT 10.

Mr. Plemmons and Dahlen

Both are ST 11; IQ 10; DX 12; HT 12. These two people possess no skills worth mentioning. Plemmons is from Mars (although an Earth-descended human) while Dahlen is from Roon (and an unrelated species close enough to human to pass a visual inspection). Plemmons is a little confused by the whole situation (or perhaps drugged) while Dahlen is a "boy toy" not noted for the quickness of his wits. Simply asking them their name will produce a confused response. Dahlen knows about Plemmons and is likely to claim to be him, while Plemmons is confused by the kidnapping and may deny his own identity if he doesn't realize that the team are here to rescue him. Either one could match the rather awful "ID card photo" of Plemmons that the team has; it would take a tricorder reading or a mindmeld to discern the true identity. (This could also be told with fingerprint analysis, something that might take too long to be done during the mission.)

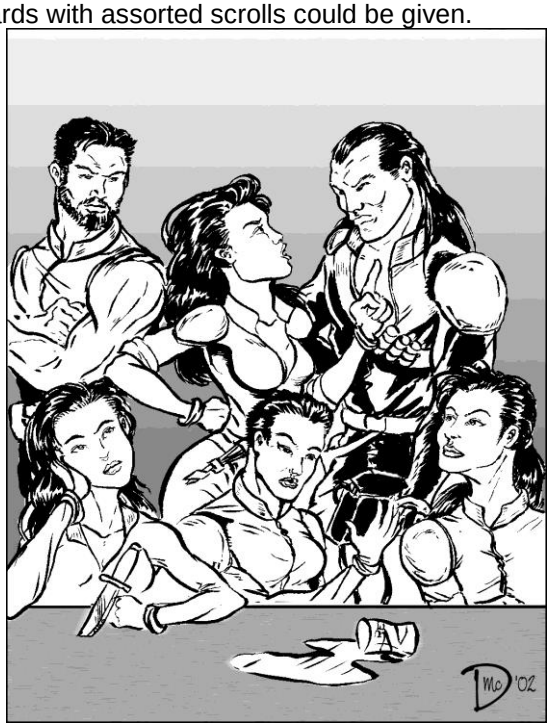
NOTES TO GMs

The Compound

In the event that your players need to fight (or sneak) their way into the compound itself, the map (next page) is provided. The compound (roughly a thousand yards wide and 700 yards front to back) includes 14 warehouses (feel free to pick any one of them for the entrance to the basement or to include basements under more than one of them), a large multistory office building, four large security gates, and eight guard towers. (One of the warehouses should be designated as having generators for internal power. You could even designate some of them for manufacturing.) The fence is eight feet high, chain link with barbed wire on the top. (GMs could electrify it for extra thrills.) There could be two guards in each tower, four in the office building, one on each gate, and four on roving patrols around the inside (or outside) of the compound and another four are bunked down as a reserve. (Most of the guards live at home and drive to the compound only when it is time for their shift.) Each guard tower has remote security cameras controlled from the security center. If the enemy has gotten sloppy or is in a cost-cutting mode, a lot of the above-mentioned guards will not be present.

Rewards

GMs are warned not to pass out medals so easily that they become meaningless, but look for opportunities to encourage your players to come back and play again. Remember not to reward people *just* for doing their jobs, but for doing their jobs under considerable stress and danger, or better than expected. Obviously, anyone wounded could get a wound badge, and if you rescue the hostage and get the computer records and accountant back to the ship, a decoration is in order. A Lifesaving Medal could be given if somebody pulls a comrade out of the line of fire. A Command Accomplishment Medal or a Bronze Star could be given to the team leader (although a player would be warned that the next one will be tougher to get). Combat Action Ribbons would, of course, go to everyone – with the crossed swords of a direct assault. Commendation awards with assorted scrolls could be given.



Roon: Ideas for Game Masters

If your group prefers a slower, more investigative and detailed style, they're going to want to work things out for themselves, not just get briefed on where the bad guys are and how to get to them. Some groups might even want to only do this, leaving the actual rescue to the professionals (or to their other set of characters!). In addition, even for groups that like fighting, they're not always going to want to go in guns blazing to free the hostage. Here are a few other approaches your players might take to this situation and ideas about how to handle them. Don't be surprised if they come up with something not on this list!

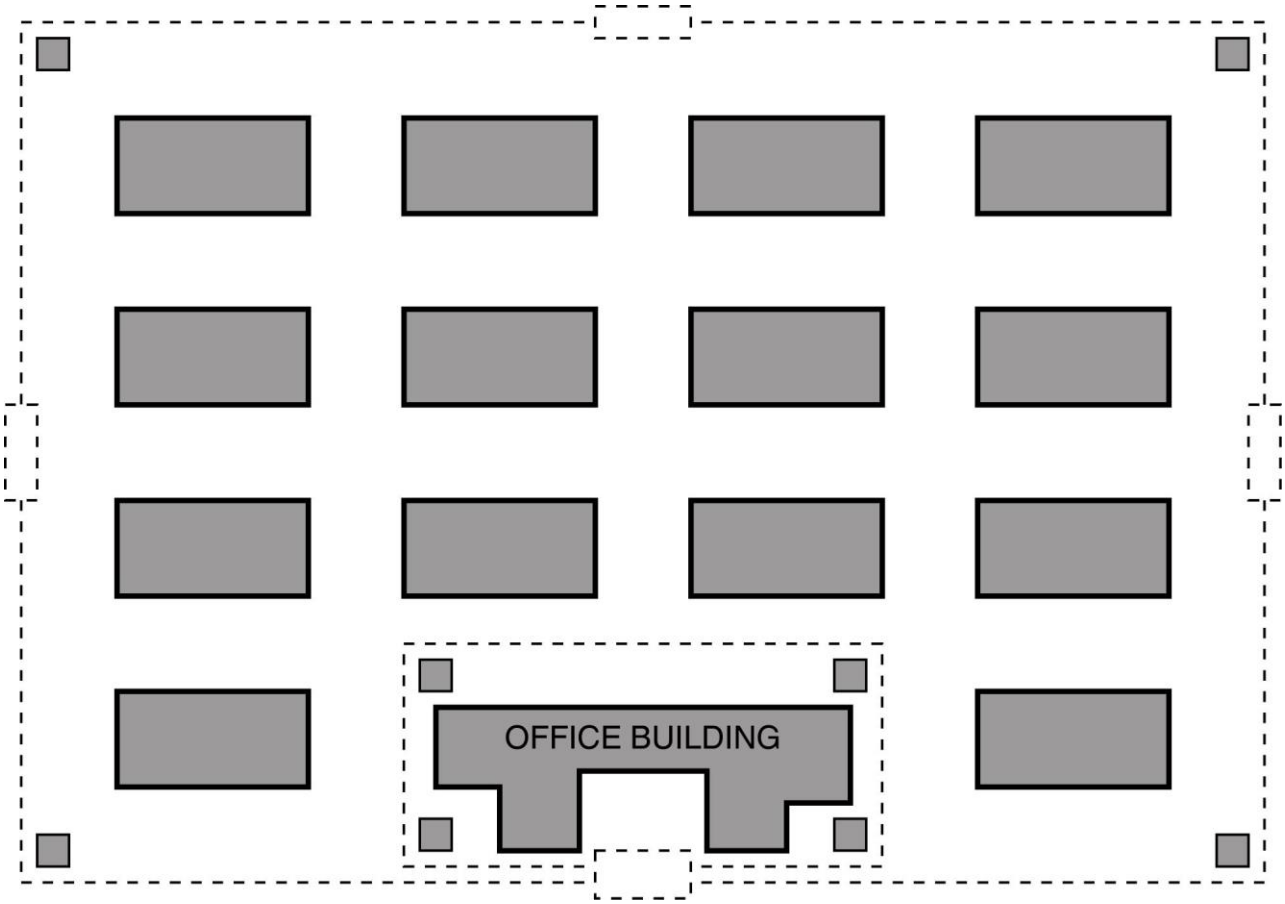
They could spend some time investigating beforehand – "Knowledge is power," after all. Depending on who they talk to and how they do it, the PCs could obtain almost anything. Some groups of players will like to do this kind of work themselves, some teams of characters won't be able to conduct that kind of investigation.

Plans of the warehouse complex would be kept by government archives and the company HQ, but might be out of date and may omit some details. Of course, the players might not want to wait weeks to get a response for their perfectly reasonable request for information. Diplomacy, fast talk, pulling rank, or a bribe might get permission for them to do their own research; Computer Operation or Lockpicking could also be used to gain access. Having obtained access to the records, the information given to the players should depend on their skills. A security expert might notice the types of locks used and bring along the master key, while a trader would notice what is stored in the warehouse and arrange a 'special delivery.' If the players are discreet about this approach, the bad guys will be none the wiser, but ask the wrong question and the kidnappers will hear about it. Depending on how dangerous they think the players are, this could mean that the kidnappers do anything from a being a little more alert to booby-trapping the whole complex and moving elsewhere.

Similarly, information about the kidnappers might be available from police files, from the customers of their warehouse, from an industry association, or from anyone else they've dealt with. Less obvious places can give hints, too, even really mundane sources. (What does it mean if there are a dozen empty pizza boxes in the trash?)

Tapping into the kidnapper's communications and listening in for a while might let the players fake instructions from the Orion employers, instructing them to hand over the hostage to the "Orions" (who your team impersonate*). "Michalik, the Feds have found you and will be trying a rescue tonight. A shuttle will pick you up at midnight while their ship is on the far side of the planet. Be on it with the hostage."* Now the PCs just need to beg, borrow, or steal a shuttle . . . and hope they were believed.

Talking the kidnappers into releasing the hostage isn't impossible, although it's likely to be difficult. Knowing why they kidnapped the commissioner's son – for a cause, for money, to repay a favor, because



they were forced to – is important here, as are high skills in Diplomacy, advantages such as Charisma or a positive Reputation and of course roleplaying by the players.

The players might want to just threaten the kidnappers pretending to be "another Orion cartel" or a group that wants to make sure that it's the Roon side of the negotiations that causes them to fail. The players might even *be* from another Orion cartel! The more credible the threat, the more likely that this will work, and the more likely that the players will attract unwanted attention.

If wealthy themselves, or with wealthy contacts, it might be possible to simply buy the kidnappers off. Both sides will be watching for – and probably planning – treachery when the hostage is exchanged for the money. The bad guys know about transporters; they won't agree to making the swap anywhere a transporter can get to.

If none of the above work, or if the players don't want to try them, they still might want to tilt the odds in the attack as far in their favor as possible. Being sneaky might not earn bonus points, but it sure can be fun.

If the players can get the kidnappers to leave the basement, the tactical advantage is reversed. It will be the players who have the cover and no need to press forwards. Of course, this means the bad guys will be able to choose when to start the fight and will all be ready when they do, so the players should keep a careful watch. There are several methods the players could use to make the enemy come to them: playing around with the air conditioning, false messages, cutting communications links, stealing or destroying the contents of the warehouses (if valuable), etc.

Talking their way in is a perennial favorite of players, with one or more of them pretending to be there for "scheduled maintenance" on the lift or air conditioning, a pizza delivery, a friend of their father, as a representative from the Orion employers – anything that would require access. Depending on how elaborate the disguise is, getting the information to pull these off convincingly could itself be an adventure. Having a person on the inside, or even a look around the facility, could be a decisive edge once the assault from outside is launched.

Inventive use of technology is possible too. The players might want to avoid using both the elevator and the airshaft, instead setting up a transporter repeater at the top of the elevator shaft, so that transport directly down the elevator shaft without passing through any ore is possible. This would still be at a penalty of -8, as the surrounding ore still would cause interference. Successful rolls on Metallurgy, Physics, and Engineering (Electronics) will each reduce this penalty by 2. After a success on each, the player's new knowledge of the properties of trithallium and transporter theory have allowed them to customize a transporter to penetrate the ore. Alternatively, and with the right equipment, the players might even be able to dig themselves a new entrance.

The main thing is to expect your players to throw you for a loop at least once in an adventure. That's fair enough, since they haven't seen the script. Whatever they come up with, you'll need to think on your feet and improvise. (When the PCs purchase the 100 tons of licorice that are essential to their plan, do the evildoers find out . . . and if so, what do they do about it?) Don't try to force the players into following your script; it's their game too.

Who, What, Where, When, and Why: Notes for Game Masters of GPD

Most GMs have done their job for some time now and have no trouble getting started. For those who need a little help, here are some thoughts.

When: While it's not the first thing on the "Five W" list, this is the first thing to consider. The simplest decision is to ignore the ***SFU*** timeline with its fixed dates for who was at war with whom and just run whatever adventure you want. However, if you do want to fit within the established game universe timeline (which can add some richness to your game as your characters look forward to the politically inevitable events of next year and what opportunities they provide), it's best to pick a date first. The two most obvious choices are during the General War and before it. Campaigns set during the General War are like trying to run a game during WWII – challenging if being part of "the war" is not central to your characters. Perhaps you are treasure hunters trying to stay out of the way of the fighting?

Where: Given access to a spaceship or tickets on a commercial starliner, you can pretty much go anywhere. You don't have to think in terms of one sector, or one border, and your characters could easily find themselves on opposite sides of the Federation from one month to the next. While "where" isn't particularly critical, you will want to decide if your home base is a Federation colony, a Klingon battle station, a clandestine Orion base, or somewhere else.

What: Are you military, ex-military, or civilian? Are you journalists, archaeologists, treasure-hunters, or pirates? Whatever you want to be, decide now and you can build the campaign around the kind of characters who will play it. Flexibility is key. Even military people will get a little time off for vacations or adventures, and even civilians might pick up a government contract for a little dangerous work. Ex-military can be a good choice as it has lots of skills, some leftover gear, a few friends still in uniform, and the opportunity to be called back to the colors if an adventure is better suited to active duty personnel.

Who: Having established where, when, and what your campaign is may eliminate some choices as to "who" the characters invited to play it might be. If you are Star Fleet Marines, then being a Klingon or Lyran is probably not going to work in a historical setting, although a "free" campaign without regard to the historical background might allow such species to be used. Certain characteristics may not be appropriate to certain characters due to their society, job, or back-

ground. The GM makes the final determination of course as to what can and cannot be allowed.

Why: Well, obviously the GM and his "customers" are playing the game to enjoy it (and each other). You should never forget this (although some do). Beyond that, "why" is a good place to start each adventure. You can draw these from your own imagination, from episodes of television shows or movies or books (related or not related to the background), from websites that post or discuss ideas, from adventure seeds (and even complete adventures) published in ***GPD*** and other products. But never forget that the real reason to play is to enjoy good company.

SAMPLE CHARACTERS

All characters are operating at TL12. All speak Federation Standard as a native.

Lt. Commander Grissom

(159 points)

Age: 30; 6'1", 175 lbs. Human male, graduated from Star Fleet Academy.

Attributes: ST 11 [10]; DX 12 [40]; IQ 12 [40]; HT 10 [0].
Damage: 1d-1/1d+1; BL 24 lbs.; HP 11 [0]; Will 12 [0]; Per 12 [0]; FP 10 [0].
Basic Speed: 5.5 [0]; Basic Move 5 [0]; Dodge 8; Parry 8 (Judo).

Advantages: Fit [5]; Military Rank 4 [20]; Resistance (Disease) [3]; Social Regard (Respected) 3 [15]; Status 1 [0, from Military Rank].

Disadvantages: Code of Honor (Uphold the Prime Directive) [-10]; Duty (Star Fleet) (15 or less) [-15]; Overconfidence (12) [-5]; Sense of Duty (Federation) [-10].

Quirks: Always eats chocolate after dinner [-1]; Collects classical music files [-1]; Enjoys solving math puzzles [-1]; Plays old brass trombone to relax [-1]; Tends to use phrases repeatedly [-1].

Skills: Administration-12 [2]; Armoury/TL (Heavy Weapons)-12 [2]; Armoury/TL (Small Arms)-12 [2]; Astronomy/TL-10 [1]; Beam Weapons/TL (Pistol)-13 [2]; Climbing-14 [8]; Computer Operation/TL-13 [2]; Computer Programming/TL-10 [1]; Diplomacy-10 [1]; Electronics Operation/TL (Sensors)-12 [2]; Electronics Operation/TL (Transporter)-12 [2]; Electronics Operation/TL (Tricorder)-12 [2]; Engineer/TL (Electrical)-10 [1]; Engineer/TL (Electronics)-10 [1]; Expert Skill (Xenology)-10 [1]; First Aid/TL-12 [1]; Free Fall-11 [1]; Gunner/TL (Beams)-13 [2]; Gunner/TL (Cannon)-13 [2]; History (Recent Federation)-10 [1]; Judo-11 [2]; Law (Federation Military)-10 [1]; Leadership-12 [2]; Mathematics/TL (Applied)-11 [2]; Mechanic/TL (Shuttlecraft)-11 [1]; Musical Instrument (Trombone)-10 [1]; Navigation/TL (Space)-12 [2]; Operations (Space)-11 [2]; Physics/TL-9 [1]; Piloting/TL (Shuttlecraft)-12 [2]; Piloting/TL (Starship)-11 [1]; Research/TL-11 [1]; Savoir-Faire (Military)-13 [2]; Shiphandling/TL (Starship)-11 [2]; Spacer/TL-13 [2]; Strategy (Space)-12 [4]; Survival (Woodlands, Class M)-11 [1]; Tactics-12 [4]; Vacc Suit/TL 11 [1].

Grissom is familiar with Federation phasers and Federation photon torpedoes for his Gunner skills. His Beam Weapons skill familiarity is for the phaser.

Petty Officer 2nd Class Daneric-Tren

(148 points)

Age: 30; 5'10", 165 lbs. Cygnan male, graduated from Star Fleet Basic Training. Speaks Cygnan as a native.

Attributes: ST 12 [20]; DX 12 [40]; IQ 11 [20]; HT 11 [10].
Damage: 1d-1/1d+2; BL 29 lbs.; HP 12 [0]; Will 11 [0]; Per 11 [0]; FP 11 [0].
Basic Speed: 5.75 [0]; Basic Move 5 [0]; Dodge 8; Parry 8 (Judo), 9 (Knife).

Advantages: Fit [5]; Military Rank 1 [5]; Resistance (Disease) [3]; Talent 1 (Mathematical Ability) [10]; Talent 4 (Physical Science) [20]; Social Regard (Respected) 1 [5]; Versatile [5].

Disadvantages: Code of Honor (Uphold the Prime Directive) [-10]; Duty (Star Fleet) (15 or less) [-15]; Gregarious [-10]; Sense of Duty (Federation) [-10]; Weakness (Sunlight; 1d/30 minutes; Mitigator -60%) [-6].

Quirks: Constantly smiling [-1]; Likes to work nights [-1].

Skills: Accounting-6 [0]; Astronomy-14 [1]; Beam Weapons/TL (Pistol)-14 [4]; Chemistry-9 [0]; Climbing-13 [4]; Computer Operation/TL-13 [4]; Cryptography-6 [0]; Electronics Operation/TL (Security Systems)-10 [1]; Electronics Operation/TL (Sensors)-12 [4]; Electronics Operation/TL (Tricorder)-12 [4]; Engineer/TL (Electronics)-11 [2]; Engineer/TL (Starship)-10 [1]; Expert Skill (Xenology)-9 [1]; Explosives (Demolition)-10 [1]; First Aid/TL-12 [2]; Free Fall-12 [2]; Geology (Class M)-9 [0]; History (Recent Federation)-9 [1]; Judo-11 [2]; Knife-13 [2]; Law (Federation Military)-10 [2]; Mathematics/TL (Applied)-12 [4]; Mathematics/TL (Cryptology)-10 [1]; Mechanic/TL (Antimatter Reactor)-11 [2]; Mechanic/TL (Starship)-11 [2]; Meteorology-10 [0]; Physics/TL-13 [1]; Running-10 [1]; Savoir-Faire (Military)-11 [1]; Spacer/TL 11 [1]; Stealth-11 [2]; Survival (Woodland, Class M)-12 [4]; Vacc Suit/TL-11 [1].

Daneric-Tren's Beam Weapons skill familiarity is for the phaser.

Marine Private Dellik

(101 points)

Age: 23; 5'8", 110 lbs. Human female, graduated from Marine Boot Camp.

Attributes: ST 10 [0]; DX 11 [20]; IQ 12 [40]; HT 12 [20].
Damage: 1d-2/1d; BL 20 lbs.; HP 10 [0]; Will 12 [0]; Per 12 [0]; FP 12 [0].
Basic Speed: 5.75 [0]; Basic Move 5 [0]; Dodge 8; Parry 8 (Karate), 9 (Knife), 8 (Tonfa).

Advantages: Fearlessness 2 [4]; Military Rank 0 [0]; Resistance (Disease) [3]; Social Regard (Respected) 3 [15]; Very Fit [15].

Disadvantages: Code of Honor (Uphold the Prime Directive) [-10]; Duty (Star Fleet Marines) (15 or less) -15]; Impulsiveness (12) [-10]; Kleptomania (9) [-22]; Light Sleeper [-5]; Sense of Duty (Federation) [-10].

Quirks: Distrusts authority figures [-1]; Fidgets when not doing something [-1]; Returns stolen items to original owners [-1]; Secretive about past acquaintances [-1]; Uncomfortable around nonhumans [-1].

Skills: Armoury/TL (Small Arms)-11 [1]; Beam Weapons/TL (Pistol)-13 [4]; Beam Weapons/TL (Rifle)-13 [4]; Camouflage-12 [1]; Climbing-12 [4]; Computer Operation/TL-12 [1]; Electronics Operation/TL (Communications)-12 [2]; Fast-Talk-12 [2]; First Aid/TL-12 [1]; Free Fall-12 [4]; Gunner/TL (Beams)-12 [2]; History (Recent Federation)-10 [1]; Karate-10 [2]; Knife-12 [2]; Law (Federation Military)-10 [1]; Leadership-11 [1]; Lockpicking/TL-11 [1]; Parachuting/TL-12 [2]; Pickpocket-11 [4]; Running-11 [1]; Savoir-Faire (Military)-12 [1]; Sleight of Hand-11 [4]; Spacer/TL-12 [1]; Stealth-12 [4]; Survival (Jungle, Class M)-11 [1]; Survival (Woodlands, Class M)-11 [1]; Swimming-12 [1]; Tactics-10 [1]; Throwing-11 [2]; Tonfa-11 [2]; Vacc Suit/TL-11 [2].

Dellik is familiar with Federation phasers for her Gunner skills. Her Beam Weapons skills familiarity is for the phaser in pistol and rifle. *[Dellik is an example of a character who should never have been admitted to Star Fleet – her Kleptomania **(GURPS Basic Set)** would disqualify her. In fact, she is in the brig when the story starts.]*

Marine 1st Lieutenant Yahnke

(128 points)

Age: 25; 6'2", 180 lbs. Human male, graduated from the Federation Marine Academy.

Attributes: ST 11 [10]; DX 10 [0]; IQ 12 [40]; HT 12 [20].
Damage: 1d-1/1d+1; BL 24 lbs.; HP 11 [0]; Will 12 [0]; Per 12 [0]; FP 12 [0].
Basic Speed: 5.5 [0]; Basic Move 5 [0]; Dodge 8; Parry 7 (Karate), 8 (Knife), 8 (Tonfa).

Advantages: Fearlessness 3 [6]; Military Rank 3 [15]; Resistance (Disease) [3]; Social Regard (Respected) 3 [15]; Status 1 [0, from Military Rank]; Very Fit [15].

Disadvantages: Code of Honor (Uphold the Prime Directive) [-10]; Duty (Star Fleet Marines) (15 or less) [-15]; Insomniac [-10]; Sense of Duty (Federation) [-10].

Quirks: Doesn't eat seafood [-1]; Inscribes personal symbolism on weapons [-1]; Listens to Andorian music before each mission [-1]; Uncomfortable working with Star Fleet (Naval) personnel [-1].

Skills: Administration-11 [1]; Armoury/TL (Small Arms)-11 [1]; Beam Weapons/TL (Pistol)-12 [4]; Beam Weapons/TL (Rifle)-12 [4]; Camouflage-12 [1]; Climbing-10 [2]; Computer Operation/TL-12 [1]; Electronics Operation/TL (Communications)-12 [2]; Electronics Operation/TL (Communications)-12 [2]; First Aid/TL 13 [2]; Free Fall-9 [1]; Gunner/TL (Beams)-11 [2]; History (Recent Federation)-10 [1]; Karate-8 [1]; Knife-10 [1]; Law (Federation Military)-10 [1]; Leadership-12 [2]; Operations/TL (Land)-11 [2]; Parachuting/TL-10 [1]; Running-11 [1]; Savoir-Faire (Military)-12 [1]; Spacer/TL-12 [1]; Stealth-9 [1]; Strategy (Land)-11 [2]; Survival (Mountains, Class M)-12 [4]; Survival (Arctic, Class M)-12 [4]; Swimming-12 [1]; Tactics-11 [2]; Throwing-9 [1]; Tonfa-10 [2]; Vacc Suit/TL 11 [1].

Yahnke is familiar with Federation phasers for his Gunner skills. His Beam Weapons skills familiarity is for the phaser in pistol and rifle.

Marine Corporal Kilrathie

(126 points)

Age: 24; 6'0", 177 lbs. Human male, graduated from Marine Boot Camp.

Attributes: ST 13 [30]; DX 10 [0]; IQ 12 [40]; HT 13 [30].
Damage: 1d/2d-1; BL 34 lbs.; HP 13 [0]; Will 12 [0]; Per 12 [0]; FP 13 [0].
Basic Speed: 5.75 [0]; Basic Move 5 [0]; Dodge 8; Parry 8 (Boxing), 7 (Karate), 9 (Knife), 8 (Tonfa).

Advantages: Fearlessness 2 [4]; Military Rank 0 [0]; Resistance (Disease) [3]; Social Regard (Respected) 3 [15]; Very Fit [15].

Disadvantages: Code of Honor (Uphold the Prime Directive) [-10]; Compulsive Exerciser (9) [-7]; Duty (Star Fleet Marines) (15 or less) [-15]; Impulsiveness (12) [-10]; No Sense of Smell/Taste [-5]; Sense of Duty (Federation) [-10].

Quirks: Enjoys eating military combat rations [-1]; Takes great pride in his physical condition [-1]; Fanatical about weapon cleanliness and maintenance [-1].

Skills: Armoury/TL (Small Arms)-11 [1]; Beam Weapons/TL (Pistol)-12 [4]; Beam Weapons/TL (Rifle)-12 [4]; Boxing-11 [4]; Camouflage-12 [1]; Climbing-11 [4]; Computer Operation/TL-12 [1]; Electronics Operation/TL (Communications)-12 [2]; First Aid/TL-12 [1]; Free Fall-9 [1]; Garrote-12 [4]; Gunner/TL (Beams)-10 [1]; History (Recent Federation)-10 [1]; Karate-8 [1]; Knife-12 [4]; Law (Federation Military)-10 [1]; Leadership-11 [1]; Parachuting/TL-10 [1]; Running-12 [1]; Savoir-Faire (Military)-12 [1]; Spacer/TL-12 [1]; Stealth-9 [1]; Survival (Arctic, Class M)-11 [1]; Survival (Desert, Class M)-11 [1]; Swimming-13 [1]; Tactics-10 [1]; Throwing-9 [1]; Tonfa-10 [2]; Vacc Suit/TL-11 [1].

Kilrathie is familiar with Federation phasers for his Gunner skills. His Beam Weapons skills familiarity is for the phaser in pistol and rifle.

Ensign Stulak

(123 points)

Age: 37; 6'3", 220 lbs. Vulcan male, graduated from Star Fleet Academy. Speaks Vulcan as a native.

Attributes: ST 10 [0]; DX 11 [20]; IQ 11 [20]; HT 9 [-10].
Damage: 1d-2/1d; BL 20 lbs.; HP 10 [0]; Will 11 [0]; Per 11 [0]; FP 9 [0].
Basic Speed: 5.5; Basic Move 5; Dodge 7; Parry 8 (Judo).

Advantages: Acute Hearing 1 [2]; Extended Lifespan 1 [2]; Fit [5]; Indomitable [15]; Lightning Calculator [2]; Military Rank 3 [15]; Mind Probe (Touch-Based, -20%; Telepathic, -10%) [14]; Nictitating Membrane 1 [1]; Photographic Memory [10]; Less Sleep 2 [4]; Nerve Pinch 1 [19]; Regeneration (Regular; only while in Autotrance, -30%) [18]; Resistance (Disease) [3]; Social Regard (Respected) 3 [15]; Unfazeable [15]; Vulcan Psi Powers 1 [5].

Perk: Autotrance [1].

Disadvantages: Code of Honor (Logical behavior) [-10]; Code of Honor (Uphold the Prime Directive) [-10]; Duty (Star Fleet) (15 or less) [-15]; Honesty (12) [-10]; Intolerance (Emotional or illogical behavior) [-5]; No Sense of Humor [-10]; Pacifism (Self Defense Only) [-15]; Sense of Duty (Federation) [-10]; Skinny [-5]; Truthfulness (12) [-5]; Workaholic [-5].

Quirks: Collects rocks from planets he visits [-1]; Curious toward unknown plants [-1]; Tries to defer decisions to others [-1]; Plays a hard-carved flute every morning [-1]; Wakes up early every day [-1].

Skills: Administration-10 [1]; Astronomy/TL-9 [1]; Beam Weapons/TL (Pistol)-11 [1]; Biology/TL (Botany, Class M) [4]; Chemistry/TL-10 [2]; Computer Operation/TL-11 [1]; Computer Programming/TL-9 [1]; Diplomacy-9 [1]; Electronics Operation/TL (Sensors)-10 [1]; Electronics Operation/TL (Transporter)-11 [2]; Electronics Operation/TL (Tricorder)-12 [2]; Engineer/TL (Electronics)-9 [1]; Engineer/TL (Robotics)-9 [1]; Expert Skill (Xenology)-9 [1]; First Aid/TL-11 [1]; Free Fall-10 [1]; Geology/TL(Class M)-9 [1]; History (Recent Federation)-9 [1]; Judo-10 [2]; Law (Federation Military)-10 [2]; Leadership-10 [1]; Mathematics/TL (Applied)-11 [4]; Mechanic/TL (Robotics)-10 [1]; Musical Instrument (Flute)-10 [2]; Navigation/TL (Space)-11 [2]; Operations (Space)-10 [2]; Physics/TL (Geophysics, Class M)-8 [1]; Piloting/TL (Starship)-10 [1]; Research/TL-11 [2]; Savoir-Faire (Military)-11 [1]; Shiphandling/TL (Starship)-10 [2]; Spacer/TL-11 [1]; Strategy (Space)-9 [1]; Survival (Mountains, Class M)-10 [1]; Tactics-9 [1]; Vacc Suit-10 [1].

Stulak's Beam Weapons skill familiarity is for the phaser.



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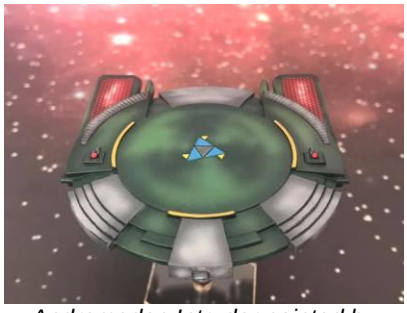
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Andromedan Intruder painted by Kent Ing

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There are a few things that should be obvious, but . . .

GMs in Command

GMs of a given group/campaign can pretty much change anything they want any way they want if it makes their campaign more fun for their group. If, in your campaign, you have a group of Federation National Guard officers who kidnap the Klingon Emperor and overthrow the Klingon government and stop the General War, good for you. Just don't think that events in a given GM's campaign need to result in changes to the official "historical" data of the ***Star Fleet Universe.*** And of course, you must be prepared to deal with the consequences of your changes when they run afoul of other published works.

PD** and **SFU

While ***GURPS Prime Directive*** is a game of the ***Star Fleet Universe,*** no one should try to use a reference in (or a concept extrapolated from) ***GPD*** to argue for a given rules interpretation (let alone a change to a published rule) for other games of the ***SFU*** (e.g., ***Star Fleet Battles, F&E, Warlord, Star Fleet Battle Force,*** etc.). Said in more direct terms, the judges of the ***Star Fleet Battles*** tournaments are *not* going to award you a victory in your ***SFB*** game in a Rated Ace Tournament because some color text in a ***GPD*** adventure could in theory be interpreted as meaning that you can do something specifically outlawed in the rules of ***SFB.*** When creating new items for any game in the ***SFU,*** designers consider all of the data from all of the ***SFU*** game systems, but there are known and accepted inconsistencies from one game to another and ADB, Inc. reserves the right to publish rules in any of its games that do not quite reflect the data from some other game.

***PD** and Starship Design*

Our ships were designed, some of them nearly four decades ago (before ***GURPS*** was designed), using the design principles of ***SFB,*** and trying to reverse engineer them with various ***GURPS*** books is not always going to work. Players and GMs can fudge, finagle, or fiddle the data any way they want for their own campaigns without affecting the ***Star Fleet Universe*** or ***Star Fleet Battles.*** In any case where contradictory data appears, just ascribe it to problems in translating those datatapes the Air Force found in 1979.

PD** and **Trek

This is the ***Star Fleet Universe,*** not ***Star Trek.*** When we created this universe, we reviewed the available source data. We used some, ignored others (considering some things to be "plot devices" with no real basis in technology), and when we found multiple sources in conflict, we picked the most logical interpretation and rejected the rest. After we published our decisions (in the form of numerous game products), new source material appeared which contradicted the ***SFU.*** That doesn't make us wrong, or the data wrong. Data that doesn't fit is from the other parallel universe and won't always match up.

So you will find things in this game that do not match at least some of the source data, while everything is grounded in that data. If a GM and his players agree, feel free to use a different interpretation or make up something new, but do not write to ADB, Inc. and demand that we change a rule to match a given interpretation, episode, novel, or comic book. We won't. And do not submit for publication things based on source data unless that data appears in ***Star Fleet Universe*** products; we can only use certain elements of it and have already used all of the elements we are allowed to use (although much of that has yet to migrate from ***SFB*** into ***GPD***).

SFU** in **GURPS

We have attempted to stick close to ***GURPS,*** but in some cases had to make changes or tweaks to fit ***SFB*** history and technology. (One example is the Tech Levels, where the established ***GURPS*** data, particularly in the case of transporters, cannot translate ***SFB*** into a neat tech level.) None of these tweaks or changes should be considered as our attempt to change someone's campaign or the core rules of ***GURPS.*** The brilliance of the ***GURPS*** system is that sub-universes and individual GMs can fiddle with the rules until they fit what is needed. And you can certainly use any ***GURPS*** skill, advantage, or disadvantage in ***GPD.***

GURPS PD 4e Revision

After over a decade, the core rulebook was showing its age. More information had been discovered and it was time to add it to the book. We also added back some information that had been in the original ***GURPS PD 3e*** book. The result is a much longer book that we hope you will find useful.

*Forward to **GURPS PD 4e***

The release of ***G4e*** allowed us to do ***GPD*** over again, fine tuning it for what the players wanted. Much Federation data was moved to the ***GURPS Federation*** book that had not been envisioned when ***GPD3e*** was published in 2002.

ACKNOWLEDGEMENTS

Success has many fathers, and this book is no exception. We would like to take a moment to thank everyone who helped.

First, we must acknowledge Steve Jackson, who created ***GURPS*** and guided its development. Many of the actual words of this book come from other ***GURPS*** books, and Steve even wrote a couple of new paragraphs when we needed them. Steve's staff and volunteers, including Sean Punch (who did a month of work on the original ***GPD 4e***), Andrew Hackard,

Robert Gilson, and Jayson Howell, also had a lot to do with what you see here, writing or rewriting many paragraphs and patiently explaining why a rule had to be done a certain way.

Gary Plana pulled everything together in the original ***GPD 4e*** book, combining the ***GURPS*** system with the ***SFB*** background. To the extent that Steve Cole and Steven Petrick helped, they felt more like they were learning a new game than writing one. Gary and both Steves thank the many playtesters who each contributed many thoughts, suggestions, and concepts. Alex Chobot joined the team as Gary's top assistant and handled a lot of the details for him. The gang on the BBS contributed dozens of ideas and hundreds of thoughts.

Mark Costello and Timothy D. Olsen did their part many years ago in ***PD1,*** along with many others. A lot of background text came out of that project, much of it relatively unchanged.

David Lang worked out the warp factors for us.

Aaron Hendricks also deserves thanks for helping create the artistic look and feel. We also acknowledge the contribution of our artists, who did a great job.

This revision is the work of Jean Sexton, who fixed some problems and added more rules and information she thought would help both GMs and players. She also discovered much of the information about the species of the ISC.

Note from Jean Sexton

The first RPG that I played was ***Advanced Dungeons and Dragons.*** Hard on its heels came ***GURPS,*** second edition. I followed that with both the third and fourth editions. I played with and GMed for a small group in North Carolina.

In 2007 Steve Cole made me part of the volunteer staff of Amarillo Design Bureau, Inc. I proofread for the company – and it is a testament to the patience of both Steve Cole and Steven Petrick that they took those reports over the phone. Once a year, I would travel to Amarillo to work on "The Big Project." When Steve Cole found out I was into roleplaying games, he suggested that I become head of the ***Prime Directive*** line. Gary Plana poured his knowledge into my head.

In 2013, I finally moved to Amarillo and we started shaking down what I was to do. I added marketing and managing one of the PDF stores. I kept the proofreading job, also. And I started really focusing on the RPGs. The only problem was I had never, ever done layout. I worried that I had bitten off far more than I could chew.

Finally I bit the bullet and produced a small booklet that updated the ***Prime Directive PD20M Rulebook*** with the missing information. I knew I could do this publishing stuff!

The ***GURPS Prime Directive*** revision has been a long time in coming. I'd like to thank the folks at ADB for their patience. I'd like to dedicate this to my parents who encouraged me to live and explore my dreams. Thanks for your hand in shaping me.

ABOUT THE PUBLISHER

Amarillo Design Bureau, Inc., has been the designer of the ***Star Fleet Universe*** for more than two decades, and became the publisher in early 1999. You can contact us at:

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Information on ***GURPS Prime Directive*** is at: www.starfleetgames.com/prime/pd-gurps.shtml

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Space Amoeba painted by Matthew Lawson