

JOVIAN

ENTER THE SAGA OF MANKIND



FROM DREAM POD 9

★ JOVIAN

CHRONICLES



In Memoriam: Alexandre Racine (1972-1999), member
of the original Jovian Chronicles design team.

We will miss you.

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Brought to you by the letter "C" (again — some things never change).

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Dedicated to Carl Sagan (1934-1996), astronomer and visionary, for opening new frontiers.

THE SAGA OF MANKIND

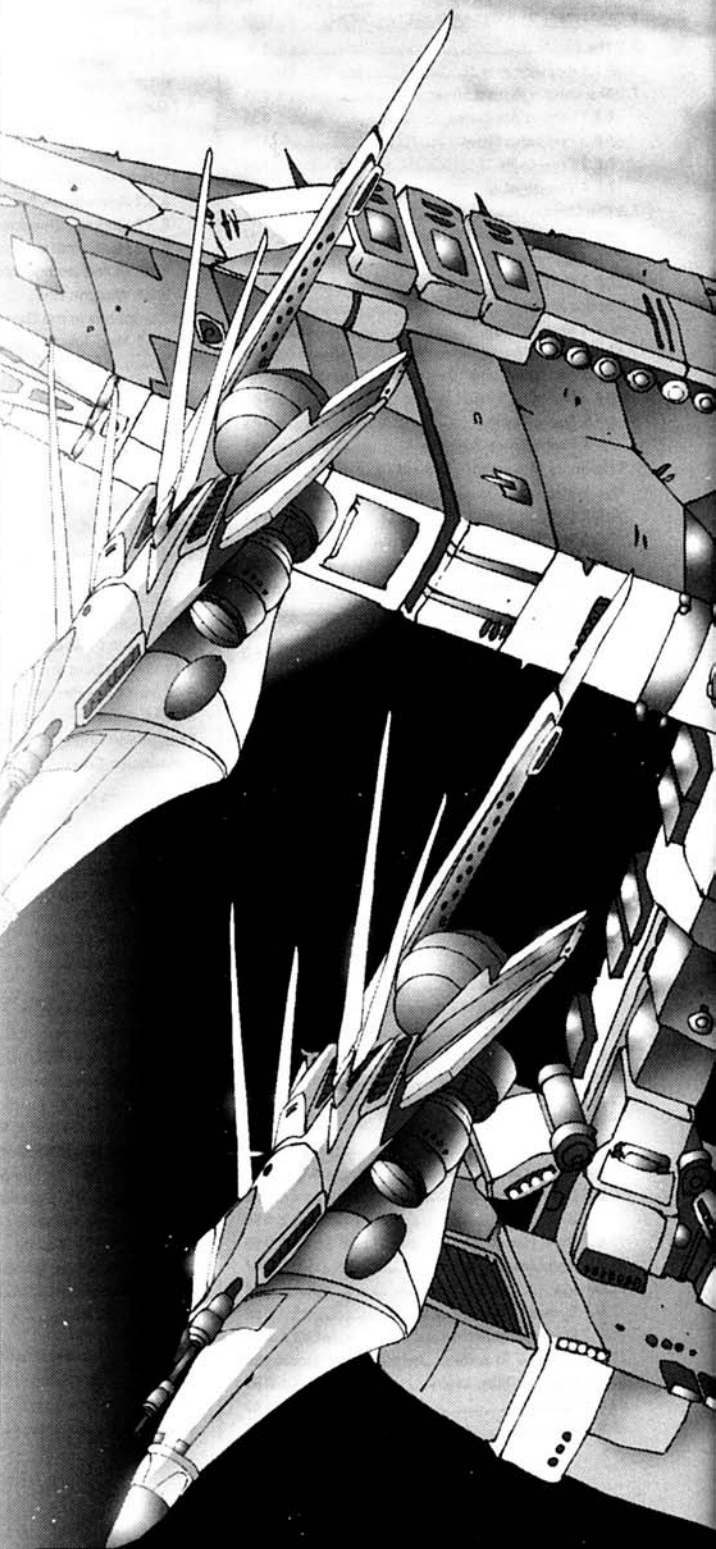
The **Jovian Chronicles** is a complete science fiction universe for the **Silhouette™** roleplaying game system. Inspired by classic science fiction stories and giant robot animations, this book will take the players beyond the confines of planet Earth to discover a solar system on the brink of war. Along the way, they will interact with a rich cast of characters, visit exotic locales and possibly alter the destiny of the Jovian Confederation, if not the human race!

Other than players, six-sided dice, paper and pencils, all that you need to play can be found in this book. In addition to the **Chronicles'** historical, political and scientific background, it contains the **Silhouette** game rules for character generation, character action and vehicle combat that support the campaign. The book also contains pre-generated characters and vehicles, all ready to use in a roleplaying campaign.

Get ready to enter the twenty-third century and step into the world of the **Jovian Chronicles**. Are you up to the challenge?

HISTORY

1772	Lagrange theorizes the existence of the gravity points in Earth orbit
1957	Launch of the Sputnik, first man-made satellite
1961	Yuri Gagarin becomes the first man in space
1969	Apollo 11 lands on the Moon
1977	Gerard K. O'Neill proposes the open-type space colony design
1982	First launch of the American Space Shuttle
1999	Solar Power Satellite 1 test successful
2002	Freedom Station is launched
2007	Prototype fusion engine sustains reaction and generates power
2011	Trial flight of the Megaloader, first true space cargo
2017	First Laser Launch System constructed at Cape Canaveral
2024	First permanent Moon Base established
2026	Artificial diamond fiber composites marketed
2030	Construction of the orbital colonies begins
2031	NASA/ESA Jupiter exploration ship "Galileo II" is launched
2033	First Martian settlement
2037	Jovian Gas Mining Corp. is founded; first station built in Jovian orbit
2038	Ares Corporation founded on Mars
2070	First nomad settlements established in the Asteroid belt
2072	Project New Earth begins; terraformation of Venus
2080	Social and environmental pressures collapse several nations
2090	Major exodus toward space and the colonies
2081	Provisional Terran government takes refuge in orbit
2085	Mars becomes independant
2086	First colonization of Venus
2090	Earth loses any remaining authority over the colonies
2100	Earth is isolated; rumors of major disasters and civil conflicts
2120	Intermittent skirmishes on Mars
2160	The Jovian settlements struggle to survive their environment
2163	First true exo-armor enters service in the JAF
2182	End of the Unification War on Earth
2184	CEGA is founded
2185	Contacts are slowly resumed between settlements
2190	Beginning of a new age of peace and prosperity
2200	Peace in the solar system
2205	Commerce is dominated by the powerful Venusian Bank
2210	The Odyssey
Now	



Personal File 8947A-D3

Date: June 6th, 2205
Location: Jovian System
Source: Sergeant Marie-France Durielle

"Keep in tight formation. I want these
CEGA boys to know we're watching them. I
don't care what GamDivCom says, there's
no good will involved in this little
tour. Okay, get ready to circle around
that monster. I want to get between them
and Jupiter, just to make our little
point clear. This is our home,
not theirs."

▶ PLAYING GAMES

Tensions continue to rise between the Jovian Confederation and the Central Earth Government and Administration. Jovian President Alexandra Itangre announced yesterday that Gamma and Alpha Divisions of the Jovian Armed Forces will be increasing patrols in the Belt region through to the orbit of Mars. CEGA officials announced that naval forces will be responding to "defend our planetary security and that of our allies on Mars." The Mercurian Merchant Guild has already launched a protest against new limits placed on civilian travel through the contested region and the Venusian Bank has expressed concerns about the free-flow of capital. Informed observers say that both fleets are on high alert and some are predicting violence before the end of the new year.

— Zenith Orbital Network Lead News, 3 January 2208.

▼ 13:00 HOURS — 8 JANUARY 2208

"I believe you have some explaining to do, Mister Malachai." Director Kosama's precise diction in his native Japanese conveyed his displeasure to the entire room.

"There is no reason to be concerned, Director Kosama. The interests of the bank will be protected no matter what." Devon Malachai seemed unfazed by the huge boardroom he was standing in. A bay window at least fifteen meters in height rose behind the five directors of the mighty Venusian Bank, revealing the hostile landscape of the planet's polar region.

"I certainly hope so, Mister Malachai. Thanks to your carelessness, a reporter has uncovered Project Lancelot on Stevenson Station. Obviously, your plan of hiding your illegal genetic research project around Saturn has failed outright."

"Not entirely, Director. This..." Malachai consulted his notes, "...Roxanne Fujima must get back from Saturn before she can harm us. I expect she will wish to meet with executives at Zenith Orbital Network in Earth orbit in order to get the most money for her information. The journey should take her several months via commercial liner."

Kosama seemed relieved and his mood spread throughout the lavish meeting room. "Excellent. We will take steps to cut ties to Lancelot. By the time the news hits the airwaves, no one will be able to uncover our funding of the activities. We cannot appear to be breaking the Edicts, after all." The other directors murmured their agreement, but Malachai knew they were signing the death warrant of his career.

"Director Kosama!" Malachai took a deep breath, reigning in his emotion. He had spent the last ten years slowly moving up the strata of power within the Venus Bank. The directors were highly resistant to promoting a soldier and had, he was sure, been looking for an excuse to expel him. He would not give it to them. "You cannot cut off Lancelot; I have spent five years running this operation and I refuse to see it discarded so casually. Not when there's another solution; one that will seal this leak permanently."

"An assassination will only draw further attention to Lancelot and ourselves, Malachai. That option has already been discarded." For shadowy executives controlling much of the solar system's wealth, the directors apparently thought very small. Malachai did not.

He activated a portable projector and brought up a display of the solar system. Highlighted in red, a thin line arced from Saturn through Jupiter's L5 point — known as Newhome — and towards Mars. It was the standard course for a commercial liner running from Saturn or Titan given the current orbital alignment. A series of other lines that indicated the paths of military vessels from the CEGA Navy in the same regions.

"But what if Fujima was eliminated in a way that could not be traced to us or Lancelot?" Malachai smiled as the Directors listened to his plan.

"Fine, Mister Malachai. We will do it your way, but you will see to it personally."

Malachai swallowed, his mouth drier than it had been. "Of course."

▼ 22:00 HOURS — 21 APRIL 2208

"Saber One, report." Paris' voice popped through Helena's headset and his face appeared in a small corner of her Head's Up Display. She smiled every time she saw him, all decked out in his Jovian Armed Forces uniform. As always, he looked deadly serious.

"What's up baby brother?" Helena just couldn't get over it. 400 million kilometers from home and she was still watching out for the kid. And still driving him nuts.

"Lena! Don't break protocol!" The warble in his voice when he was upset was so cute.

"Oh, sorry. Saber One here." Helena affected a deep and comically serious voice, hoping against hope that her brother would crack up at his station on the bridge of the *JSS Daring*. "Do I sound serious now?"

"Lena!" Paris was trying to whisper into his mike, but Helena was pretty sure his bridge mates could hear him. "Be serious, this isn't a game!"

▷ 22:00 HOURS — 21 APRIL 2208 CONTINUED

"No, baby brother," she answered back in her real voice while maneuvering her *Lancer* interceptor into a barrel roll. "This is much more fun!"

"For God's sake, Lena!"

This time he sounded really mad. Maybe she should humor him just this once. "Okay, fine, not a game. Got it." She cleared her throat and adopted a military tone. "Situation normal. Continuing on assigned patrol. Nothing to report."

The relief in Paris' voice was palpable. "Roger, continue along... Saber One, change of orders. *JSS Steadfast* reports a vessel coming in." Coordinates and other data transmitted from *Steadfast* appeared on Helena's console and put the bogey coming up from behind the formation. "IFF is commercial, but we don't have any record of a flight plan or the ship itself. Take Saber Flight and check it out. Current range is 10,000 kilometers and closing."

"Roger, *Daring* command." There, that should make him happy. She hadn't called him 'Daring command' for almost a week. Helena opened a comm channel to her wingmen; Darren and Keiko's faces appeared in her HUD. "Okay Sabers, time to earn our pay."

The three *Lancer* space superiority fighters that made up Saber Flight fired their maneuvering verniers in unison, spinning about to face the incoming vessel. The main thrusters then fired, bringing them onto the new course. Helena loved the feel of her craft accelerating and smiled as she sank into the molded pilot's seat. The tracked position of the target was relayed to her from the *Steadfast*, so she had no need to announce her presence with a sensor sweep. To further increase discretion, Helena cut thrust and maintained radio silence until her unit had closed to within 200 km.

"Okay people, tight formation." The other two *Lancers* closed range and Helena opened a channel to the target vessel. "Unidentified freighter, this is a Jovian Armed Forces fighter patrol, please identify and state your purpose."

"JAF patrol, this is independent cargo vessel *Beautiful Dreamer* en route to Ceres City from Newhome. Captain Aglaée DesSources commanding. My purpose is trade."

00:15 HOURS — 22 APRIL 2208 ▼

"Are you out of your mind?" Aglaée DesSources' face was writ large against the main viewscreen of the *Daring's* bridge. Her fine features and fair skin were somewhat distorted by obvious irritation.

Captain Luther Columbus, commander of the *JSS Daring*, took a deep breath. He was getting a headache already. "Not at all, Captain DesSources. I am just stating the obvious: you will have to change course."

"That is completely out of the question. I am a free trader carrying on legitimate business between Titan and Mars and I have no intention of changing my flight plan and waste fuel to suit your whims. Bad enough I have to deal with your fighters on my viewscreen."

"This is a patrol operation of the Jovian Armed Forces, not a Nomad trade caravan. You will divert around us while we travel toward Ceres."

"No, I won't." DesSources seemed to be fighting back rage and took a moment to compose herself. "I will make it simple for you. I am heading for Ceres to catapult around the asteroid and conserve reaction mass. If I follow your orders, not only will I burn mass to change course, but I will miss Ceres and have to burn further to avoid flying completely off course."

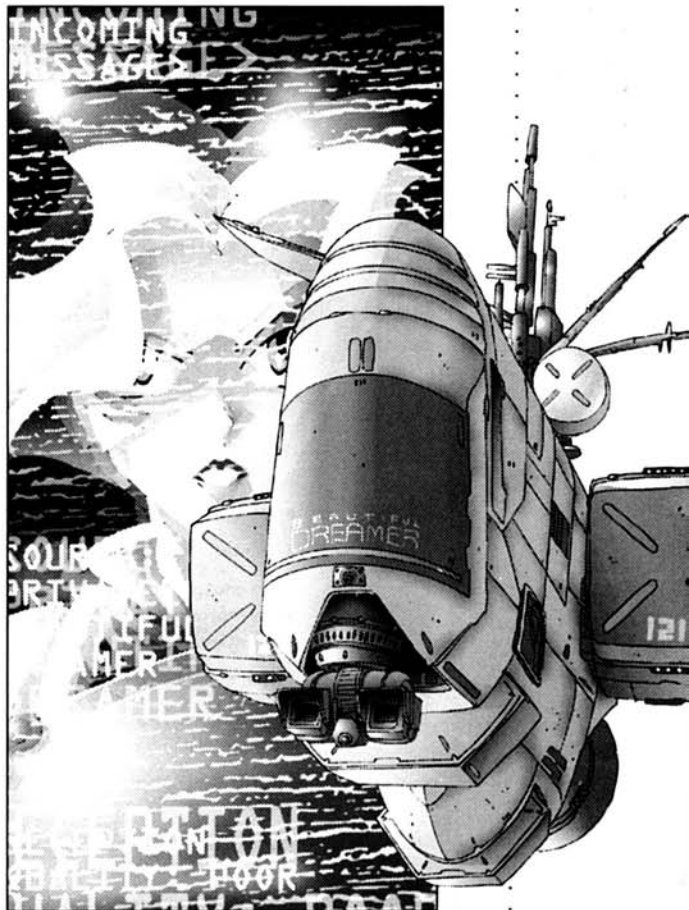
"Be that as it may—"

"I do not have that reaction mass to spare, Captain. It's this simple: let me through or call the Solar Cross, because I'm going to be stuck in the Belt for the next 15 years." DesSources let her statement sink in. "So there isn't very much to discuss, now is there?"

Columbus closed the communications channel and turned to his navigation officer. "Lieutenant, is she right?"

"It could be, sir. Assuming she's low on reaction mass it could be difficult for her to get back to Ceres once going around us. I wouldn't want to be out with that little mass left and so far to go, but traders are a weird lot."

"They are indeed." Columbus adjusted the webbing that kept him in place in the microgravity of the destroyer and opened up the channel again. "Proceed to Ceres, Captain DesSources."



▷ 00:15 HOURS — 22 APRIL 2208 CONTINUED

"Thank you, Captain." She cut the communications before Columbus could.

"Corporal Juno, open a channel to the group." A simple light indicated that it now was. "This is Captain Columbus to all vessels. We will be sharing space with a commercial vessel for a day or so. Close to escort formation and match velocities."

Soon enough, the tactical display showed the destroyer group beginning to respond. The three Thunderbolt-class destroyers — *Daring*, *Steadfast* and *Brave* — placed themselves around the freighter with *Daring* in the lead. The two Forge-class escort carriers — *Alexandra* and *Magdalen* — formed the rear of the formation, with flights of fighters and exo-armors darting to and fro.

It was going to be a long day.

▼ 12:40 HOURS — 22 APRIL 2208

"Red One to *Isonami* command. In position."

Captain Nera Ponderas of the CEGA Naval Forces spoke directly to the junior lieutenant piloting the *Wyvern Command* exo-armor. "Acknowledged, Red One." She called up her tactical display and checked that everything was well. Red, Blue and Gold Flights — consisting of *Wyvern* exos, *Wraith* fighters and *Syreen* exos — were ahead of the strike force. Coming up behind them were Ponderas' lead attack craft, Bricriu-class corvettes *Tacoma* and *Arzana*. Holding back during the operation would be her own ship, the Hachiman-class destroyer *Isonami* and a group of Tengu-class escort carriers. More than enough to deal with a commercial freighter, even if it hid some nasty surprises.

"Attention all hands, this is your commander. I remind you that these are fanatical terrorists we are dealing with. STRIKE is sending a team of killers toward our homeworld and will stop at nothing. We are the first and best line of defense between them and Earth." Ponderas had dealt with STRIKE before and knew they could be quite dangerous. She was thankful she would be getting the drop on them. According to her information, the freighter's holds would be stuffed with stolen exo-armors and weapons, all bound for the Moon.

Ponderas flipped an internal comm channel to the observation deck and signaled the *CSS Isonami's* sole civilian passenger. "Mister Malachai, if you want to see the terrorists who killed your family get their just deserts, I recommend your turn on the monitor we provided you with." The Captain knew it was against protocol to let the Venusian watch, but he had provided the information about a STRIKE team using the *Beautiful Dreamer* as a cover for terrorist action. He had told the Captain in confidence that STRIKE had murdered his wife and child. He wanted vengeance and Ponderas could appreciate that.

"Blue and Gold Flights," she continued, "prepare to close on the vessel once operations have begun. Red Flight will close with you. *Arzana* and *Tacoma* will provide cover fire as needed.

"Okay, Red One. Light up the target for us."

Junior Lieutenant Luce Sonora punched a few keys and channeled power into her *Wyvern Command's* sensor array, sending massive radar/ladar pulses across the vacuum of space. Her on-board targeting computer instantaneously started displaying and identifying targets — far too many targets.

"Commercial vessel — unknown class. Destroyer — Thunderbolt-class. Destroyer — Thunderbolt-class. Exo-armor — *Pathfinder*. Fighter — *Lancer*. Destroyer — Thunderbolt-class. Escort Carrier —"

"Oh, hell."

▼ 12:44 HOURS — 22 APRIL 2208

"CEGA battle group at 35 by 45, Captain. At least three flights of exos and fighters heading in and two Bricriu corvettes in attack formation."

Columbus responded quickly. "Put Saber, Dagger and Sword flights on intercept courses. Move *Steadfast* to shield."

Soon enough, a full tactical display was up on the main screen, revealing an impressive sight: a Hachiman destroyer, two Bricriu corvettes and a Tengu escort carrier. Three wings of fighters and exos — *Wraiths*, *Wyverns* and *Syreens* — were out there as well.

"What the hell are these Earth boys doing? Get me a channel to that Hachiman."

Paris Juno worked his comm station, hoping his hands wouldn't shake too much — this was the *real thing* — but got nowhere. His calls went unanswered. "Nothing, sir."

"Blast!" People were going to die and Columbus didn't know why. He did not like that at all.

12:57 HOURS — 22 APRIL 2208 ▼

"The lead destroyer is sending out a hail again, Captain!"

"Ignore it." Captain Nera Ponderas was not happy. This was supposed to be a quick attack against terrorists, facing at most a flight or two of stolen exo-armors. Now she was nose to nose with a Jovian Armed Forces destroyer group. Even with the *Isonami* in the fight it would have been a difficult battle — with it outside of the battle zone, a clear victory was nearly impossible. Fortunately, they were not here to destroy Jovian vessels; all they needed to do was eliminate the *Dreamer* and the armament in its cargo bays.

"Enemy craft identified, Captain," reported the sensor system officer. "Looks like the third destroyer group. Thunderbolts are *Daring*, *Brave* and *Steadfast*."

"All hands," she spoke into the comm system, "Jovian Armed Forces vessels have formed a defensive pattern around the terrorist target craft. We can only assume that they have entered into an alliance —"

"Captain, Arzana has been locked on by *Steadfast*!"

"Tacoma, burn in to cover Blue and Gold Flights. Time to contact with enemy fighters?"

"Eight minutes."

"Okay ladies and gentlemen, this is it. Red and Gold go after the enemy fighters. Blue close with the *Beautiful Dreamer*. I want that freighter targeted and destroyed. We can clean up the diplomatic mess later."

On the observation deck, Devon Malachai smiled nervously. His simple tactical display showed the superior Jovian forces — what were they doing there, he wondered. Still, he had chosen well. This Ponderas woman was the perfect CEGA Navy pawn: dedicated, simple-minded and deadly. With vision of protecting the homeworld and exacting vengeance for "that poor Venusian" running through her head, she would gladly face down the Jovian vessels and destroy the *Dreamer*, along with Roxanne Fujima.

He noted with some measure of relief that the *Isonami* was staying out of the line of fire. He had left the Venusian Home Defense Force because he was sick of risking his life for others. Let these CEGA fools do it for him, now.

13:04 HOURS — 22 APRIL 2208 ▼

"Engage!" Helena Juno pulled the joystick on her *Lancer*, firing lateral thrusters to change her facing. The flight of *Wyvern* exo-armors was now within the ten kilometer radius and closing at a massive relative velocity. The lock on was easy and she fired a salvo of 3 missiles. Her wingmen matched her almost move for move, before they broke up to take on the *Wyverns* individually.

It was only a few seconds before the first explosion. One of Keiko's missiles hit its mark, ripping into one of the CEGA armors. Point defense systems seemed to have dealt with the rest of the salvo, however. Helena fired thrusters to send her fighter into a complex pattern, as repeated blasts from enemy railguns zipped past her.

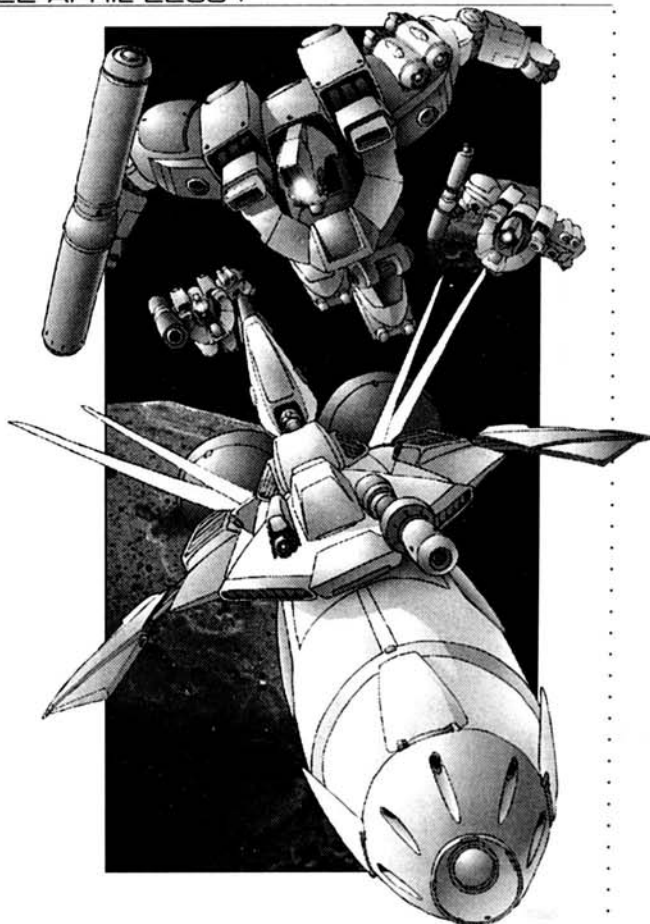
"Keep at it, Sabers! We've got to keep them away from the main ships." Helena knew that she could do only so much, however. This was only one flight of enemy craft, and they were already starting to get an edge despite their casualty. The *Lancer* was a powerful fighter, but *Wyverns* were simply more maneuverable. A flashing alarm flared to life in her HUD, warning that more enemy craft were on their way in.

A second later, *Daring* command confirmed her own sensors' readings. "Saber Flight, *Wraiths* coming at your five by two down. Dagger Flight move in to cover, ETA 30 seconds. Sword Flight track and kill *Syreens* at your one by one up."

Thirty seconds was a long time to be outnumbered and Helena pitched her *Lancer* into evasive maneuvers as the *Wraiths* came in. "Saber Two, *Wyvern* on your six, move to —"

Before she could finish, the CEGA exo fired its hypergolic bazooka again, ripping through Darren's fighter, which began to spin out of control, its insides flaring with explosive power. Helena swore under her breath, swinging to avoid a salvo from the two *Wraiths* that had dropped in behind her.

Where the hell were those *Pathfinders*?





▼ 13:21 HOURS — 22 APRIL 2208

"Tacoma, fire!"

Ponderas' order became a reality in a split second as several dozen fist-sized darts sprung from Tacoma's twin kinetic kill cannon batteries. Streaking in at an impressive relative velocity, they crossed the eight kilometers now between the Bricriu corvette and the *JSS Steadfast*. The Jovian vessel tried to accelerate to avoid the salvo, but could not escape it all. At least five of the darts slammed into its side, punching through layers of armor and wrecking havoc within.

"Arzana, fire!" The second Bricriu-class corvette responded, firing its own salvo of kinetic kill weaponry. The *Steadfast*, despite the damage it had suffered, was moving now and came about in time to avoid much of the second blast. The civilian *Beautiful Dreamer* was not so lucky and its starboard cargo hold was ripped asunder by the super-dense flechettes. A cloud of glittering condensed vapor and debris streamed from the broken shell of the cargo bay.

Ponderas took a second to realize just what she was seeing. "Bloody hell! Get me a spectrum analysis on that cloud, what were they carrying?"

"Steadfast is firing, Captain," weapons control interrupted. The damaged Jovian destroyer had now veered enough to present its guns to the incoming CEGA warships. Its own kinetic kill batteries launched a large volley of darts, while its missile bays loosed several tracking warheads — all aimed at the Tacoma.

"Daring coming about, sir!" On the tactical display the lead destroyer was rotating to face them, its lateral thrusters burning white in the night. Its guns tracked the Tacoma with ease and opened up a second later.

The Bricriu-class corvette needed all its legendary agility to avoid destruction as a barrage of kinetic darts and seeking missiles barreled down upon it. Its Point Defense Lasers were firing madly at the incoming missiles, but the solid darts emitted no signal for the PDS to track. The corvette's maneuvering verniers and other thrusters flared to life as the ship attempted to avoid the incoming salvos. Its inertia was too great, however, and it could not avoid the *Steadfast's* fire. Its port turrets were ripped to pieces by the darts. The *Daring's* weapon fire arrived 45 seconds later, but that was enough time — the Tacoma had already moved just above the line of fire.

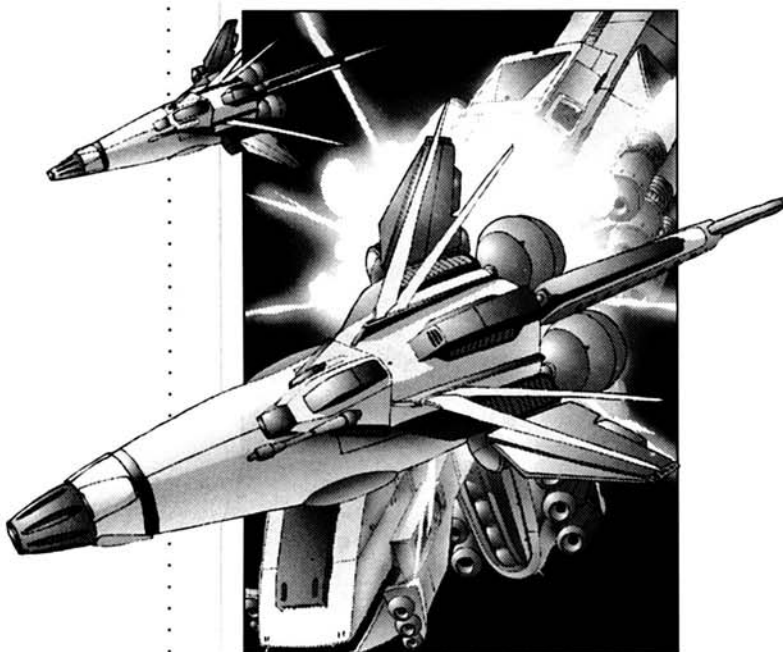
"Tacoma, return fire on Daring! Arzana, concentrate on Steadfast and Bravel!" Captain Ponderas knew she had to hold off the Jovian destroyers. "Where is that analysis?"

"H₂O and hydrocarbons, Captain," the deck officer realized what was happening as well. "But I thought that ship was carrying exo-armors."

"Exactly." People were dying and she wanted to know why. "Get me Malachai!"

In the observation deck, Devon Malachai swore loudly. He ignored the intercom and floated about the deck, trying to readjust his plan, to calm himself down, anything. Well, he thought, she's just a soldier. She would follow orders. She had to.

▼ 13:29 HOURS — 22 APRIL 2208



"Daring command to Saber Flight." Paris' voice was tense, but sure. He was doing well. "Move to twelve by two down."

"Roger." Helena dove her *Lancer* in relation to the elliptic, taking her wingman with her. The *Wyverns* and *Wraiths* moved to follow, but the *Pathfinders* from Dagger Flight kept them off Helena and Keiko's back. "Remind me to thank Dagger One, little brother."

"Move to three flush and prepare for a run on Bricriu Tacoma." That Paris didn't berate her spoke volumes about the frantic pace on the *Daring's* bridge. "Dagger Flight will continue to provide cover to your fighters during a —"

In the same instant, static burst through Helena's comm unit, her brother Paris' face vanished from her monitor and her tactical display listed the *Daring* as "HIT."

"Paris!" Frantically turning her head and adjusting exterior cameras, Helena caught a glimpse of the wounded destroyer, its side opened and spewing gas and debris. "Paris! Come in Daring command!"

"Saber One," a new voice, a new channel. "This is *Brave* command, we are assuming command of fighter operations; *Daring* reports casualties on the bridge. Move to three by one up and continue your attack. Target destroyer Tacoma, full missile spread."

▷ 13:29 HOURS — 22 APRIL 2208 CONTINUED

"Roger." Helena gritted her teeth and bit her cheek to channel her concentration. Her wingman Darren was dead and her brother was bleeding or dying, but all she could do was make those who had harmed them pay. Her tactical display showed the *Steadfast* and *Daring* as damaged and the two CEGA Bricriu corvettes coming in for the kill. *Tacoma* was closest and had inflicted the most damage so far. The navigational computer quickly calculated an approach. She rejected its choice and made her own.

"Saber Three, follow me; we're going for a lightning strike. Keiko, you're shield." The *Lancers* moved to a tight formation with Saber Two in the lead. They assumed an arcing approach, trying to maximize their velocity relative to the *Tacoma*. They would be passing by at a ridiculous speed, making it hard for the destroyer to lock on to them. They could still target the massive vessel, however.

As they raced toward the destroyer, they saw its guns open up again. Helena prayed that the *Daring* could avoid it. She had no time to check. "Keiko, on my mark... now!"

Saber Two launched a large salvo of small MMJ-2LR missiles, quickly followed by a second volley. Keiko added all her remaining wing-launched missiles, creating a swarm of warheads. The small anti-vehicular missiles were not a major threat to the *Tacoma* but its point defense lasers targeted them nevertheless. The tiny laser panels and turrets blasted away, trying to track the dozens of missiles. The PDS was doing a good job, but was being taxed to its limits; Helena had a window and she took it.

"Missiles away!" Helena opened up with her heavy HMJ-6 anti-ship missiles. Four powerful warheads streaked from their launchers as her *Lancer* darted only a hundred meters above the *Tacoma*'s hull. No escape was possible, no PDS could respond, and Saber Flight left a chain of explosive destruction behind it.

Streaking along the starboard side of the destroyer, the *Lancer*'s missiles hit the *Tacoma* in a picture-perfect line. The first shot hit the forward hull, ripping into the massive armored plates and causing severe interior damage. Then came the starboard guns; less armored than the hull, they suffered two direct hits and detonated in a swarm of fused metal and circuitry. The final missile was aimed at the destroyer's fusion engine, slammed into its body, and sheared off one of its four massive drive flaps.

Helena and Keiko were past the destroyer in an instant, leaving the *Tacoma* a ruin. Reaction mass, atmosphere and debris were streaking out of the entire starboard side, creating a growing cloud of particles and ice crystals. The ship was beginning to spin, a few life pods ejecting from the somewhat undamaged port side.

13:46 HOURS — 22 APRIL 2208 ▼

"What are you doing?! Keep firing!" Malachai was floating in the observation deck, his furious gestures sending him floating about in the micro-gee environment. "You have to complete the mission." He was having a hard time keeping the quiver from his voice.

"Mister Malachai." Captain Ponderas' voice was cold and bitter. "Your little plan has already cost the lives of over thirty good soldiers. I have —"

"But the terrorists, you can't let them escape!" CEGA soldiers were fanatical about eliminating terrorists. He could still play that card. She had to fall for it.

"There are no terrorists, Mister Malachai." Her tone was sharp and cold, and he felt a knot tighten in his stomach. "That freighter is shipping water, methane and other simple supplies." She let that sink in, and watched as panic and anger played across Malachai's face before a semblance of calm returned. "A grave mistake has been made, Mister Malachai, and I suspect it is yours. I have given the cease fire order and told our forces to fall back. My decision is final; I think you should consider your next words carefully."

He felt the sweat on his brow. She just couldn't understand. The Bank didn't give second chances. If that little reporter made it to Earth, he was finished. How he hated that woman. His anger suddenly welled up within him then burst. "You cow! You're letting the ship escape! You don't realize—"

Captain Ponderas shut off the intercom and sat back in her chair. "Send MPs down there and put Malachai in the brig. We'll drop him off when we get back to base. Navigation, calculate the trajectories of the escape pods that made it off the *Tacoma* and plot an intercept course that keeps us away from those Jovian forces." Ponderas grimly realized that it wouldn't be hard to calculate; only two pods had made it off the doomed corvette.

"The Jovian forces are backing off as well, Captain. They seem to have accepted the cease fire. The terrorist vessel is still with them." A slight tone of criticism had crept into the navigation officer's report.

"Reign in the attitude, Ensign." Ponderas was already mad enough at Malachai and at herself for having believed him; she didn't need the bridge crew second guessing her. "Someone has been playing games with us."



▼ 00:00 HOURS — 23 APRIL 2208

"Ladies and gentlemen of the third destroyer group." Columbus' voice echoed through all the vessels under his command, his bandaged face appearing on comm monitors and display screens. "This has been a sad day for us."

The image on the comm screen shifted to an external image taken from the *Alexandra*. All the other ships in the destroyer group were in the shot and many bared the marks of combat.

Ten hours after the battle's end, the combatants were well away from one another. The *Steadfast* was limping along on a single fusion reactor, the whole destroyer group making for Ceres City, where they could take on supplies before heading back to Jupiter.

"The *Steadfast* and the *Daring* have both suffered during this exchange, as have our fighter and exo-armor forces. Today we count our dead and salute their bravery in the line of fire." Standing before the surviving officers of the *Daring*, Columbus' voice was solid and sure, but most could see the sadness in his features. "We have faced a brutal and unprovoked attack and defended the lives of innocents. We have shown the forces of the Central Earth Government and Administration that they cannot indiscriminately attack people undertaking legitimate business through free territories."

"Some of us have paid the ultimate price during this battle. Twenty crewmen of the *Daring*, 31 aboard the *Steadfast* and five exo and fighter pilots, will not be returning home. They will never see the crimson and orange of our planet again. To them we give thanks, for they gave their lives for ours. As is our tradition, Chief Hectors will read out the names of the dead and their bodies will be entrusted to the stars. God bless them and take them into His arms."

Helena Juno stood at attention in the pilots' mess, her magnetic boots keeping her to the floor despite the lack of gravity, and saluted as the names were read.

"Private Muriel Anders; Corporal Ethan Azona..."

She felt heat spread through her face as the list dragged on. The view screen displayed the draped bodies slipping out of the cargo bays of the ships they had once served upon. Some she knew, others she did not; they all hurt.

"...Lieutenant Katherine Fendel, Corporal Darren Gimble, Sergeant Didier Guillaume..."

One name down and one to go. Helena held her breath. She felt like fainting, or crying, or dying. Instead she steadied her salute and steeled herself.

"...Master Sergeant Vincenzo Itoglio, Corporal Paris Juno, Private Gabrielle Lan..."

▼ 17:35 HOURS — 3 JUNE 2208

"I can explain."

Devon Malachai had arrived in New Tokyo only an hour ago. In the long months since the failure of the CEGA assault on the *Beautiful Dreamer* he had done almost nothing except try to come up with some form of excuse as to why Roxy Fujima was still alive. The assembled directors of the Bank had yet to utter a word. Malachai opened his mouth to begin his long tirade when the chairman simply hit a key at his station. A video monitor burst to life in response.

"...Roxanne Fujima has more. Roxy?" The ZONet anchorman looked perfectly polished. The network logo was covered by a small date tag indicating when the broadcast was recorded. Malachai had already seen it more than once, but he knew he was being told to watch again.

"Thanks, Xavier. As you know the nations of the solar system live under mutually enforced Edicts that impose limits upon or ban outright certain dangerous forms of scientific research, including fields such as artificial intelligence and genetics. But just how sure can we be that the Edicts are being obeyed? For years we have heard rumors of illegal research stations operating with the approval of one nation or another. Proof, however, has been hard to come by — until now."

The image of the young Eurasian reporter shifted to hand-held shots of an advanced biology lab. "These images were taken with a hidden camera that I carried onto Stevenson Station in orbit around Saturn. This most distant outpost of humanity would be the perfect place to hide illegal research and that is just what I found."

Another shift, this time to a work station with modeled DNA floating in a holographic matrix. "These pictures of research into large-scale human genetic manipulation were taken in the facilities of Robora Technologies — in labs dedicated to a Project Lancelot, to be precise. Lancelot's funding and purpose remain unclear, but SolaPol investigators are currently on their way to Saturn to investigate the evidence provided by ZONet News."

The image froze, plunging the room into utter silence. The directors' faces were lit only by the mild orange light emitted by the large projected face of Roxy Fujima. How Malachai hated that face.

"This is only a minor setback. Lancelot's funding can be masked with ease and its resources relocated..."

"That has already been taken care of, Mister Malachai." The chairman's voice was cold and distant. "We have gathered here only to discuss what to do about you. The Bank is not accustomed to failure."



> 17:35 HOURS — 3 JUNE 2208 CONTINUED

"I haven't failed! Lancelot was worthwhile and will continue to be. Fujima will be made to pay for what she has done to us, as will those Jovian fools. Blood will run over this, I can promise you that!"

The directors stood up in unison and began to file out. The chairman himself waited a moment longer, uttering a few last words. "Vengeance is the resort of unstable madmen. It has become obvious that we operate on a level you are wholly unfamiliar with, Malachai. Consider this your termination notice."

"You can't do this to me —"

"We just did, Mister Malachai. We just did."

07:35 HOURS — 8 NOVEMBER 2210 ▼

"Shuttle 23 to *Valiant* command. Requesting clearance for final approach."

Lieutenant Helena Juno — she still wasn't quite comfortable with her new rank — kept the passenger shuttle in a straight trajectory, moving at 300 meters per second. Beside her, the Corporal assigned to pilot the craft looked a little nervous to have her at the helm, but she was a seasoned pilot; he really didn't have to worry.

"Shuttle 23, you are clear for approach and docking with *Valiant*. Please proceed."

Looking through the viewscreen, she maneuvered the shuttle onto an intercept course with the mighty strike carrier 13 kilometers away. The *Valiant* was virtually covered by maintenance and supply M-pods darting across its mighty hull. Helena decelerated to 90 mps and called back to the passengers. "There she is, Captain."

Luther Columbus smiled broadly as he caught glimpse of the ship that would be his. The other members of the command staff, all veterans of the third destroyer group, soon joined in. "Take a look, my friends, that is the ship that will be taking care of us from now on."

They sat in silence as the carrier grew in size. Its great hull was lined with massdriver catapults from which the fighters and exo-armors under Helena's command would launch. The habitation quarters were now in centrifuge mode. Extended from hull, they slowly rotated around its axis to maintain artificial gravity. Deep under the hull's armor was the bridge, where most people in the shuttle would serve. Huge batteries of kinetic kill cannons were placed on the hull's side, but the most impressive weapon was imbedded in the craft's body. The spinal laser, just below the missile launch ports, could cut through any vessel it encountered and made the *Valiant* a force to be reckoned with. She was spectacular and took their collective breath away.

Columbus, Helena and the others felt twinges of regret, however. Being chosen to command the first in a new class of vessels was a great honor, but leaving behind the *JSS Daring* and the third destroyer group was bittersweet. They had lived — and watched others die — on those ships and a little of the *Daring* would always stay with them.

Their reverie was broken by a flight of three *Pathfinder Alphas* coming from above. Their markings identified them as Tiger Flight, one of the two units now under Helena's command. The pilots and crew had been on the strike carrier for a few days. "Welcome to *Valiant*, Shuttle 23."

The three sleek exo-armors fell into formation around and slightly ahead of the shuttle, so that they were fully visible through the viewscreen. Once their velocity was set, they rotated in unison to stand erect and face the shuttle. On cue they all saluted. "Glad to have you aboard, sirs!"

Columbus smiled, but Helena beat him to the comm. "Tiger Flight! This is Lieutenant Juno! Resume standard formation and continue your patrol immediately."

The lead exo jerked slightly, responding to the movement of the surprised rookie pilot. "But ma'm..."

"Corporal, you are traveling at 90 meters a second toward a crowd of vessels and your attention is on us." Helena's voice was cold and clear. "That is a problem."

"Yes, ma'm." The exos resumed standard flight position and veered off. Helena slowed the shuttle to prepare for the final approach. She knew the captain would have something to say.

"You were rather hard on them, Helena."

"They're rookies, Captain. They have to learn." She breathed the words more than said them. "This is not a game."



► THE SETTING

The year is 2210. Mankind has been expanding into space since the beginning of the twenty-first century, establishing outposts in the solar system for resources and living space. Lagrange points are orbited by countless stations, factories and cylinder colonies, nearby planets have been explored and settled, and the terraformation of Venus and Mars has begun.

More than a hundred years ago, after centuries of environmental and social hardship, the global economy of Earth collapsed. Although it did not happen overnight, it did leave the planet in a state of turmoil and unable to properly care for its off-world colonies. They became independent, absorbing a steady flow of refugees from conflict-torn Earth and surviving as best they could. Through the twenty-second century, the former colonies became the settlements — or countries — of the solar system. The deceased United Nations reorganized under the name of United Solar Nations (USN) and was reinstated to serve as a neutral meeting ground for the governments of the various planets.

The resolution of the troubles on Earth in the late years of the century signaled the end of a dark period for all of humankind. The mother planet had risen from the ashes and, under the leadership of the Central Earth Government & Administration (CEGA), rebuilt itself into a political and military power. Regular contact between settlements slowly resumed as the twenty-second century drew to a close. It was thought to be the beginning of a new age of peace and prosperity — but the events of the early months of 2210 would shatter that illusion.

▼ THE ODYSSEY

In the early 2200s, Terran scientist Doctor Agram Peyarje developed a “cyberlinkage” system for advanced control of machinery and vehicles. CEGA agents quickly realized that it could be used for military purposes and conscripted him. Fearful of CEGA’s imperialistic plans, the scientist contacted Jovian operatives and requested political asylum. The Jovian Confederation’s attempts to get Peyarje to their friendly shores launched a fantastic series of events that have come to be known as *The Odyssey*.

A small team of inexperienced Jovian Armed Forces pilots was sent to Venus, where the scientist was attending a seminar. They succeeded in helping Dr. Peyarje escape, but were discovered and pursued across the solar system by forces that were later revealed to be sponsored by both CEGA and Venusian interests. The fleeing group was helped first by Lunar-based rebels and later, by Martian sympathizers. The Earth forces proved tenacious, however, and tried to stop them regardless of the cost. The Martian orbital elevator prototype and Copernicus Dome on the Moon were both destroyed in the ensuing confusion, at the cost of many lives.

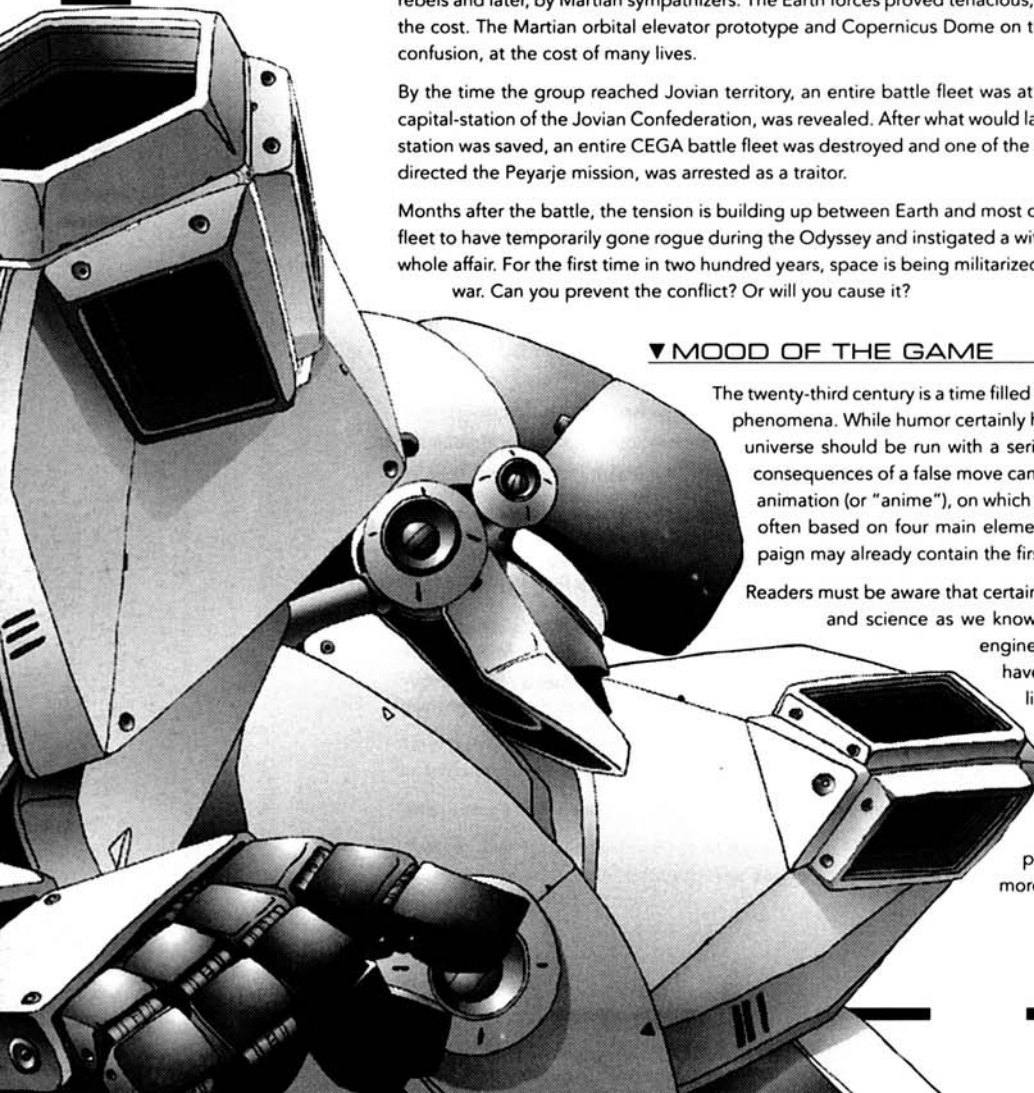
By the time the group reached Jovian territory, an entire battle fleet was at their heels, and a plot to destroy Elysée, the capital-station of the Jovian Confederation, was revealed. After what would later become known as the Battle of Elysée, the station was saved, an entire CEGA battle fleet was destroyed and one of the JAF’s commanding officers, the very man who directed the Peyarje mission, was arrested as a traitor.

Months after the battle, the tension is building up between Earth and most of the settlements. CEGA officially declared its fleet to have temporarily gone rogue during the Odyssey and instigated a witch hunt to find the people responsible for the whole affair. For the first time in two hundred years, space is being militarized. You will now enter this world on the brink of war. Can you prevent the conflict? Or will you cause it?

▼ MOOD OF THE GAME

The twenty-third century is a time filled with excitement and promise as well as deadly phenomena. While humor certainly has its place, games taking place in the Jovian universe should be run with a serious outlook. Players must be aware that the consequences of a false move can very well be fatal to their character. Japanese animation (or “anime”), on which the *Jovian Chronicles* are partially inspired, is often based on four main elements: War, Death, Love, and Music. Your campaign may already contain the first three: just add a well-chosen soundtrack.

Readers must be aware that certain artistic liberties have been taken with history and science as we know them today. Although the Silhouette game engine is fairly realistic, the players will generally not have to deal with the “mundane” aspects of space life (fuel, oxygen, high radiation, orbits, etc.). These elements will come into play only if they move the plot along — otherwise, they drag down the game and transform a cinematic, high-action adventure into an evening of dice-rolling, calculations and paperwork (see *Campaign Styles*, page 223, for a more thorough discussion on this).



GAMING IN THE JOVIAN CHRONICLES ◀

This book includes introductory information on the **Jovian Chronicles** universe and the rules needed to play the game either as a roleplaying game, a tactical combat game, or a combination of the two. The layout of this manual was purposely made clear and simple for ease of reference during play, with reference icons and a detailed index.

Chapter 2: *World Cyclopedia* introduces the **Chronicles'** universe with a tour of the Solar System in the year 2210, while the third chapter describes six powerful organizations. The fourth chapter, *Silhouette Basics*, explains the game's basic mechanics and concepts. *Character Design* then describes the character generation process and the basic items and weapons that can be used by the characters during their adventures. It is immediately followed by *Character Action*, where all rules regarding roleplaying characters in the **Jovian Chronicles** universe can be found.

The *Mechanical Action* chapter explains the tactical rules for space, air and ground combat. *Mechanical Catalog* then examines the high technology of the twenty-third century, and also contains game statistics for many exo-armors, fighters and space ships. *Gamemaster Resources* contains ideas and tips to help you launch a **Jovian Chronicles** campaign right out of the book. The manual is rounded out by a ready-to-play campaign set on the mighty *JSS Valiant* strike carrier.

THE SILHOUETTE™ GAME SYSTEM ▼

Why the name "Silhouette?" Because it evokes many things that we hoped to build into the rules. A silhouette is simple; so is the game system. A silhouette marks the outlines of an object; the rules outline the game, helping to give form and definition to all situations. A silhouette is a shadow as the game system should be, to the point where players are not aware of it anymore. A silhouette is flexible and can change shape; so can the rules.

All rule systems have to make a trade-off between extreme realism and playability. **Silhouette** is in the middle ground — it is based on true facts that were then simplified to the point where the game was fast-moving and fun to play. The system uses the traditional six-sided die to add a random element. The numbers and modifiers are small and easy to remember, and there are just enough of them to realistically represent any given situation.

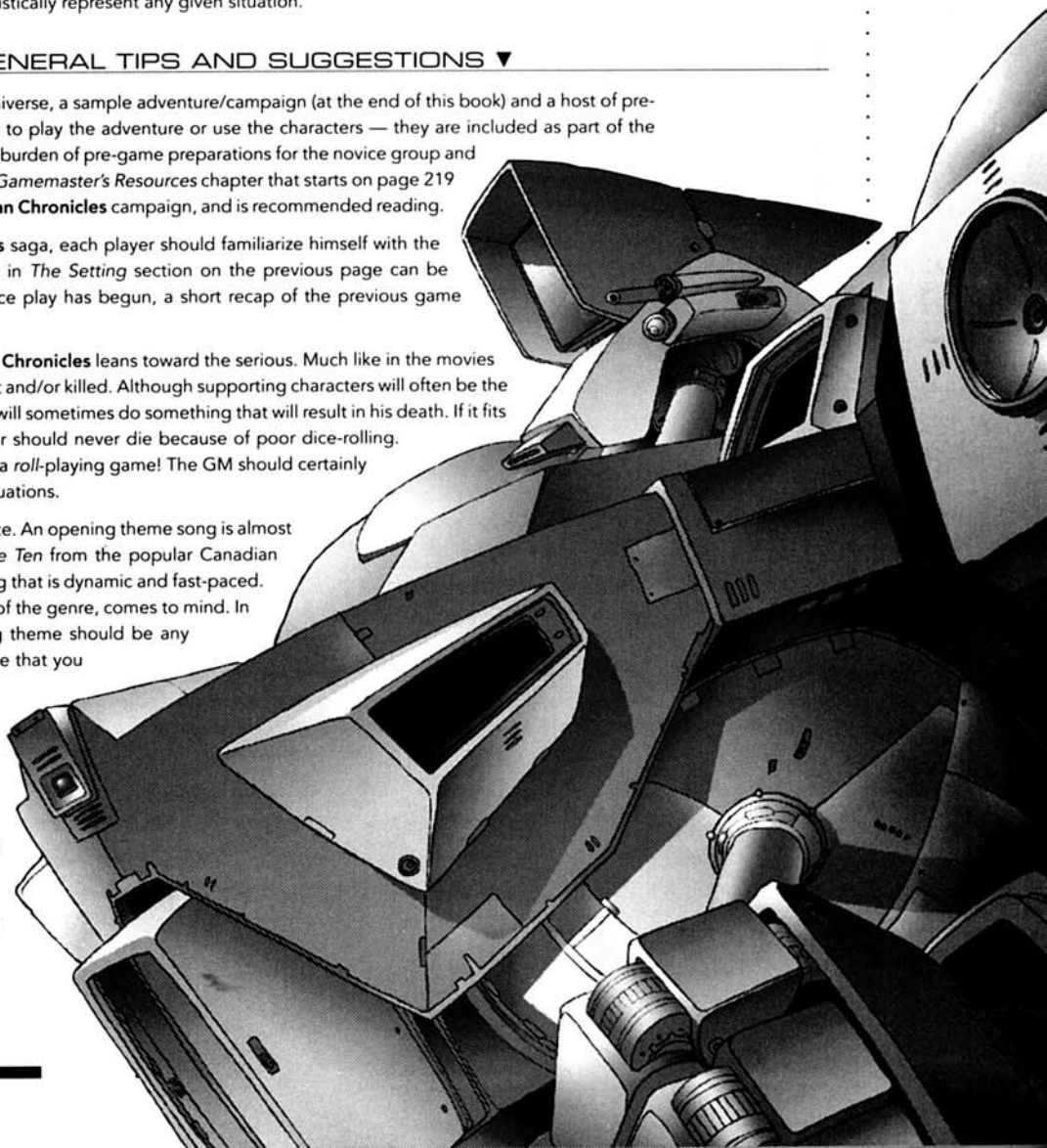
GENERAL TIPS AND SUGGESTIONS ▼

This book includes a complete gaming universe, a sample adventure/campaign (at the end of this book) and a host of pre-generated archetypes. It is not necessary to play the adventure or use the characters — they are included as part of the background material — but they ease the burden of pre-game preparations for the novice group and allow you to start playing right away. The *Gamemaster's Resources* chapter that starts on page 219 will prove useful to anyone running a **Jovian Chronicles** campaign, and is recommended reading.

Before starting an epic **Jovian Chronicles** saga, each player should familiarize himself with the **Chronicles'** background. The description in *The Setting* section on the previous page can be used, but feel free to use your own. Once play has begun, a short recap of the previous game session (or "episode") will suffice.

As stated before, the mood of the **Jovian Chronicles** leans toward the serious. Much like in the movies (and real life), people are going to get hurt and/or killed. Although supporting characters will often be the ones to buy the farm, a player's character will sometimes do something that will result in his death. If it fits into the story, it happens, but a character should never die because of poor dice-rolling. This is a cinematic roleplaying game, not a roll-playing game! The GM should certainly feel free to "fudge" the dice in critical situations.

Music will enhance your playing experience. An opening theme song is almost mandatory: we strongly recommend *Force Ten* from the popular Canadian rock group Rush, but you can use any song that is dynamic and fast-paced. The *Top Gun* soundtrack, another classic of the genre, comes to mind. In typical Japanimation fashion, the closing theme should be any moody and sentimental song: choose one that you like. Various fast-paced instrumental soundtracks can be used during play, especially during the fight scenes; the choice of music is of course left to the taste of the playing group. Sound effects can add great flavor too, if correctly done, although they should never slow down the pace of the game. Aside from this, low lighting is recommended as it reduces chatter among players and provides a great atmosphere.



SOLAR SYSTEM OVERVIEW

The events that came to be known as the Odyssey caused a rude awakening for the disparate nations of the Sol system which had been comfortable in their isolation. The failed attack on Elysée by a "rogue" CEGA (Central Earth Government and Administration) battlefleet was an marked the realization that Earth's grasp was at last matching its scheming. No one believes that the slap on the wrist received at the Battle of Elysee will curb further such actions on the part of CEGA. Across the entire system, the human race prepares for a war that nobody wants to fight.

Nowhere is the tension greater than in the Jovian system. During the weeks following the near-disaster of the Battle of Elysée several arrests of high-ranking military personnel occurred. The house arrest of General Avram Thorsen, who has confessed to the crime of collaborating with CEGA forces, definitely caught the attention of the public. Even with the demoralizing removal of one of its finest leaders, the Jovian Armed Forces have risen admirably to the challenge of a stepped-up defensive posture by increasing patrols and training operations.

The situation on Earth curiously mirrors the state of Jovian affairs. While the deceased Admiral Russel Kleb, who led the attack on the Jovian Confederation, has borne most of the blame for the fiasco, there are some members of the CEGA council who refuse to let the matter rest and insist on witch-hunting other "responsible" parties. Military production in the Earth system, already at a high level, has been increased yet again, and recruitment rallies are taking place everywhere. Strategically, CEGA split its focus between crushing the remaining resistance to its rule on Earth and presenting a strong space-based military force with which to cow the human worlds.

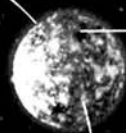
The rest of the solar system watches the two powers intently, as yet unwilling to declare sides. Mars is still split by bickering between its two nations, although the destruction of the orbital elevator has put the entire planet in an unsavory mood toward CEGA. The Mercurians and their Merchant Princes are wary of any event that might make business difficult, and are taking preventive action. Lastly, the spying ears of the Venusian Bank lurk behind every wall in the solar system. The Bank's role in the politics of these dark times resemble an iceberg — they are far more massive and deadly than one would suspect at first glance.

For more than a century, the nations of the solar system lived in isolation, separated by the ocean of space. Mankind, however, has never been satisfied with what is readily available, preferring instead to reach afar for new acquisitions. As a result, the injustices of past centuries will be repeated, this time on a much vaster scale. Only time will tell if the creatures who could not share a planet can learn to coexist in an infinity of stars.



SATURN

Aphelion: 1.5×10^8 km
Perihelion: 1.34×10^8 km
Orbital Speed: 9.6 km/s



MERCURY

Aphelion: 69.7×10^6 km
Perihelion: 45.9×10^6 km
Orbital Speed: 47.9 km/s

JUPITER

Aphelion: 815.7×10^6 km

Perihelion: 740.9×10^6 km

Orbital Speed: 13.1 km/s

MARS

Aphelion: 249.1×10^6 km

Perihelion: 206.7×10^6 km

Orbital Speed: 24.1 km/s

EARTH

Aphelion: 152.1×10^6 km

Perihelion: 147.1×10^6 km

Orbital Speed: 29.8 km/s

VENUS

Aphelion: 109×10^6 km

Perihelion: 107.4×10^6 km

Orbital Speed: 35 km/s

Astronomical Datafile 65437-8
 Organization: Jovian Institute of Science
 Source: Prof. Jacques Lanouette

Solar System Model

This datafile shows the inhabited portion of our solar system. Despite advancements in sensor technology, much of humanity's home has yet to be explored in detail. The millions of smaller bodies that surround the Sun are especially intriguing, though they are much too small to be shown in this general view.

Notes

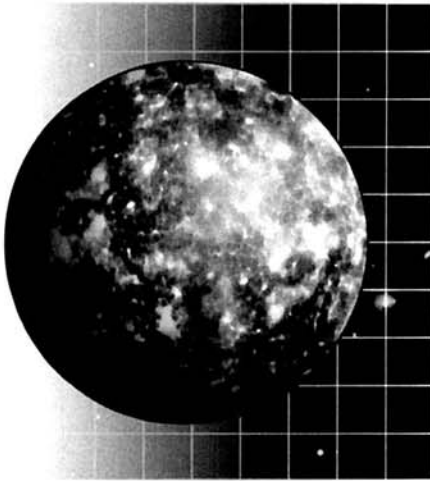
Planetary Diameters Not to Scale

Orbits Not to Scale

Outer Planets Not Shown

Small Objects Not Individually Shown -
 Refer to File Series 9 for further details

► MERCURY



Distance From Sun:	57,900,000 km
Revolution Around Sun:	88 days
Rotation:	58 days, 15 hours
Axial Tilt:	0°
Diameter:	4,878 km
Density:	5.4 x that of water
Mass:	3.3 x 10 ²⁰ metric tons
Surface Gravity:	0.38 g
Escape Velocity:	4.18 km/sec.
Average Surface Temperature:	430°C on day side, -170° C on night side
Atmosphere:	trace
Hydrographics:	none
Population of Planet:	variable
Population of Orbital Stations (21):	29 million
Languages:	English, Spacer's Runic, Merchant's Tongue
Principal Exports:	industrial metals, uranium, labor force
Principal Imports:	food, water, manufactured goods, fuel

◆ OVERVIEW



Fewer than two dozen large stations orbit the solar system's hottest planet, hidden from the blazing solar radiation by Mercury's shadow. First colonized for the New Earth project, then expanded in the early twenty-second century by disgruntled Venusian salarymen, the Mercurian nation has grown rapidly over the last century to become the most influential trading power in the solar system. By remaining carefully neutral in all conflicts involving other settlements, and by making sure not to pick any fights of its own, Mercury has gained the grudging trust of the other solar nations, many of whom would rather pay to have their cargo moved for them than buy enough ships to move it themselves. The huge mag-sail barges of the Mercurian merchant fleet can be found in every corner of the solar system, ferrying all manner of goods between the planets, a constant reminder that the nation of Mercury extends far beyond the orbit of the innermost planet.

◆ CULTURE

The people who live in the shelter of Mercury's shadow are well aware of the precarious nature of their homeland. Although the Mercurians treasure the privacy afforded by their hostile environment, the close quarters and constant danger cause a great deal of internal stress on their society. As a result, nearly every Mercurian is subject to mandatory service in the merchant fleet, both to train young adults for the full responsibilities involved in living in space permanently and to make sure that everybody "gets out" at least once in their lives. This policy also ensures that every Mercurian citizen develops a healthy head for business. When coupled with the natural hardiness and ingenuity brought on by their life on the edge, these traditions makes Mercury's small population a system-wide power totally out of proportion to its size, a fact not lost on the increasingly arrogant Mercurians.

◆ POLITICS



The Mercurians rely on a simple democratic government in which an Administrator is elected by popular vote and serves for up to ten Mercurian years. Candidates are required to announce their desire for the position at least five years in advance, to allow citizens ample time to evaluate them. This also allows far-flung merchant crews a chance to get the news. This makes for a constant pool of candidates who try to impress the Mercurian people with their efficiency and intelligence. Fortunately, the pragmatic Mercurians have little tolerance for non-business-related political posturing. The current Administrator, Golan Fairbanks, is an ex-Guild captain who was elected a year ago after a close race. His efforts to moderate Guild control of Mercurian society have earned him many enemies among his former colleagues, but his daring and progressive economic policies have earned him the love of the general populace.

Mercury is the neutral settlement of the solar system, and refuses to align itself with anyone. As far as the Mercurians are concerned, taking sides is bad for business and must be avoided. Other nations of the solar system accept this attitude because of Mercury's value as an impartial trader.

◆ SCIENCE AND MILITARY

By dint of their unique environment, Mercurians have become the masters of high-temperature-materials engineering and solar power applications. Almost all of the nation's power is supplied by huge solar energy arrays on Mercury's surface and in its near orbit.

▷ SCIENCE AND MILITARY CONTINUED

Because there was so little to defend on or around the planet itself and since merchant ships and barges were unarmed by tradition, Mercury maintained only a token force of patrol-class military ships and fighters for many years. Recent events, however, have prompted Administrator Golan Fairbanks to beef up his nation's defenses as a precautionary measure. Observers on Helios Station, the capital, have reported heavy activity at military facilities, and Mercury has recently deployed the *Brimstone* exo-armor. For the moment, Mercurians maintain their position of careful neutrality, but only a fool would think that they are unprepared for a shift in the solar system's political structure.

COMMERCE AND INDUSTRY ◇

Having few exportable natural resources or manufactured goods, Mercury relies on its large merchant fleet to support itself. By facilitating the exchange of commodities between worlds, Mercury earns revenue for the expensive upkeep of its stations. Every ship and barge in the Mercurian merchant fleet bears the crest of the Merchant Guild on its hull (see *Mercurian Merchants Guild*, p. 47).



The Guild is an organization reminiscent of the guilds of Renaissance-era Earth. Membership in the Guild is limited to Mercurian citizens who have completed their National Service requirement, although not all Mercurians choose to become members. After leaving official service, Mercurians who desire neither the benefits nor responsibilities of Guild membership are still granted the right to travel as crew on Mercurian merchant vessels every few years as a form of stress relief but cannot call on the Guild for help if they get in trouble away from home.

RECENT DEVELOPMENTS ◇

True to its word, Mercury has remained neutral amid the increasing tension between the Jovian Confederation and CEGA. Undaunted by the prospect of all-out war, the Mercurian merchant fleet remains abroad, continuing to help keep the lines of trade and communication open between nations. Goods, people and information that cannot be delivered through national channels often find their way to their destinations aboard Mercurian ships.

The Merchant Guild pays close attention to the cargoes that are entrusted to its care, always on the lookout for information about the possible involvement of the Venusian Bank in the current crisis. Mercurians have never forgotten that their nation was born out of disgust with the policies of Venus; if that world is manipulating events once again, the Guild wants to be the first to know the details.

THE SURFACE ★

The power relay stations on Mercury's surface are a remarkable example of Mercurian stubbornness and adaptability. The living quarters and transmission facilities are hidden beneath the ground for nearly three months at a time during Mercury's 600-Kelvin day while the collectors soak up the sun's power. The stations become a bustle of activity after sunset, when microwave transmission towers rise from armored silos to beam stored power to the stations above and technicians emerge to perform maintenance and repairs on the huge arrays.

While this system might seem needlessly dangerous, the founders of Mercury's society, fearing possible Venusian reprisals, decided that power satellites were too vulnerable to sabotage. While the surface stations cost more and are difficult to build and maintain, they are easier to protect than orbital relays. Only half of the total power system is exposed to attack at any given time.

ON THE WINGS OF HERMES ▣

One of the basic choices a player must make about a Mercurian Player Character is whether he was raised aboard one of the space stations or under the surface of the low-gravity planet. This fundamental decision will affect the character's Build to a great extent. Mercurian Player Characters are merchants more often than not. Since they must all go through their mandatory fleet service, PCs should have a basic idea of how their service went, who they have met during that period, who they worked under, what they learned, etc. Playing a group of young Mercurians on their first trip can be a great premise for a campaign. It allows new players a chance to travel through the solar system, meet a wide variety of individuals, experience diverse cultures and get rich in the process. They may travel aboard their own spaceship — probably an old junker, refitted so many times that none of the original equipment is recognizable — carrying cargo, information or passengers without asking too many questions. Characters who are part of the Merchants Guild may be asked to transport questionable cargo or gather precious information, which may lead to several action-packed scenarios.

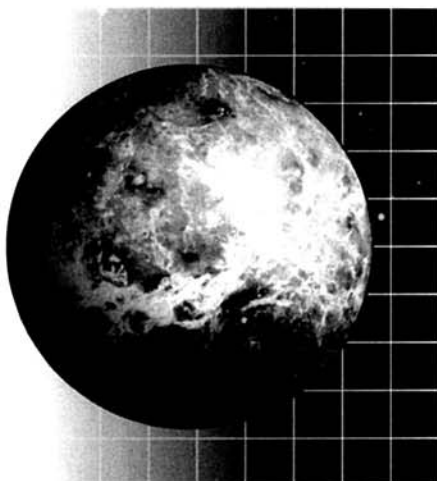
Non-Mercurian characters visiting Mercury's stations are likely to be closely watched. Mercurians value their privacy and do not want strangers sticking their noses in their businesses. Furthermore, visitors are often unused to the safety measures to follow aboard the stations or under the surface, and can easily be a risk to the settlement's safety. If non-Mercurian Player Characters visit Mercury, the Gamemaster can easily set up a scenario where they commit some form of security breach and have to survive it. Alternatively, they could become embroiled in some underground conflict between the Guild and the Venusian Bank, and have to weasel their way out without losing too many feathers.

SCIENTIFIC FACTS

HOOKS AND TIPS

end of section 2.1 mercury

► VENUS



Distance From Sun:	108,200,000 km
Revolution Around Sun:	225 days
Rotation:	243 days
Axial Tilt:	178°
Diameter:	12,100 km
Density:	5.3 x that of water
Mass:	4.8 x 10 ²¹ metric tons
Surface Gravity:	0.91 g
Escape Velocity:	10.3 km/sec
Average Surface Temperature:	60° C at the poles after terraforming.
Atmosphere:	1.5 to 4 atm. (42% CO ₂ , 35% O ₂ , 22% N ₂ , traces H ₂ O, H ₂ SO ₄ , HCl)
Hydrographics:	2.3%
Population of Planet:	410 million
Population of Orbital Stations:	7 million
Languages:	Venusian dialect, English, Japanese, Cantonese
Principal Exports:	algae products, foodstuffs, commodities
Principal Imports:	machinery, computers

◇ OVERVIEW



Venus has always been a world of mystery, its secrets hidden for centuries behind rolling clouds of poisonous gas and surface temperatures hot enough to melt lead. Although Project New Earth converted the atmosphere with terraforming techniques late in the twenty-first century, the spirit of Venus' veiled threat has been passed on to its human inhabitants.

Project New Earth was sponsored, designed and paid for by a group of Terran corporations who foresaw the impending social chaos on Earth and decided that their positions were too weak to withstand the coming storm. They organized a mass emigration of resources to a new world, leaving the remaining zaibatsu to squabble over what would soon be a wasteland. The wisdom of that decision has been borne out — the corporations of Venus are now the richest in the solar system.

◇ CULTURE

The cities of Venus are quite spacious despite the need for protective domes and processed atmospheres. Life within the domes is strictly regimented in order to preserve working efficiency and discourage rebellion. Most Venusian workers never see the outside world, cared for as they are from birth to death by their teammates, supervisors and company. All that is asked in return is hard work and ambition.

Venus' official language is a curious creolization of Japanese grammar and English words derived from a century of intermixing corporate systems. The written form uses Roman letters in conjunction with the three forms of written Japanese, and is widely regarded as the most difficult language in the solar system to learn. Venusian children are, of course, taught to treat this as just another challenge to defeat.

With rigid education and the various communication networks, populations tend not to change languages easily. In the case of the Venusians, however, the linguistic change was intentional, a deliberate effort to make the language inaccessible to those who did not learn it from birth. Most children on Venus are taught Japanese first, and then instructed in the reading and writing of the Anglic languages. The alteration was sponsored by several major corporations who desired a more compact and versatile tongue. Many especially long or awkward Japanese words have been replaced with English, and vice-versa. While the space-based nations were developing Spacer's Runic for many of the same reasons, the Venusian government gradually instituted this new language, squashing the protests of traditionalists.

◇ POLITICS



Venusian society is based on the concept of the city-state. Each domed settlement is governed by the board of directors of the parent corporation that either built or owns the city. The specifics of administration vary from city-state to city-state, but the most common form of governing body is a small subcommittee under the direct control of the board. Dissatisfaction with corporate policies among the citizens moves up the chain of command by way of increasingly larger petitions. In rare cases, corporate CEOs have had to make rulings based on the signed complaints of entire city-states.

Venusian foreign affairs are mediated by the planetary council, a body of representatives sent from each major corporation. The number of councilors each corporation sends is based on the corporation's annual net worth. This rule is perpetuated by the Venusian Bank, whose true power is rumored to be many times what their already-large council delegation suggests (see *Venusian Bank*, pg. 50).



SCIENCE AND MILITARY ◇

Venusian technologies are among the most advanced in the solar system; what their own R&D departments cannot develop can be bought or stolen from other sources. As a result, they have managed to engineer (or reverse-engineer) nearly every scientific innovation of the past century. The Venusians, however, are just as mystified as the rest of the solar system by the workings of the Jovian Floater's multipolymerase protein (see *Jupiter: The Great Mystery*, p. 38).

The public face of the Venusian Home Defense Force (HDF) is a glorified parade band which performs air shows and barnstorming acts for the general populace. In reality, HDF pilots are experienced and well trained, and their exo-armors, exo-fighters and warships are the finest products of multiple Venusian military contractors. It is also suspected that the actual size of the HDF is far larger than everyone has been led to believe.

COMMERCE AND INDUSTRY ◇

The regular importation of foreign electronics and machinery to Venus is an illusion designed to fool the rest of the solar system into thinking that Venus cannot survive without their help. This sham gives Venusian traders an edge when dealing with other nations. Many a foreign corporate representative has been duped into thinking that Venus would get the short end of a deal. In recent years, Venus has used such skillful deception to make itself the solar system's money clearinghouse. Several large banks are in ascendance on Venus, of which the Venusian Bank is the biggest and best known. This situation has generated a great deal of resentment among the governments of other worlds, especially Mercury's, which roundly dislikes having any part of its revenue touched by its former masters.



RECENT DEVELOPMENTS ◇

Throughout the years, Venus has successfully downplayed its ties to CEGA, promoting an image of neutrality and openness. Doubt is surfacing, however, in the minds of many political insiders system-wide in the wake of CEGA's recent actions, despite a typically prompt and efficient Venusian media blitz distancing Venus from the Odyssey.

Locally, recent events have heightened the already-existing tensions between the Venusian Bank and other corporations who resent the Bank's near-total control of the planetary council and Venusian financial activities as a whole. Non Bank-affiliated economists voice concerns about a downward spiral toward a planet-wide monopoly by the Bank. Bank officials deny these allegations, and point out the increasing wealth of the accusing companies and the difficulty of establishing a monopoly in such a competitive environment as Venus.

TERRAFORMING ▲

The conversion of Venus from a corrosive hellhole to a tolerable environment for Humanity began on Mercury, where a series of automated massdrivers spent more than three decades seeding Venus with magnesium and calcium bricks which were then made to react with the carbon dioxide in the atmosphere to free oxygen and bind carbon to the surface. Giant fin-like structures, acting as heatsinks, cooled the polar ground for the Venusian arcologies. Now that the atmosphere has thinned noticeably, Martian-designed, genetically engineered bacteria are slowly continuing the job, and the process of atmospheric conversion continues to this day. One day, ice asteroids will be dropped from orbit to bring water, restoring the Venusian seas.

The result is no earth-like paradise, but at least the temperature range at the polar regions is somewhat acceptable to humans. The atmosphere remains dangerous to breathe, and Venus' lack of a magnetic field means that the plasma bowshock of the solar wind is practically overhead, but the Venusians are happy with their small triumph. Theoretical plans for a planetary-scale screen are in the works to reduce radiation on the surface.

PLANET OF MYSTERY ▣

Player Characters from a Venusian background can be part of the contented or discontented segment of the population. This usually corresponds, respectively, to the richer capitalists or the outcasts. Those from the first group tend to be sharp, well educated and politically inclined. The outcasts, while not always rebellious, tend to come from poorer backgrounds and often look for ways to change the system. Players can be from either one. Depending on that choice, their goal may be to further the interests of Venus in the solar system or to promote changes within their society to make room for the "lower" social castes. In the first case, PCs may work for a given city-state or for the Venusian Bank, going on missions that may take them throughout the solar system in order to find new sources of revenue or power. They may also wish to promote some level of chaos between the settlements, causing an arms race and reaping the rewards by stealing new weapon designs. Those Player Characters who belong to the outcasts may join some internal underground movement working against the strictly regimented environment or try to find some way to leave the planet and find a better future in space.

When players visit Venus, they should be careful to tread lightly and keep their heads above water: Venusians do not want anyone finding out what they are up to, so they act with a great deal of efficiency against nosy visitors. Sometimes, they also act that way with guests before they have a chance to be nosy...

SCIENTIFIC FACTS

HOOKS AND TIPS

end of section 2.2 venus

2.3



In the late twenty-first century, a series of social and economic disasters brought the civilization of Earth to its knees. The causes of the Fall are still debated today, with no clear answer in the offing. The fragmentary records of the time signal a worldwide computer network blackout, followed by stock market crashes and mass economic confusion. There is also evidence of a plague that struck down millions in the months of darkness that ensued.

Nothing from that time is certain; all that is known by the other planets is that all contact with Earth was suddenly lost, and none of the shuttles sent to investigate the situation ever returned. In later decades, telescopes showed massive ecological devastation caused by neutron bombs and uncontrolled biological warfare, while intercepted radio transmissions told of terrible atrocities and barbarism. The colonies were struck by the realization that they were now on their own. They turned their focus on themselves and spent the next half-century struggling to become self-sufficient.

When Earth re-established communication in 2184, no one expected to see a powerful, unified government like the Central Earth Government and Administration. Although nearly half the planet was still in a state of civil war, CEGA moved quickly to regain control of the orbital colonies and the Moon, and declared itself as a new superpower in the solar system. Unwilling (or unable) to face down CEGA in its own backyard, the other planets allowed CEGA to do as it wished, much to their current dismay.

As the natural birthplace of humanity, Earth remains a fabulous mosaic of cultures, religions and languages. A century of warfare has only reinforced the bonds within societies, keeping old languages and traditions alive. Many of those same traditions have been abandoned for the sake of uniformity and survival on other worlds.

In modern times, Earth has become the artistic if not the political capital of the solar system. Every day, shiploads of merchant vessels laden with scenic paintings, religious artifacts and holovideo discs leave the cradle of humanity for the other planets who eagerly trade their best goods for a glimpse of their past. This, and the presence of the ancient monuments and holy places make Earth the envy of the solar system, at least artistically.

In other matters, however, Earthers are arrogant and condescending. The popular perception of offworlders is of country yokels who could only benefit from Earth rule. Even in the Middle-East and Asia, where war persists and CEGA rule is nonexistent, this belief generally holds true. Offworld visitors are seldom well treated away from diplomatic consulates. Although the common language of diplomacy in the solar system is English (a leftover from the days of North American aerospace supremacy, during which most official in-flight communications used English terminology), Earthers who can do so often prefer to belittle their visitors by speaking tongues used only on Earth, like Mandarin Chinese or Spanish.

The Central Earth Government and Administration is an archetypal imperialist government. Dissatisfied with ruling the local subsystem, it aims to regain control over the various human settlements of the solar system which became self-sufficient by necessity during Earth's isolation. Citing heritage and the fact that, a century ago, Earth paid dearly to establish the settlements, they apply constant pressure on the other world governments of the United Solar Nations to surrender more and more control of their worlds to the CEGA council. Thus far, these demands have fallen on deaf ears.

0022

▷ POLITICS CONTINUED

Forty councilors drawn from Earth, the Orbitals and the Moon make up the CEGA council. Although anyone may run for a position on the Council, the election process is strongly biased due to its roots in the military government that preceded CEGA. Since CEGA is, according to its constitution, a supranational organization "divided by rebel influences," election votes from military personnel are weighed first, with the civilian votes serving only as tie-breakers. This much-decried policy has resulted in a pro-military and pro-imperialist council. The current head of the Council, charged with maintaining order during council meetings, is Aelfred Cyning, who has held the position for three years. Although he is an avowed expansionist, he has been quite impartial within the Council, allowing every faction to have its say.

Despite the constant badgering, Earth tries to maintain cordial relations with the rest of the solar system. Unfortunately for Earth, every planet has some reason to be wary of its hand of friendship. All Martians (even those in the Martian Federation, which is nominally allied with CEGA) are taught at an early age of their world's battle for independence against Earth, and Mercurians are concerned that CEGA's goals preclude the existence of a neutral trading power like themselves. While the Venusian Bank (and by extension, Venus itself) is pulling the strings of many members of the CEGA council, the events of the Odyssey Affair have aroused fears that the puppet may be developing a mind of its own. As for the Jovian Confederation, the unprovoked attack against their capital has engendered open hatred of CEGA among the populace of that remote nation. Although many voices on both sides advocate a peaceful resolution of the differences between Jupiter and Earth, diplomatic relations between the two nations have chilled significantly.

IGNATIUS CHANG ☆

Born amid war and political strife in Chinese-controlled Singapore in 2153, Ignatius Chang's family forced him into combat at an early age. He taught himself the meaning of honor, always making sure to treat his enemies with respect and humanity. His quick mind and natural charisma propelled him through the ranks quickly, and he became a general in the Chinese Army in 2181. His leadership helped China stalemate the North American/European forces, prompting the resumption of official peace talks.

After a formal peace treaty was signed, Chang found that he had become a well-known and highly-respected figure in the military ranks of his former enemies. When CEGA was formed in 2184 (without the membership of the Asian nations, who had demanded independence as part of the peace treaty), Chang realized the threat posed to his home country by the new regime. Hoping to spare his people unnecessary suffering by moderating CEGA's imperialism, he joined the CEGA Armed Forces and won a place on the CEGA council in 2196. Although his actions have made him an exile among his own people, he has managed to persuade his colleagues to use nonmilitary means to bring peace to the Asian continent. He was a staunch friend of Ranho Garand, the CEGA ace who was killed during the Odyssey Affair, and is now one of the loudest voices in the faction that advocates a peaceful path to CEGA domination.

PERSONALITIES

SCIENCE AND MILITARY ◇

Much of CEGA's technology was developed by the Moon and orbital colonies during the Isolation. It is fairly advanced, but still a little behind Jovian or Venusian equivalents. Distrust of CEGA has prevented a free flow of knowledge, and CEGA spies have proven themselves to be less adept at "information retrieval" than Venusian ones. Nevertheless, Earth has made the best of what it has and has managed to make life reasonably comfortable for most of its population — a significant feat considering the size of Earth's population in relation to the other planets.

Earth's biosphere is slowly recovering. Until it does, CEGA has built huge, self-sufficient arcologies to house its people. The largest of these is Gaia City, built on the charred remains of the Boston Metroplex in North America. Serving as the home of the CEGA council, the massive complex rises over 500 meters high and sprawls over hundreds of square kilometers — a grand tribute to the monolithic power CEGA covets.

Much of CEGA's impressive work force is assigned to military projects, from basic research to mass production. CEGA's primary focus was, until recently, the construction of warships, a somewhat outdated attitude that nevertheless produced a fearsome space navy. The last few years, however, have seen a growing interest in exo-armor technology, culminating in the hideously expensive and technologically innovative *Dragonstriker* project. Considering the size of CEGA's navy, many foreign intelligence analysts dread the day when CEGA focuses all of its attention on exo-weapon development.

COMMERCE AND INDUSTRY ◇

The companies that fled to the Orbitals in the days before the Fall returned home to find their assets in ruins. Unable to recover the past, they took advantage of early diplomatic initiatives by CEGA among the solar nations to snatch up technology, real estate and other commodities. In the short time it took the solar system to wise up to Earth's true attitudes, these companies had regained a significant measure of their former glory along with a healthy amount of Earth-centric arrogance.

The Terran companies continue to demand special treatment, prime mining spots and other concessions from their "inferiors." This has led to several conflicts on Mars and in the Belt, where the settlers refuse to give ground on their home soil. These turf battles have mostly consisted of shouting matches and the occasional brawl, but it is only a matter of time before the Earthers raise the stakes.





COMMERCE AND INDUSTRIES CONTINUED

With its half-poisoned biosphere, Earth must import food, minerals and Martian terraformers to help heal the planet. The Terrans dislike their dependence on the other worlds and are often unreasonably hard nosed when negotiating prices, a behavior the rest of the solar system would find amusing if Earth's attitude was not backed by an all-too-eager military fist. Many also suspect Earth of paying various mercenaries and pirates to steal goods in order to avoid fattening the coffers of nations they still consider colonies.

Most of the heavy industries are located either in low orbit or in the land surrounding the cities and spaceports. Earthside pollution is now much less of a problem than it was in the past and most of the polluting industries are now in space, where it is easier to recycle wastes due to the unlimited supply of solar energy. Besides, the vacuum provides much more energy and raw material, though the rarity of certain chemical compounds in space means that not all factories can migrate outside the gravity well.

RECENT DEVELOPMENTS

CEGA is still recovering from the repercussions of the Odyssey Affair. Several high-ranking administration officials have been arrested and are scheduled for trial, and Admiral Kleb, leader of the invasion fleet, has been posthumously vilified. Most people in the solar system, however, including some CEGA councilors, find these "sacrificial lambs" unsatisfactory, and demand further investigations into the matter. One of the most vocal of these has been Councilor Ignatius Chang, who still mourns the loss of a longtime friend to the madness of Russel Kleb. Chang currently performs his duties from a hospital bed where he is recovering from an "accident" that occurred shortly after he presented controversial evidence at a press conference pertaining to Admiral Kleb's conduct. He stated that Kleb had been given judgment-impairing drugs, as part of a conspiracy within CEGA, shortly before the fleet departed for Jupiter. In any case, CEGA's already tenuous credibility as a peaceful neighbor has been totally shattered.

In an effort to redirect the public eye away from deranged CEGA admirals, Earth administration has launched a massive media campaign to blame the revolutionary group STRIKE for the destruction of both the Martian orbital elevator prototype and the massacre at Copernicus Dome on the Moon. In widely distributed advertisement and propaganda material, CEGA does its best to dispel the public perception of STRIKE as a kind-hearted group of freedom fighters and recasts it as a sinister organization of brutal terrorists.

CEGA council meetings are becoming increasingly heated affairs, with arguments between factions escalating into personal attacks and even (on two separate occasions) fistcuffs. The moderate faction, composed mostly of Orbital and Lunar representatives (Councilor Chang is one of the few exceptions), advocates peaceful negotiations with the other worlds and regards its opponents' promotion of the use of military force as completely abhorrent, not to mention potentially suicidal for all of them. The USN and SolaPol keep a wary eye on the situation and watch for signs of possible covert actions by either side.

The non-aligned nations of Earth (see facing page) have remained surprisingly silent on the whole affair. There have been numerous skirmishes on borders in Africa and the Middle East, but open conflict has thus far been avoided. Though the Asian Trading Sphere issued a half-hearted formal protest, few of CEGA's terrestrial neighbors seemed willing to face potential diplomatic problems by embarrassing the world government even more.

DARK REBELS

Formed in 2190 by a group of rebellious Terran senators and military officers, STRIKE's outward goal is the reunification of Mankind under one government (specifically, a Terran government not under Venusian control or influence). The inner workings and politics of this shadowy organization, however, are as much of a mystery to the solar system as the origin of the group's name. They have claimed responsibility for dozens of acts of terrorism over the past twenty years, and have been accused of many more. At the same time, rumors abound of shipwrecked crews rescued by STRIKE exo-armors and of other acts of altruism. Anyone can be found within their ranks, provided they show fanatical devotion to the Cause.

Many believe that leadership shifts regularly between forces of megalomania and moderation within STRIKE's power structure, an idea reinforced by the erratic behavior of the group. Others have suggested that STRIKE is in fact a blanket name taken by various organizations who share the same overall goal, though with widely different degrees of fanaticism. In the weeks following the Odyssey Affair (for which STRIKE has once again been both blamed and lionized), STRIKE has been very discreet. Government plants report of the rise in power of a charismatic new leader, who could perhaps succeed in cleaning up the act of the group and turn it into a respectable and powerful political entity. His identity remains unknown, with only a fragmentary report from a subsequently captured agent saying "...but he's supposed to be dead."

STRIKE possesses a staggering amount of equipment. Dozens of exo-armors and fighters have been brought over by defecting pilots, and while STRIKE has no known manufacturing capabilities, its members seem adept at repairing and modifying what they do have. They have few ships of their own, and many of these are converted civilian craft — something that helps camouflage troop movements. In addition, the scope and reach of some of STRIKE's operations hint strongly at several industrialized sources of parts, medical support and food, although these collaborators' identities remain unknown. SolaPol intelligence has recently used some of its assets to try and find out if one of the settlement governments is involved in the terrorists' source of material.

THE NON-ALIGNED STATES ▼

The ad-hoc world government that created CEGA may have successfully united much of the population of planet Earth, but not all countries were ready to yield to its authority. Though it now controls North and Central America as well as Europe and North Africa, the self-proclaimed government's forces were faced with continuous resistance as they tried to push the borders of the territory they controlled even further. By the late years of the twenty-second century, the situation had degenerated into a series of stalemates and blockades on more than five separate fronts. The situation reached an point of equilibrium, and none was willing to give even another meter of ground. Rather than risk prolonging needless bloodletting — but more importantly to conserve dwindling resources — a cease-fire accord was reached by the various alliances just prior to the formal creation of the Central Earth Government and Administration. Though sporadic, localized skirmishes still occur weekly on the borders, the general cease-fire has been successfully maintained for almost three decades now.

The Non-Aligned States, as the territories that share the Earth with CEGA are usually referred to, are composed of three main power blocks, all more or less stable. The Asian Trading Sphere is the largest of them. It is composed of an uneasy alliance between China, Japan, eastern Siberia and the remnants of other Asian countries, along with most of what used to be Indonesia. Though it lacks abundant indigenous material resources, the Trading Sphere has immense manufacturing power, both on the ground and in orbit, and a solid technology base. They have a few space stations in geostationary orbit over their territories, mostly for solar power collection, but no large vessels. Whether they have spacecraft capable of traveling beyond the Earth's immediate vicinity is unknown, though the CEGA Navy and other militaries keep a keen eye out for such vessels.

The South American continent remains independent of CEGA, though it has extensive trade relations with it (and other nations of the world). South America suffered the most from pollution and overpopulation in the twenty-first century, and still bears the scars today. The various modernization efforts made to properly introduce the poorer nations of the continent to the third millennium failed or were confined to the major cities. Most of the population lives in an odd state of semi-technological sophistication, where beasts of burden still climb up the sides of the Andes while their handler listens to the music booming from a cheap Chinese copy of an orbital-designed datadisk miniplayer. The majority of political observers expect most of the countries of South America to petition for entry in the CEGA within the next twenty to thirty years.

The greater part of Africa has also escaped rule by CEGA. Frontiers and artificial borders established long ago by colonial powers have broken down, and most of western and central Africa is now composed of balkanized mini-states regrouped in tribal and regional alliances, many supported by CEGA to keep the region divided. Eastern Africa has managed to remain somewhat more stable but is a client state of CEGA. Southern Africa is dominated by the stable and powerful Azanian Compact. The Capetown Spaceport provides relatively easy access to the Compact's few industrial facilities in orbit. Newly elected Azanian Prime Minister Maurice Mutawe has begun undertaking diplomatic initiatives in the solar system, including sending a party of observers to the USN assembly on Pyrea Station. Rumors of a diplomatic treaty with the Jovian Confederation are currently running through the halls of power, as are stories of a planned military response by CEGA.

The situation is obviously not as stable as it first appears to be. There is little doubt in the mind of political observers that the powers-that-be in the CEGA council will want to "tidy up" their own backyard at some point, and place increased pressure on the other Terran states. This will force the nations to join up or at the very least ally themselves with the government juggernaut — the consequences of independence could be dire indeed.

BIRTHPLACE OF MANKIND ▣

Playing an Earth native provides you with the advantage of familiarity. It is easy to find documentation and story ideas based on currently available information. It should be noted, however, that Earth has changed quite a bit since the twentieth century, and that while countries still exist, they have fairly different spheres of influence and cultures. Most importantly, there are three options for Player Characters: they can be pro-CEGA, anti-CEGA or neither. Pro-CEGA characters may enroll in the military and help support the war effort, or they may become traders. Many people join the CEGA Naval Forces in order to see space and veterans can sometimes find the resources to relocate to the Orbital Colonies. Anti-CEGA PCs may work at home as terrorists, or seek allies in the various off-Earth settlements. They may also join STRIKE (see previous page) and actively work against CEGA, but still to promote Earth's domination of the solar system. Lastly, neutral characters may simply set out to resolve the political problems on Earth, or simply make the best of an imperfect world. Mostly, they will not have an easy access to space and will focus their efforts on the planet and their personal lives.

There are several problems that need addressing on Earth, not the least of which is the amount of conflicts that rage over territory and limited resources. Racism and strife are rampant, and belie the illusion that CEGA is all-powerful. Many of the treaties that are signed are broken and new ones are signed on a monthly basis. Earth's political scene is chaotic to the extreme, and old racial hatred have not vanished here as they have elsewhere in the solar system. Player Characters will have their work cut out for themselves if they attempt to work for one military force or the other. In some cases, some PCs may opt to join a party they are opposed to and work their way up to change it from the inside.

Earth is not entirely a hellhole and it is only there that PCs can feel real wind and rain on their skins, or wake to the warmth of the sun. GMs should emphasize the wonder of these simple pleasures to those who have spent their whole lives in the thin and cold air of Mars or cooped up in a cylinder colony.

3.



SCIENCE & MILITARY ◇

Orbital science is oriented toward space life. Their advances in life support and ship design and construction have proven invaluable to CEGA's military buildup, especially the Navy. Much of CEGA's space-faring forces are imported from the Orbitals in exchange for raw materials unavailable in near-Earth space.

The Orbitals never felt a need to overarm themselves. Apart from shuttles and armed Orbital Transfer Vehicles, the forces of the space colonies consisted of little more than a few corvettes and launches, most of them used as custom ships to inspect cargoes coming in from the Moon or the Belt. When CEGA took over, many of these capable vessels were incorporated in the fleets of its Navy.

COMMERCE & INDUSTRY ◇

The Orbital economy is one of service and manufacturing. Many of the cylinders were originally built by Earthbound companies before the Fall to house the staff of the orbiting factories. During the Fall, control of these stations shifted to those companies that had taken refuge in orbit. Today, as these companies reestablish their old hold on Earth, the factory colonies continue to perform their intended tasks for their new masters.

The best-known orbital spaceport is Pyrea. It is one of the main crossroads of the solar system, through which most of the traffic to or from Earth passes. In addition to hosting the USN Assembly and the Solar Cross' offices, Pyrea is also home to nearly six million people, making it one of the largest space colonies in the Solar System. Much of the station's local economy is centered around the large commercial shipyards that surround it.

In addition to Pyrea, the space between Earth and the Moon's orbit is filled with satellites, power grids and workstations. The large solar arrays established in the beginning of the twenty-first century continue to provide most of the Earth's power. The workstations are divided into two rough categories, the labs and the autofacs. Labs are small, zero-gravity installations where research and high-precision manufacturing is done. They are typically staffed by a rotating crew of scientists and workers. The autofacs are completely automated factories which take raw materials in one end and churn finished products out the other. They are staffed only by a small number of technicians to keep things running smoothly, and who often commute from a nearby station for their day's work.

RECENT DEVELOPMENTS ◇

A flurry of activity has been noted in the colonies over the past few months. Shipyards are tooling up for new designs as well as increasing the pace of work on ships already under construction. A large area around Earth's L5 point has been marked off by radio buoys and is constantly patrolled by CEGA exo-armors. Nearby observers have reported seeing unknown types of vehicles on maneuvers in the zone, which display extraordinary maneuverability. Among military tech buffs, rumors abound of a new, upgraded *Syreen/Dragonstriker* hybrid. CEGA officials refuse to comment, citing national security and warn that any intruders who violate the borders of the test zone will be met with deadly force.

The destruction of Copernicus Dome on the Moon has aroused fear in the Orbital population concerning their own vulnerability. Police patrols and security measures have increased accordingly, and there are talks and rumors of secessionist movements being formed in the back rooms of pubs and the dens of private houses. The present government is investigating these rumors because any attempt at secession could lead to a war with CEGA, which the under-armed Orbitals could not possibly win.

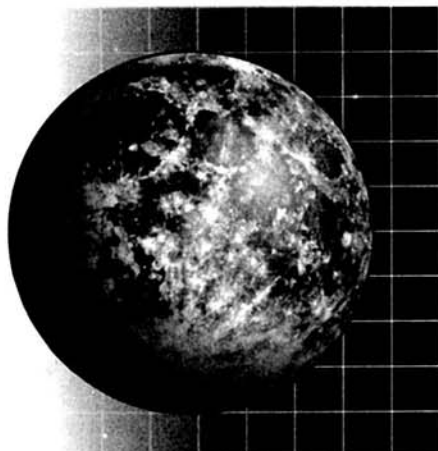
ISLANDS IN THE SKY ▣

Player Characters from the Orbital Settlements can come from a variety of backgrounds. The O'Neill cylinders have a reputation as idyllic, perfectly manicured environments and PCs can easily have grown in cylinders resembling 30 kilometer long suburbs. Other cylinders, however, have suffered from overpopulation and have seen slums grow up in certain areas. Some Orbitals also have trouble dealing with an idyllic locale and rebel. The domination of CEGA has only exacerbated these problems. All of these outsiders make good choices for Player Characters. The colonies are also home to ZONet (see p. 51) and other major media networks, making them a good "home base" for a reporter or entertainer Player Character.

Gamemasters setting scenarios in the Orbital Settlements can indulge in games of intrigue and subtlety. Orbitals live in a heavily corporate culture and espionage is almost second nature to them. CEGA's reliance on technologies developed in the settlements has only increased the stakes of intrigue. The presence of the paparazzi and major media houses in the colonies also makes Orbitals very media savvy. Gamemasters could easily have a PC party become sudden media darlings or make them the victims of a supposedly true "exposé." PCs from a more straightforward culture (such as Nomads or Martians) may have a very hard time adapting to the fast pace and subtleties of Orbital society.

Orbitals also take their security very seriously, all aware that they live in controlled environments vulnerable to damage and sabotage, and police campaigns can easily be set in a colony. Security teams spend much of their time keeping an eye on outsiders, but there are some Orbitals who pose a threat to their fellows as well. PCs can become identified as threats very easily, and may have to find shelter somewhere in the colony. While these settlements are very large, their security forces know them inside out.

► THE MOON



Distance From Earth:	356,395 to 406,767 km
Revolution Around Earth:	27.3 days
Rotation:	27.3 days
Axial Tilt:	1.5°
Diameter:	3,476 km
Density:	3.342 x that of water
Mass:	7.4 x 10 ¹⁸ metric tons
Surface Gravity:	0.16 g
Escape Velocity:	2.38 km/sec
Average Surface Temperature:	-200°C
Atmosphere:	none
Hydrographics:	none
Population:	5.4 million (not including military personnel)
Languages:	English, Spacer's Runic
Primary Exports:	manufactured goods, raw materials, oxygen
Primary Imports:	complex hydrocarbons, specialized food stuffs

◇ OVERVIEW



The Moon was the first attempt at permanent space colonization. The closeness and material richness of Earth's satellite made it a logical choice for the large corporations that founded the first colonies. The settlements, all named after nearby craters, were built underground to protect them from radiation and have been steadily expanding for nearly two centuries. Even today, the mines of the Moon provide the Earth and Orbitals with much of their raw materials, mostly oxygen, processed water and silicates.

In addition to a permanent population of about one million, Luna is home to several CEGA military bases. Lunar cities have a martial atmosphere because of the number of soldiers that spend leave there. All inhabitants of the Moon maintain rigorous exercise regimens and take mineral supplements and advanced biocompounds to counter the debilitating effects of life in prolonged low gravity. Nevertheless, natives of the Moon (known as Selenites) tend to be very tall and thin (much like inhabitants of Mars).

◇ CULTURE

Selenites adapted to the rigors of self-sufficiency after the loss of support from Earth by becoming obsessed with scheduling and organization. From birth to death, an individual's life will be organized and scheduled. Creativity and imagination were discouraged in order to focus attention on staying alive. This attitude persists in modern times, although the resumption of Terran aid gives them a few scattered holidays.

The foreign visitor often has the impression that the Selenites are obsessed with work, and this is partly true. They do have free time, but are not noted for being "party animals." There is an exception to this, however: the 72-hour holiday known as the Festival. The Festival occurs every three months and is a three-day long, almost non-stop party. Randomly designated citizens are asked to remain on duty to take care of any emergency which might arise; they are also responsible for the clean-up. The system of selection ensures that everyone does an equal share of the work in the long run, though individuals often exchange "tours of duty" as if they were currency.

◇ POLITICS

The Lunar settlements use the same representative system as the orbital cylinders. A council made up of representatives from each domed city votes on all the major decisions that affect the people of the Moon as a whole. Smaller councils take care of local business, such as setting the production quotas. The current council is led by Chairwoman Clarice Seleung, a former geologist from Descartes. The lunar cities are members of CEGA, a choice motivated by a need for resources from Earth as well as by a healthy fear of reprisals had they rejected CEGA's offer.

Selenians are quite willing to trade freedom for security, with the exception of a few scattered rebel groups. These rebels might be dangerous if they could ever agree on what to do with freedom once they've attained it. The most infamous of the lunar freedom fighters is the group once led by Ismael Li, which has now scattered across the Moon in the wake of the Copernicus Massacre. Dozens of other, less active groups can be found in every lunar city, perpetrating minor crimes like vandalism and graffiti.

SCIENCE & MILITARY ◇

LUMEC

Selenites are some of the solar system's best miners. The Lunar Mineral Exploitation Consortium (LuMEC) dominates the Moon's commercial scene as one of the few pre-Fall companies to maintain its power during the hard times. Its huge massdrivers continue to be one of Earth's primary suppliers of raw materials for space construction. Contrary to popular belief, the lunar massdrivers make very poor weapons. They are buried into the ground and can only shift their aim a little, and even then, very slowly. Their usual targets are the masscatcher nets located at the Lagrange 2 orbital point behind the Moon. The masscatchers are the space age equivalent of the old sea-going barges: when the massive conical nets are full, a fusion-powered tug pulls them to where the material is needed.

Though the Selenites manufacture several types of weapons, they have few troops. There is not much to fight for on the Moon apart from the installations themselves. As a result, most of their forces are defensive in nature and organization.

COMMERCE & INDUSTRY ◇

Many other Lunar companies are military contractors who are gaining in importance due to the current political climate. The Lunar Aerospace Consortium is the most important of these companies, and is responsible for almost all of CEGA's exo-weapon production. In addition to producing *Syreens* and increasing numbers of *Wyverns*, LAC undertakes testbed research for CEGA. The *Dragonstriker* exo-armor is one example of their R&D department's expertise. Many more groundbreaking designs are surely in the works.



The other main lunar industry is the production of specialized raw materials for the space construction projects. Every day, large sheets of aluminum, bundles of silicates, as well as oxygen and water tanks are sent up to waiting cargo ships. Between 55% and 65% of the mining operations on the Moon are under the direct or indirect supervision of the Lunar Mineral Exploitation Consortium (LuMEC). The rest is divided between several smaller companies such as the Space Mining Co. and Groundhog Works. LuMEC is one of the rare companies whose assets remained intact during the transition to a post-war inter-system economy, thanks to the careful management of its resources. Its leaders have a very strong influence on the Moon's political scene and while they seem eager to obey CEGA, they are quite prepared to oppose it if necessary.

RECENT DEVELOPMENTS ◇

The massacre at Copernicus has aroused the ire of the Moon's civilian population against CEGA. Several acts of violence against CEGA soldiers have been reported, resulting in all off-base leaves being canceled indefinitely. All-out riots have been prevented by the narrowest of margins thanks to the calming words of Councilor Olga Kyushinova, who has also lodged a series of formal protests in the CEGA council chamber.

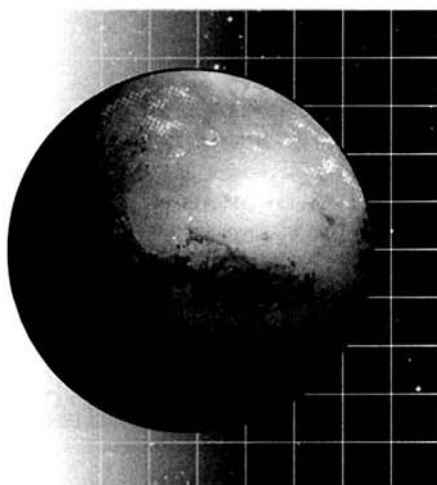
Ismael Li, the miner-turned-rebel who sacrificed his life at Copernicus to save a group of fleeing Jovians, has become a folk hero of sorts on the Moon. Government blackouts of information pertaining to Li have only resulted in increasingly heroic underground stories about the fallen leader. His last words — "My life for freedom!" — have become a rallying cry across Earth's largest satellite.

THE DESOLATE LAND ▣

Like the Earth, the Moon provides the advantage of physical familiarity. We've all seen pictures and televised coverage of the Apollo lunar missions and references about Earth's satellite are relatively easy to come by. Players wishing to play Selenites must also give some thought to the culture they come from. In the 23rd century, the Moon is a settlement of hard-working people who do not value individualism or creativity. Certainly not typical stock for PCs. In all likelihood, a PC will be someone who has broken out of this mold. Have they suffered some form of trauma or shock, such as being orphaned at an early age or seeing an injustice? Are they simply free spirits, unable to fit into the Selenite mold of social behavior? One possibility is for a PC to be a survivor of the Copernicus Massacre. These characters will have seen the brutality of CEGA's most militant wing and may be seeking justice or even vengeance.

Gamemasters bringing foreigners onto the Moon can emphasize the gritty, working-class atmosphere of the resource frontier. Selenite communities tend to be no-nonsense affairs and Lunar inhabitants have a reputation as hard working and hard drinking people. Law and order are enforced by community peacekeepers or even CEGA soldiers if need be. Outsider characters should face resentment from those who do not share their "good life" and could easily become victims of violence during designated rest or relaxation periods. PCs can also hook up with rebel groups, who may honestly want their help or may wish to use them for some more devious purpose. Either way, PCs will probably have to prove that they are not CEGA spies.

► MARS



Distance From Sun:	227,900,000 km
Revolution Around Sun:	687 days
Rotation:	24.6 hours
Axial Tilt:	25.2°
Diameter:	6,787 km
Density:	3.9 x that of water
Mass:	6 x 10 ²³ metric tons
Surface Gravity:	0.38 g
Escape Velocity:	5.15 km/sec.
Average Surface Temperature:	5°C after terraforming
Atmosphere:	0.6 atm. (75% CO ₂ , 12% O ₂ , 13% N ₂ , greenhouse gases)
Hydrographics:	11%
Population of Planet:	350 million
Population of Orbital Stations:	4 million
Languages:	English, German
Principal Exports:	manufactured goods, iron, aluminum, medical supplies
Principal Imports:	foodstuffs, complex hydrocarbons

◇ OVERVIEW



The terraforming of Mars was one of the greatest technological projects ever attempted by humanity. The first Martian colonists were dreamers, people who were willing to devote their entire lives to changing the face of a planet. As Mars grew in wealth and population, and as Earth collapsed, the corporate and government interests that had sponsored Mars' colonization attempted to take control of the planet in the hope of stealing its resources to rebuild their power on Earth. The great distance involved, and the Martians' own remarkable stubbornness, however, proved to be insurmountable obstacles. In 2085, Mars wrested its freedom from Earth's grasp. Independence had a price, however. The following years saw several civil wars erupt as the Martian Democratic Party fought to retain power in the face of a concerted opposition which disagreed with the Party's desire for a strong central government. Today, Mars remains a divided world.

◇ CULTURE

The Martian Federation is a totalitarian state founded by General Otto Kurtz after Mars' bid for independence. Life under the Martian Democratic Party is controlled and ordered. People are used to daily security checks and propaganda-as-news releases. Although Kurtz is dead, his legacy remains: German, his native language (and that of many early colonists), is an official language with English, and German ranks and titles are used in the Federation's military and business communities.

The Martian Free Republic, on the other hand, gives its citizens great personal freedom. It was created by convention between the Federation and the non-aligned frontier settlers, both of whom were tired of fighting over territory. The Federation agreed to recognize the newly founded Free Republic's independence and permit its people to live as they chose, but gained the right to set the borders of the nations. The Republic resents that agreement to this day.

◇ POLITICS



The Martian Federation claims two-thirds of Mars' surface. It is governed by Prime Minister Klaus von Braun, who rules with a firm but even hand. The Free Republic's bureaucracy is significantly more complex due to the convoluted system of checks and balances necessary to ensure freedom while still maintaining national security. Four separate elected councils make policy for the Republic. The president, Marcus Frehley, is primarily a figurehead since Republicans dislike the idea of a single, powerful leader. Both Martian nations send their own delegations to the USN assembly.

Border skirmishes on Mars are a frequent occurrence; both governments have preferred to ignore the incidents rather than expand the conflict. This policy was born of the need to remain on good enough terms to share the orbital elevator and other space resources. With the elevator's destruction, however, the Federation may start to pay more attention to the constant testing of its borders.

◇ SCIENCE AND MILITARY



Although research into bioengineering has stagnated over the decades, the Martians are experts in the few advances that field has generated. Their careful and meticulous research has produced strains of bacteria used for terraforming purposes on both Mars and Venus. Under the watchful eye of the rest of the Solar System, scientists from both Martian nations continue to investigate ways to make further use of bioengineered lifeforms for the benefit of humankind.

▷ SCIENCE AND MILITARY CONTINUED

Both Martian countries have standing armies, although they are rather small and use old exo-armor designs purchased from the Jovian Confederation. The Martians have little use for exo-armors and rely primarily on desert-adapted exo-suits and hover tanks. Neither military has a significant space navy, possessing only enough small patrol craft to police the orbital colonies and the Orbital Elevator's Heaven Station (when it still existed).

The remains of Hell Station are located at Pavonis Mons, a large mountain located on the Martian equator. Phobos no longer exists in 2210. Due to the danger to the elevator at its orbital altitude of 6000 km, the moonlet was blown apart and used to build colonies and spacecraft. Most of the material went into large, thin orbital mirrors called solettas that were built to help warm Mars. These are constantly being expanded to help terraforming efforts.

COMMERCE AND INDUSTRY ◇

The Martians used the orbital elevator as a low-cost means of moving raw material and manufactured goods into space for transport to the rest of the solar system. Several outside interests own factories in the Mars orbit designed to take advantage of the elevator. Its destruction has raised their operating costs dramatically.



Several large mining/manufacturing companies exist on Mars. The largest of these is Martian Metals, a planet-spanning consortium that employs nearly a tenth of Mars' population. Mars also maintains a healthy pharmaceutical and medical trade with other nations based on its production of bioengineered bacteria. The rigors of the Edicts (see sidebar below) make it desirable for the solar nations to turn to the "experts" on Mars for their bioengineering needs.

RECENT DEVELOPMENTS ◇

The recent destruction of the Federation's orbital elevator was a great blow to that nation's economy. The Red Planet has not turned into a battleground, however; the two nations are now gathering their forces and quietly re-evaluating their positions in the hierarchy of solar nations. The Free Republic has aligned itself with the Jovian Confederation in the USN chamber and is considering a military alliance as well. The Federation is occupied with rooting out the perpetrators of the elevator disaster, and its suspicions are turning toward its sometime ally, Earth.

For the people of both Martian nations, everyday life has changed little. The repairs to the planetwide damage caused by the impact are proceeding apace, and the dust plumes thrown up by the elevator's fall have been compensated for by the terraforming teams. Soon, the only remaining sign of the catastrophe will be the gigantic wreck running along the equator.

A FEARFUL SILENCE ▲

The horrors of the Fall made it clear to humanity that unrestricted research into the basic nature of life was a formula for certain disaster. The result was the Edicts, a covenant written into the codes and laws of every place of learning in every nation in the Solar System. The Edicts prohibit all access to high-level information pertaining to bioengineering and nanotechnology, and likewise forbids research into these areas without specific government approval and constant public scrutiny. Offenders receive the most severe punishment possible in their nation. The penalties are intentionally harsh — a single accident has the potential to kill billions.

The Edict also applies to research into artificial intelligence. Creating new sentient life would be potentially devastating to Human society, considering the vast number of computers used in the twenty-third century.

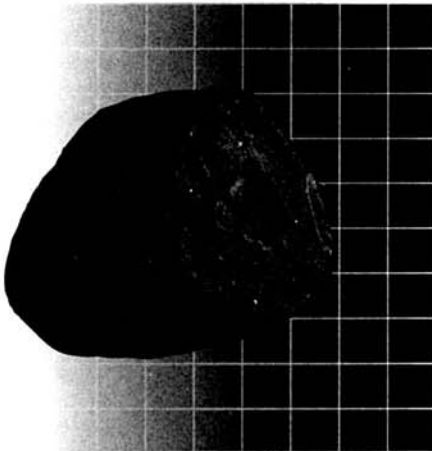
While painful for scientists to enforce, the Edicts have kept the misuse of genetic engineering and nanotechnology to a minimum. Although every nation maintains several "illegal" research facilities, these are always heavily safeguarded. Even so, one of the Solar Police's major efforts is to keep an eye on such installations.

RED SANDS ▣

Players wishing to play Martian characters need to make a choice between the two Martian states. Regardless of the choice, they will need to choose their stance regarding the opposing state and whether they wish to act on it. It is very likely that PCs will want to have some involvement and will either work against the other state as military personnel or terrorists, or in favor of a reconciliation. Some may favor a temporary truce in order to strike back against Earth (or STRIKE, depending on who one asks) for having destroyed their orbital elevator — especially those PCs who lost a family member in the tragedy. They may investigate tourists and visitors in hope of finding an ally who could help them in the fight against their enemies.

Game masters setting stories on Mars should not ignore the conflict between the two local states. Skirmishes, diplomatic incidents and threats of all-out war are commonplace and could easily form the basis of a scenario. Indeed, PCs could be accused of being spies or innocently aid one side or the other. Of course, PCs from a military background may well be on Mars for just that purpose — CEGA forces aiding the Federals or Jovian envoys to the Republicans. Mars is not only a planet of warfare, however. The locals are ambitious pioneers in the process of creating a new Earth for themselves. The rugged environment can be a deadly foe and the quest for resources can motivate many adventures.

► NOMADS AND THE ASTEROID BELT



Distance From Sun:	variable
Revolution Around Sun:	variable
Rotation:	variable
Axial Tilt:	n/a
Diameter:	variable, usually between 0.5 to 2 km
Density:	variable
Mass:	variable, depending on mineral density
Internal Gravity:	0 to 1 g
Escape Velocity:	variable, but always very low
Average Inside Temperature:	18°C
Atmosphere:	0.5 atm (55% N ₂ , 40% O ₂ , traces)
Hydrographics:	none to 30%
Population:	2.4 million (est.)
Languages:	English, Spacer's Runic, variable
Primary Exports:	minerals, specialized labor force
Primary Imports:	resources, specialized food stuffs, water, fuel

◇ OVERVIEW



The Asteroid Belt was first colonized as a mining venture in the 2030's. With the troubled times of Earth and the resulting introversion of the solar nations, the various Belt mining concerns lost money and faded away. Over the following century, the Belt became a place where refugees built new homes for themselves, far away from the stifling inner system and ignored by the solar nations.

These modern-day Nomads have colonized small asteroids, outfitting them with gravity wheels and thrusters to make them habitable. Their numbers have remained rather constant for the past few decades. As new groups of refugees move into the Belt, a steady stream of nomads decide to give up wandering and join one of the solar nations. Abandoned colonies are quickly reoccupied and refitted and continue on their journeys under new ownership.

◇ CULTURE

Life among nomads is rigid by necessity due to the constant struggle for survival. In the close confines of the asteroid colonies, laziness and rudeness are considered the worst of weaknesses. The resulting strong work ethic, coupled with their expertise in jury-rig-style engineering, makes the Nomads highly valued throughout the solar system, except on Earth and Venus where they are regarded as little more than barbarians.

Although languages vary among the Nomad settlements, all Nomads are taught Spacer's Runic as a matter of course. This language, virtually unchanged since its creation in the mid-twenty-first century, has become a common tongue among Nomads (indeed, among all spacefaring folk), allowing rudimentary communication when spoken language proves to be a barrier. When traveling abroad, Nomads tend to use Spacer's Runic instead of their spoken tongue, which causes the mistaken impression among Venusians and Earthers that Nomads are mute dullards.

◇ POLITICS

Every Nomad colony is directed in a different way. Some are ruled singlehandedly by "chiefs" while others operate on nothing more than mutual politeness. Laws and customs also vary widely. The only true inter-colony law that all Nomads adhere to is the age-old Golden Rule. They do not meddle in the affairs of others and expect to receive the same consideration in return.

On the international scene, approximately thirty of the larger colonies have formed a loose association in order to speak for Nomad interests at the USN Assembly. Most of the participating colonies are located in the Asteroid Belt, so their seats at the Assembly chamber are labeled "Belt." The colonies that choose not to participate in this token entry into politics truly do not care what goes on outside the boundaries of their tiny domains. Nobody speaks on their behalf, which is exactly how they want it.

◇ SCIENCE AND MILITARY

Scientific innovation is not a great concern for most Nomads. Whatever they need can be bought or traded from other settlements or merchant ships. If, as is often the case, these sources prove unavailable, the Nomads are quite capable of jury-rigging a stopgap solution. As a result, many Nomad stations are labyrinths of exposed wiring and makeshift pipework.



SCIENCE AND MILITARY CONTINUED

As a rule, Nomads tend to exclude themselves from tensions between the solar nations. They are not merely neutral, but almost totally uninterested as well. Thus, the tribes have no standing military nor any sort of provision for one. If a crisis does arise, the Nomads are well prepared to surrender unconditionally if diplomacy and bribery should fail. Some of the larger and wealthier colonies maintain a few obsolete exo-suits and space fighters for border patrol against pirates, but these would prove to be little or no obstacle to a determined invasion force.

COMMERCE AND INDUSTRY

The Nomads inhabit only a tiny fraction of the asteroids in the Belt and solar orbits; millions more are available to be mined for resources. Most Nomad colonies perform mining operations to some extent in order to generate income, or they transport low priority goods (for those whose home's orbit cross the path of two or more planets). Mercurian Merchant Guild ships pass through prearranged pickup points every few months to trade equipment, foodstuffs and water for processed minerals.

Many of the best mining asteroids in the Belt bear the identifying mark of one Nomad group or another, staking out a claim for future exploitation. Among Belters, claim-jumping is one of the most heinous forms of rudeness imaginable. This "advance claiming" of much of the Belt's resources restricts the mining operations of other nations in the Belt, although the Belters really have no means of defending their "territory" should a determined incursion occur.

Nomad-raised technicians and crewmen are much sought after, accustomed as they are to cramped living conditions and constant acceleration changes. Many Nomads leave home to work for companies or governments, saving their earnings for use upon their return. The Mercurian Merchant Guild has a special arrangement with the Nomads, allowing them to work aboard Guild vessels as highly paid non-members, although they are restricted to certain common areas of the ships to keep them away from Guild secrets. Caring little for such bizarre rituals, the Nomads are more than happy to take the Mercurians' money.

RECENT DEVELOPMENTS

The Nomads continue to prefer isolation, but events seem to be conspiring against them. For decades, the Jovians and Martians have allowed the Nomads the first choice of mining asteroids, and have otherwise left them alone. Recently, however, representatives from Jupiter, CEGA and Mars have been visiting the major Nomad colonies and probing their willingness to become affiliated with one or the other. The tribes now feel trapped by the location that was once such a suitable sanctuary. If they accept the foreign proposals, they will be forced back into the international politics that they so despise; if they refuse, they fear that the nations will eventually move in by force. The current stance among the sponsors of the Nomad delegation to the USN is to gently explore a deeper relationship with Jupiter or Mars.

BIGGER IS NOT BETTER

Although the Belt has hundreds of asteroids with diameters greater than 100 km, only the largest of these, Ceres (about 930 km in diameter) is home to a large population. Ceres City is generally regarded as the "capital" of the Belt, but only because it is where the affairs of the Belt's USN delegation are managed. Originally a large mining center, Ceres City (also known as Piazz) is home to one of the largest massdriver arrays in the solar system. The difficulty of constructing rotating gravity wheels on a massive object has limited the colonization of the larger asteroids to the domain of the very wealthy. Also, living on large asteroids is too much like being tied to a planet for most Nomads.

Most of the time, Nomad colonies are built as rings around small asteroids less than a kilometer in diameter. These asteroids are easier to move, making them more appealing to small groups of wanderers who prefer to keep their location a secret. More rarely, an entire asteroid will be hollowed and converted into a Vivarium-type colony cylinder. This, too, can be moved, albeit with greater difficulty.

THE NEW FRONTIER

The Nomads of the Asteroid Belt are modern homesteaders, carving a living out of the resources found in space. Once in orbit, almost anyone can build a simple spaceship that will be more than sufficient to house a family as it travels to the new frontier. Many of these bands are outposts of cultures that have been largely assimilated or repressed elsewhere, such as African or Scottish Highlands culture. Often, they travel together in tribes, settling on an asteroid for a generation or two, fiercely defending their territory. Proud and resourceful, they make the perfect background for a Player Character. A group of players could decide to form a Nomad family and have adventures as they travel from one asteroid to another, or they could be a small band of orphans who lost everything in the small conflicts opposing CEGA and Jupiter forces in the asteroid belt, and who want to avenge those they lost. Another group of player may act as scouts-for-hire for Nomads, seeking new asteroids for them to inhabit when they leave their current home.

Gamemasters bringing a PC party to the Belt can emphasize the frontier atmosphere of the region. Unlike Venus, Mars or the Jovian Confederation, the Belt is not home to powerful nations and mega-corporations. Small bands of dedicated individuals have carved out a life for themselves. PCs seeking escape for oppression might well decided to set up in the Belt themselves. Mars, CEGA and Jupiter are all interested in exerting a certain control over the Belt, so the region has become something of a political and military hot spot.

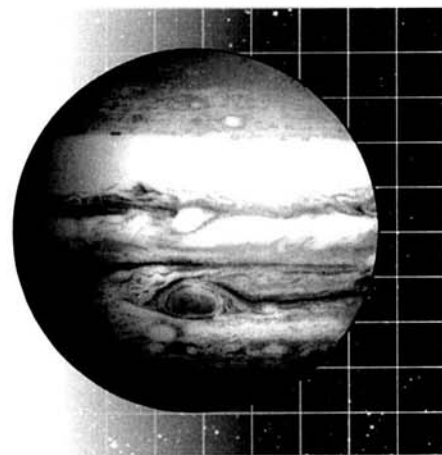
SCIENTIFIC FACTS

HOOKS AND TIPS

end of section 2.7 nomads and the asteroid belt

2.6

► JUPITER



Distance From Sun:	778,300,000 km
Revolution Around Sun:	11.86 years
Rotation:	9.9 hours
Axial Tilt:	3°
Diameter:	142,800 km
Density:	1.3 x that of water
Mass:	1.9 x 10 ²⁴ metric tons
Surface Gravity:	depends on altitude
Escape Velocity:	59.5 km/sec
Average Surface Temperature:	-130°C at cloud tops
Atmosphere:	86% hydrogen, 14% helium, 0.1% methane, 0.02% ammonia
Hydrographics:	none
Population:	540 million
Languages:	English, Spacer's Runic, French
Principal Exports:	electronics, manufactured goods, gasses
Principal Imports:	specialized foodstuffs



◇ OVERVIEW

The massive colonization of Jupiter's orbit was not a planned event. The first stations around the huge planet were thickly armored wheels crewed by highly paid technicians. These stations were built for the express purpose of mining Jupiter's rich gas resources. Other mining colony stations were built by the same companies in Jupiter's L4 and L5 points.

The Fall of Earth changed everything. Millions of refugees, fearing that war would spread throughout the inner solar system, fled as far as they could and settled in the orbit of Jupiter. Once there, they discovered that life without solid ground or a bright sun could be adapted to, and that the vast untapped resources that surrounded them would ensure comfortable lives for their children. Keeping that dream in mind, the Jovians worked hard over the next century to survive their harsh environment and build a civilization for their descendants.

The Jovian Confederation consists of three states of roughly equal size. Olympus, located around Jupiter itself, is the founding state of the Confederation and is where the Confederation capital of Elysée is located. The other two states reside at Jupiter's L4 and L5 points. These are over 800 million kilometers ahead of and behind Jupiter in its orbit and are home to thousands of asteroids. The asteroids are known as the Trojans, and the colonies constructed amongst them are referred to as the Trojan States. The two Trojan States are Vanguard Mountain and Newhome. Both were founded by expanding Terran corporations and were cut off from their headquarters during the twenty-second century. Both states joined Olympus in an equal partnership to cover each others' resource weaknesses. They formed the Jovian Confederation in 2113.

The Trojans are almost as far from Jupiter as the sun is. Despite this, the ties between the three states are very close. Being this far from the sun makes the Jovians much more in tune with each other than with anyone in the inner solar system. Over the years, an extensive network of refueling stations and communications relay outposts has been constructed, and a constant stream of ships and barges take advantage of the local unlimited fuel supply to provide a constant link between the Jovian settlements. Despite being the most spread-out nation in the history of Humanity, the Jovian Confederation is also one of the most stable.

◇ CULTURE

The people of the Jovian Confederation are living proof that people are infinitely adaptable and unpredictable. Despite living under some of the most cramped conditions in the solar system, the Jovians have developed an open-minded, easygoing facade which contrasts sharply with the barely restrained tensions on Mercury. The Jovians have adapted to the relative lack of privacy in their lives by maintaining a friendlier and more tolerant attitude toward one another. Recent generations of Jovians, born and raised in the colonies, seem to have fewer difficulties with close quarters than the first Confederation citizens did.

Relations between states are friendly but tinged with elements of cordial rivalry. Residents of Vanguard Mountain (the "leading" Trojan state) and Newhome (the "following" Trojan state) are regarded as country hicks by the inhabitants of Olympus. In turn, Olympians are thought of as imperialistic militants, and are ridiculed for their state's pretentious name.

The Confederation boasts the largest space-based population of all the solar nations. This is rather remarkable since most Jovian colonies are of the "Vivarium" type. Although the Vivariums' greater interior surface area allows these colonies to theoretically support nearly twice the population of standard cylinders, the massive shielding necessary for life around Jupiter reduces the Jovian stations' habitable volume in comparison to their in-system counterparts, with a corresponding drop in population capacity.

> CULTURE CONTINUED

The largest Jovian station is the capital of Elysée, which has a population of about five million. The other two hundred or so Jovian colonies are smaller, quickly built during the Confederation's growing years to support its burgeoning population. Although everyone has a place to live, many Jovian citizens are beginning to think that building colonies at a faster pace will increase the quality of life for all Jovians. Unfortunately, the energy being expended on the military and on simply keeping the currently operational stations in working condition precludes this otherwise desirable use of time and money.

The cramped living spaces on the Jovian stations are compensated by the excellent public gardens and parks provided by thoughtful designers. Jovian society has retained the hardworking attitude of its founders, so one's home is often little more than a place to sleep anyway. Nearly all Jovians spend their waking hours at the workplace, where great care is taken to enhance the comfort of the workers, or with friends in public places.

Class distinctions do exist in the Confederation, despite the fact that cramped conditions often force people of very different income brackets to live very close to one another (to conserve space, every family is granted a specific amount of living space based purely on the number of people who will live there). Although government policy forbids buying more spacious housing, the Jovian upper classes are easily able to afford personal yachts and other luxuries which set them apart from their poorer compatriots.

Although Jupiter has retained English as its primary language, much of the population is also relatively well versed in French. This is largely due to the work of Elisabeth Bisset, an early colonist-turned-poet whose diaries and poems about the outer solar system are regarded as the Confederation's finest works of literature. Bisset was part of a significant number of French and Franco-African miners sent to Vanguard Mountain and her works led to a certain francophile sentiment among the Jovian upper-class and then in education. Today, nearly all secondary school students study French for several years and read the classics in their original form. French remains the standard language of art in the Confederation. Earth is the only other place in the solar system with a substantial French-speaking population.

ALEX AND AVRAM ☆

Avram Thorsen was born on October 19, 2154, one week after the birth of Alexandra Itangre to the family next door. Although Avram came from a common family, he and the wealthy aristocratic Alexandra became friends before either could talk. As the two grew up, they gradually learned of the differences in their social stature from their respective parents. The Itangre family owned one of the oldest and richest gas mining companies in Jovian space; the Thorsens had been accountants for generations. Neither family wanted their child to be involved with the other.

As their future careers would show, however, neither child cared to be pushed around by authority figures. "Alex" and Avram defied their families and built a friendship that transcended material fortune. They stayed together throughout high school, each encouraging the other, and they shared the title of valedictorian upon graduation. Although the young adults had come to love each other deeply, both realized that their desired career paths differed; where Alex had always loved the subtle arts of politics and business, Avram much preferred combat of a more straightforward sort. So, scholarships in hand, Alex and Avram went their separate ways in 2171.

When the two met again ten years later, both were married and on the fast track to success. Their renewed friendship made them a formidable team feared by political and military rivals alike. Leaning against each other, Alex and Avram achieved their ultimate goals; Avram Thorsen became a General and GamDivCom (Commander, Gamma Division) in 2204, and Alexandra Itangre was elected President later that year.

The death of General Thorsen's wife in 2207 is now widely regarded as the point where he "turned." Jovian Intelligence Service investigations have traced his selling of national secrets to CEGA and the Venusians back to that time. After the Battle of Elysée, Thorsen turned himself in to his old friend, Alex, in her office. Evidently, things had gone too far even for him. He is scheduled for trial in a few months; clues into his motivations are expected to surface during the investigation. The General will likely face execution if he is convicted of treason.

PERSONALITIES

POLITICS ◇

Each Jovian station is self governed by a chamber of representatives. A council of representatives is elected from the general populace of each colony every few years (the actual number varies from station to station). A separate representative is sent to the state capital, to speak for the station as a whole.

Each of the three Jovian states has its own local government, which manages activity and commerce within the state's boundaries. International affairs and matters that involve all three states are handled by a ruling council known as the Agora. Representatives from each state are sent to the Confederation capital of Elysée to serve on the Agora.

A president is chosen by general election every seven years to supervise the Agora and represent the Confederation. The current president is Alexandra Itangre (see sidebar). Since her election in 2204, she has been the source of many controversial decisions; to her credit, all of these have proven beneficial to the Confederation. In particular, her insistence on increased military spending in lieu of more colony construction is now regarded as a brilliant example of forethought, especially in the wake of CEGA's recent aggression.





▷ POLITICS CONTINUED

Many Jovian observers have come to realize that power in any form is their President's greatest pleasure. Already one of the richest people in the Confederation, she continues to make money from her corporate holdings and searches for ways to remain in office after her term expires in 2211. Her efforts to gain more control over the Agora are tolerated by the people, however, because her actions always seem to have the good of the general populace as their motivation. Some are not so certain of President Itangre's altruism, however, and wonder how long it will be before she exceeds her limits, perhaps giving in to temptation like her good friend General Thorsen.

◇ SCIENCE AND MILITARY

Jovian science is perhaps the most advanced in the solar system. The struggle to build a civilization from scratch in a hostile environment, coupled with subsequent military development, has resulted in a large number of innovations in the field of engineering; not the least of which is exo-technology. Jovians place great emphasis on education, believing that a knowledgeable nation will be less prone to the sort of insane warfare that devastated Earth. As a result, a very large proportion of the Jovian population is made up of government-supported research scientists and engineers.

The Confederation possesses a large military force, most of which originated after the loss of formal contact with the inner solar system. The Jovians wanted to place themselves in a position of power in order to provide a serious deterrent to any possible foreign aggression. The large military was necessary to counter Earth's huge navy as well as to effectively patrol the vast amount of space claimed by the Confederation as its own. Even so, much of the space between the states is devoid of any military presence; most patrols are centered around the refueling stations.

From a wartime standpoint, the distance between the Jovian States is more than a simple escort problem; it is a logistical nightmare. Jovian strategists have long known that should war break out with the inner solar system, they would be forced to fight on three fronts. Each state would be effectively isolated from the others.

Their solution was a stop-gap measure meant to last until a better alternative could be found. The Jovian Armed Forces were split into three separate armies of equal size, labeled Alpha, Beta and Gamma Divisions. Alpha Division was assigned to protect Vanguard Mountain, Beta was assigned to Newhome and Gamma was to protect Olympus. A headquarters, Khannan Base, was established in Olympus, but each Trojan State also had its own command center. In this way, each part of the Confederation would be able to hold its own in the event of an attack.

The inherent weaknesses of this defense meant that the strategists had to plan for a proactive role, as well. The result was an invasion fleet of several carriers and battleships that could, at a moment's notice, swoop into the inner solar system to take the battle to the enemy. This invasion force was also distributed evenly between the states; should one state fall, the others could still avenge it.

Although the modern situation is not as dire as the early Jovians had feared (Mars and the Belt have not fallen under the sway of Earth), it still warrants the maintenance of the JAF's constant state of readiness. New ships are still being built, most of which belong to the "invasion fleet" category of warship. Most notable among these is the *JSS Godsfire*, a supercarrier more than a third of a kilometer in length. More ships of this class have been laid down in the shipyards of the Trojan States, causing much consternation in the inner solar system, where many now fear a pre-emptive assault from a nation that once dreaded the same thing.

★ KNIGHTS IN SHINING ARMOR

Although all three JAF divisions are supposedly equal, observers note that since 2204, newcomers to the ranks have most often been assigned to Gamma Division. Most individuals eventually leave Gamma upon promotion, save for the best of the pilots (who then serve to shepherd the next batch of rookies). The three public heroes of the Odyssey Affair are assigned to Gamma Division, although they are currently on indefinite leave.

This "newbie policy" is a drastic change from the previous arrangement, in which each Division was assigned to one Jovian State. The change suggests that Jovian High Command has formulated a new strategy by which the Confederation will defend its three states. Curiosity runs high in military intelligence circles throughout the solar system. The attack on Elysée is still fresh in the minds of everybody, so it is a mystery as to why the Confederation is sending all of its veterans away from the capital.

Gamma Division supports the largest number of exo-armors in the service. Twelve squadrons are made up solely of the high-tech wonders, and new designs from JAW are almost always tested by Gamma Division personnel. This, coupled with the fact that Gamma Division retains for itself the best JAF pilots, lends the division something of a "Top Gun" aura in the public eye. Each of the twelve exo-armor squadrons has a distinct history and personality, from the easygoing camaraderie of the Jovian Flying Circus to the comically sinister Assassins. All twelve squadrons are media darlings, however, and there is a constant battle among new rookies to be chosen for permanent assignment to one of the squadrons.

Up until a few weeks ago, Gamma Division was commanded by General Avram Thorsen, the now-infamous Traitor of Elysée. His resignation has left Division morale at an all-time low and opened a power vacuum which has yet to be filled. Until a new division commander is selected, nominal control of Gamma Division falls to Khannan Base Commander Konrad Koudriopoulos, who is reportedly sleeping less than three hours a night.

COMMERCE AND INDUSTRY ◇



Most of the Confederation's major manufacturing industries are located in the Trojan States, where raw materials are abundant and easily accessible. The notable exception is Joshua's Station in Olympus, which is the second largest station in the Confederation and a major producer of electronics. Joshua's Station is a major trading center, serving as a port for the ships of the Mercurian Merchant Guild, which bring Jovian goods to the inner solar system. The station is also home to the famous Jovian Armor Works corporation (see sidebar).

Olympus' main export industry is gas mining from Jupiter, accomplished with the use of hundreds of automated skyhooks which skim hydrogen and helium off the top of Jupiter's atmosphere. Giant unmanned barges then send this fuel to locations across the solar system. Olympus is also the Confederation's major source of water, supplying the Trojan States with water collected from Europa and Callisto.

JOVIAN ARMOR WORKS ★

Jovian Armor Works is the best known aerospace company in Jovian Space, producing all of the JAF's exo-armors in addition to many types of weapons.

Founded in 2155, JAW has gained a reputation for reliability in all of its products. JAW's current CEO is Robert "Lil Bob" Hewer who inherited the position from his father. Where the elder Hewer was a loud, boisterous bear of a businessman, his son is an introverted engineer who is far more interested in building exo-armors than selling them. What this attitude bodes for the company has yet to be seen, as JAW's stock remains quite stable.

JAW's R&D department, unofficially known as the Skunk Works, is the JAF's premier contracted think tank. Its restricted research and testing bays on Joshua's Station are strewn with works-in-progress, often prototype exo-armors fitted with the latest in potentially useful gimmicks. Most of these experimental exo-armors have been struck by the so-called "Curse of the Skunk," by which an untested, one-of-a-kind prototype is somehow thrust into a combat situation and returned to JAW as a wreck.

Most longtime Skunk Workers have accepted the Curse as a fact of life, fitting each new prototype with extensive data recording suites in order to gather as much performance information as possible from the Exo's inevitable fate. The latest of the "Cursed" was the *Prometheus*, used by Madeleine Koudriopoulos during the Battle of Elysée to counter CEGA's *Dragonstriker* (the remains of which now secretly occupy the Skunk Work's crash investigation hangar). The remarkable performance of the *Prometheus* (despite its expected dismemberment) has resulted in the construction of several new *Prometheus*-class prototypes, each built to be superlative in one particular combat role. Considering the Agora's renewed interest in military research, the Skunk Work should have no trouble getting funding for these and other projects.

THE JOVIAN SUBSYSTEM ◇

Jupiter is gifted with more than sixteen satellites, although only four are big enough to be worthy of mention. The others have been exploited over the years for raw materials with which to construct new colony cylinders. The four major moons (Io, Europa, Ganymede and Callisto) are known as the Galilean satellites and are home to an increasing number of Jovian citizens. Three of these satellites (Europa, Ganymede and Callisto) are covered with thick crusts of water ice mixed with mineral impurities. With no reliably solid ground upon which to construct gravity-simulating carousels, inhabitants of these moons must live in constant low gravity. As the cylinders become more crowded, though, people are becoming more willing to leave the stations, despite the need for constant rigorous exercise in the low-gravity environment of these moons. Nevertheless, the population of the moons is a tiny fraction of the overall population of the Confederation.

Io is the closest major satellite to Jupiter, located deep within the powerful Jovian radiation belts. The moon is highly volcanic, with enormous geysers spitting plumes of sulfur reaching 1400 kilometers in height. This hostile environment means that the exploitation of Io's abundant sulfur deposits is carried out almost entirely by robot drones. Io is also home to an experimental power source, by which orbiting collectors take advantage of the five-million-ampere flux tube running between Jupiter and Io, converting a tiny portion of that energy into microwaves which are then beamed to a few test colonies for use. Although the microwave beam is dangerous, the promise of more usable power is an irresistible draw for the Jovian government and private contractors.

The second of Jupiter's Galilean satellites, Europa, provides much of the water used in the Confederation. Covered in its entirety by ten kilometer-thick sheets of ice which cover a worldwide water ocean, Europa has few permanent residents; most people stay for a few months at most to work at the water-processing stations that dot the surface. Several scientific stations are also on the satellite, eagerly searching the depths for signs of life using massive drills; Europa, with its water ocean and geothermal activity, theoretically supports the minimal requirements for life as we know it.

Ganymede is the largest moon in the solar system, and is the home of the Confederation's largest non-spaceborne colony. Nearly fifty thousand people inhabit the various mining towns and processing stations that exploit Ganymede's rich mineral and water resources.

Callisto, the outermost of the Galilean satellites, is primarily a mining and water-processing colony. A small Intersettlement Geographic Society observatory is also located there.



◇ RECENT DEVELOPMENTS

Even though the Jovian Intelligence Service continues to scour the solar system for the perpetrators of the attack on Elysée, much of the mystery surrounding the Odyssey Affair has been cleared up (as far as the public is concerned) by the exposure of General Thorsen as a traitor. Although his motivations remain unclear, he has confessed to allowing the CEGA attack fleet to enter Jovian space unchallenged. He denies, however, knowing what Admiral Kleb planned for the capital. His most notable crime is his "overlooking" of the Venusian floater-poachers that started the Odyssey.

The Agora has quietly granted a select group of scientists a large amount of money, several floater specimens, and a mandate to find out if the special properties of the beasts can be copied en masse. There are two hopes which have brought this about, one being the successful completion of the project with the attendant benefits; the other is the chance that duplication may be proved as unfeasible, which will give the Agora further political clout against the "heartless Venusian exploiters" who have been hunting the floaters.

Also unpublicized is Thorsen's subsequent ruthless endangerment of four Jovian citizens whom he had sent to Venus instead of a team of trained operatives. He did this in the hopes that they would be quickly eliminated which would subsequently end any further investigations into the Venusian activity on Jupiter. Those unwitting pawns, Madeleine Koudriopoulos, Adrian Allen, Roxanne Fujima and Nicholas Holly, survived their extraordinary trek across the solar system and their involvement in the Battle of Elysée. As a result of their actions, these four have become national heroes. The Jovian populace is comfortable with the official cover story — that the four were tourists caught in the wrong place at the right time. Further comment from the heroes is unavailable, however. The three members of the JAF were quickly promoted and are now on "indefinite leave" in an undisclosed location, and Fujima is as close-mouthed now as she was before the incident, despite receiving much public acclaim for her current work as a news-vid anchor.

Those in high offices in the Jovian government (President Itangre in particular), however, are well aware that the corruption and heroism of the preceding months go far deeper than the figureheads which have been presented to soothe the hearts and minds of the masses. Khannan Base Commander Konrad Koudriopoulos, enraged at the treatment of his daughter, has initiated a series of comprehensive security checks in an attempt to root out any further traitors in the military, although these have proven difficult to enforce with any degree of efficiency due to the massive flow of traffic through Khannan Base.

President Itangre, devastated by the betrayal by her oldest friend, has withdrawn into her duties, distancing herself from friends and family. She has demanded, and received, more funding for the JAF from the Agora. Due to her acquaintance with General Thorsen, Alexandra was subjected to a grueling interrogation (as were all of Thorsen's friends) for security reasons, which has soured her mood even more. People who know the president advise others to enjoy her absence while they can; when she comes out of her funk, they say, she will be on the warpath, and woe betide anyone who doesn't jump when she tells them to.

▲ THE GREAT MYSTERY

The greatest wonders of scientific discovery in the history of humankind, the Jovian floaters, are also the greatest mystery. Floaters resemble nothing so much as giant gas-filled jellyfish which drift in the upper atmosphere of Jupiter. The question of how such complex organisms could have evolved on a world with no surface and high radiation levels is the subject of much heated debate in the scientific community. Another fact has captivated the interest of the scientific and corporate communities. These creatures, like the primitive prions and viruses that inhabited pre-terraformed Mars, use almost exactly the same system of biochemistry as life on Earth, right down to the coding of amino acids by nucleic acid sequences.

The greatest bafflement centers around the multipolymerase protein produced by the floaters, so named because of its inexplicable ability to repair damaged DNA and RNA strands, returning them to their original state, regardless of the type of damage and despite the lack of any perceivable template for the protein to work from. The existence of the floaters themselves can be attributed to coincidence, for the possibility of such life had been postulated for centuries before their discovery. The existence of this protein (whose structure has proven unbelievably resistant to otherwise-foolproof sequencing techniques), however, threatens to shatter the foundations of all modern life sciences. Every known rule of cell biology has been violated by this polypeptide that seems to work on all life, regardless of planetary origin.

These disturbing findings have caused all research and study concerning the floaters to be classified top secret; despite widespread protests, only a few Jovian and Venusian researchers are currently in possession of all the facts. The floaters have been declared a protected species by the USN, and save for a few well-defended research stations, all entry to the creatures' herding airspace is blocked by JAF patrols.

The existence of the floaters has forced the scientific community to revise their theory on the possible origins of life. Already, researchers have intensified their efforts to find other alien lifeforms in the dark waters of Europa, and other locales are being investigated as well. The floaters' discovery has also given additional motivations to the backers of the large extrasolar antenna array. They hope to be able to find evidence of life in nearby systems by studying their chemical spectrum for traces of oxygen and complex organic molecules or, in the case of close-by star systems, by direct observation. Humanity is as interested as ever in knowing whether or not it is alone in the universe.

THE TROJAN STATES ▼

The Jovian Confederation is composed of three separate federations, among which Olympus, the one orbiting Jupiter, is the best known. Vanguard Mountain (the "leading" Trojan state) and New Home (the "following" Trojan state) have maintained a lower profile throughout the years, mostly due to their isolated position in space; the two states reside at Jupiter's L4 and L5 points, over 800 million kilometers ahead of and behind Jupiter in its orbit. Both zones are wells of gravitational equilibrium caused by the interaction between the massive gas giant and the Sun.

Over the millennia, these gravity wells have attracted large clusters of asteroids that are known as the Trojans. Colonies were constructed amongst them to better exploit the mineral wealth therein and were soon referred to as the Trojan States. Both were founded by corporations to provide a secure base of operation for their scientists and miners. When the corporate colonies found themselves inexplicably cut off from their headquarters on Earth during the twenty-second century, they were already mostly self-sufficient. In the mid-years of the century, both states joined Olympus, another former corporate settlement near Jupiter, in an equal partnership to cover each others' resource weaknesses.

The main resource of both Trojan states are the clusters of asteroids that are captured by the powerful combined gravity effects of Jupiter and the Sun. Most of the Confederation's major manufacturing industries are located in the Trojan States, where raw materials are abundant and easily accessible. This mineral wealth is also traded with Olympus for water and volatiles skimmed from Jupiter and its moons.

Vanguard Mountain Station is the oldest settlement found at the L4 point of Jupiter's gravity well. It was constructed through the hollowing out of a one of the largest asteroids in the cluster. After centuries of additions, Vanguard Mountain Station now resembles a mass of metal spires with their heads held together by a large ball of metal and stone. The rest of the Vanguard Mountain state is comprised of many small stations with most built directly out of the hide of an asteroid, but a few being the standard Jovian Vivarium-type colony cylinders.

Newhome is the youngest member of the Confederacy, and as such has not fully incorporated its psyche with that of the other two Jovian states. This manifests itself in two ways: one aspect is found in the overachievers who drive the culture of this Trojan state forward and volunteer for military duty with zeal, while the other is of those people who try to maintain their own ideals and mannerisms in an evolving society.

Residents of Vanguard Mountain and Newhome are regarded as country hicks by the inhabitants of Olympus, while the Trojans view Olympians as either arrogant buffoons or as glamorous urbanites, though not with malice. The fact is that the residents of the three states have few real differences between them, most of which are minor things such as the slight twangy accent of Vanguardians or the use of a few chosen slang words by Olympians.

When the JAF was reorganised, Alpha Division was assigned to protect Vanguard Mountain, Beta was assigned to Newhome, while Gamma division was to protect Olympus. Each Trojan State has its own command center which would allow it to defend itself. In this way, each part of the Confederation is able to hold its own in the event of an attack. The generally accepted wartime strategy of the Confederation is for the attacked state to hold off its attackers while the other two send whatever reinforcements they can spare from their defense. Once the reinforcements have been launched, the two states would also send fleets to attack the offending inner-system nation. Through this, the attacked state has a reasonable chance of at least surviving an attack while the other two states wreak their vengeance upon the aggressor, hopefully causing enough damage to force a retreat.

ON TOP OF THE GRAVITY WELL ▣

As the title of the game suggests, the Jovian Confederation is the "default" starting point for characters and campaigns. It offers a wide range of possible character types as well as many different environments to explore. Pages 208 to 217 of this rulebook presents a basic campaign setup in which the Player Characters are Jovian Armed Forces pilots aboard the *JSS Valiant*.

Jovian Player Characters will live in one of the most technologically advanced and pleasant societies in the solar system. The government is not very heavy handed internally and the standard of living is generally high. Players should give some thought, however, to the darker sides of Jovian life. The battle of Elysée has convinced many that the confederation should become more active on the interplanetary scene and the JAF has been flexing its muscles more and more. Player Characters should also choose which one of the Jovian states (and stations) they hail from. Those from Elysée will be used to a great deal of intrigue and politicking, while a native of Vanguard Mountain may have a more working-class outlook. Jovians who live on Ganymede, Callisto or Europa present an interesting alternative. Rugged explorers, miners or scientists, they may feel alienated from those who live in the vivarium colonies, who often do not consider them "real Jovians."

Gamemasters bringing players to the Jovian Confederation should emphasize the wonders of life around Jupiter. The Confederation is home to libraries, parks and luxury accommodations that Nomads may never have seen before. Intrigue is also abundant and GMs could involve the characters, perhaps in smuggling a prototype out of JAW Skunk Works. The armed forces are also an increasingly important part of Jovian society and can serve as the center for many plots in the Confederation. PCs who arrive as traders may find their vessels searched or detoured for security reasons, or could get caught in a battle. The Jovian diplomatic corps is another useful plot element. Ambassadors dart across the solar system and diplomatic packages are ferried through more or less reliable channels. Such a package falling into the hands of the PCs could launch a scenario or even a campaign.

POLITICS ◇

Since THC is a Jovian corporation, the orbital colonies and the extraction bases on the Titanian surface are considered "overseas" territories of the Jovian Confederation. Titan itself is international territory, of course, but THC treats the moon as its private property. This has led to increasing tensions as THC gradually spreads its influence, ferrying vital resources to the Confederation and its allies and threatening to bankrupt numerous inner system chemical companies. In a recent speech, CEGA councilor Balthus Ashita denounced the exploitation of Titan as "an instrument of economic warfare," and pushed for several quota restrictions and increased import fees.

Titan's de facto ruler is Bernardo Chandrasekhar, the visionary, 59-year-old CEO and majority shareholder of THC. Company policy is decided by a 21-member Board of Directors (subject to Chandrasekhar's unofficial veto), while day-to-day life on Station T lies in the hands of a small council of elected delegates. These are called "tribunes" by many employees, who privately refer to Chandrasekhar as "the Emperor."

SCIENCE AND MILITARY ◇

Titan is a system-wide leader in chemical engineering and pharmaceutical research. Despite the isolation, a three-year tour of Saturn has become a sought-after plum for many of the solar system's brightest young researchers. Titan has no formal military force, but THC's Corporate Security Division has Confederation police powers. The CSD is equipped with modern light exo-suits and aerospace craft, many of which are modified for the rigors of Titan's atmosphere.

Several life-support and recycling innovations created by the base crews have been successfully marketed in the inner solar system, providing some friendly competition for Nomad inventors (several Saturn base crewmembers are, in fact, Nomads themselves). Although profits from their work are funneled immediately back into research funds, the base crews are more pleased by the fact that their inventions are in wide use.

COMMERCE AND INDUSTRY ◇

Regular technology shipments from Jupiter keep THC's twin refining stations *Demeter* and *Aesclepius* operating at peak efficiency. Using patented high-energy synthesis processes, the factories convert Titan's ethane, water ice and nitrogen into rare compounds for a fraction of the cost incurred by Venusian and Terran firms. Plastics, drugs, lubricants, resins, synthetic foods and liquid fuels are just part of THC's wide range of products.

Most of the finished chemicals are shipped in massive, temperature-controlled cylinders to the Confederation and the Martian Free Republic. The Martian Federation and the Mercurians are also important customers. In addition, THC recently signed several long-term contracts with settlements in the Orbital habitats orbiting Earth, despite CEGA's attempts to scuttle the deal by imposing taxes on imported organic products.



RECENT DEVELOPMENTS ◇

Since 2209, there has been a sharp increase in pirate attacks against THC's transports. In the last nine months, one tanker has been crippled and looted in the Belt, and three others have been damaged. Chandrasekhar has considered requesting JAF escorts for his shipments, or even a JAF base in the Saturnian system. President Itangre, however, has advised him that such a move would play directly into the hands of THC's enemies in the current political climate.

The events surrounding the *Odyssey* Affair have failed to produce any real tensions among the base crews. More prevalent is a general sense of exasperation with governments in general. Why, they think, can't everyone just grow up and concentrate on science and the betterment of life? The various governments have not tried to exert any influence on the Saturn bases yet either; as far as they are concerned, the outer planets are too far away to be of any political or economic value and they appear to be content in letting people of opposed nations live together peacefully out in the middle of nowhere.

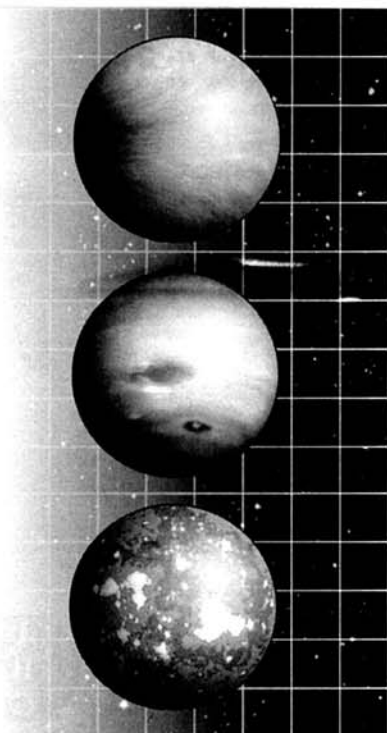
LIVING IN THE FROZEN SEAS ▣

Titan lends itself well to adventures "on the frontier." When you're living this far away from civilization, you can't just hop on the next ship to avoid problems — you have to deal with them as they come. As a result, any character that has some Titanian experience in his background is likely to be strong willed and very capable of taking care of himself. THC employs a wide range of people, from the hardy miners that perform the actual collecting and refining of the raw materials, to the pilots and crew that man the shuttles and tugs, to the meek accountants taking care of the numbers end of the operation. These are all valid professions which the players can choose from, and which can generate their own sets of adventures.

Titan cheaply supplies bulk hydrocarbons to the rest of the solar system. A good Earth analogy would be the various Alaska settlements, or the drilling platforms located in the North Sea. Most of the adventures taking place there will be of the "cabin fever" variety — stuck in a small place with people who disagree (perhaps violently) with you. These run the gamut from catching a saboteur hired by a rival corporation, to fighting with your best friend over a matter that would be nothing elsewhere, to surviving a terrible accident on the shore of the methane sea. Anything new and fresh can become a cause for dissent among co-workers.

2.10

► THE OUTER REALMS



Uranus	
Distance From Sun:	2,875,000,000 km
Revolution Around Sun:	84.01 years
Rotation:	17 hours, 12 min.
Diameter:	51,120 km
Density:	1.2 x that of water
Mass:	8.7×10^{22} metric tons
Average Surface Temperature:	-221° C in upper clouds

Neptune	
Distance From Sun:	4,504,300,000 km
Revolution Around Sun:	164.79 years
Rotation:	16 hours
Diameter:	49,520 km
Density:	1.7 x that of water
Mass:	1.03×10^{23} metric tons
Average Surface Temperature:	-230° C in upper clouds

Pluto	
Distance From Sun:	5,900,000,000 km
Revolution Around Sun:	248.43 years
Rotation:	6 hours, 24 min.
Diameter:	2,280 km
Density:	2.1 x that of water
Mass:	1.2×10^{19} metric tons
Average Surface Temperature:	-238° C

◇ OVERVIEW



Beyond Saturn, the distances between planets increase dramatically as the light of the sun fades to a minuscule pinpoint. Out there float the two remaining gas giants along with the tiny double planet of Pluto/Charon. Far too cold and distant to be worth any sort of major colonization attempt, the outer realms are visited only by explorers and scientists.

Of the former, a percentage never return to the inner realms. The lure of the unknown causes many to push their reserves just a bit too far, and the professional explorers who do return abound with tales of derelict ships and probes drifting around in the vast open void. Nonetheless, the rumors of transjovian asteroids filled with rare and lucrative minerals and of ships ripe for the picking draw a fair number of foolhardy adventurers to its cold embrace.

The latter, however, find the outer planets fascinating. Apart from the celestial bodies themselves, the scientists now have unlimited access to the stars: the great distances from the light and heat of the Sun means much better astronomical observation conditions. Unfortunately, the distance from the Sun means that gathering power takes a much longer time, unless very large screens and reflectors are set up. This causes the price of building a station to be far beyond the range of most people interested in doing so.

◇ SCIENCE

Of great interest to the scientists is the ongoing project to build a large telescope array at the far reaches of the solar system. By using a network of computer-controlled, maser-linked, free-floating antennae, the resulting system will have a synthetic aperture equal to the one of an antenna with the diameter of the solar system. Expensive and technically complex, this monstrous ring of telescopes (when completed) will be able to take full advantage of its dark and frozen surroundings to further the search for planets around other stars.

The project is currently behind schedule and somewhat underfunded. Though the IGS sponsors the crew and regularly updates the rest of the solar system as to their progress, raw material and specialized components are always in short supply. Some are worried that the project is being deliberately set back — the linking masers would make powerful, if inefficient, weapons, and many of the antennae could be turned *inward* for even better results. None of the system's planets would want to be on the receiving end of the listening power of such a marvel. While all of the governments are interested in what is beyond the Sun's reaches, they simply cannot fully trust each other to respect the advantages that the telescope might accrue, thus each is slow in delivering any promised materials. There are also rumors that some of the pieces that have been sent do not quite work as they should, raising the issue of potential contractor frauds.

PIRATES ▼

The solar system of the 23rd century is a very structured place. Everyone has a job and a purpose, and must stick to those limits for the sake of the whole society. People who cannot peacefully abide within such strictures are swiftly and mercilessly cut off from society. Removal of the offender from the public eye takes many forms; these range from the rehabilitation clinics of Jupiter to the firing squads of the Martian Federation. In the modern solar system, the only place for such outcasts to run and hide is in the vastness of space. To survive, they turn to piracy, preying upon unarmed spacecraft.

CULTURE ◇

Pirate culture is impossible to categorize; any given pirate is where he or she is for a unique set of reasons. Some are brutal and trigger-happy, others are motivated by pure profit, but most are merely trying to eke out a living on the fringes of a society they find distasteful. The large number of social protesters and clinically insane individuals does, however, lend the pirate "nation" as a whole a broad range of curious eccentricities, from tie-dyeing to group recreational drug use.

While inimical to the ordered societies of the solar system, most pirates are sympathetic, even familial, to others of their kind. Although some rivalries naturally exist among these sorts, meetings between pirate groups usually more resemble family reunions than business conferences.

COMMERCE AND INDUSTRY ◇

No central organization exists between pirate groups largely because they are scattered across the solar system, operating from hidden bases. Most pirate groups have only one or two ships equipped with outdated weaponry, although some mercenary groups in the employ of Earth or Venus have received some very advanced technology.

The pirates' targets are most often slow and unarmed merchant vessels, from which they steal needed supplies and equipment. Such activities are not considered a major threat by any government, and "piracy expenses" have become a common sight on Merchant Guild ledgers. Occasionally, however, a particularly brutal and/or greedy pirate group will kill the crew of a boarded vessel and steal the entire ship. In these cases, punitive military expeditions are mounted to "discipline" the offending group. For the most part, the solar powers think the pirate groups are not worth the time and expense involved in hunting them down.

SISTER MARISA ☆

Once a Catholic nun, Sister Marisa abandoned her order in disgust when she found out that the Vatican, like CEGA, had become a puppet of the Venusian Bank due to massive accumulated debts and the work of a few corrupt officials. Driven rather batty by this shattering of her world, she became a pirate to "minister to those in need of succor from the dark forces of the Bank," as well as to keep herself one step ahead of angry Bank enforcers eager to silence her.

Sister Marisa remains at large, and has gained a folk reputation as a modern "Robin Hood" in the solar system. Although she has denied the laws of Mankind, she has kept her personal vows sacred, and continues to wear the habit as a sign of her loyalty to a higher power. Her cutlass and gunbelt tend to ruin the image of a cloistered nun, however.

WHAT A COLD, LONELY PLACE ▣

Player Characters hailing from the Outer Realms are few and far between because the population is virtually non-existent. There are those who call the empty expanses home, however, such as dedicated explorers, scientists and pirates. Players should give considerable thought as to why their characters identify with this inhospitable place and what draws them there. Possibilities include the lure of adventure (such as bounty hunting or piracy), scientific curiosity, or a desire to flee from something back home.

Most if not all of the adventures taking place in the Outer Realm will occur aboard a ship — there are no settlements out there, other than a few tiny research stations (though these could work wonders for "cabin fever" scenarios, just like Titan). Characters that have traveled beyond Saturn are likely to be scientists or part of the crew of an exploration vessel. What these adventurous souls find out there is left entirely to the imagination of the Gamemaster, but could include secret military bases, derelict ships, other explorers and various natural phenomenon.

The potential for discovery and academic fame are greatest in these far-flung reaches of space, but a minor mechanical malfunction which would be simply a bother in the well-traveled lanes of space can become a life-threatening menace out here. A traitor or saboteur hidden aboard an exploration ship or part of its crew can be similarly lethal, and a little high-tension drama is something which gets Players to show their potential.

The Outer Realms are a good setting for more intimate roleplaying opportunities. Since all the Player Characters are stuck together on a ship, they will have to interact with one another and any NPC crewmembers. The Players and the GM can easily begin subplots and resolve others during these stretches. One of the greatest schticks for deep exploration vessels is for a genetic experiment to go awry and escape the labs, hunting crewmembers one after the other.

2-10-1

PERSONALITIES

HOOKS AND TIPS

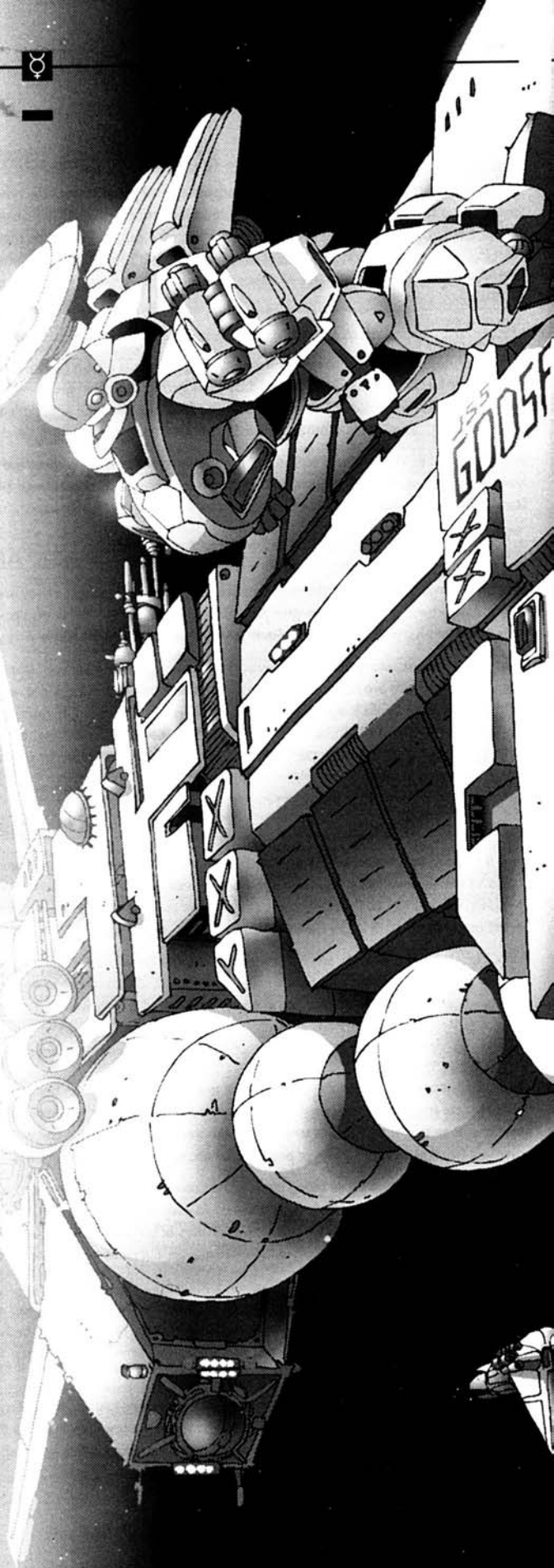
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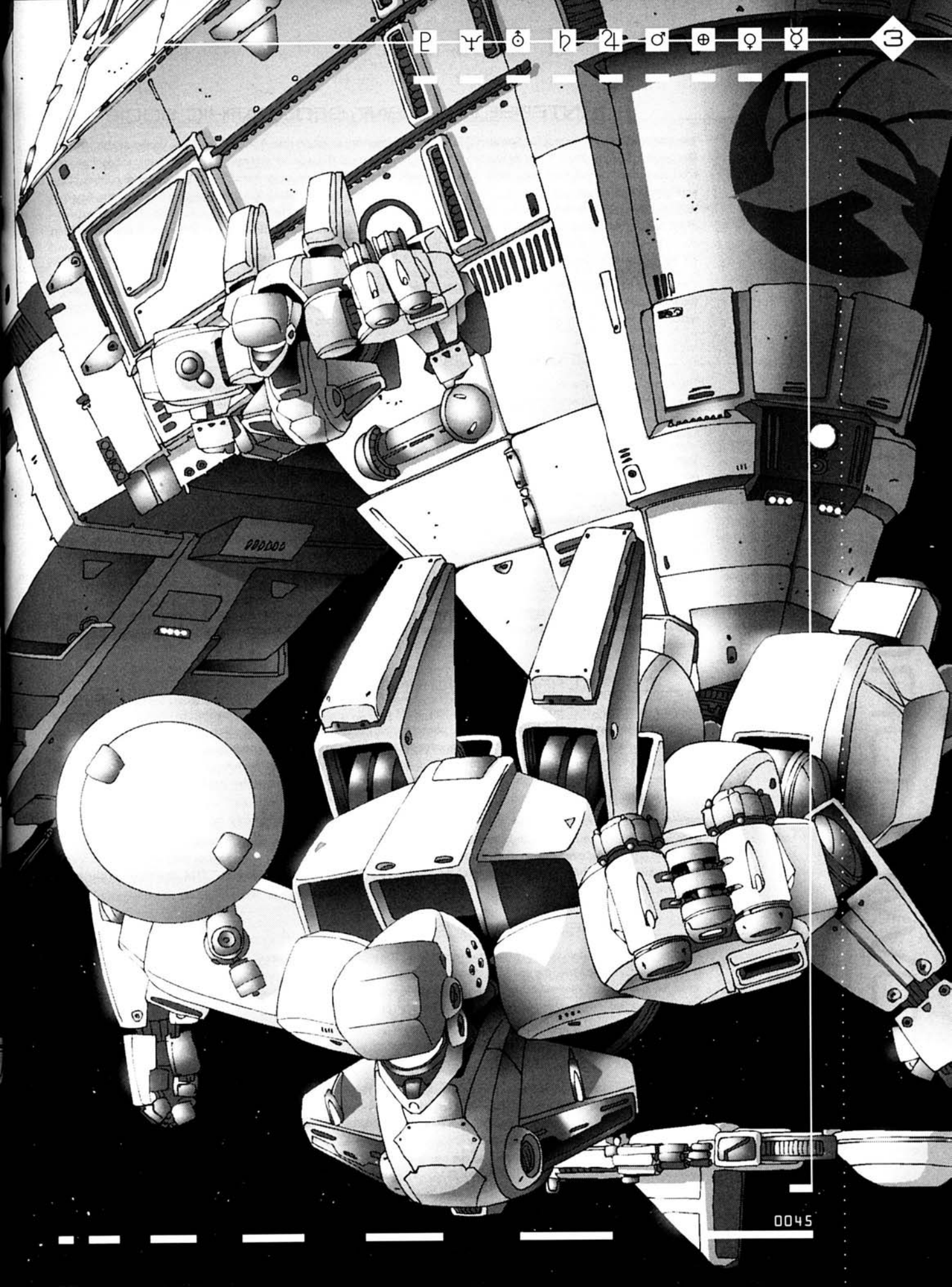
► KNOWN ORGANIZATIONS

The solar system of the twenty-third century supports a vast number of corporations and interest groups, many of which have influence over the entire spread of human expansion. Some, like the Solar Cross and the United Space Nations (USN), exist to serve the need for neutral peacekeeping forces in the solar system, providing common grounds for healing or diplomacy. Others are shadowy secret societies that sustain humankind's age-old love of mystery and one-upmanship.

The six organizations introduced in this section represent the merest fraction of human groupings. However, they do provide an adequate cross-section of the more important driving forces behind the governments and people of the solar nations. The aforementioned Solar Cross and USN are both popular and highly respected organizations which draw their membership from the entire human race. The Venusian Bank and the Mercurian Merchant Guild are less permissive in their membership, and far less open to public scrutiny. The Zenith Orbital Network is a commercial current-affairs broadcast network that reaches the entire Solar System. The final group, the Intersettlement Geographic Society, is a purely scientific organization that wants nothing more than to be permitted to do its research in peace.

Recent events have forced many of these organizations to go against their basic desires in order to keep up with the flow of politics. Specifically, the Solar Cross, USN and IGS are finding themselves pressured from all directions to choose sides in the conflicts between nations, while the Venusian Bank and other secretive groups are finding few alternatives to acting openly and directly in order to maintain their strong positions in the solar system's power structure.







► INTERSETTLEMENT GEOGRAPHIC SOCIETY

The Intersettlement Geographic Society (IGS) is a much larger organization than it was when it was known as the National Geographic Society. Then, it had its hands full trying to catalogue all the wonder and majesty of Earth; now, it has the entire solar system with which to occupy itself. Although much of humanity is now quite homogeneous in terms of culture, dress and behavior, there are still pockets of uniqueness left in the solar system. Many IGS photographers wander the Asteroid Belt and the Independent States of Earth, recording the traits of the various cultures therein. Exploration of the vast expanse of the outer solar system is also a strong focus of the IGS. Most nations are too busy paying attention to themselves and each other to bother with exploration, leaving the IGS and occasional university collaborators to plumb the secrets beyond the settlements of humankind.

The Society has retained its centuries-old credo: "Only what is of a kindly nature is printed about any country or people." In the increasingly bitter social and political climate of the solar system, the IGS' strict adherence to this policy has made it welcome in every nation; its publications often serve as excellent public relations material.

◇ ORGANIZATION

The home offices of the IGS are located on Phoenix Station at Earth's L4 point. The organization left Earth along with the United Nations a short time before the Fall. During the period of isolation that followed, the IGS was one of the few sources of communication between worlds, informal as that interplay was. By the time the Mercurians had rebuilt the trading ties between nations, the IGS had already opened branch offices all over the solar system.

The IGS maintains a small fleet of exploration ships that chart and investigate the solar system outside of Jupiter's orbit. Although the ill-fated *Beagle II* was the best known of them all, over a dozen other vessels continuously ply the lonely space around the outer planets, their captains and crews isolated from civilization for years at a time.

The IGS has also set up dozens of observatories. Of particular note are the telescopes located at the poles of Earth's Moon, where permanent darkness at crater bottoms results in temperatures only about forty degrees above absolute zero. These devices have proven extremely adept at spotting very cold, distant objects, while being less difficult to maintain than space-based telescopes. The IGS telescope, however, must share ground with CEGA spy stations, which use exactly the same equipment for very different purposes.

The IGS remains a nonprofit organization. It is funded solely through public donations (much of which, admittedly, come from corporate interests) and the sale of *Interplanetary Geographic* magazine, which is distributed system-wide in a variety of formats.

◇ CURRENT CONCERNS

Recent events have strained the IGS' responsibility to its credo. The incredible canyon created by the fall of the Martian Orbital Elevator has been the subject of several photographic documentaries, many of which cannot help but point out the fact that the disaster was, in addition to being manmade, a direct result of the angry political climate of the solar system. As a result, CEGA is becoming increasingly critical of IGS activities. Other governments are less concerned about the writings of the organization, with the notable exception of the Martian Federation, where the last four issues of *Interplanetary Geographic* have been placed on the Banned List.

Although the multinational crews of the IGS bases near Saturn are getting along fine, conflicts have sprung up among some of the exploration teams closer to home. Many of the teams assigned to telescopes and signal monitoring stations are wracked by paranoia; everyone suspects everyone else of being a spy. In the telescope arrays at the poles of Earth's moon, Jovian crewmembers have been locked out of the observatory. The same has been done to CEGA and Venusan personnel on Europa and Callisto.

★ RELIGION IN SPACE

As religions go, two hundred years is a mere moment in time. The major traditional beliefs of humanity have undergone some changes and denominational splits over the years to reflect slightly differing perspectives on humankind's move away from the homeworld; the major faiths and deities remain unchanged. No nation in the solar system has an official state religion, although some continue to celebrate traditional religious holidays like Christmas, Ramadan or Hanukkah.

There are a few colonies scattered about the solar system which are owned by religious groups. The majority of these are small stations with less than a thousand inhabitants, but some of the more well-organized groups have purchased huge cylinders where tens of thousands live out a harmonious existence.

As in previous centuries, there are always minor cults and splinter religions springing up; these are especially prevalent in the more isolated colonies and in nomad tribes. Instances of religious behavior that is radically out of line with the mainstream are rare; in the hostile environment of space, most severely deluded people manage to kill themselves through carelessness or ignorance long before they can harm others. The occasional exception is the stuff of nightmares for national authorities. The release of nerve gas into the Montblanc colony cylinder near Earth by a lucid and intelligent fanatic in 2174 is one example of religious fervor taken a step too far.

MERCURIAN MERCHANT GUILD ◀



3.2

When the first Mercurians established their fledgling nation, they were concerned with the difficulty of maintaining privacy while trading with the other solar nations. Because of the planet's proximity to the sun, most ships could only approach Mercury while hiding in its shadow. This limited the number of windows to Mercury, making it something of a chore for captains to plot their way there. Thus, the seclusion gained was counterbalanced by Mercury's poor location.

The Mercurians' solution was at once logical and innovative: why try to make Mercury into a trading center when the other planets would do a far better job? Up until that point, trade between nations was sparse at best; self-sufficiency was the order of the day. The solar nations were rather surprised when, in the 2120s, they were each visited in turn by ships affiliated with the "Mercurian Merchant Guild," and politely invited to participate in formal trade with the rest of humanity using the Guild's members as middlemen and couriers. Although some nations (notably the Jovian Confederation) were initially suspicious, the numerous benefits to be gained eventually earned the Mercurians the patronage of the entire solar system.

The Merchant Guild is Mercury's main source of income. It is extremely dependent on the cooperation of the solar nations; without the other nation's port facilities and financing, the Guild would be rendered powerless. This vulnerability is the source of the Mercurians' famed neutrality and their efforts to make allies of everyone.

ORGANIZATION ◇

The twelve Merchant Princes who make up the Guild's board of directors are elected to their positions by a vote among all Guild members, and keep their positions for life. There are actually thirty Princes; the "extras" command ships and trade places with their counterparts back home every year or so. This ensures that a full voting council is always available at home while simultaneously keeping the Princes active in the business of the rest of the solar system.

The structure of the Guild is unknown to non-members. Secret handshakes and codenames (usually related to money or wealth) help to keep the inner matters of the Guild concealed from outsiders despite its constant exposure to public commerce and exchange. All members are required to learn Merchant's Tongue, a rapid-fire language that is frequently updated in order to retain its value as a private code. Members are briefed on the changes whenever they return home.

The Merchant Guild has developed quite a sense of superiority over the years; its members constantly remind everyone within earshot that it was the Guild that rebuilt the bonds of diplomacy between worlds, a tale the solar system is rapidly tiring of. The internal security officials of many nations often grumble that the Guild also served as a conduit for the Venusian Bank to extend its reach across the solar system.

CURRENT CONCERNS ◇

The Merchant Princes are distressed by reports of the Venusian Bank's deep involvement in the recent Odyssey Affair. The twelve "home" Princes have spent much of the past few months in close consultation with Mercurian Administrator Golan Fairbanks, trying to find an equitable balance between maintaining national security, keeping up the face of neutrality and finding out exactly what the Venusians are up to. The Guild has assisted Fairbanks in the transport and storage of a significant force of exo-armors for the purposes of Mercury's defense should war prove unavoidable. In return, the Guild is requesting that Corvus, the Mercurian Intelligence Agency, be put at its disposal in order to help keep an eye on the rest of the solar system. Administrator Fairbanks has given limited approval; he is concerned that the Guild may become for Mercury what the Venusian Bank is for Venus. Nevertheless, many outgoing Guild ships are carrying Corvus agents.

On the international front, the Guild is strongly protesting (to the USN) the boarding and searching of several of their ships by both CEGA and Jovian personnel. However, the protests are mostly aimed at CEGA, since the Guild is sympathetic to the Jovians' current state of paranoia. The fact that, unlike those of CEGA, the Jovian security forces have been exceedingly polite and respectful to the Guild crews also contributes to the Guild's acceptance of that Confederation's activities.

MANY NATIONS, ONE TONGUE ★

The pioneers who built the first offworld colonies came from countless nations and cultures; the only language everyone was familiar with was English, so English was what everyone spoke. Much like the immigrants to North America in the 19th century, the colonists in the settlements attempted to keep their individual languages alive by speaking them to others of the same persuasion, and by teaching them to their children. However, they met with marginal success at best; not only did the pressures of fitting into society require children to speak English, but smaller cultural enclaves and increasing numbers of mixed-culture marriages meant that traditional languages were less likely to be spoken at home. Thus has English remained the language of choice of the human race.

A few new languages have been born of the age of colonization, often for reasons of conscious practicality. The most notable of these is Spacer's Runic, so called because its written form uses characters composed of only straight lines and dots, much like the old runes of Europe, to facilitate writing with improvised tools and surfaces. Spacer's Runic is a mix of sign language, Morse code and a complex system of written symbols meant to serve as an alternate or emergency form of communication when speaking is not an option. As such, grammar is less important to the language than specific meanings of individual words. Spacer's Runic is often taught alongside English to children in space-based community.

HISTORICAL FACTS
end of section 3.2 mercurian merchant guild



► SOLAR CROSS

All colony cylinders have well-equipped medical centers, but they are generally meant to administer to the colony and its local space. The Solar Cross is a neutral corps dedicated to providing professional medical care to people traveling or inhabiting the vast reaches of international space. The hospital ships of the Solar Cross are considered non-aggression zones; no combat activity whatsoever is permitted in and around these vessels. This edict is enforced by all nations and spacefaring groups for their mutual benefit; no one wants to waste resources providing escort for hospital ships. Problems do occasionally arise, though, when pirates and criminals elude authorities' pursuit by entering a hospital's safe zone.

In times of war, the Solar Cross is allowed to inspect POW camps and prisons to ensure the humane treatment of prisoners. The organization is also granted immunity in battle zones, provided that its ships are readily identifiable. Since the Solar Cross has never operated during wartime, no one knows if it will be able to enforce these rights. The recent incident at Copernicus, however, has cast serious doubt as to its ability in this matter.

◇ ORGANIZATION

The Solar Cross' main offices are located in the USN complex on Pyrea. Its current Director is Dr. Paolo DesSources, a former CEGA citizen in his late fifties. The majority of Solar Cross personnel are scattered across space, crewing the organization's massive hospital ships. Most spaceports have small SC offices which serve as a recruiting centers as well as accounting stations for the hospital ships. The Solar Cross is funded and equipped by the entire human community. Each nation voluntarily contributes large amounts of money, materiel and personnel. The Jovians provide mostly shuttles and exo-suits, CEGA offers ship hulls, the Martians donate pharmaceuticals, etc. The Solar Cross does not lack in quipment, but could always use a greater number of qualified personnel to serve as crewmembers aboard the hospital ships.

People who volunteer for Solar Cross service are a special lot, willing to ignore political differences and cramped conditions to perform their duties. While the monetary benefits are small, the prestige and respect are enormous; lasting out an extended tour aboard a hospital ship indicates that an individual demonstrates excellent teamwork, compassion and skill under stress. Solar Cross veterans seldom have trouble finding well-paying work in their chosen fields. Unfortunately, few people are willing or able to give their time and energy in this fashion, so the Solar Cross is eternally understaffed.

◇ CURRENT CONCERNS

The distress beacon from Copernicus on Earth's moon drew the immediate attention of the SCS *Teasdale*, a hospital ship patrolling nearby. The ship responded immediately, burning to the Moon on the quickest available vector. When it arrived, however, the beacon had been shut off, and the *Teasdale* was warned off by a CEGA frigate. Unwilling to be intimidated, Captain-Surgeon Ivan Oldziey faced down the CEGA captain. The bluff worked and the *Teasdale* was allowed to send Mobile Surgery Shuttles to the Moon's surface. The CEGA crew, already unhappy about their orders to "suppress" the Copernicus rebellion, "overlooked" the Solar Cross' presence on the Moon. By the time CEGA sent more ships, the Solar Cross had already advertised its activities and findings to space, making a cover-up impossible. As a result, news of CEGA's ruthless massacre of Copernicus' population reached the entire solar system. Karen Hyrath, the CEGA captain who permitted the *Teasdale* entry into Lunar space, was subsequently court-martialed and dishonorably discharged.

This incident has noticeably soured CEGA's attitude toward the Solar Cross while simultaneously endearing the organization to the rest of the solar nations. Although accusations of favoritism have arisen, the Solar Cross maintains that its only purpose is to provide medical aid to those in need, regardless of cause; if CEGA did not want the SC around, public relations officials say, then they should not have put so many people in a state of requiring that aid.

★ HOSPITAL SHIPS

The ships of the Solar Cross are immediately recognizable by their pure white paint scheme broken only by the organization's insignia emblazoned upon the hull. Banks of spotlights keep the ship and surrounding space well-lit, and, coupled with the radio beacon that constantly broadcasts the ship's location, serve to advertise the presence of neutral medical aid.

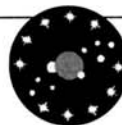
Donated as they are from various nations, most Solar Cross ships are one-of-a-kind refits. They all have several elements in common, however. They tend to be very large, since they must be able to act as fully functional hospitals and patient care units while at the same time supporting a large enough complement of daughtercraft (usually exo-suits, shuttles and old exo-armors outfitted as rescue units) to effectively patrol a large area of space. Interior space is often given over almost entirely to medical facilities; crew areas are small and designed to serve double duty as patient wards when necessary. Small gravity wheels are common, which operate when the ship is not under acceleration and permit doctors to perform operations that would be difficult or dangerous in microgravity conditions. Finally, the ships are all unarmed; the 100-kilometer neutral zone surrounding each Solar Cross vessel is enforced only by the cooperation of the zone's beneficiaries.

The ships usually have assigned routes, patrolling the major trade lanes. They can be called away to respond to sudden emergencies, but most situations are handled by rescue teams in shuttles, allowing the mothership to be where it is supposed to be, should other emergencies arise.

UNITED SPACE NATIONS ◀

The United Space Nations (USN) is a chartered organization whose purpose is to promote humanitarian relations between nations. However, its scope is greater than that of the old United Nations; it is more concerned with interplanetary rather than domestic politics. Thus, the various non-CEGA states on Earth are afforded little power in the USN Assembly. The existence of only eight voting positions in the USN has greatly simplified matters of organization. Sadly, this situation also makes it difficult for nations to stay neutral in disputes since every decision will have some effect on every member. Over the years, two "voting groups" have developed, although they are not formal associations. The Jovians, Martian Free Republic and Mercury tend to vote together, while CEGA, Venus and the Martian Federation form an opposing group. The Belt and the Independent States on Earth are wild cards; their decisions are motivated solely by their shared desire to be left alone. In recent months, however, these two members have been siding with the Jovian faction, increasing CEGA's frustration.

The chambers of the USN are located on Pyrea Station. An entire section of the colony cylinder is recognized as neutral territory for the use of the USN, complete with its own docking facilities and housing area.



3.4

ORGANIZATION ◇

The USN Assembly is made up of delegates sent from every participating nation. Earth and Mars are the only worlds that send more than one team of representatives to the Chambers at Pyrea; Mars sends two, and Earth supports a whopping twelve recognized governments in addition to CEGA. The CEGA group contains representatives from the homeworld, the Moon and the orbital colonies. For the purposes of international representation, the nomads have chosen to send one team to speak for all of them, although nomad tribes are not bound by their representatives' promises.

When decisions in the Assembly must be made, a vote among nations is taken. Each recognized nation is allowed one vote, with the exception of the twelve non-CEGA Terran powers, who must share one vote between them. This policy is maintained mostly to appease CEGA, which does not want its rivals for the control of Earth to have many times its voting power in the USN. CEGA, in turn, is allowed only one vote between Earth, the Moon and the Orbitals.

The USN is administrated by a Chairperson who presides over Assembly sessions and commands the Solar Police. Required to give up all citizenship or ties to any nation in order to symbolize neutral arbitration, the USN Chair is nevertheless one of the most powerful people in the solar system, as he or she is the tie-breaker when the Assembly is deadlocked on an issue.

CURRENT CONCERNS ◇

Chairwoman Mogesha Johari has found the past few months quite harrowing. Every Assembly session has been wracked by arguments and accusations, which she has had to mediate. The increasing tension between nations has aroused concerns that talks may eventually break down, causing the USN to be disbanded. Chairwoman Johari has only words as her weapons; the USN can bring no force to bear on governments that refuse to attend, and SolaPol's work to expose hidden plots and backroom politics seems to only compound the anger crisscrossing the solar system.

Although her former African republic is part of CEGA, Johari bears the latter no special affection and is in fact openly dubious concerning CEGA's claims that those responsible for the Odyssey have all been apprehended and punished. Although she is trying to remain impartial, in keeping with her oath, she cannot help but identify with the inhabitants of Copernicus and Elysée, who have suffered unnecessarily at the hands of CEGA. She is also secretly suspicious of the Venusians' involvement in the matter, a concern shared by SolaPol Director-General Janus O'Grady.

O'Grady has shown his uneasiness by activating several deep-cover moles in the power structures of CEGA and the Venusian Bank, an unprecedented expenditure of high-value resources. With so many active agents in one place, the discovery of any of them would virtually guarantee the exposure of several others in the resulting dragnet. Evidently, O'Grady believes that the potential benefits outweigh the risks; with his experience, no one is questioning his analysis.

THE MAILED FIST OF PEACE ★

The founders of the USN realized that unlike its predecessor, this new international organization would need more than a World Court and a few peacekeeping troops to maintain order among the solar nations. Since the old UN had obviously failed in its task of encouraging civility among humans, the USN would have to take the next logical step and force the solar nations to behave, while still maintaining a group of USN Guards for use as standard peacekeeping forces. The Solar Police is the result of this doctrine, acting as the eyes, ears and hands of the USN as it attempts to manipulate the solar nations.

SolaPol is widely recognized as the finest intelligence agency in the solar system. Its agents are everywhere, working undercover as deterrents to any misbehavior. Although every nation wants to know what its enemies are up to, none wants to be spied on in return. Consequently, several nations are becoming increasingly hostile to SolaPol's meddling and are working to restrict SolaPol activities.

The Director-General of SolaPol is Janus O'Grady, who has held the position for twenty of his sixty years. Of mixed Irish and Greek descent, O'Grady is outwardly cheerful and friendly; however, a blistering temper lurks just beneath the facade. Rumor has it that O'Grady was an assassin in his earlier years, working for an unnamed interest. His mastery of four martial arts and his affection for sharp objects seem to bear out this theory, although no confirmation or denial has ever passed his lips.

HISTORICAL FACTS

end of section 3.4 united space nations



► VENUSIAN BANK

The Venusian Bank is largest of the Venusian Corporations and controls a staggering portion of the financial infrastructure of the solar system. Its goal is to make as much money as possible. The amount of money the Venusian Bank has made to date makes it richer than any nation in the solar system. It virtually controls the government of Venus and stands as the true power behind the CEGA council. It would seem obvious that the Bank plans to continue expanding its wealth and power across the entire solar system. Few politicians know how to deal with the situation; the line between capitalist expansion and imperialist encroachment is thin at best, especially since the Bank is a corporation with the power of a nation.

The Venusian Bank is by no means a united house. Much of its high-ranking personnel is busy trying to undermine one another, thus hampering the Bank's efficiency. It also has a rather feudal structure; each arcology is an independent entity loyal to the Bank. Citizens tend to be loyal to their home arcology, however, since the Bank itself is an abstract concept.

◇ ORGANIZATION

The executive structure of the Venusian Bank is a closely kept secret. The main Board of Directors is based in the main Bank arcology of New Tokyo. A large portion of the city is sealed off from the rest of the arcology and guarded by Home Defense Force commandos. Only the Directors and their trusted support staff are allowed to enter this luxurious zone. The actual number of Directors is unknown to the solar system, as is the actual definition of the term. At least four thousand people live in New Tokyo's restricted zone, but their names, ranks and relationships to one another are a complete mystery. It is most likely, however, that a hundred or so of these people form the Bank's "high command," with the rest operating below them in some capacity. To date, no intelligence agency has successfully penetrated the Directors' inner sanctum.

The true power at the head of the Bank is an enigmatic figure known as the Chairman (or Kaicho). The mystery surrounding his or her nature is complete; many of the Directors question its very existence, postulating an "inner circle" of ten or so individuals who use the identity of the Chairman to further shroud their own true natures. Careful searches for support personnel, homes and other expected resources have turned up nothing. However, no one fails to pay very close attention to missives with the Chairman's name on them. Real or not, the Chairman's word is shadow-law on Venus.

◇ CURRENT CONCERNS

The Venusian Bank is discreetly searching the solar system for scientists willing to violate the Edict against secret biological research. Several have been brought to Venus already, where they are paid princely sums for their studies of the Jovian floaters. No real breakthroughs have been made, however, and the Directors are getting impatient. The recent discovery that the specimens are dying despite every effort to keep them viable has added a new element of urgency to the work.

The Directors are even more worried about lack of public outcry directed at the Bank in the wake of the Odyssey Affair, despite Admiral Kleb's revelation of the Bank's involvement. Rather, the solar nations' anger appears to be directed solely at CEGA. The Directors can only assume that the solar nations are taking action of a more covert sort. The failure of their intelligence services to turn up any agents in recent security crackdowns has only increased the Directors' paranoia.

The Bank is currently scaling back many foreign-based projects, including funding for further *Dragonstriker*-class exo-armors. The loss of control that doomed Project Methuselah has made the Directors leery of placing too much trust or power in the hands of untried pawns. They are also beginning to doubt the wisdom of provoking armed conflict in the solar system; now that the Bank is recognized as a major player, Venus has become a viable military target for both CEGA and the Jovian Confederation.

★ OPERATION METHUSELAH

When the first Jovian floater specimen arrived on Venus for study, Venusian Bank directors were dubious regarding the potential economic value of the creature. Their doubt turned to wonderment, however, when their scientists reported the lifesaving properties of the remarkable protein complex extracted from the dissected lifeform. Economic gain paled in the face of the possibility of near eternal life, and so was born Operation Methuselah.

Many Venusian Bank researchers protested the Project on ethical grounds, since the floater species might well be exterminated by such exploitation. In addition, they said, the multipolymerase's ability to repair radiation-induced DNA damage was no guarantee of any capacity to overcome programmed cell death. These voices were quickly silenced and replaced with more agreeable ones, and the Project proceeded.

The Bank spent a vast sum of money on Project Methuselah, financing the construction of a secret research station on Jupiter, stealthy supply ships to maintain the facility and state-of-the-art laboratories on Venus to study the floater specimens. The Bank also paid handsome bribes to government officials in the Jovian Confederation and CEGA.

The failure of Project Methuselah did little financial harm to the company; while the station, supply ships and bribes were write-offs, the Bank had what it wanted: about a dozen floaters had already been transported to Venus for study. More damaging to the Bank, however, was the exposure of its involvement in the Battle of Elysée by Admiral Kleb in his final moments. It is likely that the Bank will never fully recover from the system-wide distrust that revelation generated.

ZENITH ORBITAL NETWORK ◀

One of the most widely watched and influential news and information video networks, Zenith Orbital Network (ZONet) is based in Kolis Station, an O'Neill cylinder station at the L4 point in the Earth-Moon system. ZONet was founded in 2174 as a local broadcast network servicing the orbital settlements at L4 and L5, as well as sending broadcasts to the Earth and Moon. In 2189, ZONet was acquired by Hannah Gutierrez, a wealthy Orbital businesswoman who saw the potential for a commercial, system wide network. After extensive renovations to its facilities on Kolis and substantial internal restructuring, the refurbished and upgraded ZONet went on the air on March 7, 2190, addressing its first newscast to the citizens of the entire Solar System.

Over the last twenty years, ZONet has become an important part of interplanetary society. From the underground colonies of Mercury to the distant stations on Titan, the round-the-clock broadcasts from Kolis are watched by billions of people. ZONet's ability to reach such a broad audience comes thanks to serious capital investment in a network of relay satellite stations designed to boost broadcast signals (and help deal with interference from solar flares). Time lag between planets means that no ZONet broadcast is truly "live" when seen from outside the system of origin, but the two-hour Lead News broadcast (from 12:00 to 14:00 GMT) is still the best place to get international news. Other current affairs, entertainment, scientific and popular culture programs fill the schedule.

ORGANIZATION ◇

Zenith Orbital Network is a corporation with shares traded on the CEGA stock exchange in Brussels. Hannah Gutierrez remains the main shareholder, but her interests are now represented by a proxy; Gutierrez is 77 and finally seems to be retiring. The current president and CEO is Wolfgang Pfell, former head of ZONet's news and current affairs division. Pfell is assisted by a series of executive vice-presidents and division heads, each in charge of one of the major domains of ZONet interest (e.g. news, entertainment, scientific affairs). By far the largest division is news and current affairs, which not only accounts for fully fifty percent of resources at ZONet broadcast center on Kolis, but is in charge of the various field offices. ZONet maintains offices (usually staffed by about a dozen reporters, producers and technicians) at each of the national capitals, as well as on the Moon and major regions on Earth.

The news department also directs the activities of special correspondents, one or two-man teams of reporters sent to remote areas to seek a story. Some of these teams have their own vessels, but most find passage on commercial liners. The life of a special correspondent is an exciting one, allowing the reporter to go where the action is. ZONet correspondents are seen as brave and honest, going into the heart of danger (such as border disputes on Mars or pirate colonies in the Belt) for the sake of the story.

CURRENT CONCERNS ◇

ZONet is mainly occupied with the business of providing system-wide news coverage and remaining the top outlet for such news. As a part of the Gutierrez Media family, ZONet works in collaboration with other major media corporations such as Phoebus Pictures, IXT Telecommunications and Morris Electronic Publishing. Zenith nevertheless faces competition from a growing number of rival broadcasters, including the intersettlement service of the Jovian Public Access Network and lunar-based OmniNews.

The degree of competition has forced ZONet to make tough decisions and some feel they have sacrificed accurate coverage for ratings. Part of ZONet's competitive edge is its apparent ability to get reporters anywhere and at anytime to bring breaking stories to the world at large. This access becomes difficult when local powers decide they are better served by silence. One way to break the silence is to accommodate the wishes of local authorities and "spin" the truth somewhat. Several members of the Martian Federation, under the cover of anonymity, have claimed that ZONet reported false evidence of STRIKE involvement in the devastating destruction of their Martian orbital elevator to cover up the role of the Martian Free Republic.

LIVE FROM ELYSEE ★

For the past two years, ZONet has enjoyed unprecedented access to the government of the Jovian Confederation and its representatives. Elysée bureau chief Marion Fynn has conducted regular interviews with top Jovian officials, including several with President Itangre herself. Fynn and Itangre seem to have a friendly and open relationship on camera and the weekly "Live from Elysée" broadcast has become very popular with politically aware viewers; it has also been the place Itangre or her ministers have often chosen to announce new foreign policy initiatives.

Up until recently, the two women enjoyed a cordial, professional relationship off camera as well. In the last few months, however, Fynn has been looking into the details of the Odyssey Affair. She believes that her superiors at ZONet may have suppressed evidence of Jovian involvement in the destruction of the Martian orbital elevator. She has also been digging into the President's past with accused traitor Avram Thorsen. Itangre is less than pleased by these inquiries and has substantially reduced her contact with Fynn.

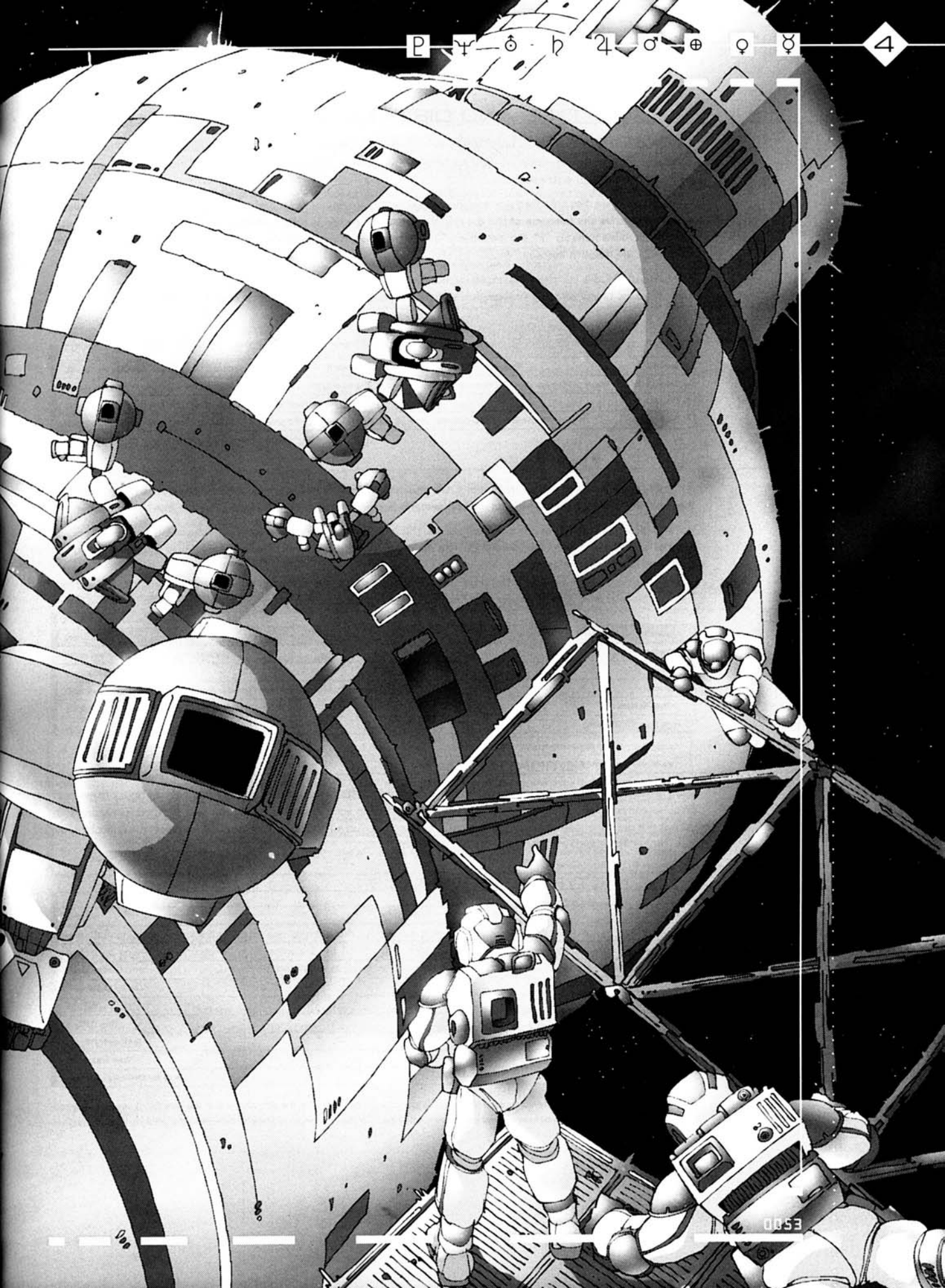
3.6

HISTORICAL FACTS
end of section 3.6 zenith orbital network

SILHOUETTE BASICS

Like all of the other Dream Pod 9 games, Jovian Chronicles is based on the proven Silhouette game engine, which uses the traditional six-sided die to add a random element to the various situations covered by the rules. As was mentioned before, all rule systems have to make a trade-off between extreme realism and playability, and Silhouette is no exception. Its main purpose is to give a framework to build the action on, not hamper it with a straightjacket of constricting formulas and special case rulings. The basics of the system are designed so that gameplay is fast-moving and exciting, while still remaining believable.

The Silhouette rule system is also an extremely flexible game engine. Depending upon the gaming group's preferences, it can serve as a roleplaying game, a tactical vehicle combat game, or a smooth integration of both. Roleplayers may wish to ignore the tactical sections of these rules; similarly, wargamers should feel free to use only the vehicle rules system. Players may also adjust the "realism" of the campaign, from a mostly accurate simulation of reality right up to a movie-like flash of action and adventure (see page 223). No matter the type of game played, however, the notions introduced in the next four pages will always remain at the base of every Silhouette game session.





► DICE AND DIE ROLLING

The Silhouette system uses everyday six-sided dice (sometimes referred to as "1d6") to add a random element to the game. The same dice rolling convention is used for both the roleplaying and wargaming aspects of the rules, so this is not repeated in the respective rule sections.

When two or more dice are rolled simultaneously, their results are **not** added together. **Instead, the highest value rolled is considered to be the outcome of the die roll. If more than one "6" is rolled, each extra "6" adds one (1) to the total.** If every die rolled turns up "1", the die roll is a Fumble and counts as an overall result of zero. Unless mentioned otherwise, all die rolls are rolled in this way.

The totals of die rolls are often influenced by modifiers. Modifiers are added to the total of a die roll. If negative modifiers lower the total below zero, the final result is zero. Modifiers are not applied to the dice roll on Fumbles.

▣ DIE ROLLING EXAMPLES

Example 1:	Player A rolls two dice. The dice read 3 and 5. The total of the die roll is 5 (the highest individual die result).
Example 2:	Player B rolls five dice. The dice read 1, 6, 4, 6, and 6. The total of this die roll is 8 (the highest roll + 2 for the two extra sixes).
Example 3:	Player C rolls three dice. All three dice read 1. He has fumbled the die roll.
Example 4:	Player D rolls two dice and has a +2 modifier. The dice read 1 and 5. The total of the die roll is 7 (highest roll + 2).

▼ FUMBLES

A Fumble is a mistake or mishap that often spells disaster for a player. It is not necessarily caused by the incompetence of the character, and may be the result of environmental factors. No matter what caused the Fumble, the total die roll is zero.

In the tactical game, Fumbles produce clear results. This is hardly the case in the roleplaying rules due to the mind-boggling number of possible actions and outcomes. The effects of each separate roleplaying Fumble must thus be decided and described by the Gamemaster.

▣ TACTICAL SYSTEM FUMBLE EFFECTS

Situation	Fumble Effect
Initiative	lose automatically; if both Fumble, reroll
Attack	miss automatically
Defense	hit automatically unless attack also Fumbles; for damage purposes treat roll as 0
Active Sensors	fail to achieve Line of Sight automatically
High Speed 180° turn	crash; roll 1d6 — take Light (1-4) or Heavy (5-6) damage

▼ ACTION TESTS

Many actions involve an element of chance. Did the shot hit? Do the sensors detect the enemy ambush? Is the spy's disguise convincing? Is that dose of poison sufficient to kill? In such situations, an **Action Test** is called for. Action tests consist of a die roll whose result is compared to a fixed value called a **Threshold**. Threshold values reflect the difficulty of the task. Higher Thresholds indicate more difficult situations.

▣ TYPICAL THRESHOLDS

1	Moronic
2	Routine
3	Easy
4	Moderate
5	Challenging
6	Difficult
7	Very Difficult
8	Extremely Difficult
10	Near Impossible
12+	Pray for Divine Intervention!

Because of the peculiar probability curve of the six-sided die system used by Silhouette, the difficulty level of the Thresholds increases dramatically after 7, i.e. the progression between Threshold levels is not linear. The above chart should help to determine the difficulty level of any given test.

TYPICAL THRESHOLDS CONTINUED

If the die roll — with any situation modifier added — surpasses the chosen Threshold, the test succeeds. The degree of success is defined by the **Margin of Success (MoS)**: a value equal to the die roll (plus modifiers) minus the Threshold. The magnitude of the Margin of Success reflects the success of the action test. For example, a MoS of 1 is a marginal success, while a MoS of 6 would be a spectacular success.

If the die roll, again with modifiers added, is less than the Threshold, the test fails. The degree of failure is defined by the **Margin of Failure (MoF)**: a value equal to the Threshold minus the die roll (plus modifiers). A high Margin of Failure indicates a miserably failed action test. For example, a MoF of 1 would be a close call, while a MoF of 6 would be a definite (and potentially deadly) failure.

If the total die roll and the Threshold are equal, a draw occurs. In roleplaying situations, draws are often interpreted as marginal successes or ambiguous results. In combat, draws tend to favor the defender. In the tactical rules, draws favor the defender.

OPPOSED ACTION TESTS ▼

Sometimes two individuals will oppose each other's actions. Attacks can be dodged. Guards may notice people sneaking past them. Negotiations obviously require more than one participant. When two or more individuals oppose each other's actions, an **Opposed Action Test** is called for.

Each opponent makes a die roll using the appropriate Attribute or skill. The highest result wins the test. The Margin of Success of an Opposed Action Test is equal to the winner's roll minus the loser's roll. If more than two participants are involved, separate Margins of Success are worked out between each of the participants as needed. Tied rolls result in draws. In general, draws are wins for the resisting person.

RATINGS, SKILLS, AND SKILL TESTS ◀

In both forms of the game, people are rated in terms of their skills. A skill is a learned talent or ability which is often improved with practical experience. Only a few skills exist in the tactical game while no theoretical limit exists for the number of skills in the roleplaying game. Skill levels transfer directly from the roleplaying system to the tactical system and vice-versa.

In addition, it is a common practice in the tactical game to rate an individual, such as an exo-armor pilot, in terms of his general training. For example, an exo-armor pilot rated as Veteran is assumed to have skill level 3 in all relevant tactical game skills (Piloting, Gunnery, etc.).

Skills are useful in determining the outcome of skill tests, a common form of action test. In a skill test, the number of dice rolled is equal to the skill level of the person involved.

SKILL LEVEL VALUES □

Skill Level	Training Quality	Description
0	Untrained	Little or no skill. Cannot use this skill in tactical game.
1	Rookie	Basic training. Common skill level for hobbyists and other amateurs.
2	Qualified	Standard skill level for anyone who earns his living using the skill.
3	Veteran	Hotshots and old professionals. Represents years of experience.
4	Elite	True professionals. Individuals whose skill commands fear, respect, or envy from all in their professions. Most individuals never achieve this skill level, even at the peak of their careers.
5+	Legendary	The best of the best. Living legends and heroes from the history books (or the movie screen, for skill level 6 and up).

RATINGS ▼

Items or individuals are often assigned ratings to indicate how effective they are at a certain task. Both a vehicle's Maneuver score and its speed are ratings, as is a person's Build Attribute and his Stamina trait. Many ratings, such as a vehicle's Maneuver or an individual's Attributes are **Zero-Average Ratings**. They are the ones presented in the plus/minus format (for example +1, 0, -2).

This type of rating assumes that the rating will be used as a modifier for die rolls. An average score is unexceptional, and is therefore rated as a zero. Any below average scores are rated as negative numbers and any above average scores are rated as positive numbers.

► GETTING INTO ROLEPLAYING

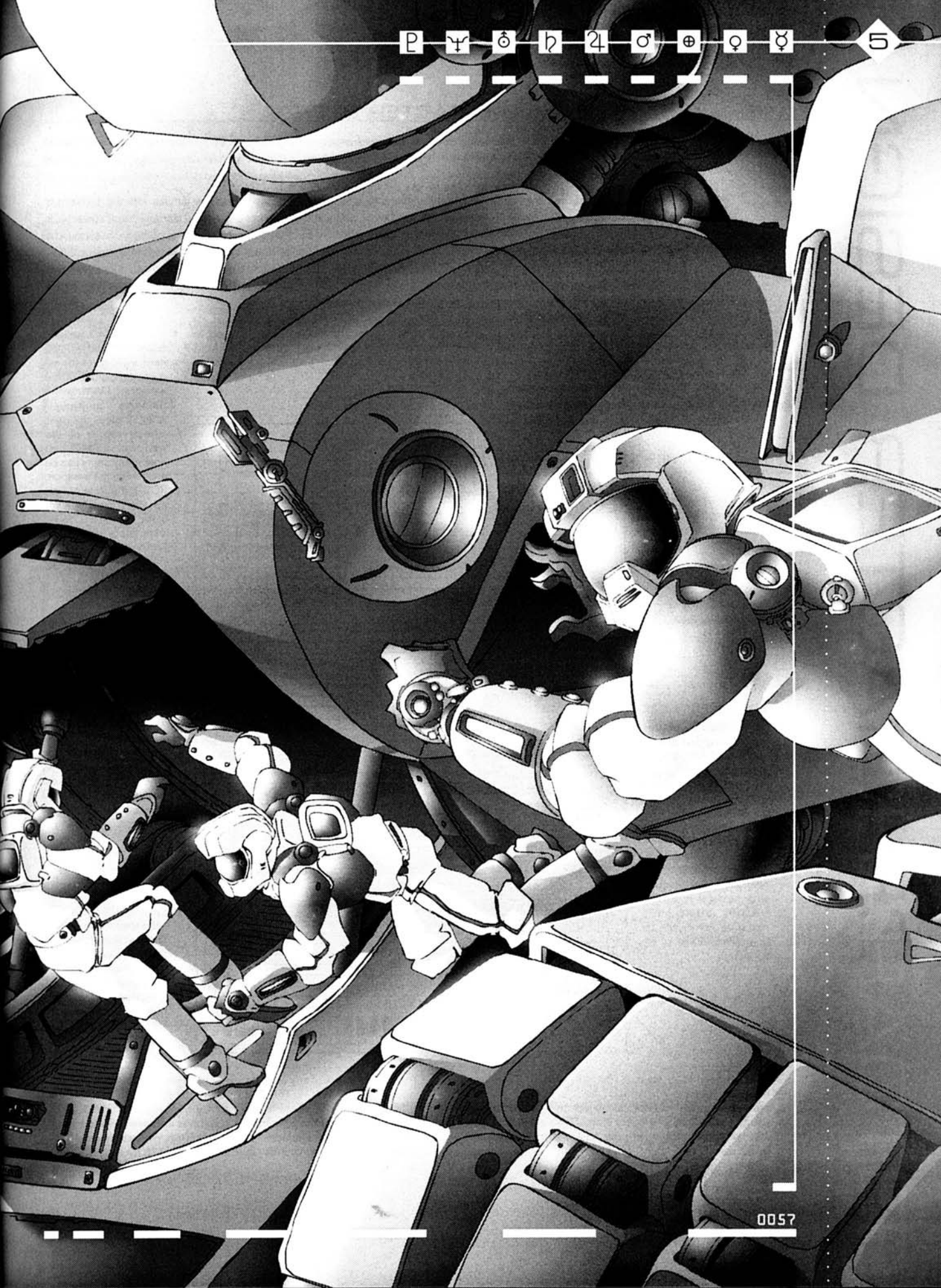
If you already know what a roleplaying game is, feel free to skip ahead to the next section. If you are unfamiliar with roleplaying games, read on.

In simple terms, a roleplaying game (or RPG) consists of a group of people creating an interactive story. Like an actor in a movie, each Player takes the role of a character. These characters are called, not surprisingly, Player Characters or PCs. A group of Player Characters is generally referred to as a party.

One Player does not have a character. Instead, this person, called the Gamemaster or GM, serves in a role that is analogous to the movie's director. It is the Gamemaster who sets the stage for the game's events. In addition to designing the setting of an adventure, the Gamemaster is responsible for stocking the setting with an interesting cast of villains, allies and extras. These additional characters are called Non-Player Characters or NPCs. During a game, one of the Gamemaster's primary tasks is to slip into the role of any NPC that interacts with the Players. The Gamemaster's final task is to guide the game's progress and arbitrate over any conflicts.

Roleplaying games are not divided into specific matches. Instead, RPGs consist of sessions, scenarios (often called adventures or missions), and campaigns. A session is simply a period of time, often around two to four hours, that is allotted to play. The length of a session is determined by the schedules of a gaming group's Players. A scenario is analogous to an episode of a television show. During a scenario, the primary plot of the story unfolds. The numerous subplots of a story often advance, but they are not the focus. During a scenario, some character development should occur, but major changes are unlikely. A campaign is a series of scenarios that are linked together to shape a larger story. Campaigns are similar to television or movie series.

So what makes roleplaying games any different from improvisational acting? The key difference is that roleplaying games are just that, games. Acting is done with the purpose of entertaining others. Games are played for the purpose of entertaining oneself. Games also have rules and involve an element of chance, and roleplaying games are no exceptions. The abilities of characters are described using various statistics and labels. This information, along with plain-English descriptions of the character's possessions and background, is recorded on a character sheet. Dice are used to add a random element to the game and keep everyone, including the Gamemaster, guessing about the outcome of the scenario. This chapter presents all the steps for designing Player Characters, while the next two give the rest of the rules for the Gamemaster.



► THE CHARACTER SHEET

In **Jovian Chronicles**, information about characters portrayed either by the Players or by the Gamemaster is recorded on documents called character sheets. These sheets list each character's basic abilities, personal knowledge, possessions and vital statistics (name, height, weight, etc.).

Taking a look around the different elements on the character sheet is a good way to become familiar with the decisions to be made when making a character. The sample shown below contains the statistics of a typical starting Player character, in this case a young Jovian pilot called **Aurore Gaumond**. Explanations about the various record fields of the sheet surround it, with page references pointing at the full rules. A blank character sheet can be found at the end of the book on page 228 — it may be photocopied for personal use. Players are also encouraged to get a separate note book to keep a journal of their characters' thoughts and activity. With this method, a more detailed background and personality can be designed for the character, making him or her more than a mere collection of numbers.

- The learned abilities of the characters, called Skills, are noted in this table. The CPLX column is used to indicate with an S (for Simple) or a C (for Complex) the level of complexity of the skill. The players should put in the LVL column the level of the skill. The +/- column is used to indicate the value of the attribute associated with each individual skill. See p. 69 for details.

- The character's weapon statistics should be listed here. ACC gives the accuracy modifier of the weapon; DAM is the damage multiplier; RANGE gives the basic (short) range of the weapon. AMMO lists how many shots can be fired with the weapon. ROF is the Rate of Fire, a statistic used for automatic fire. See p. 96 for a complete listing of the weapons.

- Picture of the character (optional)

- Civil identification

- Physical description and measurements

- The ten basic Attributes (agility, appearance, build, creativity, fitness, influence, knowledge, perception, psyche and willpower) of the character are noted here. The values range from -3 to +3 and usually average 0 for normal individuals. The costs increase exponentially and characters with several high Attributes often have negative Attributes to compensate. See p. 61 for details.

- This table contains the characteristics of any equipment which the character is carrying. It can also be used to jot down some basic notes on the personality and the background of the character. It is recommended, however, to write a more detailed and complete background on a separate sheet or notebook.

PICTURE		SKILLS				WEAPONS				EQUIPMENT & NOTES			
NAME	CPLX	LVL	+/-	NAME	ACC	DAM	RANGE	AMMO	ROF				
Combat Skills	S	2	+1	Charger 6 mm pistol	0	+10	4	15	0				
Communication	C	2	0										
Dance	S	1	+2										
Dodge	S	1	+2										
Electronic Warfare	C	1	0										
Exploit	C	2	+2										
First Aid	S	1	0										
Gunnery/Bolt	C	2	+1										
Hand-to-hand	S	1	0										
Leadership	S	1	+1										
Mechanics	S	1	0										
Music	S	1	0										
Notice	S	1	+1										
Small Arms	S	1	+2										
Tactics	S	1	0										
Zero-G Movement	S	1	+2										

IDENTIFICATION		DESCRIPTION		ATTRIBUTES		SECONDARY TRAITS		PHYSICAL STATUS	
NAME	PROFESSION	AGE	SEX	AG	AP	BLD	CRS	INT	HEALTH
Aurore Gaumond	Ex-Armor Pilot	19	Female	2	0	0	0	1	15
CIVIL ID	Private	HAIR COLOR	RED	STR	HEA	STA	UD	AD	30
UNIFORM	Jovian Confederation	HEIGHT	1.80 meters	DEF	SCORE	PER	WIL	DEATH	50
	31st Ex-Armor Flight, Gamma Division	WEIGHT	55 kg						
		HANDICAP	Right						

SYSTEM SHOCK	
HEALTH	SHOCK

- The five Secondary Traits (STrength, HEAlth, STamina, Unarmed Damage and Armed Damage) of the character are noted here. They are calculated from several basic Attributes and/or Secondary Traits. They cannot be increased without increasing the basic Attributes. See p. 63 for details.

- The current status of any wounds received by the character are noted here. The Flesh Wound Threshold is equal to half the STA Secondary Trait. Deep Wound score is equal to the STA score. Instant Death occurs past twice the STA Trait. A column is also available to note the armor that the character is wearing. Flesh Wounds cause a -1 penalty while Deep Wounds cause a -2. See p. 116 for details.

ATTRIBUTES ▼

The first vital statistics are Attributes. Attributes are zero-average ratings (a rating of zero represents a "normal" person) used to describe the character's innate mental, physical and social strengths and weaknesses. Attributes are summarized below and fully detailed in *Attribute Descriptions*.

5.1.1

ATTRIBUTES □

Name	Abbreviation	Description
Agility	AGI	Physical prowess and coordination
Appearance	APP	Physical comeliness
Build	BUI	Physical size and mass
Creativity	CRE	Mental innovation and quick thinking
Fitness	FIT	Physical conditioning and endurance
Influence	INF	Charisma and persuasiveness
Knowledge	KNO	Education and logical thinking
Perception	PER	Alertness and ability to discern details
Psyche	PSY	Mental health, empathy and luck
Willpower	WIL	Mental endurance and conviction

SECONDARY TRAITS ▼

The Secondary Traits are a group of five ratings that are neither Attributes nor skills but are dependent upon them. All Secondary Traits are computed from Attribute and skill ratings. They are detailed in *Secondary Trait Descriptions* and are summarized below.

5.1.2

SECONDARY TRAITS □

Name	Abbreviation	Description
Strength	STR	Raw physical strength
Health	HEA	Physical well-being and resistance to disease
Stamina	STA	Physical endurance
Unarmed Damage	UD	Damage inflicted in hand-to-hand combat
Armed Damage	AD	Base damage in melee combat

SKILLS ▼

Skills are a measure of learned abilities and range from 1 to 5 in terms of ability. The four columns of the Skill List are Name, Complexity, Skill Level and Modifiers. *Complexity (Cplx)* is a rating of how difficult a skill is to learn: skills are either Simple or Complex. *Skill Level (Lvl)* is the same term that was described earlier in the *Silhouette Basics* chapter (page 55). The *Modifiers (+/-)* entry is where the total of all relevant modifiers to the skill roll (if any) are noted — this includes the governing Attribute (e.g. Agility governs Piloting) for easy and quick reference.

5.1.3

INJURY LIST AND SYSTEM SHOCK ▼

Injury levels and System Shock are a measure of how much physical punishment a character can receive before debilitating wounds occur. The numbers indicated are compared with the total damage received to determine the extent of injury in combat. See *Injury List and System Shock Description* and *Chapter 6: Character Action* for more details on combat.

5.1.4

WEAPON LIST ▼

This is a list of the weapons carried by the character (if any). The list includes columns for weapon type, damage, ranges (short, medium, long, and extreme), and other notes. Note: personal weapon damage is on the Personal Scale, not the Vehicle Scale (see *Character Action*, page 126).

5.1.5

EQUIPMENT LIST ▼

Below the Weapon List is the Equipment List. Prized belongings and items that are carried by the character should be listed here. The Armor points of personal armor should be noted in brackets after the item name, for example Flak Vest (+20).

5.1.6

► CHARACTER DESIGN PROCESS

Before sitting down to actually roleplay, players will have to create their own characters. These can be almost any type of person, although the following process assumes characters above the average, but not to the level of the elite. Gamemasters may wish to adjust the number of Character Points and Skill Points (see below) available to reflect the setting of their campaign.

In order to keep the character generation rules as clear and concise as possible, the full descriptions of the various Attributes and skills have been grouped together at the end of the chapter (page 64).

▼ STEP ONE: CONCEPTUALIZATION

The character must first be imagined. Is it a he or a she (you need not play a character of your own gender)? Is he tall and muscular or lean and intellectual? The *Defining a Character* table offers a few questions that will help you.

The more answers you provide, the more detailed (and alive) your character will be. Once the character's look and feel are determined, you should choose a name. If time and talent permit, a drawing of the character is always a nice addition.

▢ DEFINING A CHARACTER

Ⓐ	What is the character's gender?
Ⓑ	What is the character's physical appearance?
Ⓒ	Does the character have a distinctive physical trait?
Ⓓ	Describe the psychological traits of the character.
Ⓔ	Does the character have any good habits?
Ⓕ	Does the character have any bad habits?
Ⓖ	How old is the character?
Ⓗ	Where is the character from?
Ⓘ	What was the character's family like?
Ⓢ	What relationship did the character have with his family?
Ⓛ	Does the character have any current personal relationships?
Ⓜ	What is the character's occupation?
Ⓟ	What is the character's lifestyle like?
Ⓡ	Why does the character do what he does?
Ⓣ	If a military type, what is the character's rank?
Ⓟ	Which organization(s) does the character belong to?
Ⓡ	What are the character's personal goals?
Ⓢ	Does the character have any secrets?
Ⓣ	Who are the character's friends and rivals?
Ⓡ	What is the character's name and/or nickname?

▼ STEP TWO: SELECT ATTRIBUTES

Once a concept is decided upon, players should purchase Attributes to flesh out the rough mental image of the character. A certain number of Character Points (CPs) are available to purchase Attributes. The cost in CPs of an Attribute rating is listed in the *Attribute Costs* table. Purchasing very low stats "gives back" some CPs. A rating must be purchased in all ten Attributes. None are truly more important than the others, and all have their uses. If any CPs are left over, each point becomes one Emergency Die (see *Emergency Dice*, page 124) or a Skill Point, at the player's choice.

Joe Average, the man on the street, has only 10 CPs available. This is just enough to purchase 0 (normal, average levels) in all Attributes. Children receive between 0 and 10 points, based on their age and level of development. Player Characters are heroes, so they receive more points than the average person — exactly how many depending on the style of play of the campaign (see *Campaign Style*, p 223).

Silhouette also allows the creation of characters from low or null-gravity settlements by modifying the limits of certain Attributes. The *Off-world Characters* section, page 63, contains the rules to do so.

▢ ATTRIBUTE POINTS AVAILABLE

	Joe Average	Player	Major NPC
Gritty Game	10	20	30
Adventure Game	10	30	50
Cinematic Game	10	50	70

ATTRIBUTE COSTS □

Attribute Rating	Character Point Cost
+5	36
+4	25
+3	16
+2	9
+1	4
0	1
-1	0
-2	+1*
-3	+4*
-4	+9*
-5	+14*

* These values are added to available CPs instead of being subtracted. Values in *italics* may only be attained by Light Worlders and ZeGees (see page 63 for more details).

STEP THREE: SELECT SKILLS ▼

Players should now choose skills for their characters. Each Campaign Style (see *Campaign Style*, page 223) gives a certain number of Skill Points (SPs) to purchase Skill Levels with. A skill cannot be purchased at a level higher than its governing Attribute plus two. For example, if John's Agility is +1, he cannot purchase the Dodge skill at any level greater than 3. If the governing Attribute is -2 or lower, the skill can be purchased at level 1 for double the normal cost.

The *Skill Costs* table lists the skill point costs for Simple and Complex skills and the minimum value required in the governing Attribute. Starting skill levels are generally low but can be improved through experience.

SKILL POINTS AVAILABLE □

	Joe Average	Player	Major NPC
Gritty Game	20	30	40
Adventure Game	20	40	60
Cinematic Game	20	60	80

SKILL COSTS □

Skill Level	Simple Skill Cost	Complex Skill Cost	Minimum Attribute
1	1	2	-1*
2	4	8	0
3	9	18	+1
4	16	32	+2
5	25	50	+3
6	36	72	+4
7	49	98	+5
Specialization	5	5	n/a

* If Attribute is less than -1, level one can be purchased at double cost.

MUNCHKINISM □

Welcome to the art of munchkinism, sometimes called "power-gaming." This venerable gaming art is practiced by Players who are meticulously point conscious and want to get the most out of their characters. Expect them to spend a while trying to figure out how to balance their characters' Attributes and Skills exactly in order to lose no points in the process. This favorite pastime of some Players has been known to annoy both Gamemasters and their fellow gamers, and is often discouraged. We say, let them. If that's what it takes for those players have fun with their character, humor them (within reason).

On the other hand, munchkinism can lead to ridiculous extremes. It is possible to create a character who would start with three Attributes at +3, one at -1, two at -2 and four at -3. Put bluntly, that's ludicrous. We strongly recommend that Gamemasters limit the starting Attributes of a character to one Attribute at +2 and four or five at +1. Attributes to watch for: Agility, Build and Perception. They are prized by the munchkins because they are tied to a variety of combat skills. Roleplaying Attributes to encourage: Creativity, Psyche and Willpower. While not exceedingly powerful in combat, they promote character development and non-combat Skills.

◇ SKILL SPECIALIZATIONS

A character may obtain a Skill Specialization at a cost of 5 SPs, regardless of whether it is a Simple or Complex Skill. A Specialization allows the character to add a +1 modifier to his Skill test totals under certain specific conditions. For example, a soldier could have a Small Arms specialization in rifles and thus add one to every roll made while using such a weapon. A scientist could have a Physical Sciences specialization in nuclear physics, and gain the plus one whenever a relevant roll is called for. The Skills section later in this chapter includes suggested Specializations, but the Gamemaster can add more should he wish. A few Skills require that a specialization be chosen above a certain level — these are clearly identified in their description.

A character may purchase multiple different Specializations in the same Skill, but no more than one Specialization (i.e. +1 bonus, maximum) can be applied on a single die roll. Some Players may be tempted to focus their characters and have them excel in a few Skills, purchasing specializations and high levels in three or four carefully selected Skills. Quite often, the advantages of this are more than offset by the inflexibility of the character, which will surface whenever the GM thrusts him into unfamiliar situations.

The *Master Skill List* below lists the available Skills along with their governing Attribute and complexity, as well as the page on which the Skill is explained. The Skills are listed in alphabetical order for easy reference. Some of the Skills have asterisks beside them; these skills have prerequisites, which means that previous knowledge of a related Skill is required before learning the new one.

▣ MASTER SKILL LIST

Skill	Attribute	Complexity	Page	Skill	Attribute	Complexity	Page
Acrobatics	AGI	Simple	69	Intimidate	BLD	Simple	72
Aircraft Pilot	AGI	Complex	69	Investigation	PER	Complex	81
Animal Handling	CRE	Simple	73	Law	KNO	Complex	79
Archery	AGI	Simple	69	Leadership	INF	Simple	76
Athletics	FIT	Simple	75	Life Sciences	KNO	Complex	79
Bureaucracy	KNO	Complex	77	Literature	CRE	Simple	74
Business	KNO	Complex	77	Mechanical Design *	KNO	Complex	79
Camouflage	CRE	Simple	73	Mechanics	KNO	Simple	79
Combat Sense	PER	Simple	80	Medicine *	KNO	Complex	79
Communications	KNO	Complex	77	Melee	AGI	Simple	71
Computer	KNO	Complex	78	Music	CRE	Simple	74
Cooking	CRE	Simple	73	Naval Pilot	PER	Complex	81
Craft (Specific)	CRE	Simple	73	Navigation (Specific)	KNO	Complex	80
Dance	AGI	Simple	69	Notice	PER	Simple	81
Demolitions	KNO	Complex	78	Parachuting	AGI	Simple	70
Disguise	CRE	Simple	73	Physical Sciences	KNO	Complex	80
Dodge	AGI	Simple	70	Psychology	KNO	Complex	80
Drive	AGI	Simple	70	Riding	AGI	Simple	71
Earth Sciences	KNO	Complex	78	Security	KNO	Complex	80
Electronic Design *	KNO	Complex	78	Seduction	APP	Simple	72
Electronic Warfare	CRE	Complex	74	Sleight-of-Hand	AGI	Simple	71
Electronics	KNO	Complex	78	Small Arms	AGI	Simple	71
Etiquette	INF	Simple	76	Social Sciences	KNO	Complex	80
Exo-Pilot	AGI	Complex	70	Space Pilot	CRE	Complex	74
First Aid	KNO	Simple	78	Stealth	AGI	Complex	71
Foreign Language (Specific)	KNO	Simple	79	Streetwise	INF	Simple	77
Forgery	CRE	Complex	74	Survival	CRE	Simple	75
G-Handling	FIT	Simple	76	Swimming	FIT	Simple	76
Gambling	PER	Simple	81	Tactics	CRE	Simple	75
Grooming	APP	Simple	72	Teaching	CRE	Simple	75
Gunnery (Specific)	PER	Complex	81	Theatrics	INF	Simple	77
Haggling	INF	Simple	76	Throwing	AGI	Simple	71
Hand-to-Hand	AGI	Simple	70	Tinker	CRE	Complex	75
Heavy Weapons	AGI	Simple	70	Visual Art	CRE	Simple	75
Human Perception	PSY	Complex	81	Zero-G Combat *	AGI	Simple	72
Interrogation	CRE	Simple	74	Zero-G Movement	AGI	Simple	72

*These skills have a prerequisite (see *Skill Descriptions*, p.69).

STEP FOUR: CALCULATE SECONDARY TRAITS ▼

The character's Secondary Traits, Wounding Scores, and System Shock are calculated using the following formulas. Although the formulas may appear quite involved, most of them are simply an averaging of two or three Attributes. Some Traits have minimum values, meaning that is the lowest value they can be regardless of Attributes and Skills.

5.2.4

SECONDARY TRAIT FORMULAS

A	Strength = (Build + Fitness) + 2, round towards zero
B	Health = (Fitness + Psyche + Willpower) + 3, round off
C	Stamina = (5 x (Build + Health)) + 25, minimum 10
D	Unarmed Damage = 3 + HtH skill + Strength + Build, minimum 1
E	Armed Damage = 3 + Melee skill + Strength + Build, minimum 1
F	Flesh Wounding Score = Stamina + 2, round up
G	Deep Wounding Score = Stamina
H	Instant Death Score = Stamina x 2
I	System Shock = 5 + Health, minimum 1

STEP FIVE: PURCHASE EQUIPMENT ▼

There are two ways to select equipment. If the character resembles one of the archetypes, he may simply use the archetype's equipment list. Alternately, personal gear may be purchased "à la carte." In that case, the Gamemaster chooses a starting budget according to the campaign style and the character's background. He may also wish to approve all equipment before the game starts.

5.2.5

SPECIAL OPTION: OFF-WORLD CHARACTERS ▼

Off-world characters are human beings that live on other planets or in small space stations (not the large colony cylinders). While the environment can be changed/controlled through terraforming or enclosed living structures, gravity cannot be modified and affects the inhabitants' physiology.

5.2.6

The character generation procedure is unchanged if the character's place of origin has a gravity that falls between 80 and 120 percent of Earth's — the difference is not significant enough to warrant an Attribute change. This includes most of the colony cylinders, whose rotation is calibrated to produce the equivalent of one gee (one Earth gravity). If gravity is much weaker than Earth's (less than 0.8 G), the character is considered to be a *Light Worlder*. Characters from a space station where gravity is less than 0.1 G are called *ZeGees*.

OFF WORLD CHARACTERISTICS

Type	AGI	APP	BLD	CRE	FIT	INF	KNO	PER	PSY	WIL
Light Worlders	-3/+5	-	-5/+3	-	-5/+3	-	-	-	-	-
ZeGees	-3/+5	-	-5/+2	-	-5/+3	-	-	-3/+5	-	-

AGI to WIL indicate the minimum and maximum values of the Attribute in question. If no number is indicated, the normal human Attribute range (-4/+4) applies.

LIGHT WORLDERS ◇

Light worlders spend most of their lives in weaker gravity fields, which lessen the stresses put on their physical bodies. As a consequence, they tend to develop a slight atrophy of the muscular and skeletal systems, which can both be controlled by medical technology to prevent physiological problems. Light worlders are usually more agile than humans living in standard gravity and are also taller, with an average height of 1.90 meters for men and 1.80 meters for women. All Light Worlders automatically receive the Survival (Space) Skill at level 1, since they must live in pressurized habitats and thus have some knowledge of space safety procedures.

ZEGEES ◇

Dwellers of zero- or micro-gravity space stations and small asteroids, the ZeGees' physical bodies have been affected from growing up in an environment with very little or no gravity. ZeGees routinely suffer from atrophy of the muscular and circulatory systems, but are renowned for their heightened sense of balance and quicker reflexes, as well as their all-around awareness. Average height is 1.95 meters for men and 1.90 meters for women. For obvious reasons, all ZeGees automatically receive the Zero-G Movement and Survival (Space) Skills, both at level 1.

► ATTRIBUTE AND TRAIT DESCRIPTIONS

The basic abilities, knowledge and weaknesses of a **Jovian Chronicles** character are defined by their Attributes and Traits. These largely represent the characteristics a character was born with or acquired in their formative years, and range from physical Attributes such as Agility and Strength to mental proficiencies such as Willpower and Knowledge.

▼ ATTRIBUTES

The ten basic Attributes represent a character's natural proficiencies and potential. They are costly to improve, so vary little throughout much of a campaign (see *Character Improvement*, p. 124). Along with each Attribute description is a table giving a real world equivalent for different ratings.

▣ AGILITY (AGI)



AGI rating	Equivalent
+3	Olympic gymnast
+2	Agile
+1	Well-coordinated
0	Average Person
-1	Awkward
-2	Clumsy
-3	Suffers from a crippling disease

Agility is the character's hand-eye coordination, nimbleness, and reflexes. This Attribute is well suited to action-oriented characters such as exo-armor pilots, bodyguards and pickpockets, all of whom are likely to have high Agility ratings. Indeed, most personal combat Skills are linked to Agility because they depend on precise body movements.

▣ APPEARANCE (APP)



APP rating	Equivalent
+3	World-class models
+2	Beautiful
+1	Attractive, Cute
0	Average Person
-1	Plain
-2	Homely
-3	Physically revolting

Appearance rates the physical attractiveness of the character. This can modify how other people react to him or her. Many heroic and cinematic characters have high Appearance scores in order to better impress people they come in contact with. When NPCs are willing to bend the rules or help in other ways based on their first impression, it makes the character's life that much easier.

▣ BUILD (BLD)



BLD rating	Equivalent
+5	180-249.9 kg*
+4	140-179.9 kg
+3	115-139.9 kg
+2	95-114.9 kg
+1	80-94.9 kg
0	70-79.9 kg
-1	60-69.9 kg
-2	50-59.9 kg
-3	40-49.9 kg
-4	25-39.9 kg
-5	10-24.9 kg

*This is a set of suggested weights. Players should feel free to modify this by +/- 20 kg according to their character's planned appearance.

Build is a rating of the character's size and body frame. It does not represent the character's physical strength — that's what's Strength is for, see further — only the actual body size and mass. This is most apparent in the archetypal couch potato who is very large, but can barely lift the remote to change the channel.

CREATIVITY (CRE) □



CRE rating	Equivalent
+3	Great artists and tacticians
+2	Bright
+1	Witty
0	Average Person
-1	Slow
-2	Dumb
-3	Mentally retarded or quintessential moron

Creativity is a measure of the character's ability to use his knowledge in innovative ways. It is also a measure of the character's ability to think on his feet. This Attribute is useful for most characters who are likely to be thrust into unfamiliar situations and for leaders who have to make many decisions while on the run.

FITNESS (FIT) □



FIT rating	Equivalent
+3	Olympic athlete
+2	Professional athlete
+1	College jock
0	Average Person
-1	Out of shape
-2	Shrimp
-3	Gets winded when taking a few steps

Fitness rates the character's cardiovascular endurance and muscle tone. While Build measures raw size, Fitness measures how well maintained the character's body is. Illness can temporarily reduce this Attribute, as can other hardships such as a substandard air supply and starvation. Characters with a high Fitness need not have a high Build, but do often have above-average Agility.

INFLUENCE (INF) □



INF rating	Equivalent
+3	Professional con artists and used car salesmen
+2	Believable
+1	Likable
0	Average Person
-1	Timid
-2	Annoying
-3	No social life; either obnoxious or socially inept

Influence measures the character's charm, wit, and persuasiveness. A high Influence rating is a must for any charismatic leader. It is also useful for those who desire to spend lots of time in corporate or social settings, or characters who need to get past security personnel in more subtle ways than simply bashing them over the heads.

KNOWLEDGE (KNO) □



KNO rating	Equivalent
+3	Annoying ability to discuss any topic in an intelligent manner
+2	Well-educated
+1	Knowledgeable
0	Average Person
-1	Doesn't read much
-2	Poor education
-3	Learning disability or just incredibly dense.

Knowledge is the character's ability to learn and recall information, and also takes into account the number of years of education the character has successfully completed. Scientists and "brainiac" characters typically have high Knowledge ratings. While Knowledge is most often tied to formal education, inquisitive and well-read people can have a high Attribute without a degree.



PERCEPTION (PER)

PER rating	Equivalent
+3	Amazingly sharp senses; can read the small print on legal documents
+2	Quick
+1	Fast
0	Average Person
-1	Slow
-2	Absent-minded
-3	Should never be allowed near anything that is even remotely hazardous

Perception is a measure of the character's attentiveness to detail and overall alertness. Like Agility, Perception is crucial for action heroes since the enemy who cannot be seen cannot be dealt with. Perception is especially important for scouts and investigators, who need to pay attention to obscure details and find things hidden from view.



PSYCHE (PSY)

PSY rating	Equivalent
+3	Unusually spry and sane
+2	Very happy
+1	Happy
0	Average Person
-1	Unhappy
-2	Troubled
-3	Existential Angst

Psyche is an abstract measure of the character's karma, happiness, sensitivity and love of life. Psyche also reflects the empathy of the character and how "in tune" he is with his own emotions and those of others, as well as his innate luck. Psyche is a rather abstract concept which is best reflected by its extremes; someone with a low psyche seems to have a black cloud over his head all the time, and people will intuitively avoid him. A person with a high Psyche is empathic towards the feelings of others and tends to be easily trusted.



WILLPOWER (WIL)

WIL rating	Equivalent
+3	Endure weeks of torture without cracking
+2	Strong willed
+1	Willful
0	Average Person
-1	Easily swayed
-2	Weak resolve
-3	Cannot stay on a diet for longer than 5 minutes

Willpower is a rating of the character's self-discipline, determination, and pain threshold. Unlike Psyche, Willpower does not imply a love of life; it does however reflect the character's ability to deny death using sheer strength of will. Headstrong and arrogant characters are good candidates for a high WIL, as are shock troopers who want to be able to take a bullet.

USING PSYCHE

An often misunderstood Attribute, Psyche is a Gamemaster's best friend against die-hard munchkins and "combat monster" Players. This Attribute is often misconstrued as unimportant, if not downright useless. Most Players will prefer to have a negative Psyche in order to boost their other Attributes and Skills. We hope to provide here a few recommendations to GMs who would like to encourage roleplaying among their Players and give an incentive to buy high Psyche.

While Psyche does not replace Influence, it gives it flavor. What kind of charisma does your character have? Is he a sweet-talking, glib-tongued rogue, or a scowling, taciturn leader? While both may have a high Influence, it is the Psyche which determines much about how they will be perceived. The first one may leave a good impression, while the second, most likely, will not. Non-Player Characters are not computers, and they will react positively or negatively based on their first impression of someone. When faced with a situation where they must gather information from various individuals, low-Psyche PCs have to rely on intimidation or violence and they can quickly find themselves shunned from most social circles. Even with a high Intimidate or Streetwise Skill, they may have a hard time gathering information if everyone they want to talk to flees or hides from them. Characters with high Psyche, however, have no such problems. While they may not be quite as successful in the short term, they often establish long-lasting relationships or become very popular with people in general. Rather than having to seek out information, they may receive free tips from people who bear them good will. Playing high Psyche is difficult, however, and Gamemasters should reward Players appropriately.

SECONDARY TRAITS ◀

Secondary Attributes are calculated based upon Attributes and certain skills (see formulas on page 63) and help round out the definition of a character. The Trait descriptions follow the same pattern as Attribute descriptions, including real-word reference tables.

STRENGTH (STR) ▢

STR rating	Equivalent
+3	Olympic weight lifter
+2	Professional wrestler
+1	College jock
0	Average Person
-1	Out of shape
-2	Shrimp
-3	Weakling



Strength is a measure of a character's raw physical power and brute strength. It is a zero-average rating, like Attributes. Strength is the average of Build and Fitness, rounded towards zero. Cross-indexing with the Build weight table (page 64) shows the maximum weight that can be dead-lifted and carried a few paces — the lowest weight value in the range is used. Thus, a character with a +2 strength can heft around 95 kg and stagger for a few steps before running into difficulty.

HEALTH (HEA) ▢

HEA rating	Equivalent
+3	Practically never gets a cold
+2	Great health
+1	Good health
0	Average Person
-1	Weak health
-2	Poor health
-3	Perpetually ill



Health rates a character's resistance to illness, toxins, and physiological shock. It is a zero-average rating, like Attributes and Strength. Health is the average of Fitness, Psyche, and Willpower, rounded to the nearest whole number. People who never seem to get sick and those who can drink large quantities of potables likely have high Health scores.

STAMINA (STA) ▢

STA rating	Equivalent
10	Frail old grandmother, child
15	Young teenager
20	Weak adult
25	Average individual
30	Fitness enthusiast
40	Professional athlete
50	Professional boxer



Stamina is a rating of how much sheer physical punishment a character's body can tolerate. Stamina is not a zero-average rating: it is equal to five times the total of Build and Health, plus 25. No character may have a Stamina lower than 10. While a high Stamina will decrease the chances of injury, it is still quite easy for a character to be wounded by gunfire or other deadly weapons.

UNARMED DAMAGE (UD) ▢

UD rating	Equivalent
1	Small Child
3	Average adult
5	Brawler
8	Black belt martial artist



Unarmed damage is the Damage Multiplier of any unarmed (Hand-to-Hand Skill) attacks performed by the character. Unarmed Damage is equal to three plus the total of Hand-to-hand Skill level, Strength, and Build. The minimum Unarmed Damage rating is 1. This damage is on the Personal Scale, not the Vehicle Scale (see pages 126 and 130).



ARMED DAMAGE (AD)

AD rating	Equivalent
1	Small Child
3	Average adult
5	Street Thug
8	Skilled swordsman

Armed Damage is the base Damage Multiplier of any of the character's armed attacks (Melee Skill). Armed Damage is equal to three plus the total of Melee Skill level, Strength, and Build. The minimum Armed Damage rating is 1. The Damage Multiplier of a melee weapon is equal to the character's Armed Damage rating and the weapon's own base DM. This damage is on the Personal Scale, not the Vehicle Scale (see pages 126 and 130).

PHYSICAL STATUS

Physical Status represents the level of resistance to physical wounds. There are three types of injuries. Flesh Wounds are nasty but not crippling wounds. Deep Wounds are immediately life-threatening injuries. Instant Death is the third type of "injury" and requires no further explanation.

Each level of injury has a wounding score. Wounding scores are the amount of damage an attack must cause to produce a certain type of wound. An attack produces the type of injury whose wounding score is equal to or under the amount of damage inflicted by the attack. Only the most severe of the possible results is applied. For example, if an attack does 40 points of damage to an average individual (whose wounding scores are Flesh Wound = 13, Deep Wound = 25, Instant Death = 50), the attack victim suffers a Deep Wound (40 is greater than the Deep Wound score "25" but is less than the Instant Death score "50").

The wounding score of Flesh Wounds is equal to half of the character's Stamina (round up). The wounding score of Deep Wounds is equal to the character's Stamina. The wounding score of instant death is twice the character's Stamina. Personal armor adds its armor points to **each** wounding score when the character is under physical attack. The modified wounding score should be noted in parentheses after the original wounding score.

Action penalties are negative modifiers to all actions that reflect the pain and distraction induced by wounds. A character is penalized -1 to **all** actions per Flesh Wound and -2 to **all** actions per Deep Wound.

The final column of the injury list is used to note how many of each type of injury a character has sustained, and possibly what they are.

SYSTEM SHOCK RATING

The System Shock rating is a measure of how many injuries a character can take before going into shock and dying. If the total of System Shock and a character's wound-induced action penalties equals zero or less, the character goes into shock (see *Injuries*, page 116). System shock is equal to five plus the character's Health. System Shock cannot be lower than one.

System Shock is shown on the character sheet as a row of boxes — unused boxes are simply filled in. As wounds are taken, boxes can be crossed out according to action penalties, representing the damage.

DESCRIBING WOUNDS

Whenever a character gets wounded, there are consequences. Because the Silhouette system uses thresholds that create very specific and clear-cut game effects, it is often assumed that unless there's a Flesh or Deep Wound result, nothing has happened. Nothing could be further from the truth, because if the attack connects, there is at least a minimal level of pain. Even though the damage may not be enough to cause a penalty, it does not prevent the pain from being at least distracting. When a character suffers a Flesh Wound, it hurts. A lot. Suffering a Deep Wound hurts to tears. The black and white nature of the Silhouette wound system is often misleading. Gamemasters should carefully consider the impact of damage and see how it relates to reality.

Flesh Wounds may seem negligible, but they are not. They represent deep cuts, bleeding bruises, cracked ribs, twisted articulations, etc. They cause a great deal of trouble. Players might work under the assumption that although they have a Flesh Wound, they should not see the -1 penalty apply to anything intellectual they do. This stems from the fact that few Gamemasters take the time to properly describe what the wound looks like. If you tell the Player, "You have a Flesh Wound — you're at -1 on everything you do," he will simply shrug and ignore the effect, then start to argue that the penalty should not apply. If you tell him, "You've fallen face first on the ground — you've broken your nose and your forehead is bleeding enough to partially blind you," they will understand why *all* their Skill checks are tougher. Remember, precise information is just not very easy to recall when dealing with pain.

Deep Wounds are even worse. They represent fractures, internal bleeding, punctured lungs, torn ligaments, cut muscles, etc. They are rapidly incapacitating, enough to cause a -2 penalty on all rolls. The pain is sharp and extremely distracting. As with Flesh Wounds, they should be described with great detail to ensure that PCs realize the extent of the damage they have received. Think of it this way: a bit more damage and it would have been sufficient to kill the character.

SKILL DESCRIPTIONS ◀

While a character's Attributes define his potential, his Skills define his actual abilities. This section details all the "standard" Skills. Gamemasters should feel free to invent new Skills if they are required in their campaigns. A new Skill should not be too general nor too specific — Shooting is an example of something too general, as it might allow any sort of ranged weapon to be used, while Identification of Martian Flatworm Subspecies is definitely too specific.

Skill descriptions have five entries. The complexity entry defines whether the Skill is Simple or Complex. The Specializations entry lists a few suggestions for Skill Specializations. Some Skills list Prerequisites necessary for learning the Skill. The next entry lists some professions that normally have some training in the Skill. The final entry is a short, plain-English description of the Skill and the abilities it covers.

AGILITY BASED SKILLS ▼

The Skills governed by the Agility Attribute are those which require a high degree of hand-eye coordination and quick reaction time, as well as those which require precisely controlled movements of the body.

ACROBATICS □

Complexity:	Simple
Pre-Requisites:	None
Specializations:	Leaps and Jumps, Tumbling, Tightrope, Trapeze, Diving
Often Possessed By:	Athletes, Circus Performers, Martial Artists



The Acrobatics Skill is the ability to perform activities requiring tumbling, balancing, or gymnastics. This Skill it is useful to many types of characters — the ability to vault over a group of guards in an escape or leap between buildings to catch an antagonist are all highly desirable. The intensive training regimen involved keeps this Skill from being too widespread.

AIRCRAFT PILOT □

Complexity:	Complex
Pre-Requisites:	None
Specializations:	Jets, VTOL, Hot Air Balloon, Prop, Helicopter
Often Possessed By:	Combat Pilots, Commercial Pilots, Hobbyists



The Aircraft Pilot Skill is required to fly various aircraft, including planes, vectored thrust vehicles, and helicopters. The dream of flying among the clouds has captivated humans for ages, and people continue to soar there. A must for pilot characters, few non-pilots take this Skill to any degree due to the time involved in training.

ARCHERY □

Complexity:	Simple
Pre-Requisites:	None
Specializations:	Longbow, Compound Bow, Crossbow, Sling
Often Possessed By:	Athletes, Hunters, Primitives



The Archery Skill allows the character to effectively use such primitive missile weapons as longbows, slings, or crossbows. While still used for sport and historical events, this Skill is seldom used in combat situations due to the limitations of those weapons compared to modern small arms. A number of specialized arrowheads have caused some of these weapons to make a limited comeback in recent years.

DANCE □

Complexity:	Simple
Pre-Requisites:	None
Specializations:	Ballroom, Tribal, Modern, Ballet
Often Possessed By:	Sophisticates, Professional Dancers, Youth



The Dance Skill is a measure of how proficient the character is in performing the prescribed steps of a dance, such as the waltz, the flamenco, or the stage-dive. Dance is a useful Skill for many characters: the ability to mix in at various venues is always helpful, and of course a fumbled roll in front of a planetary council can be very embarrassing.



□ DODGE

Complexity:	Simple
Pre-Requisites:	None
Specializations:	Unarmed Attacks, Melee Attacks, Ranged Attacks
Often Possessed By:	Soldiers, Police, Criminals, Convenience Store Clerks

The Dodge Skill is a measure of how able the character is at avoiding incoming attacks. It is used as a general "defense" Skill. Virtually every Player Character should have this Skill to some degree. This Skill also takes into account the ability to make the best use of available cover.



□ DRIVE

Complexity:	Simple
Pre-Requisites:	None
Specializations:	Racing, Cargo Trucks, Combat Vehicles, Motorcycles
Often Possessed By:	Joe Average, Race Drivers, Tank Drivers

The Drive Skill is the ability to control the movements of wheeled or tracked vehicles, such as tanks, APCs, or motorcycles. Although most characters are assumed to have their license and drive competently (unless from a small colony background), to take a Skill in this is unusual except for characters who use such vehicles often.



□ EXO-PILOT

Complexity:	Complex
Pre-Requisites:	None
Specializations:	Specific Model
Often Possessed By:	Military Pilots, Techs

The Exo-Pilot Skill is a measure of how good the character is at maneuvering, dodging and brawling with a vehicle controlled via a linear frame, whether it is an exo-suit or an exo-armor. Used by anyone employing one of these vehicles, Exo-Pilot is similar to Aircraft Pilot in a few ways, one of these being the long time required to learn the Skill involved.



□ HAND-TO-HAND

Complexity:	Simple
Pre-Requisites:	None
Specializations:	Striking, Grappling, Tripping, Throwing
Often Possessed By:	Boxers, Martial Artists, Police, Soldiers

The Hand-to-Hand Skill measures the proficiency of a character in close-range combat using unarmed fighting techniques. A high level in Hand-to-Hand implies that the character is using some form of martial art, such as karate or boxing. Almost all military personnel receive basic training in this Skill, and many other individuals and professions find it necessary to learn some of the techniques involved.



□ HEAVY WEAPONS

Complexity:	Simple
Pre-Requisites:	None
Specializations:	Mortars, Grenade Launchers, Missiles
Often Possessed By:	Soldiers, Police, Criminals

The Heavy Weapons Skill is a measure of the character's proficiency with man-portable support weapons such as mortars, grenade launchers and missiles. The Skill includes basic knowledge of maintenance procedures. This Skill is known almost exclusively in military and paramilitary circles and is seldom shown to those not sanctioned to use them by the authorities.



□ PARACHUTING

Complexity:	Simple
Pre-Requisites:	None
Specializations:	High-Altitude, High-Wind, Night-Time
Often Possessed By:	Skydivers, Paratroopers, Pilots

The Parachuting Skill allows the character to use and control a parachute or similar device and to correctly absorb the landing impact. It also includes the ability to prepare and pack parachutes, make minor repairs, and estimate wind speed and evaluate weather patterns that might affect the drop. Because of its inherent risk, Parachuting is used mostly by thrill-seekers and military personnel.

MELEE □

Complexity:	Simple
Pre-Requisites:	None
Specializations:	Knives, Clubs, Fencing
Often Possessed By:	Soldiers, Police, Criminals, Martial Artists



The Melee Skill reflects how good a character is at attacking and/or defending with close-combat weapons, such as knives, cudgels or swords. This type of combat is probably the most widespread of all since it involves relatively little training and mostly inexpensive weapons, yet increases the amount of damage dramatically compared to unarmed combat.

RIDING □

Complexity:	Simple
Pre-Requisites:	None
Specializations:	Specific Animal, Racing, Dressage
Often Possessed By:	Equestrian Athletes, Ranchers



The Riding Skill measures the character's ability to control a riding animal (it is used in lieu of a Piloting or Drive Skills when astride such a creature). It is used if any difficult type of maneuver is wanted from the mount. The Skill also includes a basic ability to care for the animal.

SLEIGHT-OF-HAND □

Complexity:	Simple
Pre-Requisites:	None
Specializations:	Pickpocket, "Magic" Tricks, Shoplifting
Often Possessed By:	Petty Criminals, Stage Magicians, Spies



The Sleight-of-Hand Skill is a measure of how good the character is at the subtle hand movements required by activities like picking pockets or stage magic. Abilities such as palming and concealing small objects upon one's person are covered by this Skill. A fair number of Nomads have this Skill, as do some members of the Mercurian Merchant Guild.

SMALL ARMS □

Complexity:	Simple
Pre-Requisites:	None
Specializations:	Pistols, Rifles, SMGs
Often Possessed By:	Soldiers, Police, Criminals, Hunters



The Small Arms Skill is a measure of the character's proficiency with man-portable firearms such as pistols, rifles, and submachine guns, and includes basic knowledge of the maintenance procedures. This is another popular weapon-related Skill, and many small arms are available throughout the solar system for relatively low prices (though at various levels of legality).

STEALTH □

Complexity:	Complex
Pre-Requisites:	None
Specializations:	Urban, Indoors, Jungle, Woodlands, Nighttime
Often Possessed By:	Thieves, Spies, Soldiers, Police



The Stealth Skill is the character's ability to move about undetected, be it by human observers or by electronic surveillance devices. In the age of remote sensors and detection gadgets of all sorts, the ability to move around undetected is still desirable and possible with the proper training and equipment.

THROWING □

Complexity:	Simple
Pre-Requisites:	None
Specializations:	Knives, Javelins, Balls, Grenades, Darts
Often Possessed By:	Soldiers, Game Players, Athletes



The Throwing Skill is the ability to accurately throw an object at a target. It is the Skill used when throwing grenades and other offensive weapons. Although some maintain that this Skill has become antiquated, there are enough people who make use of these weapons for manufacturers to remain viable, and the sports which use this Skill are too numerous and varied to mention.

☐ ZERO-G COMBAT



Complexity:	Simple
Pre-Requisites:	Zero-G Movement 1
Specializations:	Specific Martial Art, Hand Weapons
Often Possessed By:	Spacecraft Crew, Asteroid Miners, Space Marines

Zero-G Combat reflects the ability of the character to fight in weightless or micro-gravity (under 0.1 g) environments. The lowest Skill level of either Zero-G Combat or the usual combat Skill is used (Hand-to-Hand, Dodge, Small Arms, etc.). Without proper training, the changes in balance, momentum and a host of other details will turn a deadly warrior into a slowly drifting corpse.

☐ ZERO-G MOVEMENT



Complexity:	Simple
Pre-Requisites:	None
Specializations:	Rapid Movements, Delicate Movements
Often Possessed By:	Anyone living in space

Zero-G Movement reflects the ability of the character to move about and perform non-combat actions in weightless or micro-gravity (under 0.1 g) environments. The Skill includes basic knowledge of vacuum suit procedures. In an emergency, a person with this Skill can instruct another individual in the rudimentary use of the suit.

▼ APPEARANCE-BASED SKILLS

People have used their looks to gain advantages since the beginning of recorded history, and these practices will probably continue for a very long time. By accentuating their attractiveness, a person can modify what other people's first impressions will be.

☐ GROOMING



Complexity:	Simple
Pre-Requisites:	None
Specializations:	Clothing, Makeup
Often Possessed By:	Con Artists, Entertainers, Fashion Models

Grooming measures a character's ability to improve the physical appearance of a person through the judicious use of clothing and grooming. Someone who is made to look the part, cannot always successfully act on it, however. The Margin of Success of a Grooming Skill roll vs. (5 + APP) (fumbles are ignored) is added to the character's Appearance Attribute.

☐ SEDUCTION



Complexity:	Simple
Pre-Requisites:	None
Specializations:	Specific Sex, Eye Contact, Specific Seduction Style
Often Possessed By:	Con Artists, Fashion Models, Gigolos, Prostitutes

Seduction measures a character's ability to sway others by the judicious use of looks and sex-appeal. The Skill includes an understanding of what people find attractive and the ability to adapt to different preferences. It is possible to get any desired information from a seduced victim before anything serious occurs, but beware: sometimes, the roles of the people involved reverse, and the seducer may become the victim.

▼ BUILD-BASED SKILLS

Most of the tasks which are related to Build are innate, not learned, thus there is only one Skill for this Attribute. As they say, perception is everything.

☐ INTIMIDATE



Complexity:	Simple
Pre-Requisites:	None
Specializations:	Coercion, Terrify, Enforce
Often Possessed By:	Bullies, Police, Drill Sergeants, Muggers

Intimidate is the ability to appear large and menacing in order to scare another person into doing what you desire. More subtle methods of coercion are covered by the Etiquette and Streetwise Skills.

CREATIVITY-BASED SKILLS ▼

This group of Skills is a reflection of an individual's ability to think up new solutions to a problem. An artist tries to find new ways to entertain his audience, a lost person tries to make the best he can with what he has at his immediate disposal, a commander tries to find a new way to achieve his mission objectives. All of these show the ingenuity of an individual under at least somewhat stressful conditions — after all, even the artist has to have a success to put food on his table.

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ANIMAL HANDLING □

Complexity:	Simple
Pre-Requisites:	None
Specializations:	Specific Animal, Herding, Performing Tricks
Often Possessed By:	Farmers, Ranchers, Circus Performers



The Animal Handling Skill measures the ability of a character to care for and train various animal species. The Skill includes knowledge of the animal's preferred foods and daily habits, reproductive cycle and the basic signs of disease. Life Sciences (Veterinary Medicine) is needed to actually treat diseased animals, however.

CAMOUFLAGE □

Complexity:	Simple
Pre-Requisites:	None
Specializations:	Jungle, Urban, Desert, Winter
Often Possessed By:	Soldiers, Commandos, Hunters



Camouflage represents a character's proficiency at using make-up, special clothing, and netting to conceal himself or other objects by matching the texture and color scheme of the thing which is to be hidden to that of the surrounding terrain. With advancements in detection technology, it is necessary to use electronic measures to make anything truly undetectable.

COOKING □

Complexity:	Simple
Pre-Requisites:	None
Specializations:	Vegetarian, Country, Meats, Baking
Often Possessed By:	Joe Average, Professional Cooks



Possessing the Cooking Skill allows the character to concoct appetizing dishes. A fine meal that is tailored to the consumer's tastes can impress anyone, from presidents to peasants. People who lack this Skill can only prepare simple meals with any competence and will tend to mess up the more complex recipes available.

CRAFT (SPECIFIC) □

Complexity:	Simple
Pre-Requisites:	None
Specializations:	Commercial, Specific sub-category of the Craft
Often Possessed By:	Artisans, Metalsmiths



The Craft Skill covers the ability to produce useful and artistic creations with one's hands. A specific craft must be chosen: it can include jewelry, metalwork, woodcraft, weaving, etc. The market for fine items makes it lucrative to know one of these crafts (though only at high levels), and the ability to recognize the value of such crafts is in demand from many interested parties.

DISGUISE □

Complexity:	Simple
Pre-Requisites:	None
Specializations:	Specific Disguise, Theatrical Special Effects
Often Possessed By:	Actors, Undercover Agents, Special Effects Specialists



The Disguise Skill covers the physical aspects of changing one's physical appearance, including proper use of makeup, masks, and clothing. An old beggar who sits on the corner can hear things that all the surveillance gear in the world could not. Actual impersonation or mimicry of a specific person or type of person also requires the Theatrics Skill, however.

□ ELECTRONIC WARFARE



Complexity:	Complex
Pre-Requisites:	None
Specializations:	Sensors, ECM, Underwater Sensors
Often Possessed By:	Combat Pilots, Sensor Op Specialists, Explorers

Electronic Warfare is a catch-all skill that covers the myriad aspects of sensor operations, electronic counter-measures (ECM), and electronic counter-counter-measures (ECCM). Use this skill for detection rolls, jamming, and other similar activities.

□ FORGERY



Complexity:	Complex
Pre-Requisites:	None
Specializations:	Electronic, Written, Art, Counterfeiting
Often Possessed By:	Criminals, Spies, Police Experts

The Forgery Skill is the character's ability to accurately duplicate a variety of objects, such as official documents, works of art, money, and handwriting. It also encompasses the ability to recognize a forgery as such, and give an opinion as to the origin of the forgery based on the style and materials used in creating it.

□ INTERROGATION



Complexity:	Simple
Pre-Requisites:	None
Specializations:	Casual Questioning, Torture, Specific Type of Informant
Often Possessed By:	Police Officers, Intelligence Experts

Interrogation measures a character's ability to extract information from an unwilling informant. Although such an exchange can be roleplayed, Gamemasters can use an Opposed Action Test with informants rolling either WIL or Interrogation, whichever is higher. A MoS of 4 or more indicates that the informant may not even realize he has revealed something of note.

□ LITERATURE



Complexity:	Simple
Pre-Requisites:	None
Specializations:	French Poetry, Shakespeare, Science Fiction
Often Possessed By:	Professors, Students, Authors, Avid Readers

The Literature Skill grants the character familiarity with existing literary works. This includes the ability to identify, produce or critique text. Although there was a brief decline in the amount and quality of literature produced during the early 21st century, the wide availability of word processors has since returned humanity to this form of communication and entertainment.

□ MUSIC



Complexity:	Simple
Pre-Requisites:	None
Specializations:	Classical, Rock, Mixing, Critic, Singing
Often Possessed By:	Musicians, Music Engineers, Music Critics

The Music Skill encompasses the ability to understand musical notation, write a piece or song, perform music and critically evaluate performances. Music has always been a reflection of the age in which it was created, and the 23rd century is no different; there are hundreds of different styles of music in creation and performance which reflect the number of different cultures in the solar system.

□ SPACE PILOT



Complexity:	Complex
Pre-Requisites:	None
Specializations:	Specific Type of Vehicle
Often Possessed By:	Spacecraft Crew, Aerospace Combat Pilots

Space Piloting is the ability to figure out new vectors to maneuver spacecraft in combat and other close-range maneuvers such as docking. Exo-vehicles use the Exo-Pilot Skill instead of Space Pilot. This Skill is obviously useful to pilots, but characters who spend a large amount of time in space can pick up this Skill, provided they are willing to put in the long hours of training required.

SURVIVAL

Complexity:	Simple
Pre-Requisites:	None
Specializations:	Jungle, Desert, Winter, Urban, Foraging, Shelter, Space
Often Possessed By:	Soldiers, Campers, Survivalists



The Survival Skill allows the character to survive in hostile environments, such as jungles or deserts. Survival includes hunting, foraging, and obtaining shelter and water. In space, Survival includes how to work an airlock, patch a hole or use an emergency evacuation pod.

TACTICS

Complexity:	Simple
Pre-Requisites:	None
Specializations:	Infantry, Armored, Aerial, Naval, Space
Often Possessed By:	Military Officers and NCOs, S.W.A.T. members



The Tactics Skill represents the character's expertise in small-unit tactics. The Skill is also useful to commanders of units of all sizes, and is one of the most important to soldiers who wish to rise in the ranks.

TEACHING

Complexity:	Simple
Pre-Requisites:	None
Specializations:	Any other skill
Often Possessed By:	Professors, Combat Instructors



Teaching is the Skill of transmitting knowledge and expertise to others in a clear and coherent fashion. It is a Skill which few Player Characters who are not from an instructional background possess, since most PCs spend their lives learning Skills necessary for their chosen profession.

TINKER

Complexity:	Complex
Pre-Requisites:	None
Specializations:	Vehicles, Weapons, Appliances, Computers
Often Possessed By:	Inventors, Technicians, Hobbyists



The Tinker Skill is used in the modification and improvement of equipment and machinery, often without the use of specialized tools. Characters of any technical background, especially Nomads, are prime candidates for this Skill.

VISUAL ARTS

Complexity:	Simple
Pre-Requisites:	None
Specializations:	Painting, Sculpting, Computer Graphics, Layout
Often Possessed By:	Artists, Computer Programmers, Editors



The Visual Arts Skill encompasses expertise in the various graphical forms of expression, such as painting, sketching, sculpting and pottery. This includes the ability to identify, produce and critique such works. Visual arts continue to flourish in the stellar age.

FITNESS-BASED SKILLS ▼

The Skills which are governed by the Fitness Attribute place high physical stresses upon the body. In the environment of space, where low gravity has such debilitating effects upon people's physique, sports of all kinds are commonly played.

ATHLETICS

Complexity:	Simple
Pre-Requisites:	None
Specializations:	Running, Football, Volleyball, Climbing, Break Fall
Often Possessed By:	Athletes, Sports Enthusiasts, Soldiers



The Athletics Skill represents the character's ability to engage in sporting activities of all kinds. It includes the necessary skills and knowledge of the rules and regulations along with the physical training required by athletic activities.



▣ G-HANDLING

Complexity:	Simple
Pre-Requisites:	None
Specializations:	None
Often Possessed By:	Pilots

G-Handling represents the character's ability to remain conscious under high acceleration. It includes breathing techniques and the knowledge of the physical and medical effects of acceleration, along with the muscular training required. This Skill is rolled in addition to the normal FIT roll which is used in these situations and the character uses the best result.



▣ SWIMMING

Complexity:	Simple
Pre-Requisites:	None
Specializations:	Endurance, Speed, Diving, SCUBA Diving
Often Possessed By:	Athletes, Lifeguards, Joe Average

Swimming is the ability to move effectively and efficiently in an aquatic environment. This Skill further encompasses the ability to perform other aquatic activities, such as diving and SCUBA diving. This Skill is uncommon amongst most people in space, but not altogether unheard of since many installations have a pool as one of their exercise areas.

▼ INFLUENCE-BASED SKILLS

The arts of persuasion have always been a strong force in the history of humankind. The natural desires of people to try and get the most in return for their Skills and work have manifested themselves through communications of various types for ages. The ability to convince another person of one's ideals without recourse to the use of force is now far preferred to violence by many cultures.



▣ ETIQUETTE

Complexity:	Simple
Pre-Requisites:	None
Specializations:	Military, Business, Aristocratic
Often Possessed By:	Sophisticates, Military Officers, Businessmen

Etiquette reflects the character's familiarity with proper methods of social interaction within formalized settings, such as military ceremonies, upper class gatherings or business negotiations. Many politically-inclined characters will possess this Skill, regardless of their social standing. It is extremely useful for those who wish to get ahead in a hierarchy of any sort.



▣ HAGGLING

Complexity:	Simple
Pre-Requisites:	None
Specializations:	Specific Commodity, Specific Culture, Barter
Often Possessed By:	Traders, Smugglers, Business people

Hagglng measures a character's ability to influence the final price in a transactions (be it for cash, credit or barter). Hagglng is an opposed Skill roll, with the MoS x 5% as the maximum discount possible. A Player's roleplaying should always be weighed as powerfully as the die roll, and the specific circumstances of the deal should be kept in mind. There are many situations in which prices are firmly fixed, and cannot be affected by hagglng in any way.



▣ LEADERSHIP

Complexity:	Simple
Pre-Requisites:	None
Specializations:	Military, Political, Business, Cult
Often Possessed By:	Military Officers and NCOs, Politicians, Businesspeople

Leadership is the capacity to lead others, either by example or through inspiration. At least one character in any group will probably posses this Skill to some degree or another. Any group which will see combat on a tactical scale will dearly need someone to guide its actions; entering battle without a well-trained leader only increases the chaos the group will experience.

STREETWISE □

Complexity:	Simple
Pre-Requisites:	None
Specializations:	Gangs, Organized Crime, Homeless, Prostitutes
Often Possessed By:	Urban Residents, Gang Members, Criminals



Streetwise is a catch-all Skill for interacting with the "shadier" elements of society and includes basic knowledge of the underground of a city the character is familiar with. Obtaining illicit drugs, purchasing illegal firearms or just finding out what is going on through non-standard channels, are all activities which Streetwise encompasses.

THEATRICALS □

Complexity:	Simple
Pre-Requisites:	None
Specializations:	Drama, Con Artist, Comedy, Directing, Media Editing
Often Possessed By:	Actors, Directors, Film Editors, Con Artists, Undercover Agents



The Theatricals Skill covers all aspects of live or recorded acting as well as guile, confidence games and subterfuge. The Skill also includes the ability to produce, direct, act or otherwise work in theatrical media, and allows an actor to impersonate someone else through the use voice and mannerism mimicry, provided that the impersonator knows enough about the subject to make the act convincing.

KNOWLEDGE-BASED SKILLS ▼

These Skills are similar because they depend as much — or more — on long study and experience as they do on natural aptitude. Many of these Skills are the types taught at institutions of higher learning, although it is possible to obtain proficiency in them through diligent months or years of hands-on education.

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BUREAUCRACY □

Complexity:	Complex
Pre-Requisites:	None
Specializations:	Government, Military, Customs, Bribery, Corporate
Often Possessed By:	Clerks, Administrators, Businessmen



Bureaucracy involves knowledge of what makes a government or corporate structure function. It also represents the ability to manipulate that structure to achieve desired results or to access resources. These manipulations include knowing who oversees a particular function and what steps are needed to bring about the user's desired result. A fumbled roll might well result in unscrupulous activities being reported to authorities, so roleplaying should often play a large part in the use of this Skill.

BUSINESS □

Complexity:	Complex
Pre-Requisites:	None
Specializations:	Finance, Management, Foreign Trade, Accounting, Economics
Often Possessed By:	Businesspeople, Bankers, Accountants



Business is the ability to manage the affairs of a corporation or nation. This could include anything from compiling product feasibility reports to the creation of marketing campaigns to promoting a product, whatever that product may be. A small number of Player Characters are likely to take this Skill based upon their background. They may find it useful in a political campaign, but in a more action-oriented one, its utility may be somewhat more limited.

COMMUNICATIONS □

Complexity:	Complex
Pre-Requisites:	None
Specializations:	Coded Messages, Jamming, Listening Devices
Often Possessed By:	Combat Pilots, Communications Specialists, Spies



The Communications Skill is required both to operate and effectively counter communications devices. It is also used in the design and breaking of codes used for communications between two parties. This Skill is invaluable to most groups of characters — knowledge is power, and good communications are required to get to it.



COMPUTER

Complexity:	Complex
Pre-Requisites:	None
Specializations:	Programming, Systems Administration, Neural Nets
Often Possessed By:	Programmers, Technicians, Joe Average

The Computer Skill covers both the use and maintenance of diverse computer systems. It is one of the many technical Skills for mechanic-type characters to choose amongst, since computers are so common. See also the Computer section in the *Mechanical Action* chapter, page 180.



DEMOLITION

Complexity:	Complex
Pre-Requisites:	None
Specializations:	Mining, Military, Construction
Often Possessed By:	Military and Industrial Specialists, Terrorists

Demolition is the Skill concerned with setting and detonating explosive charges in such a way as to maximize damage done to the target, and either maximize or minimize the collateral damage caused by the explosion. The Skill encompasses the ability to deactivate these same charges. It also includes the knowledge required to produce and safely handle various types of explosives from raw materials.



EARTH SCIENCES

Complexity:	Complex
Pre-Requisites:	None
Specializations:	Geology, Geography, Mineral Survey
Often Possessed By:	Professors, Mining Specialists, Petroleum Specialists

Earth Sciences is a catch-all Skill that includes geology, geography, seismology and meteorology. It is used for predicting weather patterns, conducting petroleum surveys and prospecting. A specialization must be chosen before a character can attain level 3. This Skill is often taken by Nomads, who likely were brought up in a situation where the family spent a great deal of time searching for mineral wealth in new asteroids.



ELECTRONIC DESIGN

Complexity:	Complex
Pre-Requisites:	KNO 0, Electronics 2, Computers 1
Specializations:	Computers, Sensors, Communications
Often Possessed By:	Electrical Engineers, Computer Design Specialists

Electronic Design represents a character's ability to design totally new or highly modified electronic or computerized systems and configurations, including the expertise in testing them. Due to its highly specialized nature, few Player Characters should choose this Skill; those who do should dedicate part of their history to explaining how they acquired it.



ELECTRONICS

Complexity:	Complex
Pre-Requisites:	None
Specializations:	Vehicle, Industrial, Robotics, Military, Security Systems
Often Possessed By:	Technicians, Engineers, Hobbyists

The Electronics Skill covers the use and repair of any electronic equipment not covered elsewhere in the Skill descriptions. This includes devices such as laser weaponry, targeting systems and repairs of sensors (Electronic Warfare Skill covers the use of sensors in the field). This Skill is useful to both political and adventure-based characters, given the high technology environment in which the game takes place.



FIRST AID

Complexity:	Simple
Pre-Requisites:	None
Specializations:	Combat Medic, Aquatic Injuries, Sports Injuries
Often Possessed By:	Soldiers, Lifeguards, Sports Trainers, Paramedics

First Aid is the ability to stabilize wounded peoples' conditions so that they can be transported to more effective medical treatment. It is a widely known Skill which many characters possess. A high proportion of professions require that their members attain at least a minimum level of competency in treating wounded people.

FOREIGN LANGUAGE (SPECIFIC) □

Complexity:	Simple
Pre-Requisites:	None
Specializations:	Specific Dialect, Specific Jargon
Often Possessed By:	Travelers, Diplomats, Scholars



This is the ability to communicate and be literate in a language other than the character's native tongue. Each foreign language must be learned as an individual Skill. All characters are assumed to have level two (standard) or three (if they are highly educated) in their native tongue at no cost. Some languages will not be available to all characters; Players should check with their GMs about which ones their character can learn.

LAW □

Complexity:	Complex
Pre-Requisites:	None
Specializations:	Corporate, Criminal, International, Civil, Research
Often Possessed By:	Lawyers, Legal Aides, Judges, Police, Politicians



Law is the knowledge of the legal customs of a society, and their application in a courtroom setting. This Skill might be useful to some individual Player Characters in political campaigns, but Law is more likely to be used by NPCs.

LIFE SCIENCES □

Complexity:	Complex
Pre-Requisites:	None
Specializations:	Zoology, Botany, Microbiology, Physiology
Often Possessed By:	Medics, Professors, Students, Researchers



Life Sciences is the study of life in its many forms. This includes all biological disciplines, with the exception of applied medicine. A specialization must be chosen before a character can acquire level 3. Due to the nature of this Skill, it is rare for Player Characters to have, but it is one which many scientist NPCs will possess.

MECHANICAL DESIGN □

Complexity:	Complex
Pre-Requisites:	KNO 0, Mechanics 2, Computers 1
Specializations:	Vehicles, Industrial Equipment, Agricultural Equipment
Often Possessed By:	Mechanical Engineers, Vehicle Designers



Mechanical Design represents a character's ability to design totally new or highly modified complex mechanical systems such as vehicles and processing equipment. The Skill includes expertise in testing such systems, but Electronic Design is required to create the computerized operating systems for such devices.

MECHANICS □

Complexity:	Simple
Pre-Requisites:	None
Specializations:	Automotive, Industrial, Locks, Military
Often Possessed By:	Technicians, Engineers, Hobbyists



The Mechanics Skill covers all mechanical and structural repair and design. This includes fields as diverse as automotive mechanics, robotics and mechanical locks. A specialization must be chosen before a character can acquire level 3. Many people find this Skill useful because of the highly technological nature of the space societies.

MEDICINE □

Complexity:	Complex
Pre-Requisites:	First Aid 2, Life Sciences 2
Specializations:	Neurology, Forensics, Surgery, Toxicology
Often Possessed By:	Physicians, Surgeons, Coroners, Researchers



Medicine is the ability to diagnose and treat various pathological conditions, such as dangerous traumas, diseases and infections. Medicine Skill is required for any long term medical treatment (although First Aid is used in emergencies) such as aiding in recovery from disease, and for any type of serious internal surgery. A specialization must be chosen before a character can acquire level 3.

NAVIGATION (SPECIFIC)



Complexity:	Complex
Pre-Requisites:	None
Specializations:	Night-time, Map and Compass, Star Position, Terrain Type
Often Possessed By:	Campers, Explorers, Pilots, Soldiers, Survivalists

Navigation represents proficiency in tracking one's position and movements. Note that there are four distinct Navigation Skills, each of which is purchased separately. The Skills are: Sea, Land, Air, Space. Skill rolls in an unfamiliar terrain type suffer a -2 penalty.

PHYSICAL SCIENCES



Complexity:	Complex
Pre-Requisites:	None
Specializations:	Nuclear Physics, Organic Chemistry, Astronomy
Often Possessed By:	Professors, Researchers, Students

Physical Sciences includes the "classical" sciences such as physics and chemistry. It is a purely theoretical Skill. A specialization must be chosen before a character can acquire level 3. Due to the difficulty of learning this Skill, it is rare for many Player Characters to have it.

PSYCHOLOGY



Complexity:	Complex
Pre-Requisites:	Social Science 1
Specializations:	Counseling, Perception, Learning, Psychological Warfare
Often Possessed By:	Professors, Researchers, Clinical Psychologists

Psychology is the study of the various aspects of mental functions, such as perception, cognition, behavior and psychopathology. The Skill further includes the ability to conduct psychological therapy and counseling.

SECURITY



Complexity:	Complex
Pre-Requisites:	None
Specializations:	Specific Type of Device, Banks, Military Bases
Often Possessed By:	Thieves, Police Officers, Security Consultants

The Security Skill measures the character's knowledge of security procedures and devices and includes a knowledge of likely security procedures and their capabilities, but not the ability to dismantle or avoid them. These actions require the Electronics or Stealth Skills, respectively.

SOCIAL SCIENCES



Complexity:	Complex
Pre-Requisites:	None
Specializations:	Sociology, Political Science, Philosophy, Anthropology, History
Often Possessed By:	Professors, Students, Researchers

Social Sciences is a catch-all Skill for any of the humanities, with the exception of psychology and literature. It can be applied to studying ancient cultures as easily as modern societies. A specialization must be chosen before a character can acquire level 3.

PERCEPTION-BASED SKILLS

Perception Skills are Skills which rely on a character's awareness of his surroundings, including both actions and objects. These take into account sight, sound and possibly other senses such as smell or the "sixth sense."

COMBAT SENSE



Complexity:	Simple
Pre-Requisites:	None
Specializations:	Urban, Jungle, Marsh, Night-time, Ambushes
Often Possessed By:	Soldiers, Police, Criminals, Warzone Residents

A character with Combat Sense is trained to be aware of dangerous situations, such as fire fights. Combat Sense is used primarily to detect ambushes and for initiative purposes.

GAMBLING □

Complexity:	Simple
Pre-Requisites:	None
Specializations:	Specific Game, Cheating, Bookkeeping
Often Possessed By:	Gamblers, Bookies, Suburban Husbands



Gambling represents the character's knowledge of the rules of games of chance. It further allows the character to estimate odds, cheat at most games (if required) and place bets on events.

GUNNERY (TYPE) □

Complexity:	Complex
Pre-Requisites:	None
Specializations:	Vehicle Model, Projectile Weapons, Missiles, Energy Weapons
Often Possessed By:	Combat Pilots, Combat Gunners



Gunnery Skill is required to fire any non-portable weapons, such as those mounted on vehicles or exos. There are five distinct Gunnery Skills, each of which must be purchased separately: Exo, Ground, Naval, Air and Space. Skill rolls with an unfamiliar weapon type suffer a -2 penalty.

INVESTIGATION □

Complexity:	Complex
Pre-Requisites:	None
Specializations:	Searching, Surveillance, Forensics
Often Possessed By:	Police, Private Detectives, Spies



The Investigation Skill allows the character to collect information on people, places and events. This information can be gathered by any means not covered by the Streetwise or Computer Skills.

NAVAL PILOT □

Complexity:	Complex
Pre-Requisites:	None
Specializations:	Capital Ships, Submarines, Gunboats, Yachting
Often Possessed By:	Sailors, Submarine Crews, Hobbyists



Naval Pilot allows the character to pilot water-based vessels of all types. This includes submarines, hydrofoils and surface vessels. Of limited use to many characters since large bodies of water only exist on Earth, this Skill is most likely to be known by NPCs.

NOTICE □

Complexity:	Simple
Pre-Requisites:	None
Specializations:	Specific Sense, Night-time
Often Possessed By:	Researchers, Soldiers, Police, Investigators



Notice is the ability to perceive details that may be otherwise overlooked in haste. This includes finding a clue hidden in a crime scene, spotting a face among the crowd, reading the fine print on a legal document, and many others.

PSYCHE-BASED SKILLS ▼

The rather ethereal quality of the Psyche Attribute is reflected in the Skill which it governs, the ability to read the body language, eye movements, and other subtle signals which people send.

HUMAN PERCEPTION □

Complexity:	Complex
Pre-Requisites:	None
Specializations:	Body Language, Voice Tone, Eye Contact
Often Possessed By:	Berman, Psychologist



Human Perception allows an observer to analyze another person's reactions and make an empathic guess as to his emotions or intentions. This is very useful in determining whether someone is lying or hiding something.



► MONEY

The currency of the solar system is the credit, which was originally based on an average of all the old Terran currencies. These were unified despite much protest from various of the less influential nations in the middle of the twenty-first century. The need for Earth's spacefaring nations to facilitate commercial exchanges between themselves and the new colonies helped them to present a unified front with which to bully nearly all of the smaller countries into compliance. Each settlement issues its own script (such as the Orbitals' SHARES), but the credit is used to compare them.

Credits are generally electronic in nature (i.e. data in banking computers), but cash is still available for casual transactions and transactions in which one or both parties wish to remain anonymous. Credit bills are green, with a tamper-proof, individual holographic code that can be verified when the serial numbers are run through a fractal code. Made from a special polymer fiber, they are near-impossible to damage during regular use, but deliberate attempts and prolonged exposure to flame or other such forces will cause them to melt or tear. Credits are issued by the Unified Monetary Council, under direct supervision of the United Space Nations, and as such are sometimes used as financial levers to try to coerce its members into following system-wide policies. A credit is roughly equivalent to a late twentieth century American dollar in terms of purchasing power. It is subdivided into a hundred centicredits, or simply cents — the usual abbreviations are Cr and ¢, respectively.

Most interplanetary trade is conducted in credits, but it is not unheard of for a trader to deal in the local settlement currency if he is planning to make a purchase of materials there. The only planet which prevents foreign hard currencies from entering its domestic economy is, strangely, Mercury. This policy is tied to a number of factors, such as the desire of the government to prevent all possible influences of Venus, and the fact that the vast majority of vessels which dock at Mercury are locally owned vessels whose crew would prefer to use Mercurian currency anyway.

► PERSONAL EQUIPMENT

This section provides the Players and Gamemaster with a non-exclusive equipment list for use by PCs and NPCs alike. It includes a little of everything, without concentrating too much on any particular area, giving just enough detail for the Gamemaster to fill in the blanks. Gamemasters should feel free to add any equipment they see fit to these lists. Players who wish to acquire something not contained in these lists should ask their Gamemaster if that item is available in the campaign, and if so what the price will be. It is important for Players to be careful what they ask for — anything that their characters have access to will surely be available to a wide range of NPCs as well.

Again, the Players should understand that the Gamemaster has final say on the matter, and may have a really good reason to refuse a specific item for reasons of plot twists, technology level or game balance. It is possible that the Gamemaster will eventually let items into the campaign that were originally disallowed, if the plot allows it or in the event of a technological breakthrough. A scenario might well hinge on just such a breakthrough.

Prices and quality are also subject to the whim of the GM. It is entirely possible for the settlement in which the PCs are currently located to experience a shortage of some good or another at the time they are there, and each culture of the solar system includes a healthy dose of capitalism. Players may also want superior quality, or designer items which will cost anywhere from two to ten times more than a regular item. The sample items are more oriented towards an adventure campaign, but if the group is playing an intrigue-based campaign the GM can easily adjudicate what is available based on what he feels is acceptable and the needs of the Players. It is quite likely that such characters will want to buy electronic equipment, such as listening devices and sophisticated computers.

■ HANDLING MONEY & EQUIPMENT

First, a word on Monty Haul campaigns. Back during the days of the *Let's Make a Deal* game show (hosted by Monty Hall), contestants could leave with truckloads of prizes. In gaming, campaigns where Players acquired tremendous wealth and equipment became known as Monty Haul campaigns. The sad fact is, however, that most campaigns, unless managed carefully, can easily fall into that category. Players have a natural tendency to accumulate items and money, and Gamemasters will quickly find it difficult to limit fortunes.

There are two solutions to this problem, depending on the types of Players in the group. One is to carefully monitor the Players' assets and make sure to account for everything they own or benefit from: lodging, transportation, clothes, food, various investments to save on income tax, pension plans, health care, etc. This can rapidly come up to quite a sum. It can also lead to scenarios based around the Players' wealth. For instance, a Player may find that a Venusian banker has diverted his funds for some personal less-than-legal operation and he may wish to investigate the matter. As a whole, Gamemasters should remember that the richer a person is, the more likely he or she will attract unwanted attention. Several people will want to become friends with the PC while many others will try to get them involved in some financial scam that could very well leave them penniless. The road of the rich and wealthy is not for everyone.

The second solution to the problem is to ignore it altogether and shift the focus of the campaign in such a way that that money and tons of equipment can never be part of the solution. In the rocky world of human relationships, money seldom provides long-term answers to a problem, especially if the other party is equally rich. For instance, a rich but depressed media star does not need money to get out of his drinking problem — he needs help, support and understanding. If your Players are getting rich and bored, throw them personal problems and see how they deal with them. If they throw money around, carefully consider the human impact of their actions.

MEDICAL TECHNOLOGY ▼

It is not always possible to prevent illnesses and deterioration of health. Accidents and combat can also severely threaten the well-being of PCs. Often, the quality of medical equipment available can make the difference between life and death.

SYNTHESKIN LTD. FIRST AID KIT ◇

This small, lightweight kit includes everything needed to handle simple emergency situations: syntheskin bandages; antiseptic solution; cleaning sponges; one cutter; one clamp; hypodermic spray; one dose each of Healing, Painkiller and Sleeping drugs. A First Aid skill roll without a kit suffers a -1 penalty. LifeTech Industries of Mars is the top brand, but Syntheskin is making a name for itself.

LIFETECH INDUSTRIES FIELD SURGERY KIT ◇

The Field Surgery Kit is a complete emergency medical treatment package. In addition to the items found in the First Aid Kit, the Field Surgery Kit includes scalpels and surgical tools, a multifunction pumping system, dehydrated blood plasma along with a re-hydrator, and an inflatable sterile tent. Attempting to perform surgery without at least this kit incurs a -2 penalty to the Medicine roll. The premier brand name is also LTI, but the Earth sphere's various manufacturers are also recognized as above-average quality.

CATHIODE ELECTRONICS H31-P HAND MEDISCANNER ◇

This small hand-held device helps diagnose health problems. Within about 24 seconds (4 rounds), it can record vital signs and determine if someone has been infected with a specific disease. It adds +1 to First Aid and Medicine skill tests for diagnosis. Jupiter's Cathiode Electronics produce the reliable H31-P model.

MERCMED PORTABLE HOSPITAL ◇

A Portable Hospital is the ultimate in mobile medical equipment. In addition to a Field Surgery Kit, it features: a Hand Mediscanner; a multipurpose chemical analysis and synthesis laboratory; a computer-assisted VR surgical system; an ultrasound imaging system; artificial-bone modeling tools; and a miniature growth tank for skin and muscle tissue. Medicine skill tests receive a +2 bonus with the portable hospital. It is contained in a 1.5m x 1.5m x 1m box.

EUFORAN EUPHORIC DRUG ◇

This compound is not really a medical drug, though it is sometimes administered to victims of panic and anxiety attacks. It has Potency 12, an Onset Time of 15 minutes and is used as a recreational narcotic. This drug is manufactured by a wide variety of companies such as Herbeal's of Earth, and Jupiter's Lichorp.

RELAXIN PAINKILLER DRUG ◇

This commonly available analgesic helps reduce the pain from wounds, diseases or chronic conditions. It has Potency 8, an Onset Time of 2 minutes and is applied locally by hypodermic spray. A less potent version (Potency 6, Onset 10 minutes) is available in tablets under several trade names.

SED-DAN SLEEPING DRUG ◇

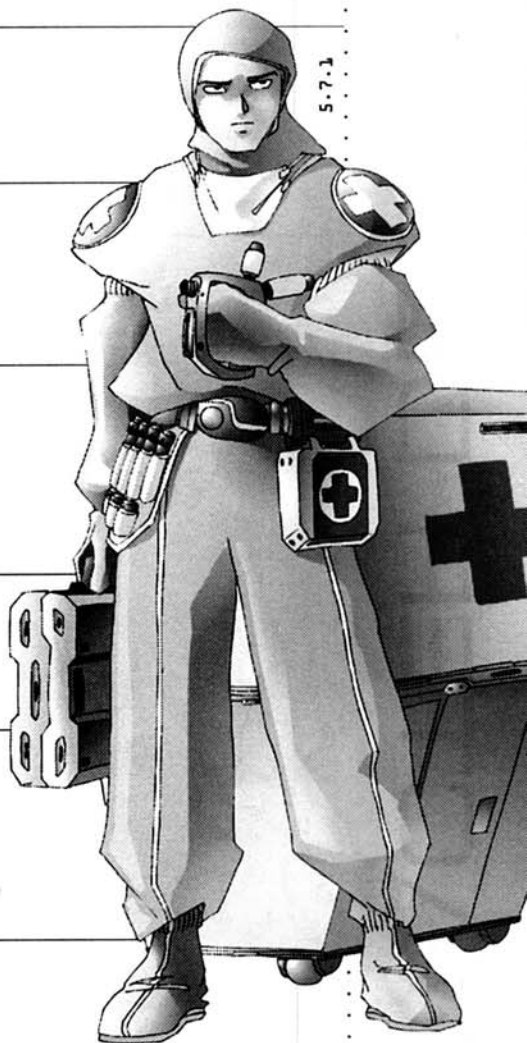
This popular sleeping aid is a safe sedative with euphoric and analgesic side effects. It has Potency 9, an Onset Time of 30 minutes and was carefully designed to make it very difficult to overdose: Fumbles are treated as Margin of Failures of 9, with intense nausea aftereffects.

VACCINES ◇

These vaccines are compounds of specifically engineered viral RNA administered to individuals in order to boost their immune system. Each vaccine usually protects against about a dozen specific diseases, and costs between 5 and 200 credits. Vaccines give a +2 bonus to the appropriate Health roll.

VITAMAX HEALING DRUG ◇

This liquid solution, which must be administered daily, doubles the healing rate of any individual. For each daily dose missed, an additional day will be needed for any wound to heal completely. The Solar Cross receives a huge donation of Vitamax from Greyneer Corp. of Venus every year.



▼ COMMUNICATIONS

In most places, telephones, video screens and computers are all linked and work together as one unit. Simple voice or video communications are usually cheap; a monthly "phone" bill usually costs about 10 to 50 credits, depending on where you live. Interplanetary rates are much higher however (up to 1 credit/AU/minute), and talking face to face is not possible due to the long lag time involved. This type of communication is more akin to letter writing than actual conversation.

◇ COMMUNICATOR

This apparatus is used to transmit and receive data through radio waves, from long waves all the way to ultra high frequencies. There are three basic models, differentiated by range. Cheaper models, such as Nakumacom's hand-held LW Radio have an effective range of 10 km. Mid-range models like Speectech's Celurite line have a range of 100 km and high-end sets that can broadcast as far as 1,000 kilometers are produced by JVD Electronics. None of these models have built-in encryption capacity and all are very vulnerable to jamming (they are treated as -5 Communications systems in tactical games).

◇ HEADSET AND WRISTCOM

Headsets are the communications device of choice to groups that need to stay in contact with each other, have their hands free to perform other tasks and also have no need to conceal their purpose. A variant called the wristcom is worn as a small metal band around the wrist. The standard systems available to the public have a range of 5 km. These devices act as -5 Communications systems in a tactical scenario. They are produced in many locations, such as the Nakumacom plant on Earth which churns out prodigious numbers of these sets.

◇ C-CURE LISTENING DEVICE

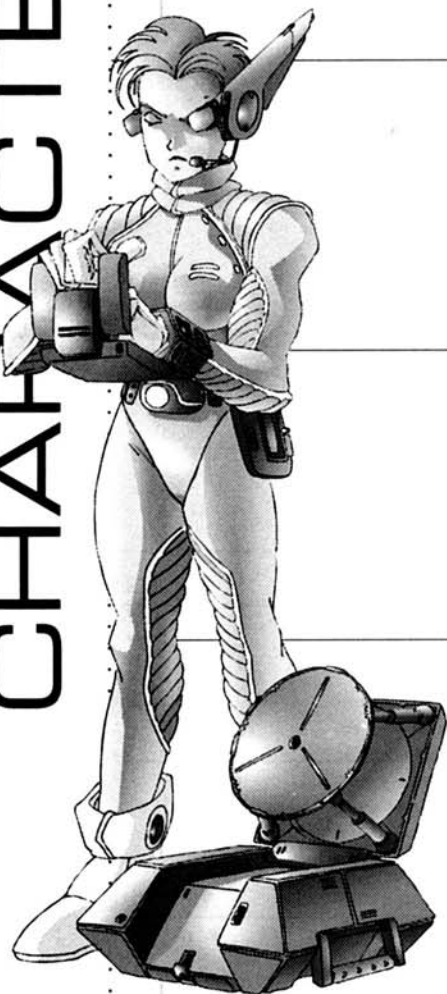
This simple device is similar in many ways to the first listening devices ever used by humans—a microphone surrounded by a broadcasting or recording device and enclosed in a miniature box. The greatest advances in these technologies have been found in the concealment capabilities of the device, although advances in miniaturization and broadcasting power have occurred as well. There are a myriad of producers of these devices, and a large variety of models from which to choose as well. Many private detective agencies suggest that the best of these — besides military models — are made by C-Cure, and there are stories of investigators who could not find "bugs" which they had planted, despite the fact that they knew the bug was still present and operating as it was supposed to.

◇ JVD ELECTRONICS SATELLINK

A satellink communication unit is simply a small device that enables a computer, radio or VR terminal to receive direct link data from orbiting satellites. It comes with its own parabolic antenna and both broadcasts and receives on a direct channel. It cannot be used while moving due to the precise antenna alignment which must be maintained during operation, unless the satellite broadcasts in wide bands. JVD Electronics is the primary producer that sells to the solar system at large, but there are other manufacturers who have quality performance in this area as well. Although it is not difficult to acquire one of these devices, the access codes of the satellite which the owner wishes to use the Satellink with must be known before communication can begin.

◇ MASUO-PANET VR TERMINALS

The development of high-speed computers and light weight data display devices have enabled the creation of quite convincing virtual realities (VR). A user equipped with VR goggles and body sensors can easily become an actor in a play, take part in a party on a station hundreds of kilometers from his home or learn a new skill. VR technologies have also spawned many very advanced video games. Most Public Access Networks (PAN) have a VR display option in addition to the usual plain text and multimedia displays, but not all of the broadcasts are available since some field reporters wisely refuse to carry around the heavier and more cumbersome 3D camera. Fully interactive VR programs usually cost between 5 and 10 credits per hour, but most worthwhile educational programs, and some high-end entertainment suites can cost upwards of 100 credits per hour. Stacks of datadisks with pre-recorded programs can also be purchased; each disk can hold 2 hours of VR and costs between 1.5 and 5 credits for average material. VR producers include ZONet news agency, ThespaSight Entertainment, Senselogic Educational Data, and Arbrescht Interplanetary, which is a private organization dedicated to recording the history of humankind that sometimes works alongside Interplanetary Geographic.



SURVIVAL GEAR ▼

This section covers equipment and tools helpful for survival in difficult environments. This includes wilderness areas such as outbacks or deserts. While much of this equipment is most useful on Earth, it is also used on Mars and in the "wilderness areas" included in several Orbital and Jovian colonies.

CORADO BACKPACK ◇

A general use backpack, which can hold up to 0.5 cubic meters and 100 kilos of assorted material. It is completely waterproof. Vacuum-proof models are available for twice the cost, though they do not supply proper life support.

FARSIGHT BINOCULARS ◇

These standard binoculars can give up to 200x magnification and have rudimentary electronic motion detectors. Ordinary binoculars without motion detectors are also available at half cost, such as the popular Ryerson Explorers.

OZONETECH CLIMBING GEAR ◇

This pack, which can be used either for mountain climbing or spelunking, includes a 50 m rope, spikes, crabs, cams and other protective devices, various loops and lengths of webbing/sling, an ice ax, spiked climbing boots, an oxygen mask with a two-hour supply, a radio flare, a helmet with HUD altimeter, a powerful headlight (range: 300 m) and a miniature 10 km radio communicator. OzoneTech also sells the elements separately.

MISAWA GAS MASK ◇

A lightweight Earth design that covers the face without impairing the wearer's vision, this mask filters polluted air and will protect against most types of smoke and gas (poison gasses have their Potency reduced by 10). This mask will not protect against toxins absorbed through the skin, nor will it enable one to breathe in a vacuum or underwater.

FORGER LTD. IR GOGGLES ◇

These goggles can be used at night to detect sources of heat, such as animals, humans, vehicles and the like. They do require some practice (at least two or three hours) to use effectively, however and are useless during the day.

ARES META-COMPASS ◇

This multipurpose compass has an internal gyroscope and can point to many useful reference points, such as planetary poles, galactic poles, important stars, etc. When brought to another planet, it must be reset with the time of day, latitude and longitude to be of any use.

STINE OPTICS NIGHT GOGGLES ◇

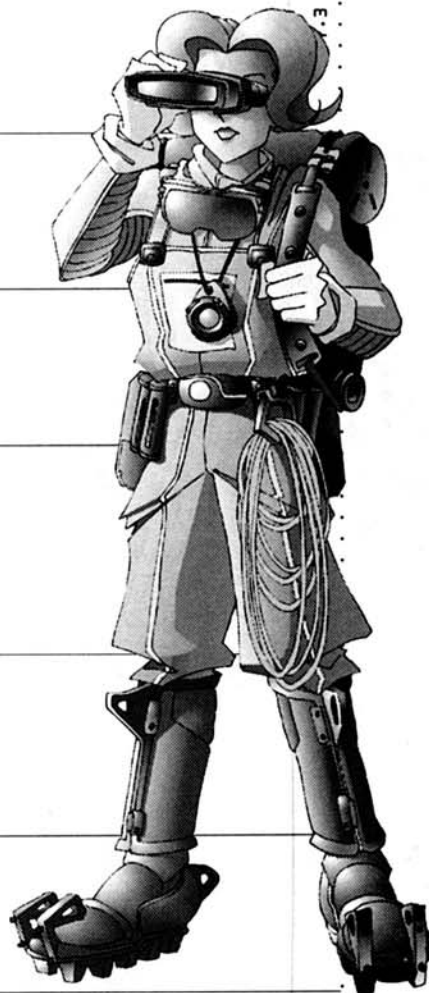
These goggles, equipped with electronic motion detectors and an ultraviolet mini-spotlight, enable the viewer to see even in complete darkness, up to a maximum range of 50 meters. On a perfectly clear starry night, their effective range increases to 500 meters.

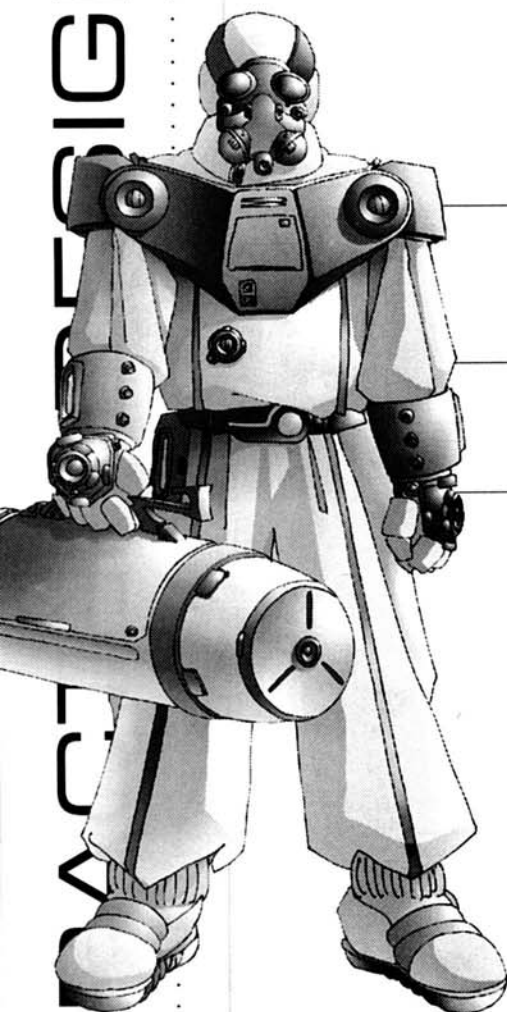
STARCOM® RADIO FLARE ◇

This is an emergency magnesium flare which also generates a short but powerful radio signal. Rescue units are attuned to this signal, and will identify it as a call for help.

SINCLAIR ROPE (50M) ◇

A cord made out of super-resilient composite weave, about 0.5 cm thick, able to support a maximum weight of about five tons. Available in greater strength and length, and can be exposed to vacuum and extremes of temperature.





◇ SHUSS ORBITAL SHELTERS & EMERGENCY BUBBLES

Used both as shelters and emergency safety devices, Shuss' products take up remarkably little space when folded (20 x 10 x 5 cm for a one-person model, 50 x 30 x 20 cm for the five-person one). They are made to be pressurized in less than six seconds, but the compressor, air reserve and life support pack must be bought separately — these cost half the price of a vacuum suit. The shelters/bubbles come with a small one-man airlock and are aluminized on the outside. They provide limited thermal insulation (from -100 degrees to 300 degrees Celsius).

◇ OZONETECH SURVIVAL KIT

This survival kit includes a compass, a light yet resilient bedroll, a sheet of high-performance insulation, one week's worth of survival rations, nylon string and hooks, a multipurpose knife, a collapsible canteen, a lighter (three hours fuel), and a radio flare.

◇ QUINN FOODS LTD. SURVIVAL RATIONS

These rations can sustain a person for up to a week, and will stay edible for up to two years. They are water and vacuum-proof until opened, and some can be served hot.

◇ SURVIVAL SUITS

A variety of survival suits are freely available on the market. Each of these suits protects against a specific environment, and suit models are available with more than one protection feature (as well as armor — see page 98) for 1.5 times the total costs of all suits and armors so combined. Weight is equal to 1.5 times the weight of the heaviest suit.

Desert suits protect against dry, high-temperature environment and are specially designed to recuperate and distill lost bodily fluids. With this suit on, a man can comfortably function in up to 50 degrees Celsius, with a daily water ration of 250 ml.

Diving suits offer some thermal insulation, enabling divers to enter water of temperatures as low as -5 degrees Celsius without suffering from hypothermia. A gill-like device extracts oxygen from the water and compresses it into the tank, which can hold up to two hours worth of air. Maximum diving depth is about 200 meters.

Fire suits are designed to protect the wearer against very high temperatures (up to 1000 degrees Celsius), and resist most damage from fire sources; the suit has an Armor rating of 40 against fire attacks only; it includes a gas mask and air cooling unit.

NBC suits protect against Nuclear, Biological and Chemical contamination, have self-contained breathing apparatuses with an autonomy of 2 hours, and offer five rads per hour of radiation protection.

Rad suits protect against hard radiation, either by means of specialized lining or with a small screen generator. They offer protection of up to ten rads per hour.

Vacuum suits, the most complex of survival suits, allow a person to survive in a vacuum. These suits are made of a self-sealing material that will repair a hole of up to 0.5 cm in diameter in one round. The air and power reserve usually contains up to six hours' worth. They offer total insulation against cold, and will enable the wearer to comfortably withstand temperatures of up to 150 degrees Celsius. They also count as sealed against NBC effects.

Winter suits are insulated and internally heated to offer complete thermal protection for a period of up to 12 hours. After this period, it will allow the wearer to comfortably withstand temperatures as low as -100 degrees Celsius.

◇ OZONETECH TENTS

Used by campers, explorers and the military, modern high-performance tents take up remarkably little space when folded (20 x 10 x 5 cm for a two-person tent, 50 x 30 x 20 cm for the 20-person model). They can resist winds of up to 65 kph, and will provide some limited thermal isolation (from -10° to 30° Celsius).

◇ OZONETECH WATER DISTILLER

This lightweight, practical distiller can produce about one liter of water every day on Earth. It can also be used on Venus and Mars, but only produces one quarter liter per day because of the lower moisture content in the atmosphere.

TOOLS ▼

The following tools have been designed for use in gravity environments, such as a planetary surface or the interior of a colony. Space-adapted versions are available for 1.5 times the cost; other statistics remain the same, although their external appearance is drastically different.

5.7.4

LILU MULTIPAZ ELECTRONICS TOOL KIT ◇

This typical kit includes the basic tools and instruments required for routine maintenance and repair: cutters; pincers; powered adjustable screwdrivers and wrenches; a laser knife; a minidrill; a saw; a multi-purpose meter; a halogen minilamp; rechargeable power cells and charger. It fits in a 60 x 25 x 20 cm airtight and insulated toolbox. No electronic repairs other than jury-rigging can be accomplished without an electronic tool kit.

SINCLAIR FLASHLIGHT ◇

This small pen-like flashlight has a range of up to 50 meters in a wide 90 degrees arc, or up to 300 meters in a narrow 3 degree beam.

SINCLAIR GLOW STICKERS ◇

When removed from their pack and stuck to almost any surface, these luminescent stickers will provide enough light to read by for about an hour. Illumination will then quickly decrease, and fade out in about thirty seconds. Each pack holds 20 stickers.

BENFORD MECHANICAL TOOL KIT ◇

This typical kit includes the basic tools required for routine maintenance and repair: two hammers; two metal handsaws; powered adjustable screwdrivers and wrenches; a laser knife; a power drill with bits; a power saw with adjustable blades; a collection of rechargeable power cells and charger. All this fits in a 100 x 30 x 20 cm airtight toolbox. No mechanical repairs other than jury-rigging can be accomplished without a mechanical tool kit.

OZONETECH PICK ◇

A tough metal or duraplast pick, used principally for digging. If used as a weapon, it is treated as a poleax with -1 Accuracy.

SINCLAIR SHOVEL ◇

A tough metal or duraplast shovel. If used as a weapon, it is treated as a metal staff with -1 Accuracy.

PERSONAL EQUIPMENT ▼

The following items are personal pieces of equipment that people will carry with them.

NEWSMAN AUDIO/VIDEO RECORDER ◇

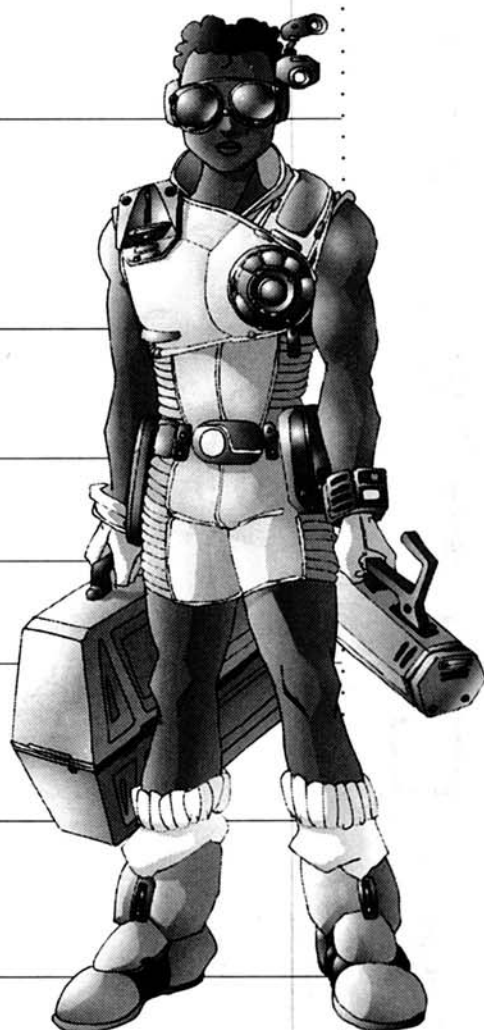
This multipurpose camera-like apparatus can digitally record and playback high-quality sound and video. It uses small memocards to store the recorded data, which come either in single ten-minute cards or stacks of 30, 60, 120 or 240 minutes.

CLOTHES ◇

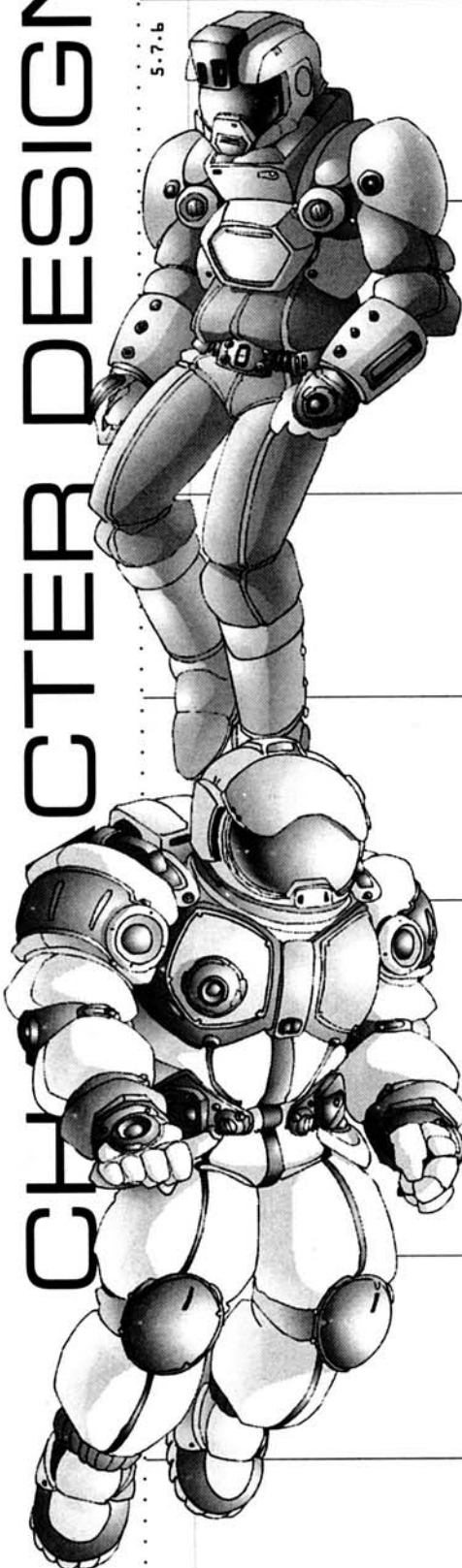
Clothing comes in a wide variety of styles, purposes and costs; to try to offer a comprehensive list of available clothing would be ridiculous, but the few categories indicated in the table can give an approximation to the Gamemaster who, as always, has the final word.

MASUO DATAPAD ◇

The Masuo is a common small "dumb" computer that serves as a combination of personal agenda, address book, notepad, etc. It can be linked to a computer system to download or upload information, but cannot run programs on its own.



5.7-6



▼ SPACE SUITS

The basic function of a space suit is to protect the wearer against the hard vacuum and excesses of temperatures of the space environment. They also provide a convenient mounting frame for tools and survival equipment such as radiation shielding, maneuver units and communication equipment. All suits are modular: each person selects a set of fitting parts rather than have a suit custom designed. Parts normally include: boots, lower body, upper body, gloves and helmet, plus a modular life support pack.

◇ JOVIAN A-9 FLIGHT SUIT

The Jovian Armed Forces' A-9, shown at left, is typical of the flight suits currently in service. Flight suits are low-pressure, almost skin-tight body suits worn by pilots in exo-armors and space fighters; their game stats may be found under *Vacuum Suits*, page 86. They offer little protection against radiation, temperature variations or impacts. Flight suits have a layer of myomar fibers that selectively harden and relax to resist the internal air pressure of the suit and allow the wearer to move comfortably.

Spaceship and space station crewmen suits feature additional layers of puncture-resistant material as well as radiation shielding. Many have reinforced pads in heavy duty areas such as the feet and joints. In game terms, they are equivalent to flight suits, with Duraplast mail armor (see page 99) woven into them.

◇ HERCULES WORKSUIT

Worksuits are equipped with reinforced parts and components for extended stays in space. These suits are built around the myomar layer of the lighter flight suits, but they also feature reinforced "shell" sections for improved performance and reduced wear and tear. The hardy Hercules worksuit, at left, is equipped with a one-piece hardshell torso, and the limbs are encased in articulated armored sheaths. In game terms, worksuits are equivalent to flight suits with heavy composite or Durashell armor (see page 99).

◇ HELMETS

Helmets have an almost endless variety of design, but they all share some common features. All house a short range radio apparatus (-5 Comm, 1000 km) and a polarized anti-glare visor that can be adapted to the faceplate. Flight suit helmets have additional electronic modules (and plugs, of course) to project the VR-like HUD needed for piloting. The heavier helmet models manufactured for worksuits feature water tanks, emergency oxygen microtanks, food tablets, compass and headlights.

◇ BACKPACKS

Transfer packs are little more than a small oxygen reserve (20 minutes) to maintain the suit's functions when moving between pressurized environments or switching from one life support pack to the other. Transfer packs are usually quite small and worn on the belt or on the chest plate for easy access.

Short-term packs contain the main radio equipment, oxygen tanks (six hours), recycling units and cooling equipment. Some feature an emergency jet option, where the heat of the cooling unit is used to heat up gases for propulsion (2 MP, 2 BP).

Long-term packs are used by space construction workers, who must often spend several hours in space. They feature all the functions of a short-term life support backpack, plus another ten hours of air, an integrated maneuver unit (see below), lights and modular tool hardpoints. They also feature a built-in miniature screen generator, such as the common Protector 9000® made by Maelstrom Electronics.

◇ STEELE GRAPPLE GUN

Grapple and lines are simple tools used to tether oneself to a spaceship or rock while working, so that a false move won't send the person tumbling into space. The Steele is a compressed gas gun that allows the grapple and line to be fired at a distant surface. The gun has the following stats: Acc 0, Base Range 10 m, x2 DM, costs 20 credits and weighs 0.5 kg. The gas canister is good for ten shots, and reloads are available for 2 credits (though the canister can be recharged by any standard pressure line).

◇ MAN MANEUVER UNITS (MMU)

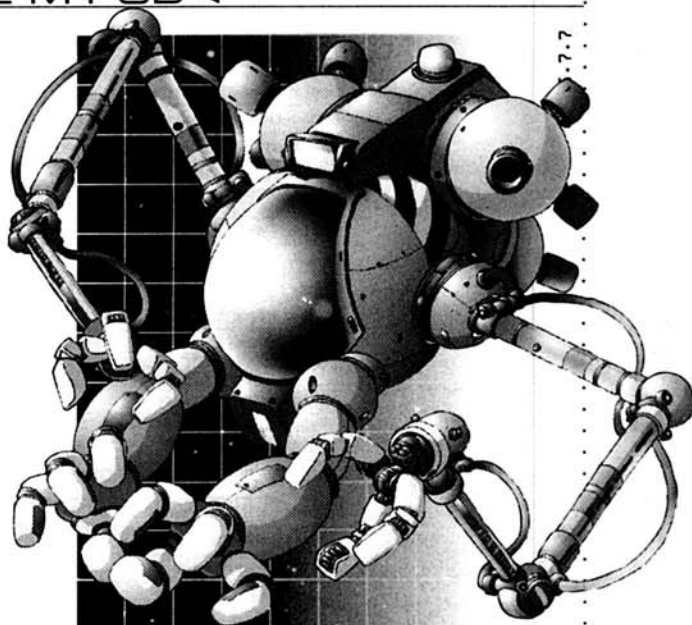
In space, there is nothing to push on — any motion is based on jettisoning reaction mass in the opposite direction to the one you want to go in. The MMU is a small hand-held or backpack-mounted unit that provides thrust, allowing the user to move about. The small MMU provides 0.2 g (2 MP) of thrust and has four BPs. The backpack model is more massive and can provide up to 0.6 g (6 MP) of thrust with 60 BPs.

FFWS-56 WORKBEE M-POD ◀

M-Pod, short for maintenance pod, is the general nickname for any kind of free flying, short range utility vehicle designed for maintenance and cargo handling. The Boeringer-Orbital Ltd. FFWS-56, pictured at right, is fairly typical of the small units used around the stations and space docks of the twenty-third century. The vehicle's appearance is somewhat insectoid, with the large viewports looking somewhat like a bug's faceted eyes. Many M-Pod designs sport short deployable solar panels for electrical power, which look very much like wings. Completing the image are two pairs of manipulator units, two of which are equipped with graspers to stabilize the machine or carry items around.

M-Pods typically have limited fuel reserve, as they are not expected to stray far from a refueling station. They are equipped with numerous maneuvering thrusters that give them a wide range of possible movements and a fast reaction time, though it takes some practice to be able to use them effectively. Their thrusters are powerful (a requirement for moving around large pieces of construction material), but they are rarely used at full power to economize fuel.

Though sturdy and useful, M-Pods are not combat vehicles by any means. They are generally built with advanced composite material that, while light and tough, does not fare well against high energy weaponry. Their sensor and communication array, more than sufficient for the vehicle's purposes, is also not up to military standards.



VEHICLE DATA

Threat Value:		460 (590,000 credits)
Crew:		1 (2 actions)
Size:		3
Armor:		4/8/12
► MOVEMENT DATA		
Movement Mode	Combat Speed	Top Speed
Space	9 (0.9 g)	18 (1.8 g)
Deployment Range:		10 hrs
Reaction Mass:		200 BP
► ELECTRONICS DATA		
Sensors:		-2/2 km
Communications:		-2/10 km
Fire Control:		-2
► PERKS & FLAWS		
Name	Rating	Game Effect
Autopilot	-	Act as level 1 pilot
Backup Life Support	1	Maintains basic Life Support
Computer	2	CRE -3, KNO -3, PP2
HEP: Radiation	6	Rad protection
HEP: Vacuum	-	Space protection
Life Support	-	Limited
2 x Manipulator Arm	3	Can punch
2 x Tool Arm	3	Graspers, cannot punch
Reinforced Crew Compartment	-	Absorbs first "Crew" hit
Searchlight	-	Front, 50 meters
Vulnerable to HEAT	2	Subtract from Armor vs. HEAT weapons

EQUIPMENT

ITEM	MASS (KG)	COST (CREDITS)	ITEM	MASS (KG)	COST (CREDITS)
► MEDICAL EQUIPMENT			Winter	4	450
Syntheskin Ltd. First Aid Kit	2	50	OzoneTech Tent		
LifeTech Ltd. Field Surgery Kit	10	650	2-person	1	50
Cathode H31-P Hand Mediscanner	1	500	20-person	6	250
MercMed Portable Hospital	25	4,500	OzoneTech Water Distiller	1	175
► DRUGS			► TOOLS		
Euforan, 1 dose	0.01	20	LILU MultiPaz Electronics Tool Kit	2	500
Relaxin, 1 dose	0.01	8	Sinclair Flashlight	0.5	10
Sedan, 1 dose	0.01	5	Sinclair Glow Stickers, pack of 20	0.5	15
Vaccine, 1 dose	0.01	5-200	Benford Mechanical Tool Kit	5	300
Vitamax, 1 dose	0.01	10	OzoneTech Pick	4	15
► COMMUNICATION TECHNOLOGY			Sinclair Shovel	3	10
All-Purpose Communicators			► Personal Equipment		
Nakumacom	0.25	20	Newsman Audio/Video Recorder	1	200
Celurite	1	500	Cap	0.1	10
JVD Electronics	10	10000	Clothes, Summer		
Nakumacom Headset/Wristcom	0.5	25	Lower-class	1	10
C-Cure Listening Device	0.01	50-1000	Medium-class	1	50
JVD Electronics Satellink	2.5	200	Upper-class	0.5	250
Masuo-PANet VR Terminal	5	250	Top-of-the-line	0.5	1,000+
► OUTDOOR AND SURVIVAL GEAR			Shoes, normal	1	35
Corado Backpack	4	75	Shoes, designer	1	400+
FarSight Binoculars	0.5	50	Clothes, Winter		
OzoneTech Climbing Gear	7.5	1,000	Lower-class	1.5	25
Misewa Gas Mask	0.5	40	Medium-class	1.5	90
Forger Ltd. IR Goggles	1	200	Upper-class	1	475
Ares Meta-Compass	0.2	100	Top-of-the-line	0.5	1,750+
Stine Night Goggles	1	350	Boots, winter	1.5	75
StarCom® Radio Flare	0.5	15	Boots, designer	1	800+
Sinclair Rope, 50m	1.5	10	Masuo Datapad	0.1	200
Sleeping Bag	1	40	Hat	0.2	75
Survival Kit	5	200	► Memocards		
Quinn Foods Ltd. Survival Rations	1.5	30	10 minutes	0.05	1
► SURVIVAL SUITS			30 minutes	0.05	2.5
Desert	3	750	30 minutes	0.05	2.5
Diving	10	500	60 minutes	0.05	4
Fire	6	800	120 minutes	0.05	7.5
NBC	12	1,200	240 minutes	0.05	14
Rad	8	1000	Watch, cheap	0.05	15
Vecc	6	5000	Watch, designer	0.1	250

BRANDS, QUALITY AND AVAILABILITY

There are thousands of manufacturing companies throughout the solar system, some well known, others not. The table above presents a sample of the tools, personal gear and equipment that is available to the players, but is by no means complete or all inclusive. It would be impossible to list all existing variations and models that are currently available on the market. The Gamemaster may derive many of them from the statistics given above, however, by changing one or two numbers in the statistics, or adding or removing a few secondary features to the item.

All of the brands named in this chapter are recognized as reliable and sturdy, but others might not be so. If the characters decide to buy surplus material from the Asian Trading Sphere army, they shouldn't expect the same quality as items manufactured in a high technology Orbital factory. If needed, the Gamemaster can assign an "Unreliability rating" to any given object — a number between 2 and 6 — and roll two dice against it when the object is submitted to any kind of duress: if unsuccessful, the object ceases to function, with potentially deadly consequences.

Most of the items listed in the table are easy to locate and purchase. Some, such as the medical equipment, is obviously restricted to certain professions, but the rest can be readily obtained. Weapons and armors can also be found on the free market, but they have their own set of rules — see next page for a discussion on the availability of weaponry in a space-borne civilization.

WEAPONS AND ARMOR ◀

This section describes the various weapons and armors available to Players and Non-Player Characters, from typical melee or missile weapons, low tech or high tech, lethal or purely defensive. As with equipment, the Gamemaster should feel free to introduce new weapons. Proper care should be taken, however, not to introduce quasi-magical weapons and equipment that is closer to science-fantasy than actual science fiction. Personal force fields and hand-held proton emitter cannons are completely out of the question. On the other hand, a laser sight adding +1 to the Accuracy at Long and Extreme range is totally valid.

The weapons and armors provided in this section represent "typical," vanilla-flavored weapons of a given type. There are several dozens of variants made by more or less reputable manufacturers, and Gamemasters are encouraged to come up with their own versions, preferably within close parameters of the originals. For example, adding or subtracting a point from the Accuracy or the Damage Multiplier is often enough to distinguish an Orbital-made weapon from its sibling manufactured on Mars (see the sidebar on the previous page for a discussion on brand names).

CARRYING WEAPONS ▣

Medina thought the black satin evening gown she had selected looked good on her. The number of heads which had turned in her direction since she had arrived at the restaurant confirmed her opinion. She looked at the half-consumed candles on the table, then glanced at her watch. Still no sign of Carl. She considered calling him on her wristcom, but that would be losing face — there must have been several people around her table who wondered about whether she was early or if her date was late. She decided to wait another five minutes. The maitre d' brought her a complimentary appetizer, smiling obsequiously. Fortunately, Carl appeared in the doorway of the hall and she sighed with relief, smiling at him. She then realized with horror that he was in full combat gear: weathered composite armor, nightstick at the thigh. .45 pistol holstered at his belt and extra ammo clips strapped to his chest. She glanced around — everyone was looking away, smiling to themselves or to each other. Medina's heart sank. He saved her life, and that was fine. She just didn't know he was dressed like this all the time...

Several Players — especially our friendly neighborhood munchkins, which were discussed at length in the previous sidebars — believe that having weapons at all times is the safest way to go. They like to parade around like walking arsenals and be ready for everything for anything. While this is certainly a typically prudent (sometimes even paranoid) Player attitude, there are certain drawbacks to this which Gamemasters should not ignore.

Among other things, weapons and armor mean trouble. Most people prefer to lead peaceful lives and will do their best to avoid unpleasant situations. Individuals who are armed to the teeth appear as scary and dangerous. John and Jane Doe from the street — who are not known for their bravery (average Willpower or lower) — tend to steer clear of those people. If engaged in conversation, they will answer briefly and will take the earliest opportunity to leave the area. At best, they will remain polite and courteous, and only provide the Players with specific answers to their questions, unless the Players happen to have enough Influence and Psyche to counteract the very negative effects of the gear they carry around.

Some other people tend to be very antagonistic when faced with armed individuals. Young punks or other anti-social persons may react with aggressiveness and try to antagonize the Players, taunting them and daring them to show they "have the guts" it takes to use their weapons against someone their own size. It is often considered a rite of passage among small gang members to show off how tough they are by harassing someone bearing weapons.

Police and security officials are also very distrustful of heavily armed individuals. From their perspective, a stranger armed to the teeth can only mean trouble. Indeed, people who aren't expecting combat don't walk around with assault rifles and hand grenades. The Player Characters are bound to be identified either as stone-cold killers, homicidal maniacs or fools who don't know what they are doing and are likely to kill innocents accidentally. In any of these cases, local police are probably going to try and deal with the PCs before anything goes wrong. In heavily populated colonies or settlements, Player Characters who wear weapons like they would a new suit can expect to have a SWAT team break into their living quarters in the middle of the night.

Most establishments forbid (or at least severely frown upon) openly displayed weapons. Again, this comes back to trouble. They will ask the individual to leave his weapons with the doorman for safekeeping. On that particular topic, several Gamemasters take advantage of the Players' collaboration by having the weapons permanently disappear. This is a grave mistake. Players whose weapons were stolen this way once will never again part with their armament. Gamemasters should do this sparingly, and not the first few times around. PCs who cause trouble in the establishment will be thrown out and their weapons will be returned to them through the police (who will no doubt ask questions about the origins and the legality of the weapons, and why there was a disturbance at the establishment).

Aboard stations and spacecraft, any weapon capable of damaging the installation is illegal. The only weapons which are tolerated (providing the bearer has the appropriate permit, which generally cost around 50 credits) are old-fashioned melee or projectile weapons — daggers, crossbows, etc. Everyone is thoroughly checked before entering, and it takes a great deal of creativity and inventiveness to hide illegal weapons from the security personnel and their sensors. Players should be made aware that being caught can have severe consequences for their characters.

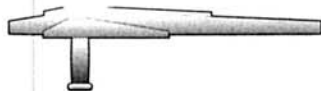
Lastly, people who are obviously geared up for combat are the first ones marked for death in a dangerous situation. From a troublemaker's perspective, you start by killing anyone who is strong enough to oppose you, then you deal with the small fry. Plainly-put, Players who walk around with visible combat equipment are just asking for it.

S.6.1

▼ MELEE WEAPONS, LOW TECH

This category includes traditional hand-to-hand weapons, which have evolved little since the antiquity of humanity. These are mostly used inside ships and stations to reduce the chance of damaging vital components such as air filters. They also lack the power required to breach most ship or station hulls. These weapons are used with the Melee Skill; each category of Melee weapons can use a corresponding Melee Skill specialization.

◇ STICKS AND CLUBS



The Club is a catch-all category for any kind of short-to-medium length crushing weapon, whether it is a tree branch, a baseball bat or a metal pipe. A Nightstick is a specially hardened, balanced club used by police forces. The Quarterstaff is another catch-all term for any kind of long wooden or metallic pole, usually used with both hands. A Tonfa is a defensive martial arts weapon: it is a club with a perpendicular handle at one end. It is very efficient in blocking melee attacks (+1 to parry).

◇ KNIVES



As much tools as they are weapons, Small Knives include all small, cutting bladed weapons whose blade is shorter than 20 centimeters. Large Knives are heavier and have longer blades (between 15 and 30 centimeters); the category includes bowie knives and daggers. Machetes are knives with blades that are between 20 and 70 cm, used primarily for chopping. Some machetes also have thrusting points.

◇ SWORDS



The Long Sword is the basic, straight sword popularized by heroic fantasy. It is rarely used these days, except for ceremonial purposes. The name Cutlass (or saber) is used to describe single-edged, curved, basket-hilted swords, which still exist as a part of some military uniforms. The Katana is a slightly curved, single-edged sword. The weapon is often associated with elaborate fencing styles and martial arts.

◇ AXES



Hatchets are small axes, used primarily as tools but quite dangerous in capable hands. Large Axes include battle axes, made especially as weapons, but also fireman's and woodcutter's axes. These axes must generally be used with both hands (-2 if they are not). Polaxes have a shaft longer than 2 meters.

◇ SPEARS

Short Spears are pointed shafts whose length does not exceed two meters. Their tips can be made of wood, stone or metal. Long Spears are pointed shafts whose length exceeds two meters. In all other aspects they are similar to short spears.

▼ MELEE WEAPONS, HI-TECH

S.6.2

Hi-tech melee weapons are traditional melee weapons made deadlier by technological additions or modifications. They require an extension cord or a power pack of some sort in order to function.

◇ HUMMERS



Hummers are melee weapons whose blade vibrates at very high frequencies, producing a distinctive humming sound. The vibration enhances their lethality as well as giving them better penetration against protective armor. Hummers use standard electrical and beam weapon power packs, draining one unit per full minute of combat. Using them requires the Melee Skill.

◇ ELECTRIC MELEE WEAPONS



These weapons are similar to their low-tech counterparts, save for the fact that they also deliver an electrical shock whenever they hit. If the electrical weapon attack succeeds, or if the defender use a non-grounded weapon to parry, the victim is subjected to additional electrical damage, applied separately; the Intensity of the shock can be set from one to ten, draining a corresponding number of charges from the power pack. The setting must be determined before combat; further adjustments cost one action.

Common electrical versions of archaic weapons include metal club, staff and tonfa. Electrified weapons use the same skill as their non-electric counterparts.

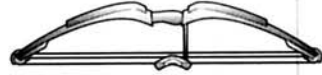
RANGED WEAPONS ▼

Ranged weapons include all beam, projectile and thrown weapons. Ranged weapons usually need some sort of ammunition and/or power source, which may or may not be compatible from one weapon to another (weapons using the same caliber ammunition should be considered compatible for simplicity).

S. 6.3

BOWS ◇

The Light Bow is a sturdy 40-pound bow. It is a relatively lightweight weapon, about one meter high. The Medium Bow is a strong 80-pound bow. It is a cumbersome weapon, almost two meters high. The Heavy Bow is a stiff 180-pound bow. This bow, extremely strong (minimum Strength to use: +2), is about 2 meters in length, and fires 1-meter long arrows. Bows are used with the Archery Skill.



CHEMICAL SLUGTHROWERS ◇

These weapons deliver damage through chemically propelled physical bullets. While chemical slugthrowers use primitive technology, they are cheap to manufacture and remain very efficient. Drawbacks are an obvious signature (chemical slugthrowers are loud and produce a distinctive "flame" in the dark) and a moderate recoil, which can make aiming a series of shots difficult, especially with an automatic weapon. All of these weapons are used with the Small Arms Skill.

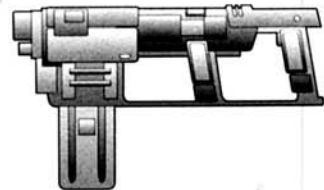
Handguns include revolvers, pistols and automatic pistols. Ammo types are usually compatible, though pistols and automatic pistols use clips (containing 7 to 10 bullets), while revolvers use individual bullets or a "fastloader" six-bullet tray. Smaller handguns, especially when made out of ceramic and using caseless ammunition, are easy to conceal.

Rifles are used by hunters and the military; they have longer ranges than handguns, are more precise and often more powerful. Most use clips, but a few models still need reloading after each shot. Assault rifles are automatic rifles, often used by the military. Submachine Guns are light, automatic slugthrowers which can fire multiple rounds per second.

Shotguns are powerful guns that fire loads of shot or pellet contained in plastic shells. Their accuracy decreases more rapidly than rifles over long ranges, but their stopping power is more than a match. Shotgun pellets are not particularly effective against body armor; double the protective value of Armor when defending against shotgun attacks. If using slug (solid) ammunition, apply a -1 to Accuracy but do not double the Armor of the target.

Grenade Launchers are used to shoot grenades at a specific target; their accuracy is considerably less than other weapons, but serves their purpose well. Some models of grenade launchers can be slung under the barrel of any type of rifle weapon.

Gyrococks are handguns and rifles that fire small rocket-propelled bullets. These weapons are actually more efficient at medium and long range than from up close, as the bullet is still accelerating at short range. The first (lower) Damage Multiplier should be used if the target is at Short range; otherwise, the second one is used. Gyrococks have little or no recoil.



GAUSSIAN WEAPONS ◇

Gaussian weapons use a magnetic effect to propel bullets or flechettes at very high speeds. Gaussian weapons have an unmistakable "thunderclap" auditory signature as the projectile breaks the sound barrier. Gaussian weapons need both power packs and ammo, which are usually combined in one easy-to-load clip (incompatible with other weapon's power packs and ammo clips). All these weapons are used with the Small Arms skill.

The Needler is the smallest of all gaussian weapons. Easily concealable, it fires a volley of small nylon-tipped metal flechettes which mushroom and burst upon contact, penetrating and lacerating body tissues. Flechettes can be made to contain a weak nerve poison that acts as a fast-effect sedative (Potency 10, Onset time: 4 combat rounds). It is certainly possible to make flechettes containing other toxins. Needlers are ineffective against any form of armor; double the rating of any Armor present.



Gauss rifles are the magnetic equivalent to gunpowder rifles, using their long barrel to accelerate bullets to very high speeds. A gauss shotgun bears little resemblance to its gunpowder equivalent; it is much longer, and the barrel is narrower. Instead of propelling a somewhat scattered volley of pellets, the gauss shotgun fires them in a rapid, precise stream, the pellets following almost exactly the same path through space. Penetrative power is enhanced at the expense of some tissue damage. A gauss shotgun reduces the effectiveness of Armor by 10.



◇ BEAM WEAPONS

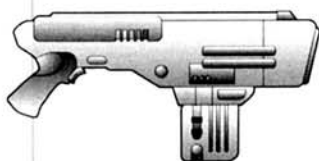
This category covers weapons that fire beams of energy, as opposed to physical missiles. These weapons use power packs in lieu of ammo clips; these packs are usually interchangeable (with other beam weapons as well as electrical melee weapons) and come in a variety of sizes. Beam weapons come equipped with laser-targeting devices; in the case of laser weapons it is simply a low-power version of the main beam, activated by resting the finger on the trigger.



The Laser pistol is the quintessential personal beam weapon. It fires a thin, invisible beam of coherent light which will quickly burn through most materials; non-reflective armor effectively protects with only half of its normal value. The weapon has three different settings, which drain 1, 4 and 9 energy units, respectively; the weapon's three Damage Multipliers correspond to these settings.



The Laser rifle is simply a more powerful and accurate version of the laser pistol. It has five settings (which drain 1, 4, 9, 16 and 25 energy units); the five Damage Multipliers given in the weapon's stats correspond to these settings.



A bulky item, the Sniper Laser is a high precision weapon designed for long range performances. It has only two settings: targetting (which causes no damage) and 40. The system is composed of the gun proper and a backpack-mounted capacitor.

Maser pistols fire a short, intense beam of microwaves which fry their target. Their main advantage is that they bypass most types of armor; polymer or ceramic-based armor protect with only half of their value. Against metallic armors, the damage from a maser is transformed into an electrical attack whose Intensity is equal to half the weapon's Damage Multiplier plus the attacker's Margin of Success. Masers have fixed energy settings, which drain 2 energy units.

Maser rifles are more accurate than maser pistols, but not really any more powerful. Like maser pistols, maser rifles have fixed energy settings of 2 units per shot.

◇ NON-LETHAL RANGED WEAPONS

These weapons cause little actual damage to their target, but incapacitate them for short periods of time. The least restricted of all weapons, they are quite popular among ordinary civilians for self-protection.



Tasers fire a small electrically charged dart at their target. If the opponent is not wearing armor, he receives electrical damage equivalent to an Intensity 5 shock. No matter what the result, however, the victim will not suffer anything more than a Light Wound. When rolling for side effects, fatal results are ignored but the Margin of Success of the attack is added to the Intensity. Tasers use standard power packs.



A Sonic stunner uses powerful focused subsonic waves to induce shock in its target. The victim of a sonic stunner must succeed in a BLD roll against the weapon's power setting plus the attacker's Margin of Success. A failed roll means the victim is stunned for a number of rounds equal to the Margin of Failure. On a fumble, the victim is knocked unconscious for a number of minutes equal to the MoF; roll a Health test against the Margin of Failure to avoid a permanent -1 to PER. Sonic stunners have power settings of 1 to 10, each draining the corresponding amount of energy units; they use standard power packs.

◇ HEAVY WEAPONS

Heavy weapons are designed to provide an infantry platoon's "punch." They are generally heavier, more cumbersome and a lot more expensive than standard weapons, and are thus assigned only in limited numbers. These bulky weapons must be braced and cannot effectively be used hand-held, except by very strong characters (minimum Strength +2, character suffers a -1 Accuracy for each point of Strength under +4). These weapons use the Heavy Weapon Skill.



Machineguns are heavy automatic weapons which can fire up to thirty rounds of ammunition per second. The Chaingun is a large, electrically driven multi-barrel cannon. It uses the same ammunition as a Machinegun but has a much higher rate of fire. However, it has a lower effective range because its barrels are shorter.

The Anti-Armor Gun is a rocket-boosted cannon that is light enough to be carried by a strong infantryman. It has a fairly long range, but is best used in close quarters where it can punch through the skin of most lightly armored vehicles.



The Light Mortar fires shells in an arcing, overhead trajectory. Unlike the mortars of old which required teams of highly trained crewmen, this light and portable weapon can be carried by a single trooper and deployed in mere seconds.

The Rocket Launcher is a light recoilless cannon, providing a heavy punch even against vehicles and fortifications. It is usually fired from the shoulder, but is also available as a tripod-mounted model.

GRENADES ◇

Grenades are small, explosive weapons which are either thrown or shot at their target. Although a lot of variations exist as far as the type and power of particular grenades are concerned, most of them fall in a few definite categories as detailed below.

Most grenades do more than simple concussion damage (fragmentation, incendiary, gas); the Secondary Damage Multiplier indicates the intensity of this second attack, while the weapon's description explains the nature and game mechanics related to this additional damage. Anyone in the primary radius will suffer both the effects of the concussion and any secondary effects which might be inflicted by the grenade.

Grenades which have multiple types of secondary damage are possible, but very expensive and usually redundant; a grenade with both fragmentation and nerve gas is likely to achieve the same final result (i.e. dead people) as a grenade with either charge. The use of a large radius of one effect combined with a small radius of another, however, can be useful in some situations.

Concussion Grenades are simply explosive charges encased in a plastic casing, which is vaporized by the explosion. They are considered "offensive" grenades, because they can be thrown further than the explosion radius. Normal concussion grenades are often used in urban combat situations because they can quickly neutralize enemy infantry and also cause damage to vehicles and installations; the effects of a grenade detonating in an enclosed space are both devastating and gruesome. Concussion grenades with a very high Damage Multiplier can be used effectively against vehicles, and are called Anti-tank or Anti-armor grenades.

Fragmentation Grenades do additional damage by scattering small shards of metal or ceramic over a wide area. Anyone caught in the secondary area of effect takes the result of one die multiplied by the secondary Damage Multiplier. The secondary Damage Multiplier is applied at full strength against humans, but only at half strength versus vehicles.

Incendiary Grenades carry an additional charge of fast-burning chemicals. Fire damage is applied to anyone within the secondary area of effect, with an Intensity equal to the secondary Damage Multiplier. Some incendiary grenades may have a Burn Duration and will continue to do damage for the number of rounds stated unless the burning substance is somehow neutralized.

Flash Grenades do little actual damage, but disable targets with a very bright magnesium flash and loud bang. Anyone inside the secondary area of effect must make a Health roll against a Threshold equal to half the maximum secondary area of effect, minus the distance to the grenade's point of impact. For example, a character 12 meters away from a grenade with a secondary area of effect of 30 would have to roll against a Threshold of $\lfloor (30-12)/2 \rfloor$, or 9. A failed roll incapacitates (-4 to all rolls) for a number of combat rounds equal to the Margin of Failure.

Gas Grenades subject everyone within the secondary radius to the effects of a particular gas, which is treated like a drug or toxin. They come in many different varieties, the most common being Tear Gas and Nerve Gas, but smoke is a non-lethal alternative sometimes used for defensive actions. If there is a strong wind, it is possible that the secondary radius may be somewhat elliptical, and Gamemasters can rule how this works according to the situation. Similarly, in an extremely strong wind, it is possible that the secondary radius will be effectively neutralized due to the near-instantaneous dispersal of the gas.

Tear gas incapacitates by attacking the victim's respiratory system and mucous membranes (eyes, nose and mouth). A Health test is made against the gas' Potency (usually between 6 and 10); a Margin of Failure between 1 and 4 means an equivalent negative action modifier due to pain and blurred vision; this penalty will lessen by 1 for every minute spent outside of the gas. A MoF between 5 and 9 will incur a -4 action penalty, which will lessen by 1 every hour removed from the gas. A MoF of 10 or more will, in addition to the other effects, cause damage to the character as a fatal toxin of a Potency seven points lower than the Potency of the tear gas; a fumble is equal to a Margin of Failure of 9.

Nerve gas grenades disperse a fatal toxin gas in its secondary area of effect, and usually have a Potency situated between 7 and 15. All targets in the secondary area of effect are subjected to the toxin's effect.

Smoke gas grenades usually have a very small primary radius which inflicts little damage, and a large secondary radius. The volume covered by the secondary radius is considered to be very poorly lit and imposes a -2 penalty to any ranged skill use. These are excellent devices for use in both attack or retreat actions since they are extremely effective at hiding the locations of people in the smoke. Unfortunately, when improperly used, they serve only to confuse matters for both sides. It is also possible to manufacture grenades that use "hot smoke"—a type of smoke-producing chemicals that burn at higher temperatures—for double the cost of regular smoke grenades. These block not only the visual line of sight, but also impair the functioning of infrared sensors.



WEAPON STATISTICS

STICKS & CLUBS	ACC	DM	RANGE	ROF	AMMO	COST	WT.
Club, short	0	AD+5	close combat	n/a	n/a	5	1
Club, medium	0	AD+9	close combat	n/a	n/a	10	2
Nightstick	0	AD+6	close combat	n/a	n/a	20	1
Quarterstaff, wood	0	AD+7	close combat	n/a	n/a	7	2.5
Quarterstaff, metal	0	AD+11	close combat	n/a	n/a	25	4
Tonfa	0	AD+6	close combat	n/a	n/a	20	1
KNIVES	ACC	DM	Range	ROF	Ammo	Cost	Wt.
Small Knife	0	AD+3	Throw	0/2	n/a	10	0.25
Large Knife	0	AD+5	Throw	0/2	n/a	15	0.5
Machete	0	AD+8	close combat	n/a	n/a	20	1
SWORDS	ACC	DM	Range	ROF	Ammo	Cost	Wt.
Long Sword	0	AD+11	close combat	n/a	n/a	100	1
Cutlass	0	AD+10	close combat	n/a	n/a	75	1.5
Katana	0	AD+13	close combat	n/a	n/a	300	1.5
AXES & POLEARMS	ACC	DM	Range	ROF	Ammo	Cost	Wt.
Hatchet	0	AD+7	Throw	n/a	n/a	15	1.5
Ax, Large	0	AD+11	close combat	n/a	n/a	50	2
Ax, Pole	-1	AD+12	close combat	n/a	n/a	100	2.5
SPEARS	ACC	DM	Range	ROF	Ammo	Cost	Wt.
Spear, short	0	AD+8	Throw	n/a	n/a	20	1.5
Spear, long	-1	AD+12	Throw	n/a	n/a	35	3
HUMMERS	ACC	DM	Range	ROF	Ammo	Cost	Wt.
HummerKnife	0	AD+9	close combat	n/a	30	150/10	0.5
HummerMachete	0	AD+15	close combat	n/a	30	325/10	1.5
HummerKatana	0	AD+20	close combat	n/a	30	1,000/10	2
ELECTRIC MELEE WEAPONS	ACC	DM	Range	ROF	Ammo	Cost	Wt.
Any melee weapon	same	same/elec.	same	n/a	30	+75/10	same
BOWS	ACC	DM	Range	ROF	Ammo	Cost	Wt.
Light Bow	0	7	5/10/20/40	0/1	1	150/1	0.5
Medium Bow	0	10	6/12/24/48	0/2	1	200/1	1
Heavy bow	0	15	7/14/28/56	0/2	1	450/2	3
HANDGUNS	ACC	DM	Range	ROF	Ammo	Cost	Wt.
6mm Revolver	0	7	5/10/20/40	0	6	120/2	0.5
9mm Revolver	0	14	6/12/24/48	0	6	200/4	1
9mm Heavy Revolver	0	23	7/14/28/56	0	5	350/5	1
11mm Revolver	0	25	7/14/28/56	0	6	400/5	1.5
7.5mm Pistol	0	10	6/12/24/48	0	10	150/4	0.5
9mm Pistol	0	15	6/12/24/48	0	9	225/6	1
11mm Pistol	0	24	7/14/28/56	0	8	425/8	1
9mm Autopistol	0	15	8/16/32/64	1	40	475/25	2
RIFLES	ACC	DM	Range	ROF	Ammo	Cost	Wt.
6mm Carbine	0	18	45/90/180/360	0	1	175/0.5	2
7mm	0	24	50/100/200/400	0	20	280/10	4
7.5mm	0	28	60/120/240/480	0	10	375/5	4
7.5mm Assault Rifle	0	28	65/130/260/520	1	40	750/25	4.5
8mm	0	32	75/150/300/600	0	10	500/6	4.5
15mm Sniper Rifle	+1	40	100/200/400/800	0	4	900/5	6
SHOTGUNS	ACC	DM	Range	ROF	Ammo	Cost	Wt.
.410	0	22	6/12/24/48	0	10	120/5	2
12-gauge	0	28	7/14/28/56	0	8	200/5	3
Autoshotgun (12G)	0	28	6/12/24/48	1	50	1,200/30	6
SUBMACHINE GUNS	ACC	DM	Range	ROF	Ammo	Cost	Wt.
7.5mm	0	12	22/44/88/176	2	40	450/15	3
9mm	0	18	25/50/100/200	2	30	575/20	3.5
11mm	0	24	30/60/120/240	2	30	750/30	3.5

WEAPON STATISTICS CONTINUED

GRENADE LAUNCHERS	ACC	DM	Range	ROF	Ammo	Cost	Wt.
40mm Underbarrel Launcher	-1	grenade	40/80/160/320	0	1	250	1.5
40mm Grenade Rifle	0	grenade	50/100/200/400	0	5	700	4
GYROCS	ACC	DM	RANGE	ROF	AMMO	COST	WT.
Gyroc Pistol	+1	15/25	10/20/40/80	0	15	675/15	1
Gyroc Rifle	+1	22/32	80/160/320/640	0	15	950/15	3.5
GAUSS WEAPONS	ACC	DM	RANGE	ROF	AMMO	COST	WT.
Needler	0	7	5/10/20/40	1	15	100/5	0.5
Gauss Rifle (8mm)	0	35	85/170/340/680	1	30	800/30	4
Gauss Shotgun	0	20	40/80/160/320	2	40	1,050/40	4.5
BEAM WEAPONS	ACC	DM	RANGE	ROF	AMMO	COST	WT.
Laser Pistol	+1	8/17/26	9/18/36/72	0	30	750/10	1
Laser Rifle	+1	8/17/26/35/44	120/240/480/960	0	30	1,250/10	3.5
Sniper Laser	+1	40	200/400/800/1600	0	10	8,000/100	8
Maser Pistol	+1	20	8/16/32/64	0	30	825/10	1
Maser Rifle	+1	22	110/220/440/880	0	30	1,300/10	4
NON-LETHAL GUNS	ACC	DM	RANGE	ROF	AMMO	COST	WT.
Taser	0	3	4/8/16/32	0	30	60/10	0.5
Sonic Stunner	+1	special	4/8/16/32	0	30	115/10	0.5
HEAVY WEAPONS	ACC	DM	RANGE	ROF	AMMO	COST	WT.
6mm Machinegun	0	30	100/200/400/800	2	belt	1,800	7
7.5mm Machinegun	0	32	125/250/500/1000	3	belt	2,150	10
11mm Machinegun	0	42	130/260/520/1040	3	belt	3,600	15
9mm Chaingun	0	30	50/100/200/400	4	belt	4,000	10
24mm Anti-Armor Gun	+1	70	150/300/600/1200	0	5	10,000	15
60mm Light Mortar	-1	120	150*/300/600/1200	0	5	5,000	12
50mm Rocket Launcher	0	140	50/100/200/400	0	1	8,000	6
GRENADES	ACC	DM	RANGE	ROF	AREA	COST	WT.
Concussion	0	30	Throw	0	9	12	0.5
Fragmentation	0	26/14	Throw	0	8/30	10	0.5
Incendiary	0	24/8	Throw	0	8/12	12	1
Flash	0	8/flash	Throw	0	3/30	8	0.5
Tear Gas	0	5/gas	Throw	0	2/15	8	1
Nerve Gas	0	5/gas	Throw	0	2/15	15	1
Smoke Gas	0	2/smoke	Throw	0	1/30	4	0.5

ACC is the weapon's accuracy;

DM is the weapon's Damage Multiplier, which is multiplied by the attacker's Margin of Success. AD and UD are the character's Armed and Unarmed Damage ratings;

Range indicates the Short/Medium/Long/Extreme ranges of a weapon, in meters. "Close Combat" means the weapon can only be used in melee; "Throw" means the melee weapon can be thrown using the Throw skill;

ROF shows the weapon's burst fire bonus. Single shot weapons have a ROF of 0; a ROF of 0/X means the weapon can only be fired once every X turns;

Ammo is the number of bullets and/or charges found in the weapon's magazine. These normally come in clips or power packs;

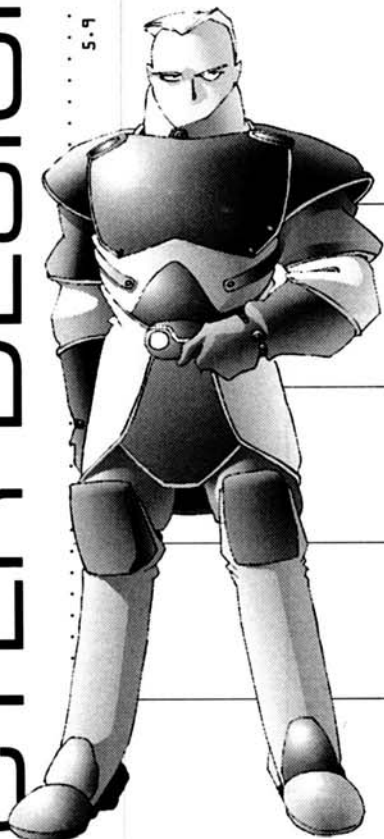
Cost is the manufacturer's suggested retail cost of the weapon, in credits. The number after the slash is the cost for a full reload;

Wt. is the weapon's loaded weight, in kilograms;

Area (for grenades only) indicates the radius in meters of the particular grenade's area of effect. The first number is the primary area of effect, used for concussion damage; the second number, if any, determines the secondary area of effect.

*: cannot fire at a range of less than 100m.

Note: When calculating the cost of a grenade with more than one secondary effect, multiply the cost of the most expensive secondary effect with three quarters of the price of the second most expensive effect, plus half the price of each (if any) successive effect.



► PERSONAL ARMOR

For almost as long as there have been weapons, people have worn armor to protect themselves. Although technological changes have revolutionized the world of weapons, armor designs have always followed the same basic patterns, with improvement being mainly in the resilience and lower weight of the materials used. Some scientists have hypothesized that energy shields may be possible at some point in the next few hundred years, but they remain out of reach to date.

▼ LOW TECH ARMORS

Low tech armors are simply protective suits, without any computerized gadgets. The weights and costs given are for full body suits; for armors that protect the torso only, divide both the cost and the weight by half. Except for composite armor, these are normally used when people do not have access to more advanced forms of protection. Nomads and pirates often wear these items.

◇ LEATHER ARMOR

Leather armor normally appears in its most common form — leather jackets. A favorite among street gangs, the basic leather armor can be slightly enhanced by adding small metal studs; many owners will stud their armor just for the “mean” look it gives them.

◇ PLATED ARMOR

Plated armor is rarely seen, primarily because it is heavy and cumbersome. Plates of metal or other strong material are joined together to create an armored shell. Medieval armor is a classic example of plated armor.

◇ COMPOSITE

Composite armor comes in two varieties, light and heavy. Light composite is a fine mesh of synthetic fibers and other non-metallic composites. Normally highly flexible, it hardens when subjected to blows, evenly distributing the kinetic energy throughout its fabric. It can discreetly be worn under loose-fitting clothes, and will not hamper its wearer’s movement.

Heavy composite is both heavier and bulkier, consisting of multiple, precisely fitted layers of polymer and metallic fibers. While it offers more protection against physical attacks, it cannot normally be worn under one’s clothes, exceptions being made of robes, overcoats and cloaks.

▣ LAYERS AND SCRATCHBUILT ARMOR

Sooner or later, Players are going to want (or need) to layer their character’s armors. Going into personal combat in a vacuum requires use of a vacuum suit, and the Players will want extra layers between them and their opponent’s weapons. The Armor rating of all layers is added together. The trade-off for this is an escalation in mass and encumbrance: for both statistics, take the worst value from the list of armors being layered and multiply by (1.1 x number of layers), rounding up to the nearest tenth of a kilogram. This applies only for armors worn on top one another; suits with built-in protection, such as space suits, use the rules on p. 86

When desperate characters build armor from scratch, a number of factors come into play: the Tinker skill of the character, the materials on hand, and the time the character is willing (or able) to spend making the armor. To begin with, the GM must ascertain how much material is actually useable as armor; a damaged suit of armor will provide an amount of base armor equal to the proportion of the armor that is salvageable. If working with a bunch of raw metal, composite, etc., the GM must make a judgment call based on the tools available and the condition of the scrap parts. The Player must state before beginning work on the armor how long he intends to spend building the armor. If the character is interrupted beforehand, the amount of armor actually available is directly proportionate to the amount of time actually spent. Upon completion (or interruption) the Player makes a Tinker skill roll against a threshold of 3 (5 if trying to incorporate a Reflex layer or Interference Screen). If the roll is equal to or less than the Threshold, the scratchbuild will slow the character down more than protect him. The formula below is applied with a maximum final armor value equal to the sum of base armor points available.

Example: a Player working on leather hides and a badly damaged Duraplast Mail suit with rudimentary mechanical tools states that he plans to spend 4 hours making a new suit of armor. The GM decides that the leather is worth three points, and that the Duraplast only has five points left (judging that only about 20% of it is salvageable with the tools on hand). He finishes uninterrupted and rolls a 5 giving a MoS of 2; thus the new suit has (2 x 2 x 2 =) 8 points of armor, the maximum he could have gotten. If he had been interrupted near the third hour of work, the suit would only have had six points of armor (3/4 of the intended time multiplied by the result achieved).

Final Armor Value = Tinker MoS x (square root of time in hours expected) x 1/4 base Armor available x time available (proportion of time expected)

5.10

► ARCHETYPES

Archetypes are the "stock characters" of the **Jovian Chronicles** universe. They are the simplest type of character to roleplay because they are the icons of the game. Archetypes can be used to populate a scenario, interact with the Player Characters or even serve as one in a pinch.

Most of the time, though, the archetypes will serve as stock Non-Player Characters for the Gamemaster. Other characters can be developed from these by modifying one or two stats and changing the NPC's name. Each archetype features a "Similar Archetypes" section. These are related archetypes that can be represented by the existing ones, either as is, or with few modifications.

The key to successfully roleplaying an archetype is to develop the little details of a character (e.g. favorite drink, style of dress, personality quirks) enough to make the character unique. To that effect, each archetype can receive up to 10 additional points, either Character or Skill Points (or any combination thereof). The Gamemaster or the Player can then use them to improve the Attributes or skills of their choice.

▼ CAST RATING SYSTEM

5.10.1

Jovian Chronicles campaigns works very much along the same principles as movies and television series. The characters that appear throughout the campaign have very similar functions as the various members of a movie cast. We provide here a rating system which will help Gamemasters categorize their Non-Player Characters. This system ranks characters according to their importance in the game. GMs should make use of it both as a design tool when creating their own campaign or as a quick reference indicator when using pre-generated campaigns. Please note that Player Characters fit nowhere in this system. The basic assumption is that PCs are a class all their own, and to include them in pre-generated form in any book would be more restrictive than anything else. It is much preferable to leave them out entirely, with the understanding that their importance is far greater than even that of the Lead Characters. The Player Characters are the stars and heroes of the show. They (hopefully) clean up the mess created by the Lead Characters and their followers.

◇ LEAD CHARACTER



A Lead Character is vital to the campaign. He represents the movers and shakers of the world, and is one of those who weave the background story in which the Player Characters take part. On the side of the allies, the more typical Lead Characters are the fatherly ship captain (who tells the hero that he's "counting on you to save the day"), the strong and reliable wing commander (who gets to dramatically die later in mid-campaign) or the soft-spoken, lovable artist (who is at the center of some love triangle). Allied Lead Characters are stable and often predictable, and should have a fairly detailed background. Their personalities should present a few recognizable quirks that will make them endearing and more human. On the side of the enemies, the typical Lead Character can be some scheming politician or power broker with a hidden agenda (who will want to use the PCs, then kill them), a ruthless and lethal rebel leader (who will eliminate anyone standing in his way, including the Player Characters), or the fierce and patriotic elite enemy pilot (whose goal is to establish his superiority over any contender). As with allied Lead Characters, enemies in that category should be very well detailed. Their reactions should be clear in the Gamemaster's head and they should be consistent, although preferably not perfect.

Overall, Lead Characters do not get overly important until later in the campaign. While their importance is felt in the story from the beginning, they should not overshadow the heroes, nor should they take part in any action which can get them killed right away.

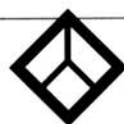
◇ SUPPORTING CAST



On the side of the allies, the Supporting Cast represents the various coworkers, wingmates and contacts who have enough importance in the story to warrant being named. Their background may not be as detailed as the Lead Characters, but some of their quirks and personalities should be established prior to the campaign. They are the characters which interact the most with the Player Characters, and as such they should be vivid and interesting. Enemy Supporting Cast members are few but memorable as well. Until fairly late into the story, they are the ones who provide most of the opposition to the Player Characters. They serve as a transition between the Extras which the Players have fought from the beginning and the Leading Cast mastermind. They also hint to the Players that someone even more powerful stands behind them.

Supporting Cast help Gamemasters carry the storyline roughly until its midpoint. Past that, their importance diminishes and that of the Lead Characters increases.

◇ EXTRA



Extras represent "average" characters in **Jovian Chronicles**. They usually have no personal impact on a storyline and are included primarily to be used by Gamemasters as faceless minions or typical citizens. While most of them may be ordinary, Extras can still be injected with character quirks and GMs should pay attention to Extras who the Players learn to like; they may be worth promoting to Supporting Cast.

ADVENTURER ◀

The solar system of the twenty-third century is rich in possibilities and offers numerous adventures to the daring. Adventurers hop from ship to ship, selling their services or knowledge in return for transport. They are wanderers, always looking for excitement. With their ability to get themselves into unusual predicaments of all varieties, Adventurers often rely on talking their way out of trouble rather than blasting their way out; but when the chips are down, their creative and often unorthodox approaches can be dangerous for their opponents.

ATTRIBUTES ▢

AGI	0	APP	0	BUI	0	CRE	1	FIT	0
INF	1	KND	1	PER	0	PSY	0	WIL	0
STR	0	HEA	0	STA	25	UD	4	AD	3

SKILLS ▢

Skill	Level	Attr.	Skill	Level	Attr.	Skill	Level	Attr.	Skill	Level	Attr.
Athletics	1	0	Dodge	1	0	Human Perception	1	0	Theatrics	1	1
Business	2	1	Etiquette	1	1	Seduction	1	0	Throwing	1	0
Computer	1	1	Hand-to-Hand	1	0	Streetwise	2	1			

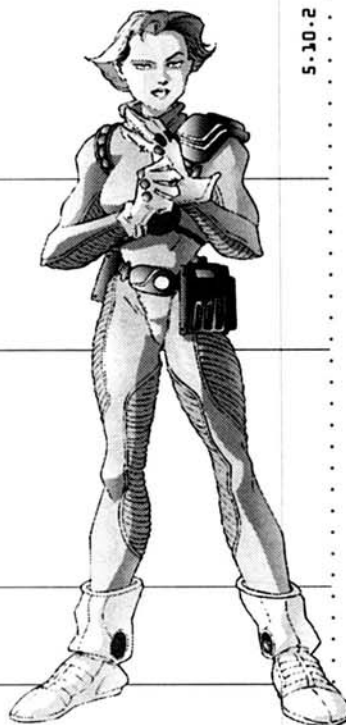
Other possible skills: Zero-G Movement, Survival, Pilot (Space), Pilot (Exo), Notice, Gambling, Dodge.

EQUIPMENT ◇

Bag of clothes, personal computer, 1d6 x 100 credits.

SIMILAR ARCHETYPES ◇

Rogue, Gambler



5.10.2

BOUNTY HUNTER ◀

The sheer physical size of the solar system makes it easy for criminals to "skip town" and move beyond the reach of authorities. Bounty hunters make their living tracking down such fugitives. They own a small ship and may spend weeks in travel between planets, using their extensive network of personal contacts and their own computer hacking capabilities to track down their target. Once located, they will attempt to subdue the fugitive as fast as possible.

ATTRIBUTES ▢

AGI	1	APP	-1	BUI	0	CRE	2	FIT	0
INF	0	KND	0	PER	0	PSY	-1	WIL	0
STR	0	HEA	0	STA	25	UD	5	AD	4

SKILLS ▢

Skill	Level	Attr.	Skill	Level	Attr.	Skill	Level	Attr.	Skill	Level	Attr.
Acrobatics	1	1	Dodge	1	1	Human Perception	2	-1	Small Arms	1	1
Business	1	0	Etiquette	1	0	Melee	1	1	Streetwise	2	0
Combat Sense	1	0	Hand-to-Hand	2	1	Seduction	1	0	Theatrics	1	0
Computer	2	0									

Other possible skills include: Zero-G Movement, Tinker, Throwing, Survival, Stealth, Psychology, Law, Investigation, Intimide, Foreign Language, Drive, Camouflage, Ambush.

EQUIPMENT ◇

Small spaceship, assorted weaponry (both lethal and non-lethal), 1d6 x 10,000 credits.

SIMILAR ARCHETYPES ◇

Private Investigator, Special Agent



5.10.4



► ENTERTAINER

The widespread availability of high-fidelity multimedia broadcast and reception equipment means that entertainment stars proliferate in the 23rd century. Most media darlings begin small, working local nightclub circuits or producing their own multimedia show for independent release and broadcast. Those with business savvy can walk away extremely rich, while others become underpaid bread-winners for media conglomerates. Multimedia entertainment usually involves a substantial amount of computerized manipulation of sight and sound, making the top entertainers more than just singers or dancers, but skilled computer artists as well.

▣ ATTRIBUTES

AGI	0	APP	1	BUI	0	CRE	1	FT	0
INF	1	KNO	0	PER	0	PSY	0	WIL	0
STR	0	HEA	0	STA	25	UD	3	AD	3

▣ SKILLS

Skill	Level	Attr.	Skill	Level	Attr.	Skill	Level	Attr.	Skill	Level	Attr.
Acrobatics	1	0	Etiquette	1	1	Music	2	1	Streetwise	1	1
Computer	2	0	Human Perception	2	0	Seduction	2	1	Theatrics	2	1

Other possible skills include: Visual Art, Business, Dance, Sleight of Hand.

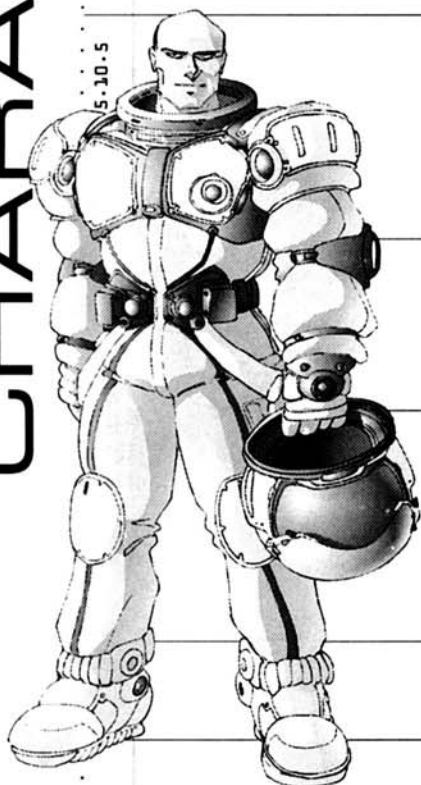
◇ EQUIPMENT

Expensive and cutting edge clothing, jewelry, sunglasses, a copie of the latest *Entertainment Report* magazine, luxury apartment, 1d6 x 100,000 credits.

◇ SIMILAR ARCHETYPES

Washed-up Artist, Talented Unknown, Singer, Dancer, Painter

5.10.5



► EXPLORER

Despite extensive colonization and resettlement, much of the solar system remains uncharted territory in 2210. Those engaging in the dangerous and lonely exploration missions are part scientist, part pioneer, and part prospector. The search for new information is often driven by commercial interests, but some continue to simply search for new frontiers to discover. Explorers are a hardy and independent lot. To them, settlers are sedentary and even cowardly. Some explorers speak of establishing colonies around even the most remote of the Sun's satellites. They are treated with respect since they follow in the steps of the folk-heroes of solar system colonization.

▣ ATTRIBUTES

AGI	0	APP	0	BUI	0	CRE	1	FT	0
INF	0	KNO	1	PER	0	PSY	0	WIL	1
STR	0	HEA	0	STA	25	UD	3	AD	3

▣ SKILLS

Skill	Level	Attr.	Skill	Level	Attr.	Skill	Level	Attr.	Skill	Level	Attr.
Combat Sense	1	0	Earth Sciences	2	1	Navigation (Space)	2	1	Survival	2	1
Communications	1	1	Exo-Pilot	1	0	Space Pilot	2	1	Zero-G Movement	2	0

Other possible skills include Computer, Demolitions, First Aid, Life Sciences, Gunnery: Exo, Gunnery: Space, Hand-to-Hand, Small Arms.

◇ EQUIPMENT

Exo-suit, rugged clothing, tools, astronomical navigation computer, survival gear, 1d6 x 100 credits.

◇ SIMILAR ARCHETYPES

Military Scout, Prospector, Planetary Researcher

FREELANCE REPORTER ◀

The people's right to know and the networks' right to profits regularly send legions of reporters across the solar system in search of the next big story. The major news services maintain offices in most planetary systems, employing staffs that range from a few independent freelancers on half-time contracts to full professional teams of reporters, video technicians and editing specialists. Some reporters are still hired only for their looks, and they usually end up working only at the broadcast centers. Field correspondents are typically much more resourceful and independent, capable researchers, investigators, video technicians and authors as well as presenters. The long term offworld assignments common to interplanetary reporting entail that few correspondents can afford to establish lasting personal relationships.

5-10.6

ATTRIBUTES ▢

AGI	0	APP	0	BUI	0	CRE	1	FIT	0
INF	1	KNO	0	PER	1	PSY	0	WIL	0
STR	0	HEA	0	STA	25	UD	3	AD	3

SKILLS ▢

Skill	Level	Attr.	Skill	Level	Attr.	Skill	Level	Attr.	Skill	Level	Attr.
Bureaucracy	1	0	Etiquette	1	1	Interrogation	2	1	Notice	1	1
Combat Sense	1	1	Human Perception	1	0	Investigation	2	1	Streetwise	2	1
Communications	1	Q									

Other possible skills include Computer, Electronics, Foreign Language, History, Dodge, Visual Arts (Photography).

EQUIPMENT ◇

Rugged all purpose clothing, portable audio/video equipment, personal computer, 1d6 x 100 credits.

SIMILAR ARCHETYPES ◇

Scandal sheet Reporter, Camera Technician



MEDIC ◀

Accidents happen all the time, and the distances involved in interplanetary travel ensure that a medical hospital is almost certainly very far away. As such, most vessels have at least one person with medical training aboard. Most commonly, a trained medic will accompany a vessel, able to treat all but the most serious injuries. Larger vessels will have a surgeon with support staff aboard. All space-faring medics are able to think on their feet. To be a certified ship's medic, the Solar Cross insists on rigorous training in first aid and requires an ability to follow instructions and guidelines for critical cases. Medics travel with an extensive database of emergency procedures, enabling them to get detailed instructions even if they are unable to consult with real physicians.

5-10.7

ATTRIBUTES ▢

AGI	0	APP	0	BUI	0	CRE	1	FIT	0
INF	0	KNO	1	PER	1	PSY	0	WIL	0
STR	0	HEA	0	STA	25	UD	3	AD	3

SKILLS ▢

Skill	Level	Attr.	Skill	Level	Attr.	Skill	Level	Attr.	Skill	Level	Attr.
Combat Sense	1	1	Dodge	1	0	Life Sciences	2	1	Notice	1	1
Computer	1	1	First Aid	2	1	Medicine	1	1	Survival	2	1
Communications	1	1	Human Perception	1	0						

Other possible skills include Drive, Space Pilot, Tinker, Zero-G Movement.

EQUIPMENT ◇

Pressure suit, medical kit, medical scanner, emergency surgery kit, medical database, 1d6 x 500 credits.

SIMILAR ARCHETYPES ◇

Solar Cross Medic, First-Aid Technician



5.10.8



► MERCENARY

As a soldier-of-fortune, the Mercenary makes his living doing the dirty jobs of other people. They are most common on Earth, where the endless brushfire conflicts between CEGA and the unaligned countries supply them with ample employment opportunities. Rarely welcome in human space society, the space-based mercenaries tend to gather at the dirtiest, most remote spots of the system, where they await their next assignment. Some, not content to wait idly, turn to piracy and attack defenseless merchant ships, living a ramshackle outcast existence on some forlorn asteroid base or ship.

▣ ATTRIBUTES

AGI	1	APP	0	BUI	1	CRE	0	FIT	0
INF	0	KNO	0	PER	1	PSY	-1	WIL	0
STR	0	HEA	0	STA	25	UD	3	AD	3

▣ SKILLS

Skill	Level	Attr.	Skill	Level	Attr.	Skill	Level	Attr.	Skill	Level	Attr.
Acrobatics	1	1	Dodge	2	1	Pilot (Exo)	1	1	Streetwise	1	0
Athletics	1	0	Gunnery (Exo)	1	1	Small Arms	2	1	Tactics	1	0
Camouflage	1	0	Mechanics	1	0	Stealth	1	1	Throwing	1	1
Combat Sense	2	1	Notice	1	1						

Other possible skills include Business, Computer Electronics, Demolitions, Leadership.

◇ EQUIPMENT

Personal weapon and armor, 1d6 x 100 credits.

◇ SIMILAR ARCHETYPES

Bully, Mugger, Pirate

5.10.9



► MERCHANT

There are few, if any, settlements in the solar system that can claim to be completely self-reliant. The supply lines of the settlements are navigated by fleets of merchant vessels which ferry people and supplies anywhere between Jupiter and Mercury. The merchant captain's creed requires independence and resourcefulness to seek out the best routes and markets for their supplies. Merchants usually begin their careers deep in debt, borrowing huge sums to acquire a used cargo vessel. Those who fail to repay their debts will usually have their Merchant Guild membership revoked and their vessels confiscated. Once a debt is cleared, merchants can become free traders.

▣ ATTRIBUTES

AGI	0	APP	0	BUI	0	CRE	1	FIT	0
INF	1	KNO	1	PER	0	PSY	0	WIL	0
STR	0	HEA	0	STA	25	UD	3	AD	3

▣ SKILLS

Skill	Level	Attr.	Skill	Level	Attr.	Skill	Level	Attr.	Skill	Level	Attr.
Bureaucracy	2	1	Etiquette	1	1	Haggling	2	1	Security	1	1
Business	2	1	Foreign Language	1	1	Human Perception	1	0	Streetwise	2	1
Camouflage	1	1	Forgery	1	1						

Other possible skills include Electronic Warfare, Law, Mechanics, Navigation (Space), Space Pilot, Zero-G Movement.

◇ EQUIPMENT

Guild membership, sidearm, makeshift uniform, manifest datapad, cargo vessel (full or part-ownership), 1d6x50 credits.

◇ SIMILAR ARCHETYPES

Stoic Second in Command, Smuggler

NOMAD ◀

Perhaps the most rugged people in the solar system, Nomads live in converted asteroids that course around the sun. They are notoriously hardworking, intolerant of laziness and effete behavior, and play as hard as they toil. Many Nomads serve tours as workers in other parts of the solar system, bringing their technical skills to the service of large corporations and sending their wages (or purchased supplies) to their clan back home. Citizens of more sophisticated locales are impatient with Nomad informality and raucous behavior; nomads repay these attitudes by making a game of insulting and making fools of their "sophisticated" employers. Only those who show an ability to do their own work — rather than simply manage others — earn Nomad respect.

ATTRIBUTES ▢

AGI	0	APP	0	BUI	1	CRE	1	FIT	1
INF	0	KNO	0	PER	0	PSY	0	WIL	0
STR	1	HEA	0	STA	30	UD	7	AD	5

SKILLS ▢

Skill	Level	Attr.	Skill	Level	Attr.	Skill	Level	Attr.	Skill	Level	Attr.
Combat Sense	1	0	Electronics	2	0	Mechanics	2	0	Survival	1	1
Dodge	1	0	Hand-to-Hand	2	0	Notice	1	0	Zero-G Combat	1	0
Earth Sciences	1	0	Intimidate	1	1	Small Arms	1	0	Zero-G Movement	2	0

Other possible skills include Business, Hagglng, Space Navigation, Space Pilot, Streetwise.

EQUIPMENT ◇

Repair tools, vacuum suit, primitive firearm.

SIMILAR ARCHETYPES ◇

Clan Chief, Advisor, Miner



5.10.10

OFFICIAL ◀

As the age of isolationism comes to an end, governmental officials and corporate executives have discovered the shuttle lifestyle. Operating from modified diplomatic liners, they move from planet to planet to arrange business deals or sign treaties. In this time of dynamic change and increasing tension, diplomats and business representatives are on the cutting edge of reorganizing the power structure of the solar system. Although business executives and political officials often find themselves at odds with each other, most people see them as almost interchangeable. They dress for success and speak in clean and crisp sentences (often changing smoothly from one language to another). These elite power-brokers often look down on settlers and Nomads as barbarians and ne'er-do-wells.

ATTRIBUTES ▢

AGI	0	APP	0	BUI	0	CRE	0	FIT	0
INF	1	KNO	1	PER	1	PSY	0	WIL	0
STR	0	HEA	0	STA	25	UD	3	AD	3

SKILLS ▢

Skill	Level	Attr.	Skill	Level	Attr.	Skill	Level	Attr.	Skill	Level	Attr.
Bureaucracy	2	1	Etiquette	1	1	Law	1	1	Notice	1	1
Business	2	1	Human Perception	2	0	Leadership	1	1			

Other possible skills include Foreign Language, Hagglng, History, Intimidation, Investigation, Law.

EQUIPMENT ◇

Expensive clothes, personal computer, anti-espionage devices, 1d6 x 1000 credits.

SIMILAR ARCHETYPES ◇

Politician, Exiled Official, Mole/Spy, Custom Officer, Executive



5.10.11

5.10.12



► SCIENTIST

In the stations which house much of humanity, reliance on science and technology is absolute. Few scientists have the liberty to work on pure science, however. Even those working in academic institutions are under heavy pressure to work on projects with immediate technological applications. In the private and government sectors, the pressures to produce are even stronger. A few mild beacons of theoretical work do exist and most scientific institutions support some pure theory work, but these programs are sidelines at best. The militarization of science is a major preoccupation for most of the scientific community. A growing number of scientists feel disgruntled by this appropriation of their work and talk of a peace movement is growing.

▣ ATTRIBUTES

AGI	-1	APP	0	BUI	-1	CRE	1	FIT	0
INF	0	KNO	2	PER	0	PSY	0	WIL	0
STR	0	HEA	0	STA	20	UD	2	AD	-2

▣ SKILLS

Skill	Level	Attr.	Skill	Level	Attr.	Skill	Level	Attr.	Skill	Level	Attr.
Bureaucracy	1	2	Etiquette	1	0	Notice	1	0	Teaching	1	1
Computer	2	2	Foreign Language	2	2	Primary Field*	2	2	*Choose Any Science Skill		
Electronics	1	2	History	1	2	Secondary Field*	1	2			

Other possible skills include Electronic Design, Foreign Language (Latin), Mechanics, Medicine, Tinker.

◆ EQUIPMENT

Laboratory, high-powered personal workstation, 1d6 x 1000 credits.

◆ SIMILAR ARCHETYPES

Terraforming Engineer, Astrophysicist, Robotic Specialist

5.10.13



► SHIPMATE

Shipmates are the people responsible for the well-being and daily operations of the spaceships that bind the solar system together. They can be rowdy on their spare time, but they are usually cool and professional when on the job. The prospect of being stuck with someone in cramped quarters for an extended period of time also tends to breed an air of tolerance towards others in these spacers. Ship crew tend to be intelligent and quick thinking, since space is an unforgiving environment where your first mistake might very well be your last.

▣ ATTRIBUTES

AGI	0	APP	0	BUI	0	CRE	1	FIT	0
INF	0	KNO	2	PER	0	PSY	0	WIL	0
STR	0	HEA	0	STA	25	UD	3	AD	3

▣ SKILLS

Skill	Level	Attr.	Skill	Level	Attr.	Skill	Level	Attr.	Skill	Level	Attr.
Acrobatics	1	0	First Aid	1	2	Navigation (Space)	1	2	Tinker	2	1
Communications	1	2	Mechanics	2	2	Physical Sciences	1	2	Zero-G Movement	2	0

Other possible skills include Business, Computer, Electronics and Gunnery: Space.

◆ EQUIPMENT

Tool kit, coverall or uniform, personal datapad, 1d6 x 100 credits

◆ SIMILAR ARCHETYPES

Gunnery Crew, Engineer



SOLAPOL AGENT ◀

There are two broad categories of Solar Police agent. The first specializes in covert operations. The USN uses them most often to discover the truth behind secret military operations, or to dig up the guilty parties in cases of illegal (and dangerous) scientific research. These agents are comfortable in any setting. The rest of the SolaPol is composed of analysts. There are few minds in the solar system that are sharper than an analyst's when it comes to making sense of jumbled reconnaissance data. In conflict situations, however, the analysts are next to useless. Their training is focused on mental abilities.

ATTRIBUTES ▢

AGI	-1	APP	0	BUI	-1	CRE	1	FIT	-1
INF	0	KNO	1	PER	1	PSY	1	WIL	0
STR	0	HEA	0	STA	25	UD	3	AD	3

SKILLS ▢

Skill	Level	Attr.	Skill	Level	Attr.	Skill	Level	Attr.	Skill	Level	Attr.
Acrobatics	1	-1	Computer	2	1	Human Perception	2	1	Psychology	1	1
Bureaucracy	2	1	Etiquette	1	0	Investigation	2	1	Tactics	1	1
Communications	1	1	History	1	1	Notice	1	1			

Other possible skills include Business, Electronics, Hand-to-Hand, Intimidate, Small Arms.

EQUIPMENT ◇

Datapad, SolaPol credit account.

SIMILAR ARCHETYPES ◇

Intelligence Agent



5.10.14



SOLDIER/SECURITY OFFICER ◀

Despite doe-eyed predictions of a utopian life among the planets of the solar system, the twenty-third century is not a time of universal peace and justice. In a world such as this, soldiers, police officers and private security guards are an all-too-common sight. Soldier are now trained to be self-reliant because of the massive distances involved in interplanetary (or even planet-wide) operations. In most armies the distinction between NCO and officer is often blurred once in the field, and command decisions often leave much room for soldiers' own initiative. Civilian security officers operate much as they have for hundreds of years, often based in precincts and squads assigned to specific regions or crimes.

ATTRIBUTES ▢

AGI	0	APP	0	BUI	1	CRE	0	FIT	1
INF	0	KNO	0	PER	1	PSY	0	WIL	0
STR	1	HEA	0	STA	30	UD	7	AD	6

SKILLS ▢

Skill	Level	Attr.	Skill	Level	Attr.	Skill	Level	Attr.	Skill	Level	Attr.
Athletics	1	1	Hand-to-Hand	2	0	Investigation	1	1	Security	2	0
Combat Sense	1	1	Interrogation	1	0	Melee	1	0	Small Arms	2	0
Dodge	1	0	Intimidate	1	1	Notice	2	1	Streetwise	1	0

Other possible skills include Camouflage, Exo-Pilot, First Aid, Law, Navigation, Survival, Zero-G Combat and Movement.

EQUIPMENT ◇

Sidearm, uniform, patrol vehicle, comm gear, flashlight, restraints; Fatigues, rifle, grenades, medical kit.; 1d6x100 credits.

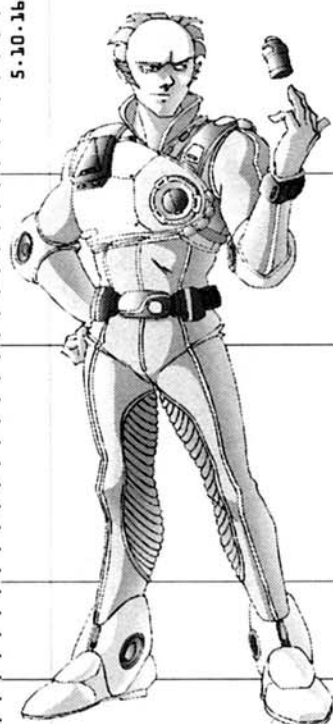
SIMILAR ARCHETYPES ◇

Policeman, Bodyguard, Nomad Sheriff



5.10.15

S.10.16



► SPACER

The spacers are the people who live in orbit around of the major planets of the solar system. They are used to living within the confines of a colony cylinder and think nothing of spending a few hours in zero or microgravity environments — they have been doing it ever since they were infants. Spacers can travel comfortably to any planet in the solar system, since they are used to multi-gravity living environment. They are often fascinated by planet-side geological features such as oceans and large mountain ranges.

▣ ATTRIBUTES

AGI	0	APP	0	BUI	0	CRE	0	FIT	0
INF	0	KNO	0	PER	0	PSY	0	WIL	0
STR	0	HEA	0	STA	25	UD	3	AD	3

▣ SKILLS

Skill	Level	Attr.	Skill	Level	Attr.	Skill	Level	Attr.	Skill	Level	Attr.
Acrobatics	1	0	Computer	2	0	Human Perception	1	0	Tinker	1	0
Athletics	1	0	Electronics	1	0	Survival (Space)	1	0	Zero-G Movement	1	0
Communications	1	0									

Other possible skills include Business, Bureaucracy, any Science

◇ EQUIPMENT

Clothes, datapad or collection of mechanical (or other) tools, 1d6 x 1000 credits.

◇ SIMILAR ARCHETYPES

Jovian, Orbital, ZeGee (+1 AGI, -2 BLD, +1 PER)

S.10.17



► TECHNICIAN

Technical and engineering careers are among the most popular in the orbital stations, the nomad asteroids and the Jovian Confederation. On these various space stations and micro-worlds, there is an acute appreciation of skilled technical knowledge and a desire to help the community by contributing to the field. As such, most technicians tend to be dynamic and friendly, always ready to try something new or lend a helping hand. Only those who disparage the accomplishment of planetary settlements can expect poor treatment from the average technician. The combination of social prestige and friendly reputation makes the stereotypical technician into a fatherly (or motherly) figure. Military disciplinarians have long been frustrated by the tendency for this stereotype to carry over to military techs.

▣ ATTRIBUTES

AGI	0	APP	0	BUI	0	CRE	2	FIT	0
INF	0	KNO	1	PER	1	PSY	0	WIL	0
STR	0	HEA	0	STA	25	UD	3	AD	3

▣ SKILLS

Skill	Level	Attr.	Skill	Level	Attr.	Skill	Level	Attr.	Skill	Level	Attr.
Communications	1	1	Electronic Design	1	1	Mechanics	2	1	Tinker	1	2
Computer	2	1	Electronics	2	1	Physical Sciences	1	1			

Other possible skills include Business, Electronic Warfare, Hagglng, Mechanical Design.

◇ EQUIPMENT

Extensive tool kit, portable computer with design specs, work suit, pressure suit, 1d6 x 100 credits.

◇ SIMILAR ARCHETYPES

Computer Tech, Weapon Tech, Engineer, Miracle Worker

VETERAN PILOT ◀

Grizzled veterans form the backbone of each army. While not as glamorous as the elite pilots, the jocks who have been sitting behind the controls longer than most of their teammates have lived are a well-respected lot. The older ones fought in many conflicts of the late twenty-second century. Haunted by ghosts and bearing the stains of their past, these old-timers bring an air of somber experience to a combat group. Most armed forces have few exo-armors and hand them to skilled veteran pilots, who display a reserve learned from years of space time.

ATTRIBUTES ▢

AGI	1	APP	0	BUI	0	CRE	0	FIT	1
INF	0	KNO	0	PER	1	PSY	0	WIL	0
STR	0	HEA	0	STA	25	UD	3	AD	3

SKILLS ▢

Skill	Level	Attr.	Skill	Level	Attr.	Skill	Level	Attr.	Skill	Level	Attr.
Aircraft Pilot	1	1	Electronic Warfare	1	0	Navigation (Space)	1	0	Space Pilot	2	0
Combat Sense	2	1	Gunnery (Space)	2	1	Small Arms	1	1	Zero-G Movement	2	1
Communications	1	0									

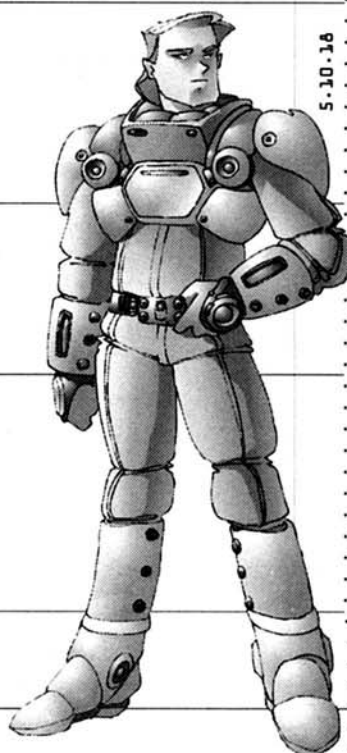
Other possible skills include Gunnery (Aircraft), Hand-to-Hand, Leadership, Navigation (Air), Survival, Zero-G Combat.

EQUIPMENT ◇

Flight suit, sidearm, survival gear, access to military vehicles, 1d6 x 500 credits.

SIMILAR ARCHETYPES ◇

Flight Instructor, Squadron Commander



5.10.16

YOUNG ACE ◀

Exo-pilots are renowned as hotshots and glory hounds, and military trainers often struggle to reign in their enthusiasm. The Jovian Armed Forces are infamous in military circles for the lack of discipline of their pilots. These inveterate hotshots break into daring maneuvers with very little provocation. A rookie pilot, fresh from training, is a common (if less skilled) variation on the young ace character. These "greenies" are wide eyed and seek out dangerous missions for the thrill of it, or to prove themselves to their older and more experienced companions.

ATTRIBUTES ▢

AGI	1	APP	0	BUI	0	CRE	0	FIT	1
INF	0	KNO	0	PER	1	PSY	0	WIL	0
STR	0	HEA	0	STA	25	UD	4	AD	3

SKILLS ▢

Skill	Level	Attr.	Skill	Level	Attr.	Skill	Level	Attr.	Skill	Level	Attr.
Combat Sense	1	1	Exo-Pilot	2	1	Navigation (Space)	1	0	Zero-G Combat	1	1
Communications	1	0	Hand-to-Hand	1	1	Small Arms	2	1	Zero-G Movement	1	1
Electronic Warfare	1	0	Gunnery (Exo)	2	1						

Other possible skills include Computer, Electronics, Gunnery (Space), Leadership, Melee, Space Pilot, Tactics.

EQUIPMENT ◇

Flight uniform, sidearm, dress uniform, survival gear, access to military exo-armor, 1d6 x 500 credits.

SIMILAR ARCHETYPES ◇

Test Pilot, Rookie



5.10.19

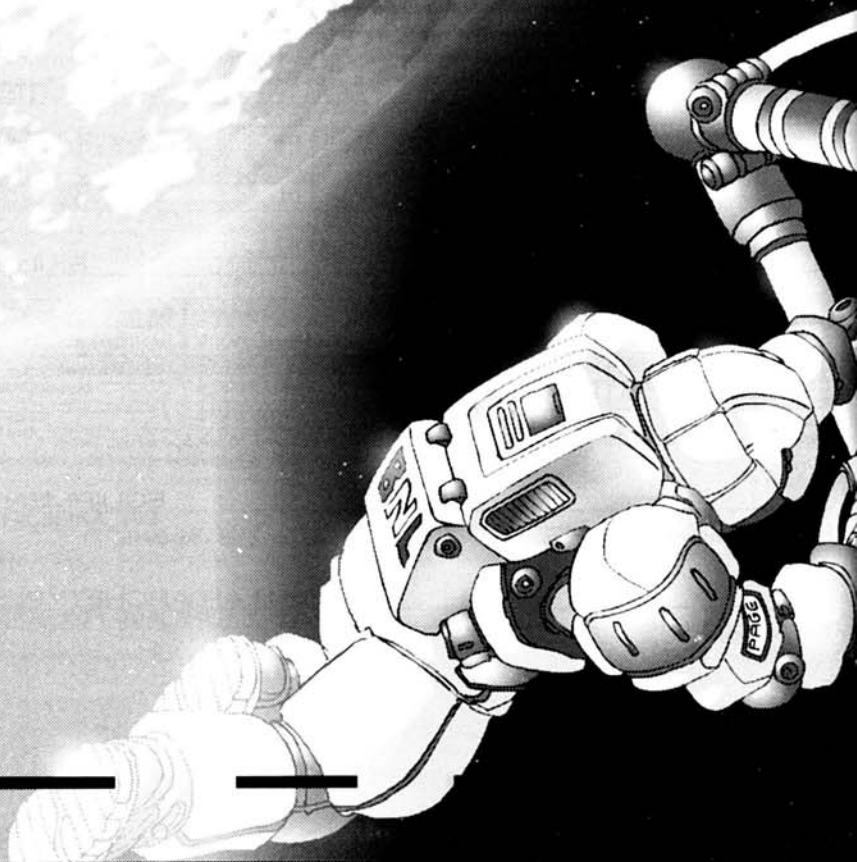
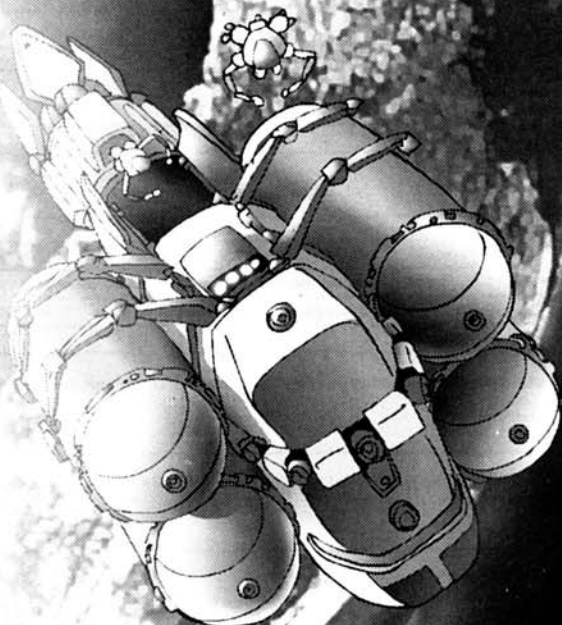
► ACTION AND DRAMA

There exists a close relationship between action and drama, especially in a high-octane setting like *Jovian Chronicles*. Most stories will involve some form of exciting combat or showdown, whether it be a chase or an outright shootout. There is nothing quite as satisfying as finally defeating a tenacious villain in a climactic battle.

This chapter provides Gamemasters (and Players who may wish to read on) all the rules necessary for resolving action involving characters. This includes combat, but also a variety of other hazards. Earning experience points to improve a character's Skills and Attributes is also covered here. The rules for dealing with combat between exo-armors and other machines is dealt with in the next chapter, *Mechanized Action*.

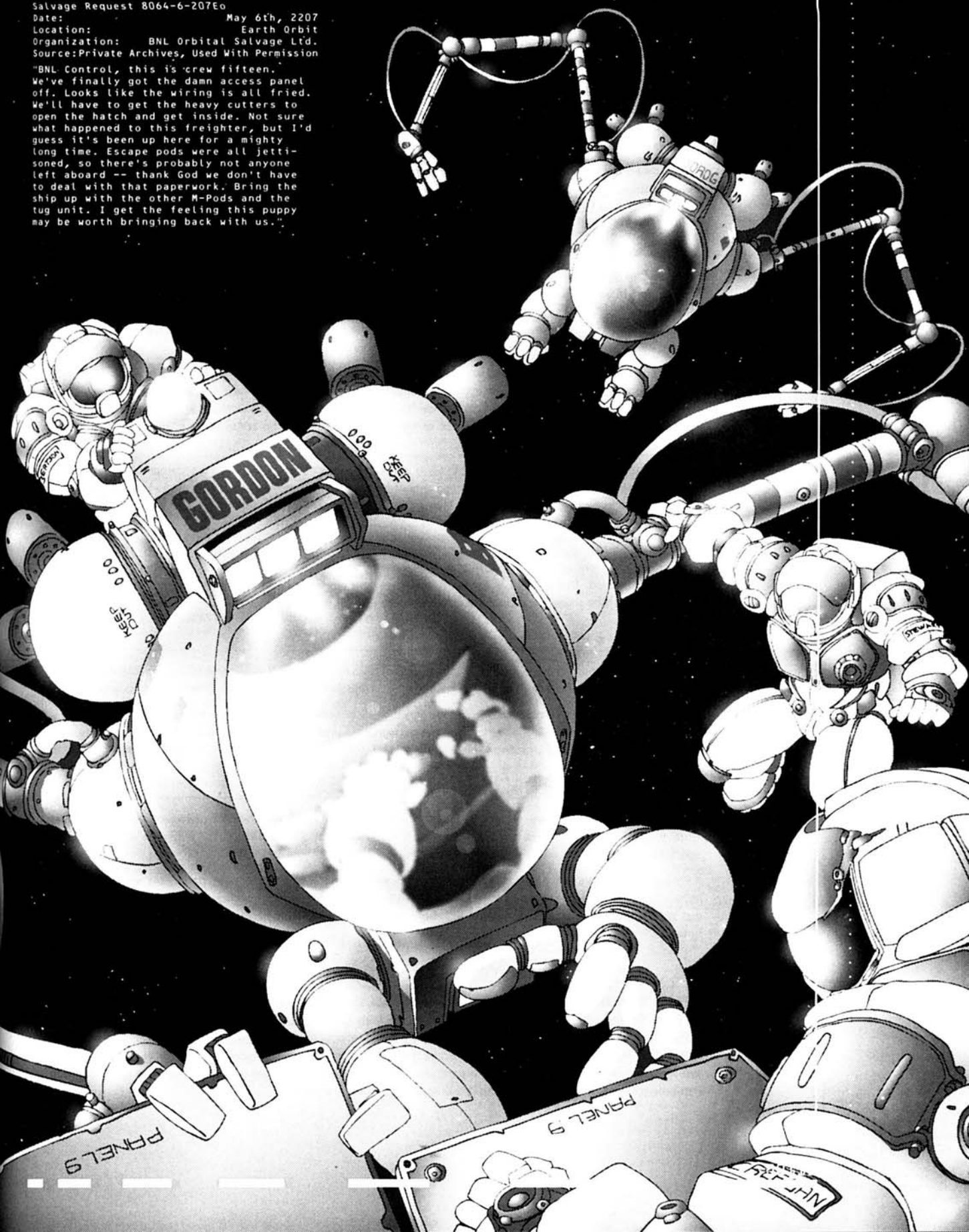
Always remember that these rules exist to make your life easier. If they truly get in the way, you can alter or discard them as you see fit. Of course, Gamemasters should be the final arbiter of the rules and make sure that everything is fair for the Players and their characters. Gamemasters can "fudge" dice rolls to obtain a result that is better for the story, but they should keep it to a minimum. Players need to feel that they have an impact on the action.

Gamemasters should also remember that roleplaying is more than just combat and dice-rolling. Whole sessions can be dedicated to character interaction, with the only dice-rolls being a few Human Perception checks. Even in a combat scenario, Gamemasters should rely on descriptions and characters to make the battle memorable, not on the roll of the dice. Players will be happier knowing that their friend Jan was thinking of his fiancée Lena when he was struck down by an assassin's bullet, than knowing that he got a 2 on his defense roll. Dice rolling can be fun, but don't forget to introduce views from the Characters' (as opposed to the Players') points of view.



Salvage Request 8064-6-207Eo
 Date: May 6th, 2207
 Location: Earth Orbit
 Organization: BNL Orbital Salvage Ltd.
 Source: Private Archives, Used With Permission

"BNL Control, this is crew fifteen.
 We've finally got the damn access panel
 off. Looks like the wiring is all fried.
 We'll have to get the heavy cutters to
 open the hatch and get inside. Not sure
 what happened to this freighter, but I'd
 guess it's been up here for a mighty
 long time. Escape pods were all jetti-
 soned, so there's probably not anyone
 left aboard -- thank God we don't have
 to deal with that paperwork. Bring the
 ship up with the other M-Pods and the
 tug unit. I get the feeling this puppy
 may be worth bringing back with us."





► ACTIONS

There are three standard types of actions a character can attempt in a roleplaying game: automatic actions, possible actions, and impossible actions. Automatic actions (e.g. opening a door, walking on a sidewalk) will automatically succeed unless something complicates them, in which case they become possible actions. Possible actions are actions that could either fail or succeed (e.g. forcing open a locked door, walking on a tightrope). Impossible actions are those acts that are doomed to fail, often because they are logically impossible or just incredibly challenging (e.g. flying by flapping one's arms, breathing in a vacuum, finding a needle in a large haystack in one minute). It is the Gamemaster who must decide whether an action is automatic, possible, or impossible.

Automatic actions do not require Skill rolls. Possible actions require an action test: action tests consist of a modified die roll which is compared to either a Threshold value or an opponent's die roll. See *Silhouette Basics* (p. 54) for a detailed description of action tests. Impossible actions fail automatically.

▼ RUNNING ACTION TESTS

There are four different ways to run action tests in a campaign. The first way is to tell the Players what the action's Threshold is, have them make their own dice rolls and then report their Margins of Success or Failure. This method is the easiest but it lends itself to "roll"-playing instead of roleplaying, since it focuses much of the Players attention on dice and bookkeeping tasks. It also takes control away from the Gamemaster since the Players will expect him to abide by the dice results, even if it would mess up the story.

The second way to run action tests is to announce what Skill, Attribute, or Secondary Trait is being tested and then have the Players report their die totals. It is then up to the Gamemaster to compare the numbers reported to his chosen Threshold and describe the results to the Players. This method is a good compromise and allows the Gamemaster to have control over the game while giving Players the satisfaction of having been the ones who controlled (i.e. rolled the results of) their character's actions.

The third alternative is to tell the Players nothing in terms of game mechanics and have the Gamemaster perform the roll behind a screen. This method is generally inconvenient for most Gamemasters but it is very useful for performing perception tests, such as Notice, Combat Sense or Human Perception tests. Besides that, rolling dice every now and then while wearing a fiendish grin keeps Players on their toes.

The fourth alternative is for Players who prefer to dispense with dice altogether in favor of drama and plot development. The Gamemaster must simply make a judgment call, based upon the task complexity and the character's competence. No dice are ever rolled. This method is excellent for very simple and incredibly difficult situations. Advanced roleplayers, especially those who enjoy live action, are encouraged to use this method.

▼ SKILL TESTS

The roleplaying game, like the tactical game, relies on Skill tests to determine the outcome of most character actions. Unlike the tactical game, however, the number of possible actions and Skills required to perform them is virtually unlimited.

The *Skills* section of the *Character Design* chapter lists the official Skills. These are by no means the only possible ones, they are just a list of suggested Skills. If a Player comes up with a reasonable new Skill, and the Gamemaster agrees, it can be used in the game without any problem.

◇ WHAT IF I DON'T HAVE THAT SKILL?

Often, characters will need to accomplish a task in which they have no Skill. In these cases, two dice are rolled. The result is equal to the *lowest* of the two individual die rolls. If *either* of the two dice rolled a "1," a fumble occurs. If no fumble occurred, add the appropriate modifiers to obtain the final total roll.

If Emergency Dice are purchased using Experience Points (see *Character Improvement*, page 124), spending one XP will reduce the number of dice rolled to one. Spending two XPs will keep the number of dice rolled at two, but the roll is normal (i.e. the highest die result counts, two 6's = 7, both dice must roll "1" to fumble). Spending additional XPs will have no further effect.

▼ ATTRIBUTE, STRENGTH AND HEALTH TESTS

Some situations require innate, rather than learned abilities. In such cases, a Gamemaster should request that a player roll an Attribute, Strength or Health test. Attribute tests are fairly rare since many actions that involve an Attribute are really learned abilities. Attribute tests are used when a truly broad reflection of a character's abilities is required. For example, a Knowledge Attribute test is appropriate for recalling an obscure bit of trivia. An Appearance Attribute test could determine just how stunning a character looks on a particular day. Resisting torture might require a Willpower test. To perform an Attribute test, roll two dice and add the Attribute in question to the total.

▷ ATTRIBUTE, STRENGTH AND HEALTH TESTS CONTINUED

Strength and Health tests are rolled in exactly the same manner as Attribute tests (roll two dice and add the Secondary Trait). These two types of action tests are much more common than Attribute tests. Strength tests are required for acts requiring sheer brute strength, such as lifting heavy objects, breaking through a closed door or bending metal bars; Thresholds can often be derived from the suggested weights listed on the Build table on page 64. Health tests, on the other hand, are required to resist drugs, illness, and shock, such as surviving a drug overdose or venomous snake bite, or staying conscious while in agony.

CHANCE TESTS ▼

Chance Tests are required when the result of an action is completely random. Simply roll two dice and add the character's Psyche Attribute. High results are favorable, low results are unfavorable — the Gamemaster decides upon the exact effect based on the situation. If appropriate, a "1" is a fumble. As with all dice rolls, Emergency Dice can be added to improve a character's odds.

COMBAT ◀

Drama centers around conflict. In adventure stories, this conflict often manifests itself as open combat. Deplorable as it may be in real life, combat is one of the key elements of adventure. This is not to say that combat equals adventure: a game session that consists of little else but combat is simply an exercise in mindless slaughter. A well-placed fight, however, can spice up an adventurer's life by adding the element of risk.

In the roleplaying game, time is divided into 6-second combat rounds during combat. This can be slightly altered by the Gamemaster for dramatic purposes.

INITIATIVE ▼

Initiative determines who acts first in a combat round. To determine who gains initiative, all combatants roll a Combat Sense opposed Skill test. The Margin of Success is irrelevant in this case. The combatant with the highest result will act first. The next highest is second and so on. Those with tied results act simultaneously.

Any character who fumbles the test is confused for a moment by the panic and chaos of combat, and cannot begin to perform any action except duck — but he may continue any action that began in a previous round and requires more than a round (e.g. treating a wounded buddy). People without any kind of combat training or awareness, such as most civilians, tend not to have the Combat Sense Skill and will thus often "freeze" in dangerous situations.

The roll for initiative is repeated at the beginning of every combat round.

ACTIONS ▼

During a round, a character may perform two actions (for example, shoot a weapon twice) at no penalty. If the character chooses to perform yet more actions during the combat round (for example, drive a car and simultaneously shoot a gun twice at pursuers), all of his actions are penalized by -1 per extra action.

An action is defined as anything initiated by the Player which requires a Skill or Attribute roll. In short, anything that normally requires the character's full attention. The Gamemaster has final say as to what counts as an action — reloading a weapon might not require a Skill Test, but it is definitely an action.

MOVEMENT ▼

Many Gamemasters prefer to abstract movement for dramatic purposes, but some GMs and Players like to have precise numbers on hand. These individuals should assume that under normal circumstances, a character can sprint up to 25 meters per combat round plus 5 meters times the total of the character's Fitness Attribute and Athletics Skill level. A character's running, jogging, and walking speeds are equal to 2/3, 1/2, and 1/3 of his sprinting speed, respectively. No other actions may be taken while sprinting.

AVERAGE MOVEMENT RATES □

•	Sprinting Move (m/round) = 25 + 5 x (Fitness + Athletics Skill)
•	Running Speed = 2/3 Sprinting Speed
•	Jogging Speed = 1/2 Sprinting Speed
•	Walking Speed = 1/3 Sprinting Speed

b.1.4
end of section 6.1 actions

b.2

b.2.1

b.2.2

b.2.3



► RANGED COMBAT

To attack a wary target, the attacker must defeat the defender in an opposed Skill test. The attacker rolls his Skill in the attack form being used (Small Arms, Heavy Weapons, Archery or Throwing). The defender rolls his Dodge Skill. If the attacker succeeds, the attack hits. If the defender wins or the result is a tie, the attack misses. If the attacker fumbles, the attack fails. If the defender fumbles, the attack succeeds unless the attacker also fumbled.

Attackers should add the appropriate modifier from the following list to their roll depending upon what range they are attacking from.

▣ ATTACKER RANGE MODIFIERS

Point blank range (≤3m)	+1
Short range	+0
Medium range	-1
Long range	-2
Extreme range	-3

► CLOSE COMBAT

To attack a wary opponent in close combat, the attacker must defeat the defender in an opposed Skill test. The attacker rolls his Skill in the attack form being used (Melee or Hand-to-Hand). The defender either rolls his Dodge Skill (to avoid being hit), Melee Skill (to parry with a weapon) or Hand-to-Hand Skill (for unarmed blocks). If the attacker wins, the attack hits the defender. If the defender wins or the result is a tie, the defender avoids the blow. If the attacker fumbles, the attack fails. If the defender fumbles, the attack succeeds unless the attacker also fumbled. If an unarmed defender blocks an armed melee attack, he suffers a -2 to his defense roll.

► SURPRISE ATTACKS

Attacking unwary targets requires the attacker to pass a standard (not opposed) Skill test with a Threshold number of 1 + defender's modifiers (like movement and cover). Unlike a normal attack, however, the attacker must roll the lower of two Skills: either his chosen attack Skill or his Stealth Skill. Untrained individuals tend to be noisy or otherwise mess up surprise attacks by alerting the victim at the last moment.

► ATTACKER'S ROLL

A character uses his relevant Skill — Hand-to-Hand or Melee for close combat, Archery, Small Arms or Throwing for ranged combat — and adds modifiers. The following modifiers apply to an attacker's roll to hit for both ranged and close combat.

▣ OFFENSIVE MODIFIERS

Attacker Movement	
Stationary	+0
Walking	-1
Jogging	-2
Running	-3
Intoxication*	
Mildly intoxicated	-1
Moderately intoxicated	-2
Heavily intoxicated	-3
Lighting	
Area is poorly lit (e.g. dim lighting, moonlight)	-1
Area is very poorly lit (e.g. candlelight, starlight, fog)	-2
Area is barely light (e.g. light of a single candle, dim indirect light, heavy fog)	-3
Area is completely dark	-4
Aiming	
Per round of aiming (max. bonus is equal to attacker's Skill level)	+1
Aiming at specific location, except head	-2
Aiming at head	-3
Weapon Accuracy Modifier	Varies according to weapon used. Refer to <i>Weapon Statistics</i> (page 96).

*Alternately, the Gamemaster may wish to apply the full rules for drug effects (see *Hazards*, page 119).

AIMING MODIFIERS ◇

A character can spend a few combat rounds aiming at a target to improve his odds to hit. Add one to the attacker's roll per combat round spent aiming, up to a maximum equal to the shooter's Skill level. The character may not move while aiming.

A character can aim at a specific body part (e.g. chest, leg, abdomen) of a target. A minus two (-2) modifier applies to all such attacks except head shots, which are penalized by minus three (-3). The victim's normal injury Thresholds are halved (but armor protecting that location is at full value) for all shots aimed at vital locations, such as the chest and head. Shots aimed at specific limbs are useful as non-fatal attacks. Burst fire attacks (see below) cannot be aimed at specific locations.

DEFENDER'S ROLL ▼

When defending, a character uses his relevant Skill — Dodge, Hand-to-Hand, or Melee — and adds modifiers. The following modifiers apply to the defender's roll to avoid being hit.

DEFENSIVE MODIFIERS □

Defender Movement	
Stationary	-1
Walking	+0
Jogging	+1
Running or sprinting	+2
Dodging (cumulative with movement)	+2
Cover	
Under light cover (shrubs, garbage cans, tall grass, thin walls)	+1
Completely hidden by light cover	+2
Under heavy cover (strong walls, rocks, large vehicles)	+3
Completely hidden by heavy cover	Automatic Success
Intoxication *	
Mildly intoxicated	-1
Moderately intoxicated	-2
Heavily intoxicated	-3

*Alternately, the Gamemaster may wish to apply the full rules for drug effects (see *Hazards*, page 119).

DODGING ▼

Characters always attempt to avoid injuries in combat. Sometimes, however, an all-out attempt to dodge is required. To dodge, a character must declare it at the beginning of the round (before the first character acts, even if this is out of his initiative sequence). The character cannot perform any actions other than move (up to his Running speed) and dodge.

A dodging character adds two to his defense rolls against all attacks that round, plus his movement modifiers. In addition, a dodging character gets a full defense against all attacks, including surprise attacks (it is effectively impossible to snipe at or properly ambush a person who is dodging). Surprise attacks against a dodging individual are rolled like normal attacks.

BURST FIRE ▼

Many weapons have a Rate of Fire bonus of +1 or greater. These weapons are called burst fire (or fully automatic) weapons because they can fire a hail of projectiles in short order. Burst fire weapons are assumed to be able to fire at any ROF bonus equal to or lower than their listed rating. Thus, a +3 ROF weapon could fire as a +3, +2, +1, or 0 ROF weapon. This is done to conserve ammunition since a weapon expends five shots per +1 of ROF in each attack — slightly unrealistic, but this is meant to simplify the bookkeeping. ROF 0 weapons expend one shot per attack.

Burst attacks usually consist of firing a tight burst towards a single opponent. If the attack succeeds, the ROF bonus of the weapon is added to the attack's Margin of Success.

WALKING FIRE ◇

Weapons capable of burst fire can be used to attack multiple targets in a single action by walking the burst across the targets. A player must declare that he is walking fire before any attacks are made. The player then chooses the targets of his attack. A number of targets equal to the weapon's ROF plus one may be attacked. For each extra target, the weapon's ROF is reduced by one for damage purposes (but not for ammo expenditure). All targets must be within the weapon's firing arc. Each separate attack is rolled separately. Each individual target may not be attacked more than once per round by the same weapon (no extra attacks against one target).

b.2.11

▼ THROWING

Throwing is the attack used to hurl items such as rocks or grenades. At least one free arm is required for throwing. If the object being thrown is larger than a quarter of the weight of the thrower, the other arm must be added to the effort. The base throwing range (in meters) is equal to the character's Strength +5 for objects weighting 1 kilogram or less. Each additional range band is double the previous one, as for a weapon. The maximum throwing distance for heavier objects is determined by dividing 40 meters (the standard maximum distance) by the weight in kg (rounded up). Recalculate the range bands accordingly, as long as the Short Range equals at least 1 (if not, the normal range modifiers are disregarded — count all throws as Short range). If the object is balanced for throwing, double the range.

When an object is thrown, a Throwing Skill roll, modified as normal for range and movement, is made. If the modified die roll is equal to or higher than the defense roll, the object thrown lands right on target. If the dice roll fails, the shot will deviate from its intended destination by a number of meters equal to the Margin of Failure. For the direction of the deviation, roll a single die. A thrown item will have a personal Damage Multiplier equal to its weight in kilograms, plus the thrower's AD.

If the attack roll was fumbled, the shot deviates as normal, but towards the throwing unit. Sometimes, a fumble will land a projectile right on top of a target anyway. The attack is resolved as normal if the defense roll of the new target fails.

◇ GRENADE ATTACKS

Attacking with a grenade differs slightly than with other weapons; the grenade is thrown or shot near its target, and it detonates either on impact, after a short delay, or in the air (in the case of gas grenades). The Margin of Success of the original attack determines how much time there is between landing and detonation for the target to take cover or flee the grenade. Hand grenades are used with the Throwing Skill.

When attacking, a large Margin of Success signifies that the throw was dead on, and that detonation quickly followed impact; inversely, a low Margin of Success (or a failure) will mean that the throw was off mark, or that the grenade was thrown too soon after arming it, leaving enough time for the target to get out of harm's way. A Dodge roll is allowed to defend against grenades if the defender is aware of the attack.

Grenades usually have wide areas of effect; anyone deemed by the GM to be in this area must also defend against this attack or take damage from the grenade. Targets in the grenade's Secondary area of effect get a +1 to their defense roll because they have a little more time to react.

b.2.12

▼ INJURIES

If an attacker hits an opponent in combat, he does an amount of damage equal to his weapon's Damage Multiplier times his Margin of Success.

• **Damage = Weapon Damage Multiplier x Margin of Success**

This damage total is compared with the wounding scores of the victim. If the damage equals or surpasses any of the three scores, the effect of the highest score passed affects the victim. If an injury does damage less than the target's Flesh Wound Threshold, the target suffers a minor injury that is somewhat painful but has no game effects.

◇ ARMOR

Many people in high risk occupations, such as police and military personnel, wear body armor. Personal body armor is rated by its Armor Rating. That rating is added to all three of the character's wounding scores.

Shots aimed at locations that are not covered by a character's body armor are not affected by the Armor Rating. If a specific location is not declared, the Armor Rating of the victim's torso is used.

◇ ACTION PENALTIES

Severe injuries are very painful and crippling. These effects are simulated by the action penalty associated with injuries. Each injury applies a penalty to all Attribute, Secondary Trait, and Skill tests due to pain and trauma. This includes tests to resist degeneration of wounds and avoid unconsciousness. These action penalties also affect the First Aid/Medicine rolls of any medic who attempts to treat the character.

◇ FLESH WOUNDS

Flesh Wound is a catch-all term for painful but generally non-life-threatening injuries such as minor gunshot wounds, deep cuts, minor concussions, and other severe flesh wounds. Multiple Flesh Wounds can induce shock and are thus potentially life-threatening. Each Flesh Wound applies a -1 action penalty. Characters with Flesh Wounds cannot sprint but they can maintain a steady, if painful, jogging pace.

DEEP WOUNDS ◇

Deep Wounds are more severe injuries than Flesh Wounds. Compound fractures of major bones, punctured or crushed organs, damage to major blood vessels, and severe concussions are all classified as Deep Wounds. Deep Wounds can be immediately life-threatening (see below) and apply a -2 action penalty. Characters with a single Deep Wound can go no faster than a slow walk. Characters with more than one Deep Wounds are reduced to crawling and cannot stand unassisted.

KNOCKOUTS ▼

Anytime a character suffers a Wound (Flesh or Deep), he may be knocked unconscious from pain or cranial trauma. The character must pass a Health test versus a Threshold of 1 (remember those action penalties) to avoid unconsciousness. If the character fails the test, he will remain unconscious for 1d6 minutes per Flesh Wound plus 1d6 hours per Deep Wound. If the character fumbles the unconsciousness test, he slips into a coma. The GM should decide how long the coma will be based upon the character's injuries. Most comas are unpredictable in duration and severity and make excellent plot devices.

UNTREATED INJURIES ▼

Any major wound that is left untreated will, after a while, begin to fester and become infected. Untreated wounds (not stabilized by a medic) also cause additional blood loss and trauma. Degeneration is tested daily for Flesh Wounds and hourly for Deep Wounds, independently of each other. Multiple injuries of one type cause the time between the degeneration tests to be divided by the number of injuries of the appropriate type. For example, three untreated Flesh Wounds will cause a test once every (1 day = 24 hours; 24÷3) = 8 hours.

Degeneration tests are Health tests with a Threshold of 1. If the test is passed, the character's wounds do not worsen. If the test is failed, the character adds a new Flesh Wound to his injury list. If the test is fumbled, the character adds a new Deep Wound to his injury list (nasty bleeding or infection). These additional injuries can lead to the character's death (see below).

STABILIZING INJURIES ▼

To stabilize an injury, a medic must pass a First Aid Skill test with a Threshold of one. This test is modified by the victim's Health trait and the victim's action penalty due to injuries. Therefore, any medic attempting to stabilize his own injuries is penalized by his action penalty twice (once as a person in pain and once as the medic dealing with messy injuries). A successful roll stabilizes one injury (Deep Wounds usually are stabilized before Flesh Wounds). A failed roll accomplishes little and wastes five minutes. A fumbled roll wastes five minutes and aggravates the victim's injuries, creating an additional Flesh Wound. One attempt to stabilize a single injury (one Flesh Wound or Deep Wound) may be made per 5 minutes.

Stabilized injuries do not degenerate, but they can be destabilized. Flesh Wounds are destabilized by any heavy activity (including combat). Deep Wounds become destabilized by anything greater than minimal activity (bedrest, feeding, bathroom, and little else). Destabilized wounds once again begin degenerating until they are stabilized again.

DEATH ▼

There are two ways a character can die in combat: instant kill or because of trauma. If a character receives damage that surpasses his Instant Death score, he is instantly dead. These injuries are those that are beyond the help of medical science (e.g. decapitation, skull utterly crushed, cut in half). The character cannot be resuscitated.

TRAUMA AND RESUSCITATION ◇

A character begins to die of trauma as soon as his injury action penalty is greater than or equal to his System Shock rating (Health +5, minimum of 1). The character can be resuscitated by modern medical techniques if he is reached soon after "death." The time between apparent death and irrevocable (non-resuscitable) death is equal to twice the character's System Shock rating plus the character's action penalty (a negative value) in minutes. If a character's action penalty plus twice his System Shock rating is less than or equal to zero, the trauma is too severe to save the character and he dies.

A resuscitation roll is conducted in the same manner as a stabilizing roll for injuries. Due to the large action penalty, it is very difficult to resuscitate a dying person unless one's character is a well-trained medic. If the roll succeeds, the victim is resuscitated and the medic gets one chance to stabilize one of the victim's injuries (most often a Deep Wound). If the roll is failed, the victim will die after the time limit is expired. If the roll is fumbled, the victim dies immediately.

If, after resuscitation and injury stabilization, the action penalty from the victim's non-stabilized wounds is below the victim's System Shock rating, the victim will live so long as he receives constant medical attention and his wound has not reopened (destabilized). If the action penalty from the victim's non-stabilized wounds is still greater than the victim's System Shock rating, the victim once again begins to go into shock and "die." The time until death is reset and the medic must once again resuscitate the victim and attempt to stabilize an injury. This process continues until the victim dies of his injuries or enough of his injuries are stabilized to allow him to live.

▼ RECOVERY FROM INJURIES

With time, almost any individual injuries can be healed. Even missing limbs can be regrown, though the process is extremely painful and takes many weeks. Only one wound heals at a time; Flesh Wounds heal before Deep Wounds do. The resuscitation resting period (see *Constant Medical Aid* below) occurs before Flesh Wounds begin to heal. Comatose individuals heal normally, regardless of when they actually emerge from the coma. The rate of healing depends upon the availability of modern medical facilities: wounds heal faster with proper care.

◇ WITH CONSTANT MEDICAL AID

To count as under constant medical aid, the healing process requires a properly staffed medical facility such as a hospital. The following healing rates assume that healing drugs such as Vitamax (page 83) are used. Flesh Wounds take three days to heal. Deep Wounds take two weeks to heal. Resuscitated individuals must spend one week recovering from the shock and trauma of resuscitation before their injuries begin to heal. Comatose individuals can survive on life support until they die of old age.

◇ WITHOUT CONSTANT MEDICAL AID

If only minimal care is applied to the wound, such as a splint or bandage, the body is basically left to heal by itself. Flesh Wounds take one week to heal. Deep Wounds take one month to heal and inflict a penalty of -1 to physical actions until the wounded person can get proper rehabilitation treatments. Both types of Wounds will cause pain for several weeks after healing. Resuscitated individuals and those in long comas (over a week) will die without medical aid.

► HAZARDS

Combat is far from the only threat characters face. This section examines some of the more common hazards of life, both planet-side and in space. The rules introduced here are intended to spice up the game. Gamemasters should feel free, however, to disregard them if they feel their use would slow down play too much, or if detailed effects are simply not needed. This is especially true of Cinematic games (see *Campaign Style*, page 223).

▼ ATMOSPHERE

The contents and pressure of the artificial atmosphere present in all habitable areas are crucial in space — if either is improperly monitored and controlled, severe wounds or even death will result. Even if there is breathable atmosphere present, waste gases may take the place of oxygen in the bloodstream and damage sensitive organs.

Obviously, lack of oxygen is detrimental to human life. There can be several causes of oxygen deficiency: an excess of carbon dioxide in the atmosphere, defective air reserve or decompression. If the air supply is compromised, characters suffer as their bodies try to make do with insufficient resources.

◇ OXYGEN

If the atmosphere degrades due to lack of clean air, characters will suffer from physical and mental penalties. Penalties start ten minutes after fresh oxygen is last supplied. Characters have a -1 to all mental Attributes (CRE, INF, KNO, PER, PSY, WIL) as their concentration decreases due to lack of oxygen. All mental Attributes drop at a rate of -1 per two minutes. All characters in the location must make a Fitness roll against a Threshold of four to avoid unconsciousness, with a penalty equal to the mental Attribute penalty. Twenty minutes after fresh oxygen is last introduced, the character loses consciousness and a random mental Attribute then drops by one every minute. If any Attribute reaches -5, the character dies.

This rule assumes a normal oxygen content of 20%. If the oxygen content of the air is higher or lower, the durations are multiplied accordingly (e.g. twice as much oxygen means Attributes drop every four minutes instead of every two).

◇ PRESSURE

A loss of pressure means that although the atmosphere has the proper oxygen content, there is not enough of it or at least not enough ambient pressure to force the oxygen into the bloodstream. Loss of pressure can come from several sources; a faulty regulator or a leak or hole in the hull of the spacecraft.

The Atmosphere Loss table shows the average amount of time it takes for the pressure to completely degrade in a given location. At each stage of decompression (three-quarter pressure, half, quarter) all characters in the location must make a Fitness roll to avoid unconsciousness, with a penalty of -1 to the roll for each level of degradation. They also suffer from the effect, of lack of oxygen (-1 to all Mental Attributes per stage).

If the pressure drops to a quarter normal or less, the character suffers the same effects as if there were no oxygen, according to the Oxygen section.



ATMOSPHERE LOSS ▢

Hole/Location	Airlock	Room	Hangar	Colony
Leak-Sized	1 day	4 days	12 days	300 years
Fist-Sized	2 turns	8 turns	24 turns	100 years
Man-Sized	1 turn	4 turns	12 turns	20 years
Vehicle-Sized	Instant	2 turns	8 turns	1 day
Ship-Sized	Instant	Instant	1 turn	1 hour

Hole is the approximate size of the air evacuation duct or hole;

Location is the approximate comparative volume of the pressurized area.

DRUGS AND TOXINS ▼

Drugs and toxins are rated with three Attributes: Potency, Effect and Onset Time. The Potency is the Threshold for the victim's Health test to resist the drug's effects entirely. The Effect represents the symptoms that a character who fails to resist the toxin will exhibit. The Onset Time is the longest period the toxin will require to take effect. The actual time until the effect occurs is equal to the Onset Time divided by the Margin of Failure of the Health test. Fumbled Health tests produce an onset time equal to one-tenth the normal value.

FATAL TOXINS ◇

Fatal toxins induce damage and often death if their Potency is high enough. A fatal toxin does a number of damage points equal to its Potency times the Margin of Failure of the victim's Health test. Fatal toxins usually range between Potency 7 and 20 and often have Onset Times that are under one minute. Injuries induced by fatal toxins represent diffuse tissue damage caused by these chemicals. Fumbled Health tests are automatically fatal.

SEDATIVES ◇

Sedatives normally induce drowsiness and unconsciousness. Anyone whose Margin of Failure is between 1 and 4 will suffer a negative action modifier similar to the action penalty induced by injuries. The modifier will decrease by one per hour until it is gone. This modifier does not count in determining death by trauma, wound degeneration or stabilizing injuries, but it does affect Health rolls for knock-outs.

A character whose Margin of Failure is between 5 and 9 will be knocked unconscious for a number of minutes equal to the potency of the tranquilizer times the amount the roll was failed by. Once he awakens, he then suffers the same effects as a victim who failed the roll by 4 points (i.e. the action penalty of -4).

A character who fails his Health test by 10 points or more will overdose and take damage as if he had been affected by a fatal toxin of a Potency five points below the actual Potency of the tranquilizer. A character who fumbles his Health test will overdose and die within seconds of onset.

HALLUCINOGENS ◇

Hallucinogenic toxins cause a victim to suffer altered perceptions which are often accompanied by strange emotional states. In terms of game mechanics, their effects are similar to sedatives except that the action penalties incurred are due to distorted perceptions and beliefs. Hallucinogens tend to be harder to overdose on. A Health test failed by 5 to 14 points will cause the victim to be incapacitated by massive hallucinogenic experiences (trips) for a duration similar to the unconsciousness induced by tranquilizers.

A Health test failed by 15 or more points will induce a fatal effect like a tranquilizer. The damage inflicted is equal to the hallucinogen's Potency minus ten, multiplied by the amount the Health test is failed by. A fumbled Health roll has the same effect as a Health test failed by 14 points.

EUPHORICS ◇

Euphorics induce a feeling of well-being and contentment. Euphorics produce identical game effects to hallucinogens, but they are vastly different in roleplaying terms. A hallucinating character perceives non-existing experiences while a euphoric character is simply very, very happy. Too happy, in fact, to concentrate on anything very well, hence the action penalty or incapacitation.



◇ STIMULANTS

Stimulants cause a feeling of excitement and anxiety. Anyone whose Margin of Failure is between 1 and 4 will gain a bonus to initiative equal to the Margin of Failure. The modifier will decrease by one per hour until it is gone. The character will have difficulty falling asleep.

A character whose Margin of Failure is between 5 and 9 will gain a bonus to initiative equal to ten, minus the Margin of Failure. The modifier will increase by one per hour until it reaches 5, after which it will decrease at a rate of one per hour until it is gone. Falling asleep is nearly impossible until the drug's effects have worn off.

A character failing his Health test by 10 points or more will overdose and take damage as if affected by a fatal toxin of a Potency five points below the actual Potency of the stimulant.

◇ ANALGESICS

Analgesic drugs numb pain. For every point of the Margin of Failure of the victim's Health test to resist the effects of the drug, one point of action penalty can be ignored. This effect decreases by one per hour until it is gone. A fumbled Health test indicates that the analgesic failed to help reduce the pain.

If the Margin of Failure is greater than twice the character's System Shock trait, the character goes into a coma for a number of weeks equal to the roll of one die.

◇ MULTIPLE EFFECTS

Many drugs have multiple effects. Such drugs have a single Potency rating and Onset Time and only one Health test is made when they are used on an individual. The effects of each drug type are applied to the user according to the Margin of Failure of the Health test.

◇ MULTIPLE DOSES

The rules above assume that the victim was given a single dose of toxin. For each extra dose, add 10% to the Potency of the toxin (round off). Divide the Onset Time by the number of doses administered.

▼ ELECTRICITY

Electricity is perhaps the most fickle, deadly force harnessed by mankind. Its effects on the human body are partially unpredictable. People can die from 110 volt household current, but one man in Virginia was struck by lightning seven times and lived to tell the tale.

Like fires (see next page), electrical sources are rated by Intensities. The following is a table of sample Intensities.

▣ ELECTRICAL INTENSITIES

Intensity	Electrical Source
1	licking a 9 volt battery
3	car battery
5	110 volt domestic current (North America)
7	220 volt domestic current (Europe)
10	local power lines, industrial lines
20	power mains
25	minor lightning strike
50	large lightning discharges
100	hydroelectric dam generator

◇ WOUND EFFECTS

If a character is exposed to electricity for a full combat round, he will receive damage equal to the Intensity rating multiplied by the result of a die (two dice if the reality level of the campaign is Gritty — see page 223). If the time of exposure is less than one combat round, the Intensity is halved (round down) unless the shock is from an electricity-based weapon (e.g. a taser or particle beam). A fumbled roll does no electrical damage.

Electricity not only does raw physical damage, but also messes up a victim's nerves and muscles. Any character who receives a Flesh Wound will suffer from neuromuscular paralysis: the character's muscles clench up and he twitches oddly, preventing him from letting go. The paralysis will continue until the source of the electrical shock is removed. Any character who receives a Deep Wound also suffers from neuromuscular paralysis and has a chance of suffering a heart attack.



▷ WOUND EFFECTS CONTINUED

The character must pass a Health test where the Threshold is the electrical source's Intensity. A successful or tied test indicates no additional effects beyond damage and neuromuscular paralysis. A test failed by 1 to 4 points indicates that the character is automatically knocked unconscious from the shock (in addition to the normal knock-out roll). A test failed by 5 or more points will cause the character to slip into a coma. Both knock-outs and comas are described in the *Combat* section, page 117. A fumbled roll results in an instant and grotesque death as the character's neurons fry and he enters cardiac arrest. No resuscitation attempts will revive the character.

Electricity can also ignite objects. To see if an electrical discharge ignites an object, roll for ignition as if a fire of one-fifth (round down) the discharge's Intensity was being used to ignite it (see *Fire*, page 122).

FALLS ▼

Whenever a character falls from a great height, it is likely that he will suffer severe wounds or die. A number of dice equal to the number of meters fallen (maximum of 10 dice) are rolled and the result multiplied by the number of meters fallen (up to a maximum of x30). The damage is multiplied by the local gravity (in g). This is the damage taken by the individual. If the falling person was purposefully dropped in a manner that would cause him to impact head first, ten is added to the die roll.

SOFTENING IMPACT ◇

A conscious person who is falling may attempt to soften the impact of landing. To do so, the character must roll an Athletics Skill roll. The number rolled is subtracted from the number of meters fallen for the purpose of damage calculations. If the number rolled is equal to or greater than the actual number of meters fallen, the person lands unharmed. If the roll fumbles, the person falls head first and takes the associated extra damage (+10 to the die roll).

IMPACT SURFACES ◇

Base falling damage assumes that a moderately solid surface such as grassy soil will be the surface fallen onto. Unusually hard surfaces such as concrete and asphalt can double the effective number of meters fallen for damage purposes. Soft surfaces such as sand and water halve the effective number of meters fallen for damage purposes. Special crash pads and nets used by firemen for evacuating buildings can divide the number of meters fallen for damage purposes by up to ten to twenty times (Gamemaster's decision).

FIRE ▼

Fire is one of the most powerful and destructive tools of humanity. A fire is rated by an Intensity rating which combines both its size and temperature. The following is a list of sample Intensities for fires.

FIRE INTENSITY □

Intensity	Source of Flame
1	candle, lighter, or match
2	gas light, oil lamp, kindling
3	torch, gas range
5	campfire, bunsen burner, flare, acetylene torch
7	bonfire, napalm, incendiary grenade
10	inferno, chemical fire
20	periphery of nuclear strike*, fuel-air grenade
100	near a nuclear strike*, reactor meltdown*
1000	ground zero of a nuclear strike*

* These are only ratings of heat intensity from nuclear attacks and do not include concussive and radiation effects.

WOUND EFFECTS ◇

If a character is exposed to a fire for a full combat round, he will receive damage equal to the Intensity rating multiplied by the highest of two dice. If the time of exposure is less than one combat round, the Intensity rating is halved unless the fire is from a flame-based weapon. A fumbled roll does damage equal to half the Intensity rating.

If a character receives a Deep Wound from a flame-based attack, the character is incapacitated due to searing pain for a number of rounds equal to the throw of one die. During this time, he can do little more than run about randomly or thrash in agony.



◇ ADHESIVE INCENDIARIES

Some flammable agents like napalm or petroleum fuels tend to coat whatever they strike and burn for extended periods. These agents should be rated with a Burn Duration value. This value is the number of combat rounds they will continue to burn unless doused prematurely.

◇ IGNITING FIRES

Fire tends to ignite things it touches, including the nearby scenery and characters' clothes and hair. Every item can be assigned a Flammability rating if needed. To see if a flame ignites an object, two dice are rolled and the fire's Intensity rating is added (the Intensity is halved if exposure is less than one round). If this value equals or surpasses the object's Flammability rating, it will ignite. Fumbled rolls never result in ignition. Check for ignition for every round of exposure, unless it is obvious the item will burn. Lighting a match in a propane-filled atmosphere will ignite it — there is no need to waste time by rolling dice. This rule should be used only for moments where precision is required. Most of the time, common sense will be more than enough (and much faster, too).

The Gamemaster should assign Intensities to the newly created fires, based on the type(s) of material burning. Light clothes burn at Intensity 4, medium clothes at Intensity 5, heavy clothes at Intensity 6, human hair at Intensity 5, and animal fur at Intensity 6. These items have Burn Durations equal to their Intensity times the roll of one die if no attempts are made to extinguish the flames.

If attempts are made to extinguish the flames (e.g. rolling on the ground), they will be extinguished in a number of rounds equal to the roll of one die. Certain strong attempts to extinguish the flames (e.g. jumping in water, dousing with fire-retarding foam, exposition to vacuum) will immediately extinguish the flames.

□ FLAMMABILITY RATINGS

Flammability	Object Type
1	propane, natural gas, hydrogen gas, methane gas
3	liquid gasoline
4	paper, pitch, crude oil
6	normal clothing, rugs, upholstered furniture
7	dry firewood
8	hair, fur
9	fresh cut or treated wood, most plastics, leather
12	magnesium flakes
15	fire retarding clothing
50-200	most "non-flammable" objects like steel and concrete

◇ VEHICLES AND FIRE

Vehicles crossing burning terrain must pass a Piloting Skill Test versus a Threshold equal to one-half of the fire's Intensity to pass safely. If the vehicle's pilot fails the roll, the result is treated as a successful incendiary attack versus the vehicle, with the Margin of Failure of the Skill Test being used to calculate the damage.

▼ RADIATION

In space, radiation is always a concern — vehicles are equipped with screen generators and space stations and colonies incorporate heavy shielding within their hull. Many phenomena, natural or made-made, produce radiation, but only in certain situations is the amount large enough to cause damage (screen failure, etc.). Radiation poisoning is usually severe, though it may take a few days for the full effects to be felt.

The unit used to measure radiation is the rad. Absorbed rads remain in living tissues and material and are cumulative: if the radiation rules are used, a tally should be kept of the character's current rad level. Every full week, a character can purge a number of rads equal to a standard Health roll, provided he was not further exposed to radiation. Rads can never be purged quite entirely: a character will always retain a number of rads equal to one-tenth the largest number of rads ever accumulated (obviously, this can only increase with time).

Radiation suits and shielded vehicles (those with the Hostile Environment Protection: Radiation Perk) are given a protection factor in rads per hour. This value is divided by 60 to get the protection value in rads per minute. This amount is subtracted from individual radiation bursts or rad rates as appropriate (see table next page). Non-shielded vehicles also provide a minimum amount of protection, equal to their Armor squared in millirads per minutes (0.001 rad per minute). Buildings and natural formations such as rock follow the same formula but double their Structure points before squaring them.



RAD CONTAMINATION VALUES

Source	Intensity
Background cosmic rays (including occasional heavy primaries)	0.005 rads/hour
Fallout at ground zero, 1-megaton ground burst	
after 1 hour	5 rads/minute
after 2 hours	2 rads/minute
after 6 hours	30 rads/hour
after 1 day	7 rads/hour
Nuclear reactor meltdown	1d6 x 10 rads/minute
Solar flare	1d6 x 5 rads/minute

RADIATION EFFECTS

When a character's accumulated rads exceeds 50, or at any time the character receives at least 1 rad thereafter, the GM secretly rolls the character's Health against a Threshold from the Irradiation Table. The GM should only roll once per day or outburst at the highest level, and describe symptoms as they manifest themselves.

If the roll succeeds, the character is unaffected by the radiation, though the accumulated rads remain. On a fumbled roll, apply the effect indicated by the table, then normal failure effects (see below). Make a second Health roll in the case of a fumble to show the number of minutes before the effect takes place.

IRRADIATION TABLE

Rads	Threshold	Fumble Effect
50-99	4	None
100-199	5	Flesh Wound
200-299	6	Flesh Wound
300-399	7	Flesh Wound
400-499	8	Flesh Wound
500-599	9	Deep Wound
600-699	10	Deep Wound
700-799	11	Deep Wound
800-899	12	Deep + Flesh Wounds
900-999	13	Deep + Flesh Wounds
1000-1099	14	Death
1100+	15	Death

SHORT-TERM EFFECTS

A roll failed by 1 to 4 produces mild radiation sickness. Symptoms appear in a number of hours equal to the result of a second Health roll. The character will feel fatigued and nauseous and suffer an action penalty equal to the MoF. This penalty decreases at the rate of one every 12 hours.

A Margin of Failure between 5 and 7 causes effects as a MoF 4. Secondary symptoms appear after a number of days equal to a second Health roll. These include lingering fatigue, muscle pain and loss of hair. The character suffers -1 to all rolls, except Health rolls which are at -2. A daily Health roll against a Threshold of 4 is needed to recover. Success means the character recovers in a number of days equal to 10 minus his System Shock, while a fumble inflicts a Flesh Wound.

A Margin of Failure of 8 or 9 suffers a general action penalty of -2, -3 for Health rolls. A failure on the recovery roll will inflict a Flesh Wound (Deep Wound in the case of a fumble).

A roll failed by 10 to 14 incurs an action penalty of -3, -4 for Health rolls. A failed recovery roll delivers a Deep Wound, and a fumble means the character dies. On a successful result, roll again, but without penalties: a second success allows the character miraculous recovery.

A roll failed by 15 or more kills the character in a number of hours equal to a Health roll.

TREATING RADIATION SICKNESS

If the character can get to a radiation treatment center, he or she receives a +2 bonus on the recovery roll (plus any medical equipment bonus). The accumulated rads are purged four times faster than normal.

► CHARACTER IMPROVEMENT

One of the first rewards of roleplaying is character improvement. As they learn new Skills and abilities, and grow through the trials they face in their lives, the characters' Attributes and other characteristics will rise accordingly. They will also learn new tricks and become more cunning, thus improving their chances of getting out of trouble. Simply put, experienced adventurers are better than greenhorns. In the Silhouette game system, the characters' life experience is recorded in the form of abstract Experience Points (XPs).

▼ EARNING XPS

Experience Points are awarded by the Gamemaster at the end of each playing session. His decision is final. Some players also like to judge each other's performances and give additional "audience merit points," but this requires fair and honest players to avoid self-congratulatory excesses. In general, no more than 5 XPs should be awarded for each session per character (10 for Cinematic Campaigns). Some Gamemasters use the distribution of Experience Points as the stick and carrot to control their players, but this is generally a bad idea. It is likely to cause dissent among the group.

If a player showed little interest in the game or did not participate in the action, the Gamemaster should award no XPs. A player who gave a good effort, but did nothing more exceptional than show up for the game is awarded 1 XP; if the character got really involved, the player should be awarded 2 XPs. A player who always stayed in character and showed genuine enthusiasm is awarded 3 XPs. Particularly dramatic or daring acts of self-sacrifice (where there is a REAL risk that the character could die) should also be rewarded with additional XPs, as do deep sub-plot involvement.

A typical roleplaying session lasts approximately three or four hours. A Gamemaster may wish to reduce or increase the amount of XPs if the session is significantly shorter or longer, respectively.

▼ SPENDING XPS

A character can stockpile XPs if he wishes, but most players will wish to spend theirs, either to improve their characters or to press their luck. There are two ways to spend XPs: buying the life-saving Emergency Dice or improving either the characters' Attributes or Skills.

Experienced roleplayers will notice that character abilities progress rather slowly. The reason for this is simple: Skills levels of 3 or more are very powerful. Most of a character's core occupational Skills should be level 2. Secondary occupational Skills and hobby Skills should be level 1. If a character has level 3 in a "hobby" Skill, it is more than a hobby: it is a way of life!

◇ EMERGENCY DICE

Everyone gets a certain number of lucky breaks in life. To represent these lucky breaks, any or all XPs can be converted to Emergency Dice, which are then spent to boost crucial die rolls. Each XP spent buys one Emergency Die. When spent, these are added to the dice already available for the roll. Unless the Gamemaster disagrees, up to five Emergency Dice may be spent on any single roll.

Emergency Dice can also be spent to save a character's life when his vehicle is Overkilled. Rather than use the normal ejection procedure outlined on page 159, the player can opt to spend 5 Emergency Dice and escape automatically with no damage. No roll is involved — just erase the Emergency Dice from the character's total.

Emergency Dice are most often used in Cinematic Games. For this reason, Gamemasters of Cinematic Campaigns usually will give more XPs than usual (see above). They can also directly give Emergency Dice to the players, in addition to the Experience Points.

◇ ATTRIBUTE IMPROVEMENT

Improving the character's Attributes is possible but very costly in Experience Points to reflect the time and deep commitment required. Raising one Attribute by one point costs 20 XPs. The exception to this rule is the Build (BLD) Attribute, which costs 40 XPs per point of improvement (not to mention the increased grocery bills). An Attribute cannot be increased more than three times in this manner, although multiple Attributes can be increased up to three times each. Beyond the purely rule-oriented issues, the player should also come up with detailed background information on the process — perhaps his character spends his free nights at the gym or the library?

◇ SKILL IMPROVEMENT

Skills are much easier to improve than Attributes — all that is required is patience and regular practice sessions. The base cost to improve a Simple Skill by one level is the next level squared, in XPs. New Simple Skills cost one XP to gain at level one. Complex Skills cost twice the XPs of Simple Skills (thus a new Complex Skill, purchased at level one, would cost 2 XPs). Skills are improved one level at a time; levels cannot be skipped in order to save XPs. All new Skills must be purchased at level one first; it is recommended that the player develops a background element about how he acquired the Skill.

SKILL IMPROVEMENT COSTS

Level	Simple	Complex
1	1	2
2	4	8
3	9	18
4	16	36
5	25	50
6	36	72
7	49	98
8	64	128

TUTORS

Tutors can be of great assistance to characters wishing to improve their abilities. Anyone who has a Skill level greater than the Skill level of the character wishing to improve can serve as a tutor. Only those possessing the Teaching Skill or a high level of Skill will really make a difference, however. Unless the tutor is another PC, it is likely that the tutor will have to be hired, often for a high fee. The suggested cost for one course is the tutor's Skill level squared, multiplied by 1000 credits — but finding such a tutor may not always be easy, especially with high level ones. Multiple students may split the costs between them, though the maximum number of students taught in one session or class normally goes down as the level of the Skill learned goes up.

A tutor can reduce the XP cost of learning or improving a Skill. A character can attempt to find a tutor and spend a period of time learning under his guidance. The period of time is a number of months equal to the XP cost of learning the Skill minus the higher of either the level of the tutor's Teaching Skill or half the level of the skill being learned (rounded up). A minimum of one week is required for the student to gain any benefits from the tutor's teaching.

It should be noted that the months referred to above are 150-hour learning periods (about 40 hours per week). In a boot camp-like environment, two of these 150-hour "months" could be squeezed into one real month. This sort of environment is highly oppressive — a Willpower or Psyche check against the Skill level being taught should be rolled every month to prevent nervous breakdown. Few individuals willingly choose to undergo training of such intensity. Alternatively, the learning period could be spread over a longer period. A minimum of one hour per week must be maintained to gain any benefit to the character. University courses would typically spread a tutor's teaching into three or six-hour courses every week.

Once the period of tutelage is finished, the tutor makes a Skill roll. This Skill roll uses either the Teaching Skill or the Skill being taught, whichever is highest. This is modified by the Creativity Attribute of the tutor and the Skill-related Attribute of the student. Half of the final modified die roll is the number of XP points that are subtracted from the cost of learning the Skill. If the roll is fumbled, the cost of learning the Skill is doubled due to the confusion induced by the tutor's poor guidance. The cost of learning the Skill cannot be reduced below a minimal XP cost which is equal to the new level of the Skill. One exception to this rule exists: if the original cost of learning the Skill was only one XP (a level one, simple Skill) and the tutor rolled a six or more on his roll, the student receives the first level Skill at no XP cost.

The effects of a tutor's teaching stay with a student until a) the student gains a new level in the taught Skill or b) a new tutor attempts to teach the student. If the student gets a new tutor, this tutor will have an effect under only two conditions. If he obtains a more beneficial reduction than the previous tutor, apply the new reduction in its place. If the new tutor fumbles, the student's previously reduced cost of improvement is doubled and no further attempts at tutoring will have effect until the student gains a level in the Skill through experience.

MENTORS AND TEACHERS

Tutors make excellent Gamemaster characters. They run the gamut from the tough drill sergeant who gets the rookies up every morning with a yell loud enough to wake the dead, to the patient old scientist showing the intricacies of a complex molecule to his best students. And of course, one must not forget what is perhaps the best-known tutor character of all, the gruffy veteran pilot. He'll take the Player Characters under his wing and teach them all he knows, then generally get killed in mid-game so they can become full-fledged heroes in their own right.

Gamemasters should be careful not to make teachers endless reserves of Experience Point discounts. Not everyone who knows something wishes to pass it on. PCs need to understand that they must respect their teachers. They should bring as much to the relationship as the tutor does. Monetary compensation is one option (say in the case of a professional instructor), but a sense of personal obligation is much more interesting. Students should expect to have to do services for their instructors, be it an apprentice merchant doing menial work aboard a freighter or a brash pilot following his grizzled wing leader off onto a mission to bring a pirate to justice. Tutors can also become memorable villains. A classic story idea — hence one rife for pilfering for your campaign — is to be betrayed by a mentor. This can lead to epic stories as Player Characters go out of their way to track down the person who betrayed their trust and made a mockery of their affection.

B.4.3

HOOKS AND TIPS

end of section 6.4 character improvement



► OPTIONAL ABSTRACT VEHICLE RULES

We hope that Players and Gamemasters will enjoy using the tactical rules for vehicle combat. Some roleplayers, however, dislike tactical games and prefer to avoid them if at all possible. This section offers them an alternative rule system for vehicles that does not require special maps or detailed record sheets. For the most part, abstract vehicles follow much the same rules as characters do.

▼ MOVEMENT AND DRIVING STUNTS

Each vehicle has its Combat and Top speeds (or its Thrust ratings, if a space vehicle) listed in its statistics. These can be used to determine how far a vehicle can go in a given turn and whether or not it can outrun/reach other vehicles. In general, vehicles use their Combat speed value (or Thrust value) to move about.

A vehicle which moved up to its full Combat Speed can accelerate and shift to Top Speed for the next round. The Player should declare this after moving. The vehicle then uses the Top Speed modifiers for attack and defense for the rest of the combat round. In subsequent combat rounds, the vehicle may move faster than its Combat Speed, right up to its Top Speed. It may return to Combat Speed after any movement.

Some vehicles have multiple movement systems, such as walking and rolling. A vehicle may only switch movement types while at Combat Speed, not Top Speed, but movement types may be switched only once per combat round.

There are so many types of driving and piloting stunts possible that it would be futile to list them all. The Gamemaster should select a Threshold based on the action attempted — a bootlegger turn at 120 kph is a lot harder to do than a U-turn at 10 kph. Whatever the action attempted, the vehicle's Maneuver is applied as a modifier on all Piloting/Driving tests.

▼ SENSORS

Active sensors can be used to find something even when visual or passive sensors do not register anything. To activate sensors (provided the vehicle has any), the Player should make an Electronic Warfare Skill Test, modified by the vehicle's Sensor rating. The Gamemaster should decide on a Threshold, based on how well the target is hidden; add any applicable modifier (see the table on page 151). The target must be within the vehicle's sensor range. A success gives the Player the position of the target. Active sensor sweeps require a full action to complete.

▼ ATTACKING AND DEFENDING

Vehicle-based attacks are rolled using the Gunnery Skill. The vehicle's Fire Control and the weapon's Accuracy are applied as modifiers to the attack roll. Vehicle-based attacks automatically suffer a -2 modifier to hit man-sized targets unless their weapons have the Anti-Infantry characteristic. Vehicles may only target opponents that are within their weapons' firing arcs.

Vehicles dodge attacks using their appropriate Pilot/Drive Skill. The vehicle's Maneuver score applies as a modifier to the vehicle's defense roll.

◇ VEHICLE SCALE WEAPONS

Vehicle-scale weapons use a different damage level than personal-scale weapons. When a vehicle fires on a human, convert the vehicle's weapon damage to personal scale by multiplying the Damage Multiplier by 10. Vehicular weapons' range bands are given in hexes, so they should be multiplied by a factor equal to the dimension of the hex (either 50, 250 or 500) to get the range in meters. This conversion, while not entirely accurate — since weapon Damage Multipliers grow exponentially — serves its purpose well enough.

▼ DAMAGING VEHICLES

The use of the standard damage system from the tactical rules is highly recommended. If the Players truly loathe tactical games, however, the Gamemaster can use the following simplified damage system.

Vehicles follow the same general rules as characters. When fired upon, the total damage points are compared to the Armor Thresholds to determine what level of damage occurred. The vehicle suffers action penalties, just like a character, when it suffers "Flesh Wounds" or "Deep Wounds" and is destroyed if it suffers an "Instant Kill" result. Vehicles can't wear Armor, unlike characters, because they are already armor-plated. Movement damage applies as for characters (see page XX), with jogging being equal to Combat speed and a slow walk being equal to half Combat speed. Vehicles are disabled if their total action penalties are equal to -5 or worse.

Vehicles are much tougher than people, and as a result, are harder to damage. If a character fires on a vehicle, count its Armor as ten times higher (for example, an Armor 5 counts as 50 versus man-size weapons). On the other hand, if a vehicle fires on a character, the damage is multiplied by ten (so a x8 autocannon would do x80 damage on a character).

INTEGRATION WITH THE TACTICAL SYSTEM ◀

Many roleplayers find an occasional tactical game to be a welcome change of pace. *Silhouette* offers roleplayers this opportunity while using the tactical game to further the roleplaying game. This is done by integrating the roleplaying system and the tactical system.

The integrated system is intended to offer the best of both worlds. While the PCs are not engaged in vehicle combat, the roleplaying rules apply in their entirety. If and when the PCs engage opponents in vehicle based combat, set up a tactical battle. The GM controls the opponents, but this not only means that the GM moves them about the battlefield. This is still a roleplaying game, after all. Opponents controlled by the GM will make rational decisions about when to attack, negotiate, withdraw, or surrender. Characters can goad or insult each other. The GM should remember that ambiance and roleplaying are still important, even if the battle is unfolding in a more structured manner than a normal RPG combat.

As mentioned before, personal Damage Multipliers and vehicle Damage Multipliers have a 10 to 1 scale. In other words, every 10 points RPG damage equals one point of vehicular damage. The ranges of RPG scale weapons are in meters, while vehicular weapon ranges are given in hexes. Thus, RPG weapon ranges are divided to yield their range in tactical scale hexes (see previous page). Round down to the nearest whole number.

CHARACTERS AS DRIVERS AND PILOTS ▼

When a character pilots or drives a vehicle, his Pilot/Drive (depending on the vehicle type) is the Skill used. If firing weapons or operating electronic systems, the corresponding Skills (Gunnery — specific vehicle — and Electronic Warfare) are used. Likewise, Leadership and Tactics transfer directly to the tactical system.

The character's Attributes are applied to his Skill rolls as normal. Gamemasters should remember that enemy NPCs also have Attributes added to their Skill rolls.

TACTICAL/RPG CREW INJURIES ▼

When playing combined tactical/roleplaying scenarios, the wounds suffered by the crew may be transferred from tactical to roleplaying and vice-versa. Due to the additional level of detail (and thus complexity) involved, this method should be used for Player Characters only.

Whenever a vehicle takes a Light Damage "Crew" result, each crewmember must make a Health roll versus a Threshold equal to 4. If the roll fails, the crewmember lapses into unconsciousness and is no longer counted when determining how many actions can be spent. He may roll at the beginning of each round to regain consciousness.

If the vehicle receives a Heavy Damage "Crew" result, each crewmember must make a Health roll versus the Margin of Success of the attack. If it fails by 1 or 2 points, the crewmember takes one Flesh wound; if it fails by 3 or more, he takes a Deep Wound. All crewmembers must also test for consciousness, just as for Light Damage.

Overkilling a vehicle generally means some messy damage to the crew compartment, even if it is not the part being hit. Each crewmember must roll for ejection, even if not actually ejecting (see *Ejection*, page 159). Because this can be quite costly in Player Characters' lives, the Gamemaster is advised to let them walk away from one Overkill per game but restrain from giving the PCs any XPs at the end of the session.

In the case of large, multiple-man crews, it is often best to average the above tests in groups of four, rounded to the nearest whole number, or ignore them completely and apply the results in the damage table as they stand.

HIDDEN UNITS ▼

One of the advantages of having a Gamemaster control one side in a battle is that enemy units can truly remain hidden until they are spotted visually or picked up by a unit's sensors. A unit is hidden from the player's view (i.e. not placed on the mapboard) if it is not in the line of sight of one of the players and has not been detected with active sensors. Similarly, Player Characters can hide from opponents. The players should not remove their counters from the mapboard. Instead, the GM should make opponents react logically if they cannot detect the PCs (e.g. the enemy might walk into an ambush).

AMBUSHES ◇

If a hidden unit is not detected and an enemy unit strays into the short range of its weapons, the concealed unit may attempt an ambush. The ambushed unit rolls a Leadership roll against a Threshold of 6. If it succeeds, combat begins as usual, with the ambushers winning the first round of initiative. If the Leadership roll fails, the defenders (ambushes) are taken off guard and get penalized -2 to all defensive rolls for the first round. If the roll fumbles, the defenders are caught completely off guard, and their default defense rolls are equal to 0 for the first round.

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end of section 6.6 Integration with the tactical system

► VEHICLES AND SPACECRAFT

Vehicles and spacecraft are an important staple of the science fiction genre. Often much more than simple conveniences or plot devices designed to move the characters from one scene to the other, they are actually part of the ambiance and atmosphere.

The following rules can be used on their own as a tactical combat game, but they become most interesting as part of a roleplaying campaign. Although they refer extensively to hex maps, the rules can be used just as effectively with the Gamemaster taking notes of positions and vectors on a spare sheet of paper. A more freeform version of the vehicle rules can be found on page 126

for those who prefer to avoid the tactical aspect entirely, or for those situations where technical accuracy is not required.

While the machines are certainly fascinating in their own right, the Gamemaster must be careful not to let the hardware overshadow the characters. After all, the story is about people, not machines.



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► THE BASICS

The following pages contain a set of detailed rules that govern vehicle movement and combat in a large variety of environments ranging from the deepest reaches of space to the surface of a planet. The **Silhouette** tactical combat simulator is played using counters that represent combat units and a hex based map that represents the battlefield. Record sheets are used to track damage and six-sided dice are used to determine success or failure. If the players prefer, or if extreme precision is not required during a vehicular encounter, the game system can also be played free-form, without the use of a hex map (see page 126).

▼ COMPONENTS

The standard **combat unit**, represented on the mapboard by a counter, is a single vehicle. Vehicles are generally organized into groups of two or more vehicles. Note that the group's name and number of units can change according to its origin; for simplicity, groups of fighting units are referred to as **combat groups** for game purposes.

Counters can be made very cheaply by using a small piece of paper with the name of the vehicle on it along with an arrow to show facing. A better counter can be made by photocopying the illustrations found in the Vehicle Recognition Chart on page 204 and reducing them to about 25% of the present size. A number written down in a corner will help differentiate units of the same type. Enterprising players can even color their machines to their own specifications.

Miniature models are even better. The official line of **Jovian Chronicles** miniatures is manufactured by RAFM. Although they require a larger startup investment and a bit more work to prepare for the game, they are visually very appealing. Since each player generally control is only one vehicle, the cost remains relatively low, and all can customize their paint scheme to their own specifications. Space considerations preclude an in-depth examination of modeling techniques, but there is plenty of documentation on this subject already available on the market. Most hobby stores will have at least one painter or modeler on staff that will gladly help out any newcomer.

◇ MAPBOARDS

The battlefield is represented by a hex based map. For game purposes, the terrain of the entire hex is considered to be the terrain type which surrounds the dot in the center of the hex. Each increase in elevation level represents an increase in height equal to the size of the hex in the chosen game scale (smaller altitude variations are generally not significant enough to be represented, given that all pilots are assumed to take advantage of every nook and cranny they can find for protection and cover).

For a more realistic appearance, one can also use a hexless map where only the center points are printed. In such a case, the dots (sometimes represented by six-branched stars) are used to determine movement and facing. It is also possible to play using only miniatures and a scale wargame terrain — suggestions for this should be found in the **Jovian Chronicles Companion**. Space combat are especially good for this, as they require no more terrain modeling than a black cloth on the playing surface.

◇ GAME SCALES

The **Jovian Chronicles** cover the story of Mankind as humans colonize the entire solar system; vehicles will be found in any type of environment, from deep interplanetary space to high in the atmosphere of a planet and down to the ground. To accomodate all these environments with the same set of rules, it is necessary to make some slight adjustments to the scale of the game surface. The specific rules, along with interface rules between the milieus, are detailed in the relevant movement rules sections.

Space is a completely different battlefield. There is no atmosphere or gravity, meaning that different rules apply to movement and combat. Space hexes are 500 meters wide. Rather than use speed values, spaceworthy vehicles have acceleration values, and are able to coast without thrust by using their momentum. Rules for fighting in space begin on page 139. Launching and re-entry rules are located on page 143.

Air and ground battles use the same combat rules but different sized hexes. Each battlefield hex represents a 50 meter wide area of terrain for tactical ground combat. Air combat hexes are five times as large — 250 meters — to accomodate the greater speed of flying vehicles. The rules to interface the two can be found on page 149.

To keep the various numbers in a manageable range, combat operates on different scales for humans and vehicles. Human movement rates and weapon ranges are measured in meters instead of hexes, and the damage caused by the various weapons will usually barely scratch the surface of most armored vehicles. On the other hand, although vehicular weapons will usually kill a human target with a single shot, the odds of hitting such a small target are extremely reduced when using a weapon designed to hit a battleship. In addition, humans are adept at using any cover they might find, making them harder to detect as well. Humans are considered to have a base Obscurement of 2 wherever they might be (including space). Other differences between the vehicle scale and the personal scale have already been described on page 126 and so they will not be repeated here.

THE VEHICLE RECORD SHEET

Each vehicle has an appropriate record sheet that details the necessary statistics for game play. These sheets allow a clear tally of performance levels and other important information. The information directly related to the game breaks into six major parts. The first is the Crew data, that shows the number of crew required by the vehicle and the actions they provide. Right after that comes the Hull data, which shows how large and tough the vehicle is. Movement-related data follows just after that, such as movement type(s), speed(s), maneuverability and general endurance. Electronic systems are covered next, with statistics on the various computers and electronic devices carried onboard. The Perks and Flaws section shows the various specialized systems carried by the vehicle, as well as any shortcomings in its construction (intended or otherwise). Finally, the Weapons section lists the offensive and defensive systems available to the crew.

This book contains statistics for some typical exo-armors, space fighters and vehicles of the **Jovian Chronicles** on page 184. The game statistics for these were generated using the standard Vehicle Design Procedure found in the **Jovian Chronicles Companion**. The Vehicle Design Procedure is not required to play a **Jovian Chronicles** campaign — it merely serves to give the Threat Values and costs of newly designed vehicles.

- The physical size and toughness of the vehicle are indicated here. The Default and Stacking Sizes are not used in the basic game — consider them equal to the Size. See page 132.

- This space normally shows a picture of the vehicle.

- This space contains information on the vehicle's cost and production. The Threat Value subscores (Offensive, Defensive and Miscellaneous), as well as the production type and Lemon Dice, are not part of the basic game and should be ignored. See page 132.

- This table shows the special systems and features present on the vehicle. When possible, a short description of the game effects is listed as well. A check in the AUX column means the feature counts as an Auxiliary System for damage purposes. See page 134.

- This blank space is useful to note down various data, such as extra fuel, cargo, etc.

- This space shows how many crewmen are aboard and how many actions the vehicle has per combat round. The Skill level of the crew can be written down here or in the Notes box below. See page 133.

- This box shows the movement types and speeds available, as well as the endurance of the vehicle and the reaction mass tankage (if applicable). Both Deployment Range and Reaction Mass have "flavor" entries for roleplaying. See page 134.

- This box gives the statistics of the vehicle's various electronic systems. Both the sensors and the communication systems are considered Auxiliary Systems for damage purposes, but not Fire Control. The Sensor and Communication base ranges are given for ground battles; these are multiplied by a factor of 10 when flying and by a factor of 100 in space. See page 133.

VEAL-04A PATHFINDER ALPHA

THREAT VALUE 5000

OFFENSIVE 8700

DEFENSIVE 1292

MISCELLANEOUS 5071

COST 3,500,000 credits

PRODUCTION TYPE Mass Production

LEMON DICE 3

CREW DATA

CREW: 1

ACTIONS: 2

HULL DATA

SIZE: 11

DEFAULT SIZE: 17.1

STACKING SIZE: 11

ARMOR: Composites/Cermet

LIGHT DAMAGE: 20

HEAVY DAMAGE: 44

OVERALL: 56

MOVEMENT DATA

MOVEMENT MODE: COMBAT SPEED TOP SPEED MANEUVER

WALKER: 6 (36 kph) 12 (72 kph) 0

SPACE: 14 (1.4 g) 28 (2.8 g) 0

DEPLOYMENT RANGE: 700 km Fusion/electric

REACTION MASS: 500 BP Hydrogen

ELECTRONICS DATA

SENSORS: +2/15 km

COMMUNICATIONS: 0/15 km

FW CONTROL: 0

PERKS AND FLAWS

NAME	RATING	GAME EFFECT	AUX
Autopilot	-	Acts as level 1 pilot	✓
Backup Systems	-	Comm, FireCon, Life Support, Sensors	✓
Computer	2	ORE 0, AND 0, PRD	✓
ECM	4	Defensive Electronic Warfare Equipment	✓
Ejection System	-	Ejecta Pod	✓
HEAT Resistant Armor	4	Add to armor vs. HEAT weapons	
HSP: Radiation	4	Rad protection	
HSP: Vacuum	-	Space protection	
Life Support	-	Limited	
2 x Manipulator Arm	11	Can punch	
Reinforced Crew Compartment	-	Absorbs first "Crew" hit	
Sensile Uplink	-	1000 x Comm Range	✓
Searchlights	-	Front, 200 meters	✓
Exposed Aux Systems	-	"AUX" Hits are one step worse	
Large Sensor Profile	2	Too large to effectively hide	

WEAPONS

Qty	NAME	FIRE ARC	DM	BR	ACC	ROF	AMMO	SPECIAL	MS	WC	AC
1	652A Particle Cannon	Forward	x15	3	x1	0	Inf	AD1, Haywire, HEAT	-	-	-
2	MMU-4 Missile	Forward	x20	5	-2	0	-	Mis, SD, B1, Str42	-	-	-
2	PL3 Plasma Lance	Forward	x12	Make	0	0	LUS	AC, Concussed, HEAT	-	-	-

NOTES

This Pathfinder is painted in the standard gray and bright blue color schemes, with silver stripings covering both shoulders.

JOVIAN CHRONICLES

- This table lists all the weapons (or defensive systems) that can be used by the vehicle. Any weapon currently carried is indicated by a number in the "Qty" column. FIRE ARC shows the direction in which the weapon can fire; DM is the Damage Multiplier; BR is the Base Range; ACC is the Accuracy; ROF is the Rate of Fire. AMMO lists how many times the weapon can be fired; exceptions are indicated by letter codes. SPECIAL shows any special characteristic the weapon might have. The MS, WC and AC columns are not part of the basic game and should be ignored. See page 135.

▼ VEHICLE ATTRIBUTES

Vehicle Attributes are values that define a vehicle. The numbers are used as indicators to show how good or bad, strong or weak each machine is. Variation in these numbers between vehicles indicates various design objectives.

◇ THREAT VALUE

Threat Values are a good measure of a vehicle's strength. Every combat unit is rated according to a Threat Value. This value is calculated by a few formulas to reflect the vehicle's offensive, defensive and miscellaneous abilities. The higher the number, the more powerful the unit is in that particular field. The basic Silhouette system provides Threat Values for stock units and the ability to upgrade them with various weapons and systems. NPC pilots are assumed to be level 2 in all their abilities. Gamemasters may change the pilots' levels, but that affects the Threat Value of the crew-vehicle combination (Level 1: TV x 0.25; Level 3: TV x 2.25; Level 4: TV x 4). Games can be easily balanced by allocating an equal number of points to each side, which are then used to purchase vehicles and their crews.

◇ SIZE

Every vehicle is assigned a Size value based upon its mass. Size values are primarily used to determine the outcome of physical attacks such as ramming attempts. The following table lists the mass range that each Size represents. The table is not linear; that is, a Size 10 vehicle is not just twice as big as a Size 5 vehicle, but four times as big. Size is also used to define volume, mostly for stacking purposes.

▣ SIZE TO MASS CHART

Size	Mass in Tons	Size	Mass in Tons	Size	Mass in Tons
1	0-0.08	34	1001-1100	67	7901-8300
2	0.09-0.3	35	1101-1210	68	8301-8700
3	0.4-1.1	36	1201-1300	69	8701-9100
4	1.2-2.4	37	1301-1400	70	9101-9500
5	2.5-4.4	38	1401-1500	71	9501-9900
6	4.5-7.3	39	1501-1700	72	9901-10300
7	7.4-10	40	1701-1800	73	10301-10700
8	11-16	41	1801-1900	74	10701-11200
9	17-22	42	1901-2100	75	11201-11600
10	23-30	43	2101-2200	76	11601-12100
11	31-40	44	2201-2400	77	12101-12600
12	41-52	45	2401-2500	78	12601-13100
13	53-65	46	2501-2700	79	13101-13600
14	66-81	47	2701-2900	80	13601-14100
15	82-100	48	2901-3100	81	14101-14600
16	101-120	49	3101-3300	82	14601-15200
17	121-145	50	3301-3500	83	15201-15700
18	146-170	51	3501-3700	84	15701-16300
19	171-200	52	3701-3900	85	16301-16900
20	201-230	53	3901-4100	86	16901-17500
21	231-270	54	4101-4400	87	17501-18100
22	271-310	55	4401-4600	88	18101-18700
23	311-350	56	4601-4900	89	18701-19400
24	351-400	57	4901-5100	90	19401-20000
25	401-450	58	5101-5400	91	20001-20700
26	451-500	59	5401-5700	92	20701-21400
27	501-560	60	5701-6000	93	21401-22100
28	561-630	61	6001-6300	94	22101-22800
29	631-690	62	6301-6600	95	22801-23500
30	691-770	63	6601-6900	96	23501-24100
31	771-840	64	6901-7200	97	24101-25000
32	841-930	65	7201-7600	98	25001-25800
33	931-1000	66	7601-7900	99	25801-26600

CREW ◇

Combat vehicles always carry a crew, although hi-tech vehicles may replace living crew members with computers, robotic systems and such. Additional crew members increase the number of actions a vehicle can perform every combat round. Big vehicles generally need many crewmen just to function at all.

MOVEMENT TYPE AND SPEED ◇

Movement types define how a vehicle moves along. Each movement type confers some advantages and some disadvantages, depending on the environment where the vehicle operates; for example, Walker movement is not very useful in space, but extremely potent on broken ground.

A vehicle may have more than one movement type. Some walkers might mount fusion thrusters to move about in space; some ground vehicles are fully capable of operating like a boat. Although there is no limit to the number of movement types a vehicle may use, few have more than one or two, since the cost simply outstrips the added flexibility. Having more than one movement type does not represent an actual transformation — the movement types are available at all times.

Flight: this movement type is used by all flight-capable vehicles. This includes aircraft of all types as well as helicopters and vectored thrust vehicles. Each aircraft's flight characteristics are provided by suitable Perks and Flaws (see page 170).

Ground: any wheeled or tracked vehicle. Note that wheeled vehicles are assumed to be equipped with large wheels and strong suspension for rough terrain and thus are grouped with tracked vehicles in the Ground movement type. The movement speeds listed for Ground Movement also assume that the vehicle is crossing clear, but not paved, terrain (see page 145 for full effects of terrain). Ground vehicles that spend the entire round on a road multiply their speed by 1.5.

Hover: this movement type is used by all vehicles which travel above but near the ground, such as ground-effect hovercraft and other air-cushion vehicles. Ground-effect systems only work within an atmosphere.

Naval: any conventional water vessel or hydrofoil or anything else that can float. This makes only the vehicle's hull watertight, however: it is still susceptible to flooding and capsizing.

Rail: any vehicle which uses a rail or guide of some kind to move about is part of this category. This includes classic steel railroad, MagLev, monorail, and many others. This type of movement can only move along a rail line, and the rail(s) must be of the same type as the one the movement system was designed for. Rail movement costs only 1 MP per hex (see p. 144).

Space: this movement system represents a reaction system of some kind. It does not confer the ability to perform atmospheric flight or reentry — these must be purchased separately. Space movement can also be used as a "jumpjet" system while on a planetary surface, provided it supplies enough thrust to counteract the gravitational pull (see page 143).

Submarine: this movement type covers underwater craft of all sorts. Most Submarine vehicles also have the Naval movement type, but it is not required.

Walker: this represents a multi-legged walking vehicle. The exact number of legs present is totally up to the designer and has no bearing on either speed or toughness, both of which are determined separately.

A speed in kilometers per hour (kph) and in Movement Points (MP) corresponds to each movement type. The only exception is Space, which is measured by acceleration (see Space, page 139). A vehicle's speed or thrust translates directly into MPs. Entering a map area, denoted by a hex, costs a certain number of Movement Points. Each vehicle can move at two different rates, or "speeds." Combat Speed is the highest speed a vehicle can achieve and still take an efficient part in combat. Top Speed is twice as fast as Combat Speed, but the vehicle's combat effectiveness is strongly impaired and it is limited in its maneuvering.

MANEUVER ◇

Maneuver indicates a vehicle's ease of control and its responsiveness to sudden changes of direction. It is a zero-average value based on the average walker system agility and is used as a modifier to all Piloting Skill rolls. Most vehicles will have a negative Maneuver value, though a few extremely agile ones (including many exo-vehicles) have positive ones.

SENSORS ◇

Sensors is a generalized rating of the number, quality and sophistication of a vehicle's detection systems. This value covers the various sensor systems installed in the vehicle regardless of their actual nature. Military-grade systems are assumed as default; civilian systems (if present) generally have a low rating because they are not designed to function in electronic warfare-intensive environments.

Sensor Range is the maximum range at which a vehicle's sensor can detect objects without going into active mode (performing an Active Sensor check — see page 150). Sensor range is multiplied by 10 when flying and by 100 in space.



◇ COMMUNICATION

The Communication score of a vehicle is a rating of the broadcast strength, reception clarity, encryption and anti-jamming mechanisms built into the vehicle's communication's suite. Like sensor systems, military-grade communication devices are assumed as default.

Communication Range is the maximum range at which a vehicle can transmit a message in battlefield conditions. For two vehicles to establish communications, at least one must be within the communication range of the other. Vehicles can relay messages sent by one vehicle to another. Communication range is multiplied by 10 when flying and by 100 in space.

◇ FIRE CONTROL

Fire Control is a catch-all rating for the vehicle's quality as a weapon platform. The rating includes how effective the targeting devices for weaponry are (from expensive combat computers to primitive mechanical sights) and how stable the vehicle is. The value is used as a modifier to all weapon attack rolls.

◇ ARMOR

Armor represents the toughness of the vehicle's armored hide and general structure — in effect, its strongest location. Three values are listed: Light Damage, Heavy Damage, and Overkill. They are equal to one, two, and three times the base Armor value, respectively. When a vehicle is hit, the attacker's damage is compared to each of the vehicle's Armor values in turn. The attack's effect is the last armor stage it has exceeded (see *Damage*, page 158).

◇ DEPLOYMENT RANGE

Deployment Range is the maximum distance (in kilometers) a vehicle may travel without being refueled or otherwise serviced. Vehicles traveling at Top Speed are very inefficient and guzzle fuel. While traveling at Top Speed, every kilometer traveled is worth 2 km for the purposes of Deployment Range. Vehicles traveling at Combat Speed consume fuel normally.

Space vehicles obviously cover far larger distances and, thanks to inertia, may not even need to expend fuel to do so. When in space, each hour of operation is treated as one kilometer of Deployment Range. Thus, an exo-armor with a DR of 500 km could walk 500 kilometers or stay in space for 500 hours (or any combination thereof) before requiring maintenance and refueling. Deployment Range also shows the duration of life support for vehicles with only a Limited system (see page 172).

◇ REACTION MASS

Space thrusters require some type of reaction mass in order to function. This value, measured in Burn Points (BPs), represents the amount of reaction mass that may be carried by the vehicle in its internal tanks. Depending on the design, the internal fuel tanks will yield a certain number of Burn Points. Additional reaction mass tanks may be carried outside the vehicle but will affect its performance.

▼ PERKS AND FLAWS

Many vehicles have special features or defects that cannot be adequately represented by the basic statistics: these are called Perks (for useful features) and Flaws (for defects or design shortcomings). The *Perks and Flaws* section (page 170) lists and defines the game effect of each Perk and Flaw used by the vehicles contained in this book. Many more Perks and Flaws are possible, but they are not listed here in order to save space.

▼ CREW SKILLS

Combat vehicles always carry a crew of some sort, and Skills are used to indicate the crew's quality. Skills are rated by experience; higher Skill indicates greater ability. See *Ratings, Skills and Skill Tests*, page 55, for a list of Skill equivalencies (Skills are the same in both RPG and tactical combat systems). In the tactical game, anyone who has a Skill at level 0 cannot perform any task which requires this Skill.

◇ LEADERSHIP

Leadership is the commanding officer's ability to lead troops into battle, place them effectively and plan good tactics. The Leadership Skill of the highest ranking person present is used to check for combat initiative.

◇ PILOTING/DRIVE

The Skill of piloting and maneuvering a vehicle. Piloting is required to evade attacks, fight in melee and perform difficult maneuvers. There are specialized Piloting or Driving Skill for all types of vehicle. Driving and Naval Piloting are used for ground and naval vehicles, respectively, but they serve the same purpose.

GUNNERY ◇

The Skill of aiming vehicle-mounted weapons or using fire control mechanisms. Gunnery is crucial to all ranged attacks. Each type of environment and vehicle type has its own Gunnery Skill (see page 81).

ELECTRONIC WARFARE (EW) ◇

The Skill of using sensors, jamming equipment and other electronic packages in combat vehicles. This Skill is used when calculating a vehicle's Detection value (see *Detection*, below, and *Line of Sight*, page 150) and for checking the position of an object using the vehicle's sensor systems.

DETECTION ◇

The Detection scores are measures of the unit's ability to passively detect opponents who are far away or well hidden, that is, without using Active Sensor. Detection scores and the Active Sensor procedure are discussed more fully in the *Line of Sight* section, page 150.

WEAPONS ▼

Most military vehicles carry weapons of some kind. The record sheet shows all of the weapons that can be used by the vehicle, even if only a fraction of these can be carried at any one time. Weapons not currently carried (or destroyed) are simply blacked-out.

The game statistics for the pre-filled vehicle sheets' weapons and systems were generated using the Offensive & Defensive System Design Procedure found in the **Jovian Chronicles Companion**. The O&DS Design Procedure is not required for playing a **Jovian Chronicles** campaign — full explanations for using the various characteristics of the weapons used in this book are given on page 176.

ACCURACY ◇

In addition to the effects of the vehicle's main fire control systems (the Fire Control rating), the Accuracy (Acc) of each individual weapon affects the odds of successfully damaging opponents. It is applied as a modifier to each attack roll made with the weapon. Accuracy can drop because of damage (see *Fire Control Damage*, page 159).

DAMAGE MULTIPLIER ◇

The Damage Multiplier (DM) of a weapon is a rating of how effective or destructive the weapon's attack is. The Damage Multipliers work on an exponential scale, not a linear one. A Damage Multiplier of 10 is more than twice as effective as a Damage Multiplier of 5; in fact, it is four times as effective.

BASE RANGE ◇

The Base Range (BR) of each weapon is listed on the stat sheet. The Base Range is equal to the Short Range of the weapon; the Medium, Long and Extreme ranges are equal to twice, four times and eight times the Base Range, respectively. All vehicular weapon ranges are listed in hexes. Obscurement, the movements of both attacker and defender, the limitations of targeting system, all reduce the theoretical range of weapons. The Base Range is the effective combat range.

For simplicity, weapon ranges are given in hexes. Weapon ranges (in hexes) do not change with hex size because of conditions such as atmospheric interference and ground cover that reduce effective range.

RATE OF FIRE ◇

The Rate Of Fire (ROF) of a weapon is listed in its own column. A weapon with an ROF of 0 fires a single shot and is then reloaded; it expends one round of ammunition per attack. Weapons with ROF of 1 or more are rapid-loading and can fire many more shots during the same interval of time. Rapid-fire rules can be found on page 156.

AMMUNITION ◇

If a weapon's ammunition drops to zero, it is out of ammo and can no longer fire. Some attack types, such as physical attacks, do not expend ammunition. Other weapons have a built-in ammunition or energy supply, but can only be used for a short while before running out: these are termed Limited Use weapons, and are identified by the letters "LU" in the ammunition column (the number shows the number of turns they can remain active).

Some energy weapons draw power from the powerplant of the vehicle or the installation and effectively ignore ammunition requirement. These are termed Infinite Ammo weapons and are identified by the letters "Inf." in the Ammunition column.

7.2.4

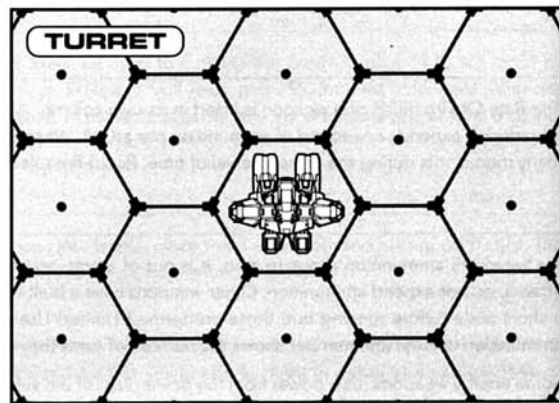
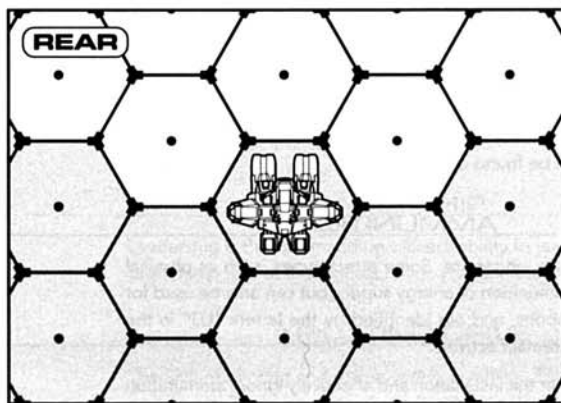
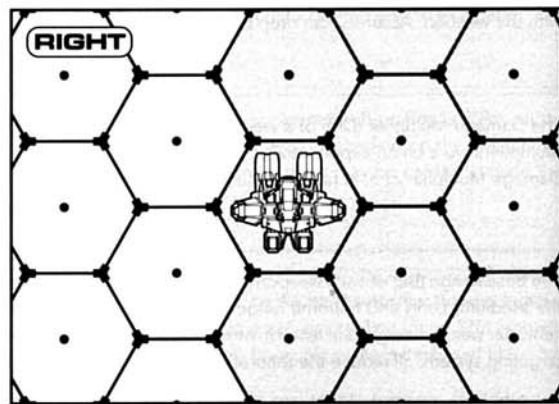
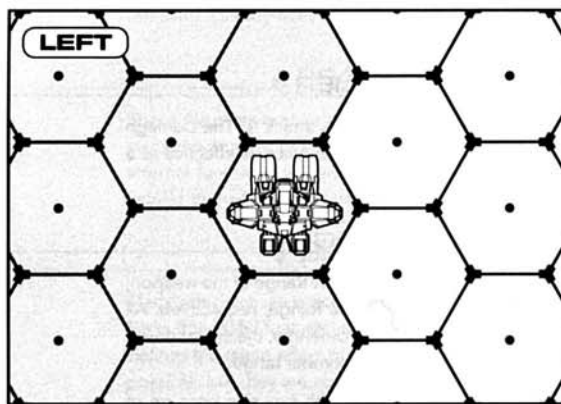
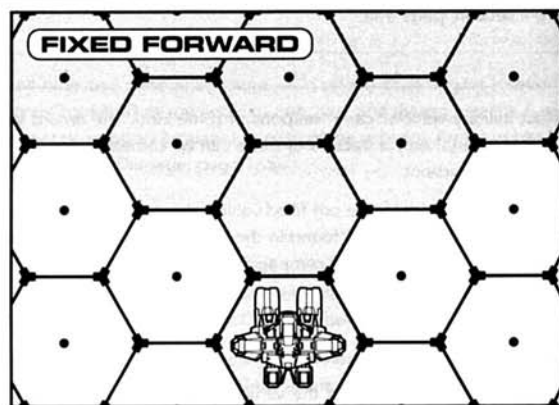
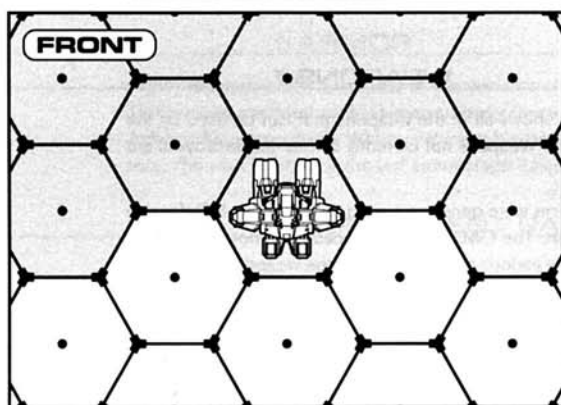


◇ ARC OF FIRE

Firing arcs determine whether or not a given weapon can be aimed at a target. Each weapon has its own fire arc depending on how it was designed into the vehicle. Arm-carried weapons always have a Forward arc. The six standard fire arcs are defined as follows. In space, fire arcs have the same profile vertically as horizontally.

▣ ABBREVIATIONS FOR FIRE ARCS

F	forward (180 degrees)
Rt	right (180 degrees)
L	left (180 degrees)
Rr	rear (180 degrees)
FF	forward fixed (120 degrees, begin arc one hex ahead of vehicle)
T	turreted (360 degrees)



THE COMBAT ROUND ◀

A battle always begins with the Set-up phase. Set-up takes place before the first round of the combat and occurs only once. An overall commander must be chosen for each side, with a second in command. His identity can remain secret, but must be noted down for future reference. If the commander becomes a casualty, he is replaced by the second in command. If both are put out of action, all future Leadership Skill tests are rolled at level 1. The only exception to this rule occurs during integrated roleplaying/tactical games: if a Player Character has a higher Leadership than 1, he may choose to replace the commander or second in command if they both become casualties. Otherwise, the rule stands as is.

A Tactics Skill test is made by each side based upon the Skill level of the commander. Fumbles count as a die result of one. The winner chooses which player will first place a combat group upon the map. Reroll ties. Players should alternate, each placing one combat group at a time on the mapboard. After placing a unit on the mapboard, the player must declare what speed (stationary, Combat, or Top Speed) or velocity (for space combat) it is moving at. Pre-designed scenarios should have clearly defined set-up locations for each faction. When not using pre-designed scenarios, the players should agree on which mapboards to use and set up on the first two rows of hexes on either side. If, during the first round, a unit is attacked before it has been moved, it is treated as if it was moving at the maximum number of hexes possible for its speed (or acceleration, in space) for the purpose of defense rolls.

The die result of the Tactics roll should be recorded by each player. Each point represents one Tactical Command Point that can be played at any time during the game. Command Points represent an action reserve to face unexpected situations; they are fully explained further on.

COMBAT ROUND PROCEDURE ▼

The battle is subdivided into combat rounds that simulate approximately 30 seconds of real life events. During each combat round, the following steps occur in order:

STEP ONE: DECLARATION PHASE ◇

Both sides declare any extra actions and individual evasive maneuvers for the round. A counter or token can represent extra actions to avoid confusion. This token can be placed either near the playing piece or on the record sheet, whichever is more suitable to the player.

STEP TWO: INITIATIVE PHASE ◇

Initiative decides which side has the advantage during the present round of combat. Each side rolls an action test based on their commander's Leadership Skill. If only two machines are facing each other, the Piloting Skill is used instead of the Leadership Skill. The highest result wins. Draws are rerolled.

Each side receives a number of Initiative Command Points equal to their Leadership roll. The Loser may also use Tactical Command Points. The side with the least number of combat groups decides which side will play first. If both sides have the same number of combat groups, the winner of the Leadership roll makes the decision.

STEP THREE: ACTIVATION PHASE ◇

The side whose turn it is to play may move any or all units in one of their combat groups. Units that shift speeds (Combat to Top and vice-versa) must declare so immediately after movement. Actions, such as firing or activating a system, may be resolved at any time before, during or after the movement. Attack modifiers are based on the unit's total movement: for example, if Half-Combat Speed is announced, the unit cannot spend more than half its Combat MPs.

Each unit in a group moves and takes its actions before another unit is activated. If a unit does not move or act when its combat group is activated, it cannot do so at a later point in the round.

At any time during this movement, any unit may use one (or more) of its actions to fire or perform a task against the moving unit (and only against the moving unit). Attacks may be directed at any point along the moving unit's path, but the unit's full movement counts for the Defense roll. The total MP allocation of the target is used to determine the defense speed modifier, even though the actual displacement may be shorter, because this is a hurried reaction for the attacker. The defender must spend at least one MP or end its movement before each of the attacker's actions if more than one action is used. Forward observers must act before the firing unit(s).

Once every unit in the combat group has moved and acted (or forfeited its chance to do either), the other side activates one of its combat groups, which may move and take action. This exchange goes back and forth until all combat groups have moved and acted.

A combat group may only move once per combat round. If one player no longer has any combat groups left to use, the opponent activates his remaining combat groups one by one until they all have been moved.



◇ STEP FOUR: MISCELLANEOUS EVENTS PHASE

During this phase, any unusual events, such as long-range artillery and off-board bombing attacks, are resolved. Ejection rolls, wound checks and general bookkeeping procedures should also be done here. Initiative Command points go back to zero. Any action not spent at this point is lost.

Repeat steps 1 to 4 until the battle is resolved or pre-planned objectives are met. A combat group may only move once per combat round.

▼ COMMAND POINTS

Command points represent the commander of a combat force reacting to or anticipating the enemy's actions. There are two types of Command points, both roughly equivalent. Tactical Command points are available throughout the game when losing the initiative but cannot be regained once spent. Initiative Command points are valid for one turn only, but are restored during each new Initiative roll. Other than this, there is no difference between the two. Two dice of different color can be used to keep track of Command point totals.

Command points may be used by any unit with a functional Communication system. They can be used as an additional regular action, incurring no die penalty. They can be used to buy a +2 modifier to a single Defense roll. Finally, they can be used to activate a unit out of its turn sequence — to get out of harm's way, for example. In the latter case, the unit must not have been activated (i.e., moved) previously and it cannot be moved again when its combat group is activated (though it may act if it has any actions left).

▼ NUMBER OF ACTIONS

A vehicle's actions are limited by the total number of crewmen. Some or all of these additional actions are lost when crew casualties occur. All vehicles have one base action: the table below lists the lowest crew sizes required to obtain additional actions. The minimum crew requirement to gain more actions is doubled for each additional action.

A vehicle's crew can get more actions by penalizing *all* their action test rolls by one (1) for each additional action taken. For example, a single crewman could fire twice and activate a system, with a -1 to all these die rolls, or fire four times with a -2 to all attacks. These additional actions *must* be declared at the beginning of a round, in Step One.

▢ CREW AND ACTIONS

Min. Crew Size	Additional Actions	Total Actions
1	1	2
2	2	3
4	3	4
8	4	5
16	5	6
32	6	7
64	7	8
128	8	9
256	9	10
Etc., doubling every time.		

◇ TYPICAL ACTIONS

An action is normally defined as anything that requires at least one crewman's complete attention. Some systems are completely automated, but these normally get their own actions to function (see *Computers*, page 180, or *Smart Weapons* page 179). Actions can be lost due to combat damage, such as "Crew Stunned" results. If the actions were already spent for the round, there is no further effect. If more actions are lost due to damage than are available, they must be made up for during the next round.

▢ ACTIONS EXAMPLE

Among possible combat actions	
•	fire one weapon
•	fire one set of linked weapons
•	embark/disembark one (1) crewman for each Size point of the vehicle
•	perform a physical attack (ramming, kicking, punching, etc.)
•	activate an Auxiliary system (ECM, active sensors, communication, etc.)

SPACE MOVEMENT ◀

Because of the absence of atmosphere and gravity, space combat is very different from planet-bound battles. There are two possible forms of space warfare. The most common situation is when two (or more) hostile groups wish to engage each other (or one side is defending a static location or installation) and all match overall velocities in order to make combat manageable. "Lightning strike" combat occurs when one of the antagonists does not wish to match velocities, causing the groups of opponents to streak past each other. Each group only has a few split seconds to attack the other as they get in range — every shot must count.

Space combat hexes are 500 meters across. The combat rounds represent 30 seconds of real time, just like the planet-bound combat round. Unlike ground and air vehicles, spacecraft have "Thrust" and "Overthrust" MP scores. Both are game equivalents to the Combat and Top Speed MP scores, except that they represent acceleration rather than speed.

While logic dictates that space combat is a total 3-D experience, the confusion of actual 3-D battles can seriously slow down the game. For faster games, or for first-time players, the 2-D version, which uses only three vectors (X, Y and Z; see below), is strongly recommended. The same rules apply to both versions of the game, the only difference being that the 3-D game features one more vector for vertical motion. The six-faced hexes on the map dictate the use of this vector configuration, which might be slightly confusing at first for anyone used to the usual "X,Y" perpendicular vector model — read on.

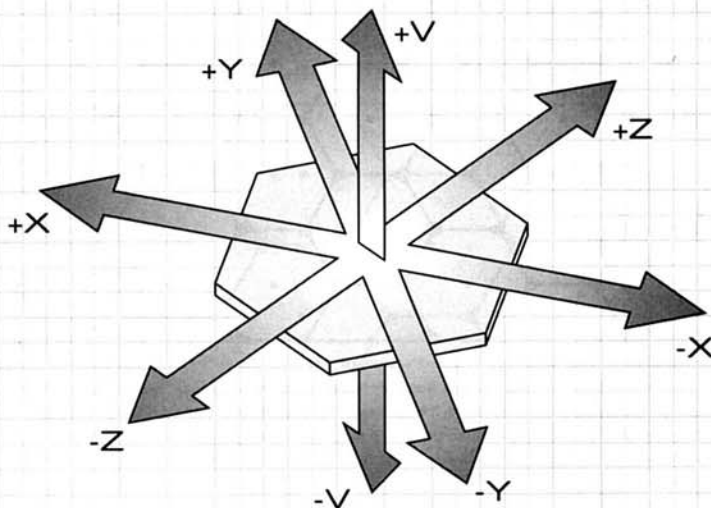
This section details the differences between matched-velocities space combat and standard ground and aerial combat. Even though it includes more than movement, lightning strike combat is detailed at the end of the section for simplicity.

VECTORS ▼

In space, there is no friction to slow vehicles down. Because of this, the movement of previous round will affect the current round's movement.

Each vehicle is considered to have four velocity vectors (three if playing in 2-D). These are labeled X (diagonal upper left to lower right), Y (top of mapboard to bottom of mapboard), Z (diagonal upper right to lower left) and V (vertical up and down). Movement along one direction will either add or subtract from one of these vectors. The diagram below illustrates the various vectors and their directions on a standard game hex map.

VECTOR DIAGRAM ①



For example, if a vehicle moves 3 hexes in the Y direction, it is considered to have a +3Y vector. If that vehicle then apply thrust to move 4 hexes in the -X direction, the vehicle now has a -4X +3Y vector. While this may sound arcane, it simply means that the vehicle will move four hexes in the -X direction and three hexes in the +Y direction. The vehicle kept the +3Y from the previous round of movement because in space, there is no significant friction to slow it down.

If the same vehicle thrusts to move 5 hexes in a +X direction, it will have a vector of +1X +3Y, not +5X +3Y. The first four MP of thrust go towards reducing the X vector to 0 while the final point brings it up to +1X. The old +3Y was never neutralized, so it stays in effect. If the vehicle now applies thrust to move 7 hexes straight up (+7V), the vehicle will have a new movement of +7V +1X +3Y. If no further thrust is applied, the vehicle will move up seven levels of "altitude," one hex diagonally to the upper left and three hexes towards the north of the mapboard every turn.



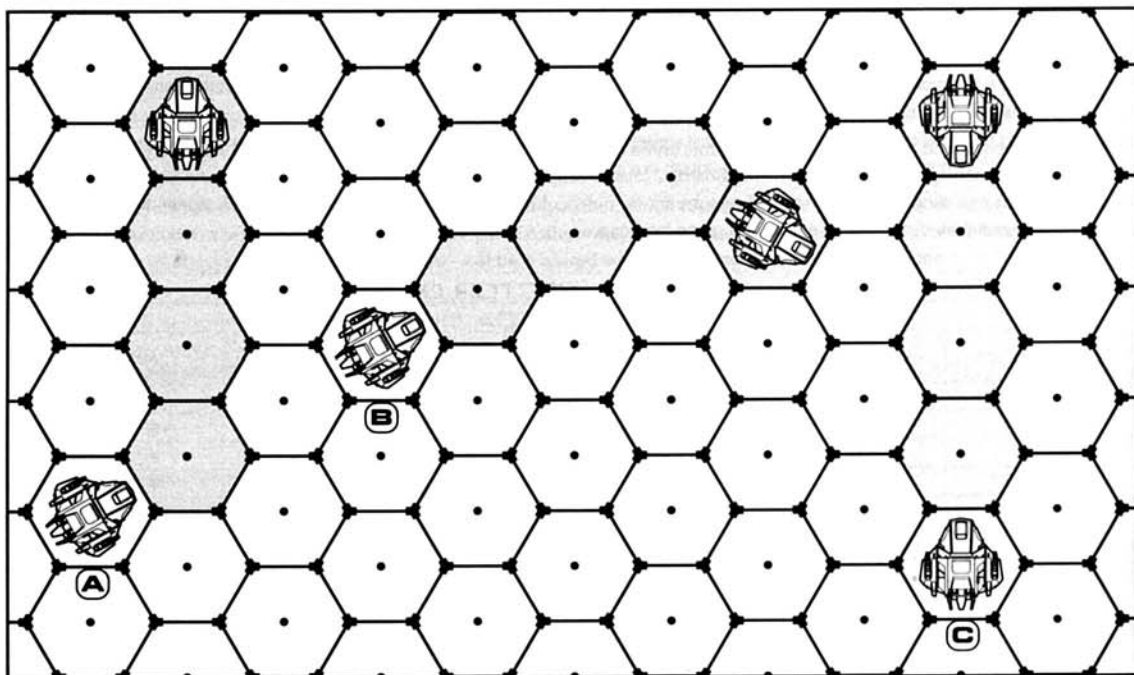
▼ THRUST VERSUS MOVEMENT

One Space MP is roughly equal to 0.1 gee of thrust. One gee (also noted simply as "g") is equal to the surface gravity of the Earth and is a standard measure of acceleration — the exact value is 9.8 m/s^2 , generally rounded up to 10 m/s^2 . It costs one MP to add or subtract one point from any of a vehicle's four vectors. The actual flight trajectories and geometries are a little more complex than that, but this approximation is good enough for game purposes.

Some vehicles are so underpowered or massive, their thrust is less than 0.1 gee. In space, even the tiniest amount of thrust will move a large object — just a lot more slowly. Ships and other spacecraft with low thrust can still move, but must accumulate at least one-tenth of a gee to change one vector by one point. For example, a ponderous Mercurian cargo mag-sail with a maximum 0.01 gee acceleration can modify one of its vectors by one point every ten combat rounds (0.01 gee x 10 turns = 0.1 gee, or one MP) spent applying thrust.

Facing is decided using one of the four vectors — a somewhat limiting solution, but one which greatly simplifies gameplay. The vessel points towards the direction it accelerated in the most *this round* (see diagram 1 for examples), regardless of its actual motions on the board. It is also possible to further adjust the facing by spending unused Movement Points. How many Space MPs it costs to change facing depends on the spacecraft's Maneuver bonus, as detailed on the Facing Change Cost table (see bottom of page).

● FACING AFTER MOVEMENT



Unit A has accelerated from being stationary to speed vectors of +3Y +1Z: the vector modified by the greatest amount of thrust has been positive Y, so this becomes the unit's new facing. Unit B already had a speed of +3Z, and apply a thrust of -1X. Since negative X is the vector that has been modified by the largest amount this round, it becomes Unit B's new facing. Unit C had a speed of +7Y and applies a thrust of 3 on the negative Y axis: the unit still moves 4 hexes on the positive Y axis, but its facing is determined by thrust, not movement, and so it faces the negative Y axis.

□ FACING CHANGE COST

Maneuver	1 Side	2 Sides	3 Sides
+1 and up	0	1	1
-1 to 0	0	1	2
-4 to -2	1	2	4
-7 to -5	2	4	8
-8 and less	3	6	12

Maneuver is the vehicle's Maneuver bonus.

1 Side, 2 Sides, 3 Sides is the number of hexsides by which the ship changes facing.

REACTION MASS ◇

According to Newton's Third Law of Motion, vehicles must jettison something backward in order to move forward. When changing vector, each MP of Thrust spent removes one Burn Point (BP) from the vehicle's Reaction Mass. Overthrust is not as efficient and uses two BPs per MP spent. When the vehicle reaches zero Reaction Mass, it can no longer change its vector.

To speed up game play, the reduction in mass does not increase the vehicle's acceleration. Purists may wish to recalculate performances at various Reaction Mass levels to realistically portrair the behavior of a space vehicle; see *Space Towing Capacity*, page 143.

"ALTITUDE" AND "DESTINATION" COUNTERS ▼

While it is possible to record both the "altitude" (the position on the "V" Vector) and current vector values on a piece of scrap paper, another method both simplifies bookkeeping and speeds up play: the use of elevation and destination counters.

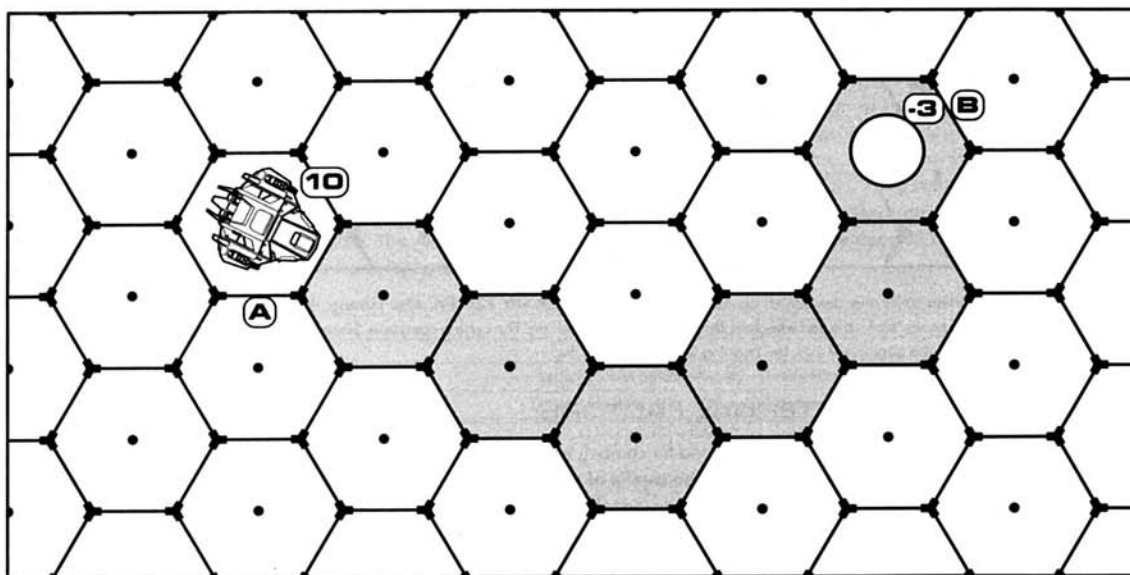
A destination counter is used to keep track of speed vectors without using pencil and paper. Each counter is identified as belonging to a specific unit. In a 3-D game, the counter is used with the elevation die. At the end of a unit's movement phase, the counter is moved away from its unit the *exact same number* of hexes the unit just moved, in the *exact same direction* (see *Destination Counter* diagram). Using this system, the different vectors of a given craft needs never be written down.

For vertical position (if used), one or more 10- and 20-sided dice can be used to record the relative "altitude" between ships: these dice are placed next to the unit. When "moving up" one hex, the number is increased by one; when "moving down", the number is decreased. Different colors of dice can mark negative and positive numbers, or zero can be chosen as being the lower end of the 3-D game area. A numbered counter can also be used if no proper die is available.

If in 3-D play, a second die is also turned so it shows how many altitude levels the vehicle climbed or dropped this turn. For horizontally stationary spacecraft, the counter is temporarily taken off the mapboard. For vertically stationary spacecraft, the same is done with the altitude change die. Thus, a totally stationary spacecraft has neither destination counter nor altitude change die beside it.

At the beginning of the unit movement phase, a unit can modify its vector by moving the destination counter a number of hexes equal to the craft's total MPs, effectively changing the unit's destination by applying thrust to the different vectors. MPs can also be used to lower or increase the elevation on a 1:1 basis. Once the counter is moved, the unit moves to the counter and the counter is once again moved away the exact same number of hexes and in the same direction the unit just moved (see diagrams on next page). The player also modifies the altitude die by the amount of MPs spent vertically. For stationary units, the destination counter is considered to be in the same hex as the unit.

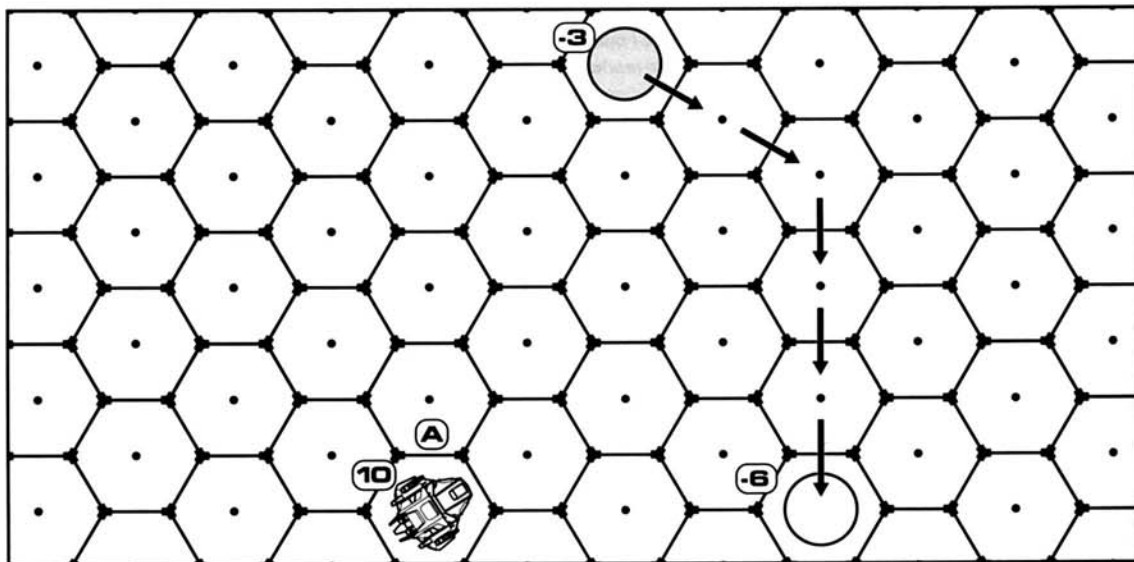
DESTINATION COUNTER ①



Unit A has just completed its movement. Its vectors are $-3X + 1Y + 2Z - 3V$; it just moved 3 hex on the negative X axis (to the lower right of the map), 1 hexes along the positive Y axis (to the top of the map) and 2 hexes along the positive Z axis (to the top right of the map), as well as losing three altitude levels, from 13 to the present 10 (as indicated on the altitude die). The player places the destination counter (B) at $-3X + 1Y + 2Z$ from the unit, and turns the altitude change die to -3, the current vertical vector. In a 2-D game, there would be no altitude die.

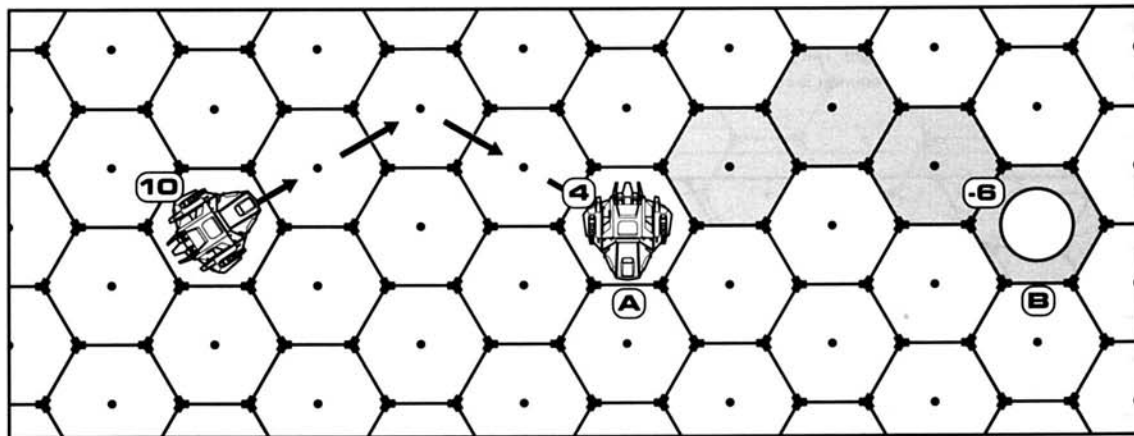
2.4.3

1 MOVEMENT EXAMPLE — PART 1



Unit A has 8 Movement Points to spare: it changes its speed vectors by 2 hexes along the negative X axis (to the lower right of the map) and 3 hexes down the negative Y axis (to the bottom of the map); the destination counter is moved accordingly. This uses 5 Movement Points; with the 3 MPs left, unit A increases its velocity down the negative V axis, from -3 to -6, and turns the altitude die to reflect this.

1 MOVEMENT EXAMPLE — PART 2



Unit A moves to its new destination (its speed vectors are now $-2X + 0Y + 2Z - 6V$). After moving, the destination counter is moved the same number of hexes, along the same vectors, from the unit's new position. The cycle is complete. Since the vector that was modified by the greatest amount was the negative V axis, the heading is now the $-V$ vector.

◇ EXTERNAL FACTORS

Many vehicles, especially those designed for combat, have tens of Thrust points available every turn. Given the size of the average game map, pilots will have to be careful of where their craft is heading. Loose sheets of hex paper can be used when a spacecraft's present speed vectors would take it out of the playing map. In such cases, the sheet is placed so that the destination counter can be placed correctly. The craft will (hopefully) be able to correct its speed vectors so it does not fly off the map — and out of the game!

Because the acceleration required to change a vector by one point is relatively high, the gravitational effects of large bodies of mass is negligible in game terms, even when vehicles are fighting in orbit around a planet. For simplicity, they have no effects upon game movement, though they are present. Some scenarios might be fought exceptionally close to a large gravity well, however. This can be simulated by an "Automatic Thrust" in one of the vectors.

► PLANETARY MOVEMENT — GROUND

For the purpose of the rules, "planetary" refers to any place that has gravity, be it a moon, the interior of a space colony, or an actual planet. The effects of the local gravity level and other environmental conditions are detailed further on.

The record sheet of a vehicle contains values for Combat Speed and Top Speed. These are indicated in Movement Points (MPs) and in kilometers per hour (kph). The speed in MPs is one-sixth of the kph value, rounded to the nearest whole number. An MP equals movement across one clear mapboard hex or about 6 kph across clear terrain. Thus a vehicle with a Combat Speed of 70 kph has 12 MPs. At its Top Speed of 140 kph, it has 23 MPs. The Top Speed of a vehicle is double its Combat Speed in kilometers per hour. Every turn, each vehicle receives as many MPs as its current speed (Combat or Top).

▼ STACKING

The term "stacking" refers to how many units can reside in a single mapboard hex. The standard 50-meter hex can take up to 30 Size points of vehicles and other units. A group of five or less people count as a Size 3 vehicle for stacking purposes. If combat occurs between units in the same hex, range is considered Point Blank (0).

If a vehicle is bigger than Size 30, it will occupy more than one hex. For example, a Size 61 vehicle takes three hexes ($61 \div 30 = 2.034$, rounded up to 3). How many points of Size are assigned to each hex depends on the design, and may be less than 30 per hex (though all Size points must be allocated). Range is measured from the attacker's closest target hex.

▼ COMBAT SPEED

A vehicle normally receives a number of Movement Points equal to its Combat Speed. If the vehicle expends none of these MPs to move, it is considered to be stationary. Otherwise, the vehicle is said to be moving at Combat Speed. Attacks can be made normally at this rate of movement. Vehicles moving at half their Combat Speed or less gain an additional +1 to their attack rolls due to the additional stability provided by lower speeds (see *Attacker Movement*, page 153).

A vehicle moving at up to half Combat Speed can opt to move backward instead of forward. Reverse movement is not possible at higher speeds.

▼ TOP SPEED

A vehicle which expended its full Combat Speed MP can shift to Top Speed in the next round. This shift must be declared by the player *immediately* after moving the unit. The vehicle is considered to be at Top Speed for attack and defense purposes for the rest of the combat round. Players are advised to put chits or markers of some sort on the vehicles moving at Top Speed. This helps prevent disputes on the speed at which a vehicle is moving.

In subsequent combat rounds, the vehicle receives movement points equal to its Top Speed value. The vehicle *must* expend a number of movement points greater than its Combat Speed while moving at Top Speed. A vehicle may return to Combat Speed after any number of rounds of Top Speed movement. The player declares the return to Combat Speed *immediately* after moving the unit.

▼ MULTIPLE MOVEMENT SYSTEMS

Vehicles with multiple movement systems are able to switch between them during movement. A vehicle may only switch movement types while at Combat Speed. During the switching round, the initial movement type is used to determine the available MP. The vehicle expends MPs as allowed by its original movement type until the switch is declared. The remaining MPs are expended at the terrain costs of the new movement type. A vehicle may switch movement types only once per combat round. This option is available to any unit that meets the criteria and announces the fact during its movement.

▼ TERRAIN EFFECTS

Various terrain types affect locomotion methods negatively. The following chart lists the MP cost to traverse different types of terrain. Certain types of terrain also reduce visibility. This is represented by the Obscurement of the terrain (see page 150).

Note that some terrains are found only in space, such as Moon Dust and Liquid Gasses. Unless there is a tangible atmosphere (0.8 atm and more) present, as on Titan, vehicles without the proper environmental protection and hovercraft will not be able to function there.

◇ AQUATIC MOVEMENT

Vehicles with the Naval and Submarine movement types expend 1 MP per Water hex or Liquefied Gasses hex. Certain unusual vehicles lack these movement types but are sealed against underwater environments. These "bottom-crawlers" pay their normal Water-related MP cost (see table).

TERRAIN COSTS ▢

Terrain Type	Walker	Ground	Hover	Obscurement
Clear	1	1	1	-
Rough	1	2	1	-
Sand, Moon Dust	2	2	1	-
Woodland	1	2	2	1
Jungle	2	3	n/a	2
Swamp	3	4	1	1
Water, Liquefied Gasses	2*	3*	1	2**
Deep Water, Deep Liquefied Gasses	2*	3*	1	4**
Snow, Frozen Gases	2	2	1	-
Deep Snow	3	4	1	1
Ice	2	3	1	-
+1 elevation	add 2	add 2	add 4	-
-1 elevation	add 1	-	-	-

* Only vehicles with the Amphibious Perk and proper environment protection (if appropriate) may enter these hexes. Other vehicles will flood and automatically be put out of action. In addition, Amphibious vehicles cannot enter or exit this type of hex while moving at Top Speed.

** These only produces Obscurement if the defender is in the hex and is not a Hover, Naval or Amphibious vehicle.

TURNING ▼

A vehicle spends zero movement points to turn a single hex facing (60 degrees). Turning two or more hex facings (120 degrees or more) costs one movement point. Thus, single hex turns are free, while anything up to 360 degrees (full spin) is 1 point. Each turn must be followed by at least one hex of forward movement before another can be performed.

Turning more than two hex facings while moving at Top Speed requires a Piloting Skill test versus $3 + \text{terrain's MP cost}$. If the roll fails, the vehicle skids forward one hex (if something is already in the hex, treat as a ram — page 154). If the roll fumbles, the vehicle crashes. This immediately ends the vehicle's movement. Roll one die: this gives Light (1 to 3) or Heavy (4 to 6) damage, depending upon the number rolled (see *Damage*, page 158).

JUMPING ▼

The distance covered while jumping depends on the angle of the jump and the speed (in meters/second) of the vehicle. If the vehicle has thrusters (Space movement system), it may subtract their thrust (in g) from G in the formula (vehicles with more than 1 g of thrust may fly instead, see page 148). Walker vehicles may pick any jump angle, even when using other movement types. Others will need a ramp of some sort (elevation levels count as 30 degrees). **Speed** in m/s is equal to the speed in kph divided by 3.6; **G** is the gravity of the body on which the vehicle is, in g.

JUMPING DISTANCES ▢

Angle of Jump	Max. Distance (m)
15 degrees	$(\text{speed squared}/19)/G$
30 degrees	$(\text{speed squared}/11)/G$
45 degrees	$(\text{speed squared}/9)/G$

GROUND TOWING CAPACITY ▼

All types of ground vehicles are assumed to be capable of towing objects. Unless modified by a perk, a vehicle's maximum towing capacity (in kilograms) is equal to the vehicle's mass. This assumes that the towed item is easily towed, else it counts as double its usual mass for towing purposes. Vehicles can tow up to half their maximum towing weight without a reduction in speed. Vehicles towing between half and three-fourth of their capacity are limited to Combat speed. Loads from three-fourth to full towing capacity reduce the speed to half Combat speed until the load is dropped.

GRAVITY EFFECTS ▼

The speed and acceleration of a vehicle are not greatly affected by gravity, since they have more to do with mass (which does not change) than weight. It is, however, harder to maneuver in low-g environments because of reduced ground pressure. If the local gravity is lower than Earth's, apply a -1 Maneuver penalty to all rolls; if higher, apply a +1 bonus per additional g. The maximal jumping distance is, of course, also increased or lowered. See *Jumping*, above, for the actual effects. Falling damage is calculated as usual, then multiplied by the local gravity (in g).

▶ PLANETARY MOVEMENT — AIR

Aerial movement follows the same basic rules as ground movement, with the addition of altitude levels. The Aerial Movement rules can optionally be used for space combat if the style of the campaign is more cinematic than realistic (see page 223 for suggested campaign styles).

Since aerial combat hexes are not only larger but also in three dimensions instead of two, there is a lot more room in them than ground tactical hexes. Therefore, stacking is not really an issue: in Air War scale, up to 150 Size points may stack in one hex.

▼ ALTITUDE

Aircraft must keep track of what altitude level they are at. One altitude level is equal to one "hex" of elevation (250 m). Climbing one level of altitude costs 3 MP. Dropping one level of altitude costs 1 MP. Aircraft must stay at one level of altitude above the ground or crash (treat as automatic Heavy Damage if at Combat Speed, Overkill if at Top Speed).

Some aircraft have the Maximum Angle of Attack flaw, which forces them to move a certain number of hexes before being able to climb one hex. Aircraft without this flaw can climb straight up if they want, spending all their MPs in a single hex.

Always record a vehicle's altitude every round after moving it. It can be written down on a piece of scrap paper, in the margin of the record sheet, or marked with one or more 10-sided or 20-sided dice placed next to the unit on the map board.

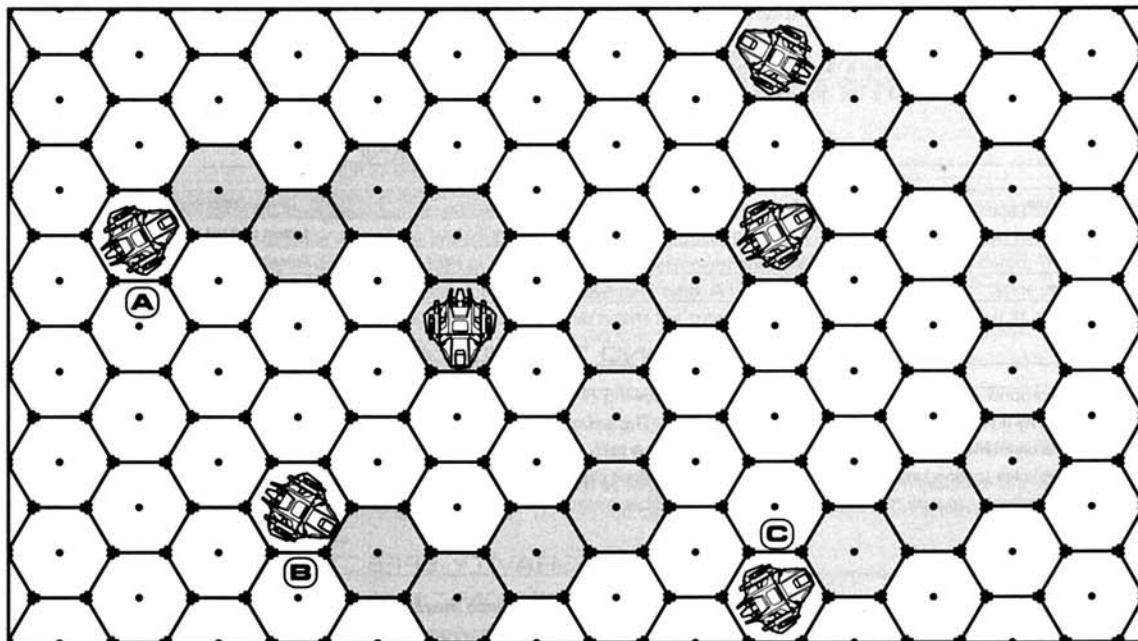
Since most aircraft fly at considerable altitudes, the terrain effects of the hexes below them are irrelevant — all hexes cost one MP to move through. Terrain effects are ignored unless attacking ground targets: the Obscurement (see page 150) of the target hex counts. If the aircraft has the Nap-of-Earth Flying Perk, it may use ground Obscurement between the attacker and itself for protection. Some high ground, such as mountains, may also obstruct the line of sight between two aircraft.

▼ MANEUVERING

Aircraft in the Air War scale use the ground tactical rules for maneuvering, with one exception: only VTOL craft can change their facing more than one hexside per hex moved. Non-VTOL aircraft with negative maneuver bonuses must travel straight ahead one more hex per negative maneuver point before turning one hexside. The number of hexes needed to be traveled before turning is called "turn radius."

Aircraft moving at speeds below 6 have their turn radius reduced by one. If the turn radius is equal to 0, treat the aircraft as VTOL for purposes of maneuvering. Aircraft moving at speeds greater than 20 have their turn radius increased by one.

❶ TURN RADIUS



Aircraft A has a Maneuver bonus of 0 and can change its facing by one (and only one) for every hex it moves. Aircraft B has a Maneuver rating of -1: it must travel one more hex before changing its facing (by one hexside only); it is said to have a turn radius of 2. Aircraft C has a Maneuver rating of -2: it therefore has a turn radius of 3, which means it has to travel three hexes before turning by one hexside.

TIGHT TURNS ◇

Aircraft can try to make turns tighter than their Turn Radius will allow, but must make a Piloting roll against a Threshold equal to three, adding one for every point the actual Turn Radius was tighter than the aircraft's normal Turn Radius. A failure means the pilot must roll on the *Aircraft Control Loss Table* (see p. 148), adding one per point of Margin of Failure. The pilot must also make a Fitness roll against the same Threshold to avoid blacking out (lose one Action). A fumbled FIT roll means the pilot loses consciousness for the turn.

Aircraft can also use the sideslip maneuver, in which the plane moves to a hex situated forward and 60° to the right or left, without changing headings. Sideslipping costs 1 MP per hex. If more than five sideslips are performed in the turn, the aircraft automatically loses one Altitude Level.

DIVING ◇

An aircraft dives when it spends a number of Movement Points equal or greater than half its Combat Speed to lower its altitude. At the end of the movement, the pilot may attempt to pull out of the dive. Pulling out requires a Piloting roll vs. 4, counting the aircraft's Maneuver rating.

A failed Piloting test means that the aircraft cannot pull out and begins to fall as if it were Stalling (see below). The aircraft loses every round an additional number of altitude levels equal to the MPs it originally spent in beginning the dive, until it pulls out of this uncontrolled fall (Piloting vs. 6). If the aircraft's altitude level goes under that of the ground on that hex, the vehicle crashes and is completely destroyed.

A fumble on the Piloting roll to pull out of the dive requires another die roll, this time on the *Aircraft Control Loss Table* (see page 148); the effects indicated are applied in addition to the normal effects of the failed Piloting roll, unless they are redundant or contradictory.

The pilot of an aircraft pulling out of a dive can choose any facing he wants; see the section on Stalling, below, for finding out the aircraft's heading when coming out of an uncontrolled fall. The speed of an aircraft pulling out of a dive is equal to the number of altitude levels dropped in the last round of the dive.

FALLING AND STALLING ▼

Aircraft have a Stall Speed attribute which dictates the *minimum* speed at which they must fly to avoid stalling, or losing altitude due to the wings' reduced lift. At the end of any turn, if the aircraft is moving below its designated Stall speed, it will begin to stall and fall. Any aircraft that is reduced to zero MP because of *Structure damage* (loss of the lifting surfaces) automatically falls. Every round the craft stalls or falls it loses an increasing number of altitude levels, as indicated on the *Altitude Loss Table*.

To pull out of a stall, the pilot must first wait until the number of altitude levels lost is equal or higher than his aircraft's Stall Speed, then make a Piloting roll against a Threshold of 6 (this can be during the first turn of falling/stalling). If the pilot's Margin of Success is of 2 or higher, he can select his craft's heading when he pulls out of a stall; on a MoS of 1, determine randomly with the roll of a die. If the roll does not succeed, the pilot may try again once his aircraft has again lost a number of altitude levels equal or greater than the Stall Speed. He may try repeatedly until the aircraft has lost the prescribed number of altitude levels for the turn.

If the aircraft reaches the ground, it suffers damage equal to the roll of two dice times the Size of the vehicle, times the number of altitude level fallen. The pilot may attempt to turn a straight-on dive into a crash-landing by making a Piloting roll vs Threshold of 6, then following the rules in *Crash-landing* on page 149.

ALTITUDE LOSS TABLE □

# of Turns	Drop
1	18
2	32
3	36
4+	36

of Turns is the number of turns the aircraft has been stalled.

Drop is the number of 250 m altitude levels lost during the turn. The maximum number of altitude levels lost in one turn is 36.

7.6.4

5.9.2

Whenever a pilot fails during a delicate aerial maneuver, or fumbles any piloting roll, he must roll one die and compare the result on the following Aircraft Control Loss Table. Specific maneuvers may give bonuses or penalties on the roll, otherwise the roll is taken straight. If the result given is redundant or contradictory to the current situation of the aircraft, the result is ignored.

Roll	Effect
1	Nothing more than a good scare... Pilot loses 1 action.
2	Aircraft Sideslips, as per maneuver. Roll randomly for left or right.
3	Aircraft Skids (turns one hexside but keeps going in the same direction) for a number of hexes equal to the roll of one die. Roll randomly for left or right if necessary. If the aircraft runs out of MPs during the skid, it must begin its next movement phase with the remainder of the skid.
4	Aircraft suffers Light Structural Damage.
5	Aircraft loses a number of altitude levels equal to the roll of one die.
6-7	Aircraft Stalls — see Stalling rules.
8-9	Aircraft suffers Light Structural Damage and Stalls.
10	Aircraft suffers Heavy Structural Damage.
11	Aircraft Suffers Heavy Structural Damage and Stalls.
12+	Aircraft goes into an uncontrollable spin. It suffers Heavy Structural Damage and will crash unless the pilot makes a Piloting roll vs. a Threshold of 10 to regain control.

9.9.2

2.9.2

If the vehicle is equipped with a Space movement system that creates more thrust than the local gravity, the vehicle can use any extra thrust to fly. The following formula shows the extra speed supplied by the thrusters, assuming a generic, moderately streamlined vehicle. This can be added to the speed of another movement system, but if the resulting speed is greater than one and a half the normal Flight speed, the vehicle suffers a -1 penalty to Maneuver.

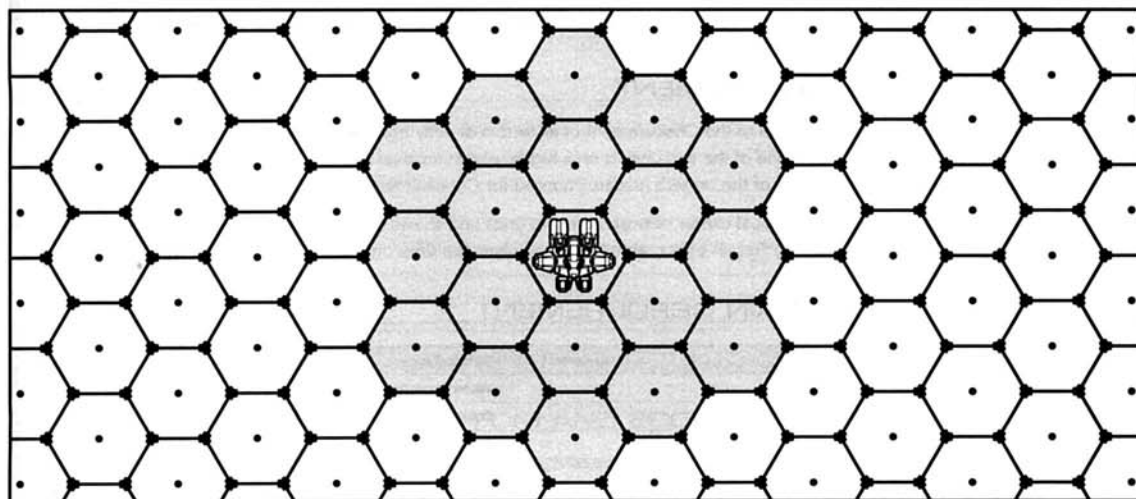
•	Thrust = Mass [tons] x (Acceleration [m/s] - local gravity [m/s])
•	Drag = (Size - 0.5) cubed/2 [divide by 4 if it has the Streamlined Perk]
•	Thruster Flight Speed = square root of (50 x (thrust + drag))

GROUND/FLIGHT INTERFACE ▼

For hybrid games, which combine Air War with ground tactical combat, a good solution is to use two maps: one for ground forces and one for aircraft, (include a miniature version of the ground map with the air map). In effect, the two maps represent roughly the same battlefield (though the Air War map will usually cover a larger area). The individual Air War hexes correspond to the ground hexes in groups of nineteen.

Another way of combining both aircraft and ground units is to multiply the aircraft's Combat and Top Speed values, as well as their Turn Radiuses (see below), by a factor of five (5). VTOLs are considered as having a Turn Radius equal to the absolute value of their Maneuver, with a minimum of one (hence a -3 Maneuver VTOL would move three tactical hexes before turning).

AIR/GROUND HEX INTERFACE ①



INTERFACE ATTACKS ◇

Interface attacks refer to ground-to-air and air-to-ground combat. Combat units have to contend with very short attack windows and extremely different ranges. Ground vehicles are generally not equipped to attack aircraft: targeting computers are not correctly calibrated, guns cannot be elevated far enough, etc. Ground attacks versus aircraft suffers a -2 penalty, but use the Air War's weapon ranges against anything that flies above NOE altitude.

Aircraft attacking ground units suffer from similar problems. Air-to-ground attacks have a -1 penalty and must use the tactical weapon ranges. The exception to this is any indirect fire or freefall weapon, which can be "lobbed" from further away and thus use the regular Air War ranges.

LANDING/TAKE-OFF ◇

Aircraft must stay at one level of altitude above the ground or crash. The exception to this rule is landing. When a vehicle lands, it must end its movement at Combat Speed, on terrain with a Ground vehicle MP cost of no more than 1 (rougher terrain will result in a crash-landing; see below). On the following round, the vehicle switches to its Ground movement mode, if any — otherwise, it must remain stationary. Some vehicles have Hover or Naval landing gear, but the landing procedure remains the same (obviously, an aircraft with Naval movement must land on water).

Vehicles may be equipped with extra-heavy landing gear (Improved Movement System Perk). These can land in any terrain that has a MP cost of 2 or less for the chosen movement system.

CRASH-LANDING ◇

Whenever an aircraft is forced to land on rough terrain or no longer has a landing gear/system (Ground Movement System destroyed), it is said to be crash-landing. Treat a crash-landing as a fall, replacing the number of elevation levels fallen by half the speed (in MPs — usually the Stall speed; round up) of the aircraft as it lands.

The pilot has a chance to lessen or totally eliminate the damage. A Piloting roll (with Maneuver bonus) is made against a Threshold equal to the cost in Ground MPs of the surface he is landing on. The Margin of Success from that roll is subtracted from the die roll used to determine crash-landing damage.

7.6.8

end of section 7.6 planetary movement - air



► LINE OF SIGHT AND OBSCUREMENT

A unit must "see" its target to fire. The ability to detect and target an opposing unit is called, for simplicity, having a Line of Sight (LOS). This does not necessarily imply that the target is within human visual sight, merely that it can be acquired and locked on by the sensors and fire control computers available to the detecting unit. Units are considered to have a LOS to their target unless one (or more) of the following conditions exist.

▣ LINE OF SIGHT NON-EXISTANT IF...

- The target is beyond the detecting unit's Sensor range.
- Any terrain between the two units is one or more elevation levels higher than both the units.
- Either unit is within the dead zone of an intervening elevation level (adjacent to an interceding elevation increase).
- The Concealment value between the vehicle and the target is greater than the vehicle's Detection rating (see below). 0

▼ CONCEALMENT

The Concealment value is equal to the Obscurement of all terrain directly between the two units, plus the Obscurement of the terrain the target is in. If one of the two units is on a higher elevation level than the other, only the terrain at the higher elevation level and the terrain of the target's hex are counted for Concealment purposes.

Concealment represents the visual clutter between the two units and shows how difficult it is to spot a target with passive sensors or the naked eye. The Terrain Effect table below indicates the Obscurement scores for each type of terrain.

▣ TERRAIN OBSCUREMENT

Terrain Type	Obscurement	Terrain Type	Obscurement
Clear	-	Water, Liquefied Gasses	2*
Rough	-	Deep Water, Deep Liquefied Gasses	4*
Sand, Moon Dust	-	Snow, Frozen Gasses	-
Woodland	1	Deep Snow	1
Jungle	2	Ice	-
Swamp	1	Elevation	-

* These only produce Obscurement if the defender is in the hex and is not a Hover, Naval or Amphibious vehicle.

◇ SPACE OBSCUREMENT

As a rule, there is little obscurement to be found in space. The dense asteroid field where rocks tumble and collide with each other is mostly a science-fiction invention — even in the main belt, kilometers separate the various rocks. A few elements however, do influence detection in space.

The most common form of tangible "dust" in space is ice crystals forming out of the atmosphere or tankage of a leaking space vessel. They are otherwise very rare, found only in planetary rings. Clouds of dust absorb light and reduce visibility, causing one point of Obscurement per hex. Debris particles are somewhat bigger, but have effects similar to dust. They cause two points of Obscurement per hex. Debris hexes can be used to represent a recently pulverized asteroid, the core of a planetary ring, or the remains of an unlucky spaceship.

The shadows of planets and other celestial bodies are extremely dark, because there is usually nothing nearby to reflect light into them. Anything located in shadows gets an automatic base Obscurement of 4.

▼ DETECTION RATING

The vehicle's Sensor rating is added to its crew's EW Skill level to produce the vehicle's passive sensor value, or Detection rating. All units, including infantry, get a default rating of 4 in daylight or 2 at night from unassisted vision. The highest value of the two is the vehicle's Detection rating. Unassisted vision has a range of 1 kilometer; if sensors are available, their range is used instead.

▼ ACTIVE SENSOR LOS

Active Sensors can obtain a Line-of-Sight (LOS) when visual or passive sensor LOS is impossible. An EW Skill test is made, modified by the vehicle's Sensor rating. The Threshold is equal to the target's Concealment value, minus the Detection Threshold Modifiers (see table next page). A success gives the detecting unit a LOS to the defender, a draw, failure, or fumble does not. Vehicles without sensors cannot perform an Active Sensor detection. Active Sensor sweeps, unlike passive or visual detection, require a full action to complete.

▷ ACTIVE SENSORS CONTINUED

The range of the sensor and communication system can be augmented by increasing power, but this gives a much larger sensor signature and somewhat reduces the sensor's precision. The listed range is the base range in which the vehicle's passive sensors operate. Using active sensors in that range gives no penalty. Each doubling of the range requires an Active Sensor action and gives a -1 modifier to detect (others also get a +2 modifier to detect the unit using active sensors).

On a planetary surface, unless using a relay station or friendly vehicle as a spotter, the maximum range is equal to the distance to the horizon. This distance will increase if the unit is placed on a high vantage point, such as a mountain or other high ground, and decrease if the vehicle is on low ground (valley, canyon). Similarly, the horizon will be much closer on a smaller body, such as a moon or an asteroid.

DETECTION THRESHOLD MODIFIERS ▢

Applied to attacker's roll	
Sensor Rating	variable, by default 0
Range and Arc Modifier	-1 per extra range band; arcs as <i>Firing Arcs</i> below
Target Sensor Profile	variable, by default 0 (see page 175)
Target Sensor Signature*	+2 per extra range band used by target
Applied to (Concealment) Threshold	
Stealth Rating	variable, by default 0
Ground Movement Penalty	-1 per hex moved by target
Air Movement Penalty	-1 per five Air War hexes moved by target
Space Movement Penalty	-1 per Thrust Point applied by target
Combat Penalty	-1 per weapon fired by target

*Applicable only if target used Active Sensors this combat round.

ECM AND ECCM EFFECTS ▼

Electronic Counter Measures and Electronic Counter Counter Measures are used to affect communication and sensor transmissions. ECM and ECCM thresholds (Electronic Warfare Skill + Rating) are rolled immediately after the action is spent to activate these systems, but their effect is not felt until the beginning of the next round.

If ECM is active and functional during the initiative phase, all Sensor and Communication rolls for the round are affected and must beat the ECM Threshold. The unit which is using either of these systems is the one testing, not the receiver. Transferring Command points requires a Communication test from the commander's unit (if an infantry squad, use Infantry Skill with Comm 0). ECM affects all enemy units within the emitter's Sensor range.

If ECCM is active during the initiative phase of the turn, all active ECM systems within the Sensor range of the ECCM unit must compare their own Threshold to the ECCM's Threshold (or Thresholds, if there are more than one ECCM system active). If the ECCM Threshold is equal to or higher than the ECM's Threshold, the ECM has no effect that turn.

The ECM unit may spend an action during the turn to try and increase its own Threshold in order to beat the ECCM in the next round. Likewise, the ECCM unit may spend an action to try to raise its own Threshold for the next round. The new result stands, even if it is lower than the previous one. Friendly ECM units are not affected by their side's ECCM.

STEALTH EFFECTS ▼

During daytime, the rating of a Stealth system is added to the Concealment total only when there is Obscurement between the attacker and the defender (Stealth does not confer invisibility). Stealth systems are always added to the defender's Concealment at night, since most stealth vehicles are painted in dark shades and feature silent running drive trains.

Stealth aircraft are designed to escape long range sensors. In addition, they don't cause as much of a visual disturbance as a ground stealth unit would cause on the ground (no bushes to push around, for example). Flying Stealth units apply a -1 modifier for every five (5) Air War hexes traveled.

Space units are hard to detect against the background of deep space, but fusion engine exhaust and rapid movement make it impossible to conceal a "burn" when changing vectors. Stealth vehicles are nearly impossible to detect unless they fire their engines or a weapon system; Stealth is always in effect for space vehicles.

FIRING ARCS ▼

Sensors use the same modifiers as the Defense Arc (page 154). Vehicles may only target opponents that are within their weapons' firing arcs. There are six common firing arcs: forward, right, left, rear, fixed forward, and turreted. If a weapon does not have a clearly stated firing arc, the default arc is the forward arc. See page 154 for diagrams.

7.7.4

7.7.5

end of section 7.7 Line of sight and obscurment

7.7.6



► ATTACKS

If a unit has a LOS to a target within its weapon's firing arc and range, it can attack that unit. When an attack occurs, an opposed Skill test is required to determine the success of an attack. The attacker uses his unit's Gunnery Skill and the defender uses his unit's Piloting Skill to make the roll. If the attacker wins the Skill test, the attack succeeds. If the defender wins or if a draw occurs, the attack misses. The following is a short list of the modifiers to both rolls; they are explained further in the text.

▣ ATTACK AND DEFENSE MODIFIERS

Attack Roll Modifiers:	
•	Fire Control Rating
•	Weapon Accuracy Rating
•	Range Modifier
•	Attacker "Speed" Modifier
•	Obscurement Penalty
Defense Roll Modifiers:	
•	Maneuver Rating
•	Defender Movement Modifier
•	Arc Of Attack Modifier
Possible Outcomes	
If Attackers total is above Defender's	HIT
If Attacker's total is equal to or below Defender's	MISS

▼ ATTACKER MODIFIERS

Life is not a firing range; combat is harder under certain conditions and easier under others. Modifiers resolve this by introducing penalties and bonuses to each combat roll. Apart from the quality of the vehicle's Fire Control computer and the Accuracy of the weapon, three other factors apply: the range to the target, the obscurement (or cover) between the attacker and defender and the attacker's own movement.

◇ RANGE

Every weapon is rated by a value known as Base Range. The Base Range is expanded into four range bands, each doubling the distance of the last. An additional range, Point Blank, is available for close combat within the same map hex. Although there is no theoretical limit on certain weapons' ranges, such as lasers, the following ranges are practical combat limits.

▣ RANGE MODIFIERS

Point Blank	+1	Special range (same hex)
Short	0	(from 1 hex to base range)
Medium	-1	(from previous to two (2) times base range)
Long	-2	(from previous to four (4) times base range)
Extreme	-3	(from previous to eight (8) times base range)

◇ OBSCUREMENT

Various terrain types, such as swamp and wooded areas, obscure a target and make it difficult to hit. The Concealment value of the defender (see *Line of Sight*, page 150) is subtracted from the attacker's roll to represent the lack of accuracy and the damage absorption caused by intervening cover.

Indirect fire (see page 156) is an exception to this. Since the attack is arcing through the air above the intervening terrain, only the Obscurement of the defender's hex counts for the attack roll.

▣ OBSCUREMENT MODIFIERS

Swamp	1
Woodlands	1
Jungle	2
Water	2/4*

* Only produces Obscurement in the defender's hex and only if defender is not a Hover, Naval or Amphibious vehicle.

ATTACKER MOVEMENT ◇

A moving gun platform has a harder time hitting than a stationary one. Conversely, a unit that is moving slowly will generally have much less trouble keeping its weapons trained on a target. In space, applying sudden bursts of thrust tends to throw the aim of the gunner and thus causes misses. The less thrust applied by the unit during the combat round, the easier and more stable the shot is.

MOVEMENT MODIFIERS □

Stationary	+2
Half Combat Speed/Thrust or less	+1
Combat Speed/Thrust	+0
Top Speed/Overthrust	-3

DEFENDER MODIFIERS ▼

Targets rely on the following modifiers to help them avoid shots. In general, the only defense of large and ungainly vehicles is their speed, as their poor Maneuver rating will severely hamper their defense. Attacks coming from the rear are also much more dangerous than attacks from the front, both because the armor is thinner there and because the crew's attention is much more focused on the front arc. If the Players so prefer, the sign of the following modifiers can be inversed and applied to the attacker's roll instead.

MANEUVER VALUE ◇

Each vehicle has a set Maneuver value by design. Negative Maneuver values are for slow and ponderous vehicles like battleships and large tanks. Positive Maneuver values are for fast and agile vehicles like motorcycles, combat helicopters and exo-armors.

TARGET SPEED ◇

An enemy platform's speed affects how easy it is to hit. Speed works on the following ever increasing scale. If the target has not moved yet in the round, its last recorded movement is used to determine its modifier.

In space combat, use the number of Movement Points spent by the target instead of the number of hexes moved.

TARGET SPEED MODIFIERS □

Hexes Moved	Defense Modifier
0	-3
1-2	-2
3-4	-1
5-6	+0
7-9	+1
10-19	+2
20-99	+3
100-999	+4

HANDLING COMBAT ▣

Combat is both a bane and a relief for the Gamemaster. A bane, because it often takes a long time of actual game play to resolve even a short encounter, and a relief, because nothing spices up a tranquil session like a sudden burst of action.

The best trick is to keep it lose and fast. Pull out the hex maps only if the battle is the main event of the scenario. Smaller battles can generally be ad-libbed using notes on a sheet of paper. Make sure you have all the information that you need on hand — it might be worth it to create generic pilot groups, complete with stats, vehicles and favorite tactics. You'll probably want to use the Cinematic rules on page 223 and the scribbled notes mentioned above, so that you can ignore a lot of the bookkeeping and keep the focus on the story and the characters.

Some playing groups prefer detailed results in combat. They'll insist on tracking every shot, every missile and every Burn Point expended. That's fine too, but be prepared to spend a few hours on any given encounter. Maps are also almost mandatory here.

7.A.2

HOOKS AND TIPS



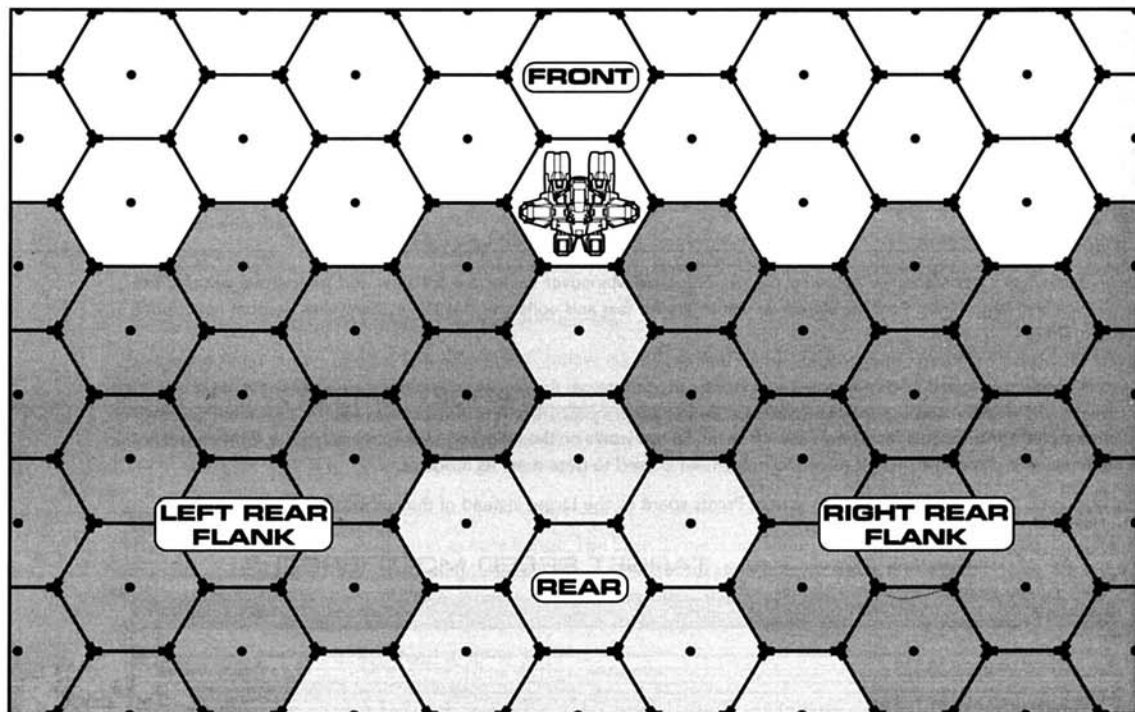
◇ DEFENSE ARC

The arc from which the attack comes from can reduce the defender's chances of success, either because of inattention or thinner armor. Most combat vehicles carry less armor on their back than on the front, and pilots obviously don't have eyes on the back of their head! The modifiers for the Defense Arcs also apply to Active Sensor checks (see page 150).

▣ DEFENSE ARC MODIFIERS

If attack is in the defender's Front	0
If attack is from defender's Rear Flank	-1
If attack is from defender's Rear	-2

① DEFENSE ARCS DIAGRAM



▼ PHYSICAL ATTACKS

There are few vehicles that can make effective physical attacks. Ground vehicles are capable of ramming, but few commanders exercise the option. With humanoid exos, old-fashioned close-in attacks have become common. Ramming, punching, kicking, stomping and all manners of melee weapons are used on the battlefield when ammo runs out. All physical attacks use the attacker's Piloting Skill instead of his Gunnery Skill.

◇ RAMMING

Impact at high speeds can be devastating. Frontal collisions are almost always deadly, while impacts from either side or from the rear are slightly less dangerous. Ramming is a standard Opposed Skill roll. In air and space combat, both vehicles must be at the same altitude level (or on intersecting vectors) for a ram to occur. Unlike other attack forms, ramming inflicts damage on both the attacker and the defender.

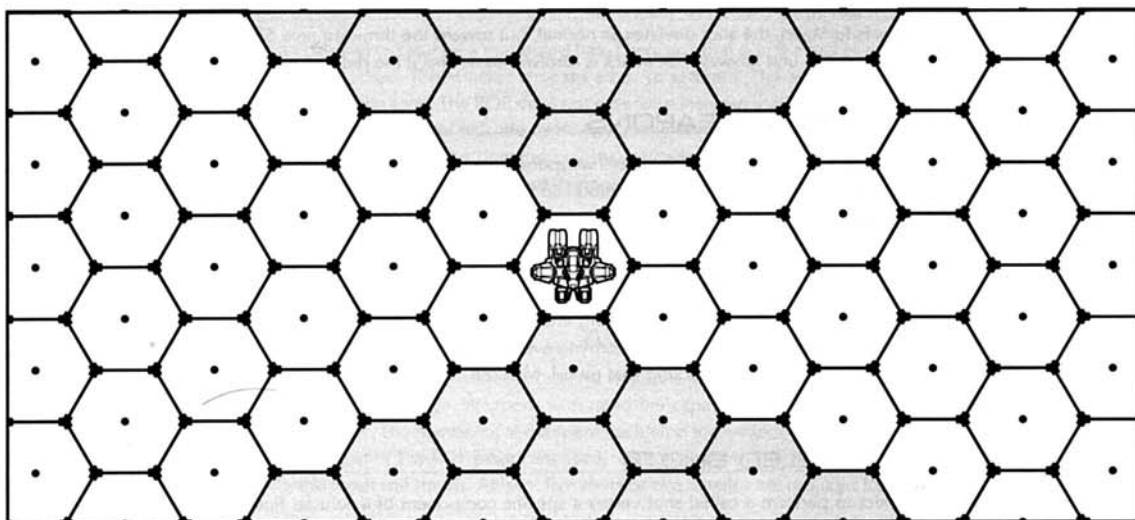
When determining ramming damage, first determine impact speed based upon the direction of the attack. Head on collisions add the speeds (or velocities, in space) of the attacker and defender. Side impacts take the attacker speed, and rear collisions take the difference between the two speeds.

Once the impact speed has been established, a damage modifier is determined using the Impact Speed Modifiers table. This damage modifier is added to the Size of each vehicle to determine the Damage Multiplier used against the other vehicle. Each vehicle will take an amount of damage equal to the Margin of Success of the attack multiplied by its opponent's impact Damage Multiplier (see *Damage*, page 158).

RAMMING

Ramming Direction	Impact Speed
Head On	Attacker Speed + Defender Speed
Side	Attacker Speed
Rear	Attacker Speed - Defender Speed

RAMMING ARCS DIAGRAM



IMPACT SPEED MODIFIERS

Impact Speed (MPs)	Ground Damage Modifier	Air/Space Damage Modifier
1-2	-2	0
3-4	-1	+1
5-6	+0	+2
7-9	+1	+3
10-19	+2	+4
20-99	+3	+5
100-999	+4	+6

PUNCHING

A Manipulator Arm or an equivalent appendage (Tool or Battle Arm) is required to punch. Walker vehicles are the most common type of punching vehicle, but construction vehicles with hydraulic arms can achieve a similar effect. The Damage Multiplier of a vehicle's punch is equal to the Rating of the punching arm.

KICKING AND STOMPING

Kicking vehicles and stomping infantry are both valid attacks for walker vehicles. Kicking or stomping requires a Piloting roll vs the defender's Piloting, (or infantry's Skill) to attack, and the Damage Multiplier is equal to the Size of the vehicle.

THROWING

Throwing is used to hurl items, such as rocks or grenades. At least one arm is required for throwing. Battle and Tool Arms may not be used to throw objects, unless they have been specifically designed to do so. If so, they may not be used for another function, and a Battle Arm cannot pick up the projectile by itself.

The base throwing range (in meters) of the arm is equal to twice its rating. This total is reduced by the Size of the object being thrown, which is subtracted from the throwing arm's rating before doubling it. If the object being thrown is larger than half the Size of the throwing vehicle, half the rating of another arm can be added to the effort. Weapons' Sizes are equal to their Min. Size requirement minus one.



▷ THROWING CONTINUED

The Base Range calculated above is doubled for each additional range band, as for any other weapon. When playing on a hex board, both the attacker and defender are considered to be in the middle of their respective hexes when determining the throwing range.

When an object is thrown, a Gunnery Skill roll, modified as normal for range and movement, is made. If the modified roll is equal to or higher than the defense roll, the thrown object lands right on target. If the dice roll is failed, the shot will deviate from its intended destination by a number of meters equal to twice the Margin of Failure. One die is rolled for the direction of the deviation. When using hexes, the deviated projectile is placed in the nearest possible hex, considering the target point as the center of the target hex. In space, the object will move the same distance every round, until it exits the map.

If the attack roll was fumbled, the shot deviates as normal, but toward the throwing unit. Sometimes, a fumble will land a projectile right on top of a unit anyway. The attack is resolved as normal if the defense roll of the new target is failed.

◇ MELEE WEAPONS

Much like punching, attacks with various hand-held weapons are an exo-vehicle's battle signature. To effectively use such a weapon, the pilot attacks using his Piloting Skill, modified by the vehicle's Fire Control. A melee weapon's Damage Multiplier is listed on the vehicle record sheet.

▼ EVASIVE MANEUVERS

Evasive maneuvers allow the pilot to avoid incoming attacks. An evasive maneuver counts as an action and must be declared at the beginning of the combat round. Performing evasive actions adds a +3 bonus to all defense rolls for the combat round, but forbids the vehicle from attacking that round. Multiple "evasive actions" cannot be performed to accumulate defensive bonuses.

▼ CALLED SHOTS

A gunner may elect to perform a called shot versus a specific component of a vehicle. Possible targets are Fire Control, Structure, Crew Compartments, Movement Systems, and Auxiliary Systems. These locations are represented by 1 to 5 on the *Systems Damage* table (see *Damage*, page 158). Called shots take a -1 modifier on their attack. If the called shot hits, the odds of hitting the specific component are increased (see *Damage*).

High precision shots versus tiny targets (headlights, for example) are also possible. The shot must be aimed and a Margin of Success of at least 3 is required to hit. If the MoS is lower than 3 but above 0, the attack hits the targeted location but not the tiny target.

▼ INDIRECT FIRE

Indirect fire is used by artillery batteries and other vehicles that have weapons capable of indirect fire. Indirect fire is primarily used for fire support. Only weapons that are specifically designated as indirect firing weapons may use this form of attack. Indirect fire may not be used in micro-gravity environments (0.2 gee or less), and suffers an additional -1 penalty in environments of 0.5 gees or less.

To fire indirectly, a friendly unit must be designated as the forward observer. The forward observer must have a LOS to the target, counting Obscurement at full value. Being a forward observer requires one action. A single forward observer, however, can relay fire coordinates to multiple indirect fire units.

Indirect attacks can be launched over obstacles, including interfering elevation levels, because the attacks are angled over the obstructions. The attacker may ignore the Obscurement modifier to attack except for the hex where the target stands.

▼ BURST FIRE

Any weapon with an Rate of Fire (ROF) bonus of 1 or greater is capable of burst fire. The rate of fire bonus acts as a bonus to a weapon's Damage Multiplier when the weapon is used against vehicles. A successful burst fire attack versus infantry adds the ROF bonus to the Margin of Success instead of the damage rating. For every point of ROF bonus used, five rounds of ammunition are expended. Note that to conserve ammo, a player may elect not to use the weapon's entire ROF bonus. Burst fire has the effect, however, of lowering the weapon's effective damage because many rounds will simply not connect. If the effective ROF bonus is zero, only one round of ammunition is expended.

◇ MISSILE ROF

Unlike other weapons, weapons with the Missile characteristic do not expend five rounds of ammunition per point of ROF bonus used. Instead, the number of missiles or rockets used doubles for every point of ROF used. Thus, ROF +1 = 2 missiles, ROF +2 = 4 missiles, ROF +3 = 8 missiles, ROF +4 = 16 missiles, and so on.

WALKING FIRE ◇

Weapons capable of burst fire can be used to attack multiple targets in a single action by walking the burst across the targets. A player must declare that he is walking fire before any attacks are made. The player then chooses the targets of his attack. A number of targets equal to the weapon's ROF plus one may be attacked. For each extra target, the weapon's ROF is reduced by one for damage purposes (but not for ammo expenditure). All targets must be within the weapon's firing arc and in adjacent hexes (empty hexes count as additional targets). Each attack is rolled separately. Each individual target may not be attacked more than once per round by the same weapon (no extra attacks against one target).

SATURATION FIRE ◇

A burst fire weapon (ROF $\geq +1$) can be used to saturate a mapboard hex. Every unit that is in the hex or enters the hex later in the combat round is automatically attacked. The attacker chooses a hex to saturate. The attack roll is made normally, except that the weapon's ROF is added to the total. The ROF does not otherwise increase the Damage Multiplier or Margin of Success of the attack. After rolling, the attacker records the total. Any unit in the hex (or that enters the hex later in the combat round) must defend against this number or be damaged by the saturation fire. The Margin of Failure of the defender is treated as the Margin of Success of the attack (i.e. total damage = MoF x Damage Multiplier of weapon).

The saturation zone cannot be further than the medium range of the weapon, and the weapon uses 10 shots (or 4 missiles) per ROF point used. If the weapon does not have this much ammo left, the result still stands (although the ammo magazine is emptied). A least 10 rounds of ammunition (or 4 rockets) are required to saturate a hex.

ANTI-MISSILE FIRE ▼

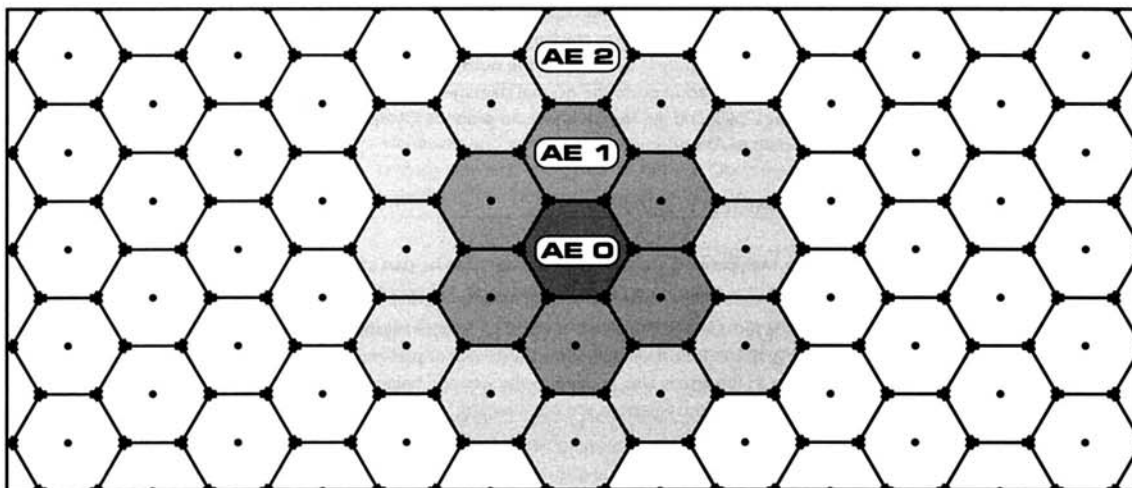
Any ranged weapon can be used to defend against a missile attack. All weapons (except Anti-Missile weapons) suffer a -6 modifier to hit when used in Anti-Missile (AM) mode. Weapons with rapid-fire capacity can use ROF points to reduce or eliminate this penalty on a one-to-one basis. The number of shots spent each time the weapon is fired in AM mode is equal to five minus the MoS, with a minimum cost of 1. If ROF points are used, multiply the previous result by five (2 for missiles). If there isn't sufficient ammunition, the result still stands. At least five shots or two missiles are required for Anti-Missile fire.

The weapon completely destroys the missile when successfully used versus a single shot attack. When used to defend versus a missile cluster (ROF attack), burst fire *must* be used. Each point of MoS reduces the incoming cluster's ROF bonus by one. If the ROF bonus drops to zero, all of the incoming missile flight has been effectively destroyed. Because it is a wild attack, anti-missile fire does not use up actions and may be rolled versus every incoming missile cluster. The Player can also make several anti-missile attacks against a single incoming missile (or salvo) at the cost of 1 Action per extra attack.

AREA EFFECT WEAPONS ◇

Area effect weapons damage everything in their radius, indiscriminant of friend or foe. These weapons are rated in Area Effect (AE), followed by the radius of hexes of their blast area (radius 0 means only one hex is affected). A single attack roll is made, with each and every vehicle and troopers (allies included) in the area affected rolling a defense against this value separately. Even if the blast is completely defended against (MoS equals 0 or lower), any unit in the blast zone still takes part of the explosion's Damage Multiplier in concussion damage (DM in atmosphere, 1/2 DM in space).

AREA EFFECT DIAGRAM ①





► DAMAGE

A weapon's damage increases with the Margin of Success of its attack. Weapon damage is rated as a multiplier to the Margin of Success. Thus the better the marksman, the more damage is inflicted.

- **Total Damage = Margin of Success x Damage Multiplier**

This final damage is compared to the general armor of the target. The following are the possible outcomes. Only the most severe effect applies. For example, if a vehicle suffers Heavy Damage because it took damage exceeding twice its base Armor value, it does not suffer Light Damage even though it obviously took damage in excess of its base Armor rating.

▢ DAMAGE VS ARMOR TABLE

Damage to Armor	Outcome	What to Do
Damage smaller than 1	No Effect	Nothing; Damage bounces off
Damage larger or equal to 1 but smaller than 2 x 1	Light Damage	Roll on Systems Damage Table, Light
Damage larger or equal to 2 x 1 but smaller than 3 x 1	Heavy Damage	Roll on Systems Damage Table, Heavy
Damage larger or equal to 3 x 1	Overkill	Vehicle Destroyed; remove counter
Vehicle Base Armor = 1		

▼ SYSTEMS DAMAGE

The attacker rolls one six-faced die to find the location of the hit on the Systems Damage Table, next page. When multiple possibilities exist for exactly which vehicle component is damaged, such as when weapons or auxiliary systems are hit, another single die is rolled. If the result is an odd number, the defender chooses which system is damaged. If the result is an even number, the attacker chooses which system is damaged. For example, a defender might receive a "-1 to Single Weapon" damage effect. If this defender has more than one weapon, a die is rolled. If the number is odd, the defender will probably choose to penalize his most feeble weapon. If the number is even, the attacker will most likely opt to damage the defender's main weapon.

Auxiliary systems include Sensors, Communications and any Perks which are labeled as auxiliary systems (e.g. life support, ejection systems). If any turreted weapon is present, its turret is counted as an Auxiliary system and may be disabled like the rest. A destroyed turret is frozen in place and any weapon mounted in it becomes fixed in the arc where it last fired. Many Perks are not auxiliary systems (e.g. Arms, Reinforced Crew Compartment).

Crewmembers that become casualties are automatically useless for the remainder of the combat. They are not necessarily dead, but they are unconscious, pinned, wounded or otherwise unable to fight. After the combat, roll one die for each casualty. If the result is 3 or less, the crewmember is dead. If the result is 4 or more, the crewmember was only wounded and may be used in later scenarios of a campaign. For vehicles with large crews (e.g. warships), simply assume that half of the casualties were fatalities and that half were wounded.

If a vehicle's Sensors or Fire Control are utterly destroyed, the vehicle may still perform actions that require these systems, but suffers a -5 modifier. If a vehicle's Communications system is destroyed, the vehicle may not be used as a forward observer for indirect fire and may not use Command Points.

▼ DAMAGE TO ARMOR

Armor loses its effectiveness when damaged due to cracking and structural fatigue. When a vehicle receives Light Damage, it loses 1 point of base Armor permanently in addition to the normal damage. Heavy Damage causes a vehicle to lose 2 points of base Armor permanently in addition to the normal damage. Each lost point of base Armor reduces the amount needed to inflict Heavy Damage by 2 and the number need to produce Overkill by 3. Some weapon characteristics, Perks or Flaws will change the amount of Armor points lost.

▼ DAMAGE TO ARMS

Arms (whether Battle, Tool or Manipulator) are normally considered to be part of the vehicle's basic chassis and do not have an entry on the Damage Table. It is sometimes necessary, however, to know if an arm has suffered damage.

Arms are considered weapons for damage purposes. If no other weapon systems are carried by the machine, the arm is automatically affected by "Weapon" hits. If other weapon systems are present, the damage is randomized following the usual procedure. Any damage to the arm is also applied to the weapon being carried in that arm. Hand-held weapons are usually specified in the design; if not, the weapons are not affected.

Penalties caused by damage are applied to all functions of the arm: hand-held weapons fire, punching, manipulation, etc. If an arm's cumulative penalties reach -5, the arm is destroyed.

SYSTEMS DAMAGE TABLE ▢

Die Roll	Damaged System	Light Damage	Heavy Damage
1	Fire Control	Roll on SubTable A	Roll on SubTable A and add +1
2	Structure	Roll on SubTable B	Roll on SubTable B and add +1
3	Crew	Crew stunned (-1 action for 1 round)	10% casualties, min. 1
4	Movement	-1 MP (one movement type)	1/2 remaining MP (round down) & -2 Maneuver
5	Auxiliary Systems	-1 to 1d6 Auxiliary systems	1d6 Auxiliary system destroyed
6		Roll twice on this table*	Roll twice on this table*

* If the attack was a called shot, the attacker hits his target location instead (as effects 1 to 5 on table, depending on target).

SUBTABLE A: FIRE CONTROL DAMAGE ▢

Die Roll	Effect
1	-1 to a single Weapon
2	-2 to a single Weapon
3	-1 to all Weapons
4	Single Weapon destroyed
5	Fire Control destroyed (-5 to all attacks)
6	Roll Twice on this table
7	Ammunition/Fuel Hit (roll 1 die)
1-3	Ammo Storage and Fuel Tank Ruptured (vehicle cannot move or fire weapons)
4-6	Chain Reaction! Ammo and Fuel Explodes! (Vehicle Destroyed and Crew Killed)

SUBTABLE B: STRUCTURAL DAMAGE ▢

Die Roll	Effect
1	-1 MP (one movement type)
2	1/2 remaining MP (round down)
3	-1 to Maneuver
4	-2 to Maneuver
5	Power transfer failure; No movement/thrust
6	Catastrophic crew compartment failure, 75% casualties, min. 1
7	Complete structural failure; vehicle is destroyed; crew survives.

REACTION MASS LEAKS ▼

Damage to a spacecraft may rupture its reaction mass tanks. When a Movement or Maneuver damage result is rolled on the System Damage Table, either player has the option of asking to check for leaks. One die is rolled to decide who gets to apply the actual damage (odd results for the defender, even results for the attacker). The winner decides if the damage is to the movement system or to the Reaction Mass. If the latter option is chosen, each -1 damage result removes 10% of the remaining Burn Points; half and no movement damage transfer to an equivalent loss of tankage. If at least 250 points of Reaction Mass are lost in a single round, the current hex of the vehicle will become a Dust cloud (see page 150).

SINKING ▼

Any aquatic vehicle that suffers a Heavy Damage result while submerged must roll one die. On a roll of 2 or less, the vehicle begins to sink. It immediately suffers -1 to its Maneuver and will be flooded and sunk (i.e. be destroyed) in a number of rounds equal to the roll of another die. Even "bottom-crawlers" must test for sinking. Obviously, they do not actually sink, but flood instead. A vehicle which suffers an Overkill result automatically floods.

EJECTION ▼

When a platform suffers an Overkill result, there is a slim chance that the crewman will escape unharmed (roll 6 on one die). The chance of escape improves on vehicle designs that have an ejection mechanism built into the cockpit. A player can also voluntarily eject a crewmember from a vehicle with an ejection system. This requires one action and always succeeds.

If the vehicle has an ejection system and suffers an Overkill, crewmembers rolls a single die. On a 1 or 2, the ejection system did not respond in time and they die. On a 3 or more, they eject, landing four hexes behind the vehicle. They have a velocity and vector equal to their vehicle, minus 4 for velocity. In a roleplaying environment, the Gamemaster may opt to disregard this rule for PCs, letting them eject successfully at all times.

► SCIENCE & TECHNOLOGY

Scientific progress was somewhat slowed in its relentless advance by the tumultuous course of human history between the end of the twentieth century and the present day. The hard times on Earth and the much more urgent problem of survival in the colonies restricted research to areas with immediate practical applications, such as warfare and recycling. Thus, while leaps were made in emergency medicine, weaponry and spaceship design, little or nothing else received much attention.

The horrors of the Fall made it clear to humanity that unrestricted research into the basic nature of life was a formula for certain disaster. The result was the Edicts, a series of covenants written into the codes and laws of every place of learning in every nation in the Solar System. The Edicts prohibit all access to high-level information pertaining to bioengineering and nanotechnology, and likewise forbids research into these areas without specific government approval and constant public scrutiny. Offenders receive the most severe punishment possible in their nation. The penalties are intentionally harsh — a single accident has the potential to kill billions.

The Edicts also apply to research into artificial intelligence. Creating new sentient life would be potentially devastating to Human society, considering the vast number of computers used in the twenty-third century.

While painful for scientists to enforce, the Edicts have kept the misuse of genetic engineering and nanotechnology to a minimum. Although every nation maintains several "illegal" research facilities, these are always heavily safeguarded. Even so, one of the Solar Police's major occupations is keeping an eye on such installations.

The technology of the twenty-third century is thus somewhat less advanced than most people in the twentieth century would have expected. There are no teleporters, no faster-than-light drives and most common technological items used would be recognized by a twentieth century human. The text below offers a quick survey of the major technologies that have shaped the world of the *Jovian Chronicles*.



► BASIC SCIENCES OF THE CHRONICLES

Scientific realism is always a toss up in a roleplaying and tactical game. What one gains in credibility is often lost in ease of play. Few players will want, for example, to calculate the precise orbital position of every object along their ship's trajectory — what they really want to do is get to Mars and find the scumbag who kidnapped their friends. *Jovian Chronicles* allows for hard-science roleplaying but always strives to keep things straightforward for the player; Reality Distortion Levels (see p. 223) also allow Gamemasters to easily alter the "realism" of their campaigns.

The following pages go over the basics of the technology (and related scientific issues) that have shaped the world of *Jovian Chronicles*. Although some related game-system issues are mentioned in passing, this section mostly deals in real-world terminology. Scientific and technological issues will be dealt with in greater detail in future products, but the following should give Gamemasters a basic understanding of how technology works in *Jovian Chronicles*. Those with a background in theoretical science or engineering may notice that a few corners have been cut. This has been done consciously to keep the game at a level of complexity that will not alienate Players and GMs alike.

▼ BASIC ENGINEERING

The twenty-first century was the first to see the advent of new kinds of materials made possible by the zero-g conditions of space stations. Metals that would not normally mix well suddenly became more cooperative, creating components with high strength and precise characteristics. Crystals grew straight and true, while perfect ceramics could be poured into magnetic molds. New techniques, using combinations of heat treatments, magnetic field generators and particle beams, allowed the creation of very complex molecular structures.

The development of workable molecular-scale engineering technology, or nanotechnology, came about in the middle of the twenty-first century. Nanotech allowed the design and construction of molecule-sized machines, capable of manipulating very small clumps of atoms. Though the technique was perfected early in the 2000s, research in the field was limited belatedly because of the fear of the possible consequences of runaway nanotech, which can be used as a very destructive weapon (accidents such as the Kansas City Scare originated the discussions that later lead to the Edicts). The difficulties of working on a smaller and smaller scale, which caused problems due to slow building speed and high waste heat, further compounded the problems facing nanotech researchers.

The few types of nanomachines presently in existence are severely restricted and regulated. Nano- and micromachines are used in sealed vacuum tanks to grow material of very high strength for low weight. They are also used to build advanced computer circuitry, complex chemical products and medical microrobots (see *Medicine*, p. 169).

◇ ARMOR

Space is not an empty void: micro-meteors, dust and solar radiation cause a slow degradation of all space constructs. This problem was lessened by the development of the magnetic screen (see below), but small vehicles and spaceships must still be protected from the elements.

Armor is generally made from a special polymer-ceramide composite with good heat conduction and limited flexibility. Sometimes, a special mesh of artificial diamond fibers is added for extra strenght and durability, although this substantially increases the cost of the material. Engineers have taken great care to include foamed radiation-absorbing elements within the material, thus ensuring it would reduce the odds of a catastrophic radiation cascade should the armor be hit by high energy cosmic rays.

▼ POWER GENERATION

November 9th, 2007 will long be remembered as one of the most important dates in human history. On that day, a prototype fusion engine managed to sustain a fusion reaction and generate power for six hours. Although the new fusion reactor was bulky, fragile and temperamental, it would be perfected over the years to become one of the principal sources of energy production on Earth along with the orbiting solar power satellites.

Most twenty-third century space vehicles are powered by a compact reactor using a high-energy magnetic "bottle" to hold a micro-fusion reaction. These powerplants come in a variety of sizes, from the small engine of scout exo-armors (large humanoid vehicles; see page 166) to the huge fusion cores of the largest ships. Jovian designs are considered to be among the most advanced and efficient in existence.

Man-portable powered armors (referred to as exo-suits) and other small vehicles use a superconductive battery instead of a fusion powerplant because of size limitations. Many ground vehicles feature internal combustion engines that use alcohol or synthetic oil as fuel because petroleum has become too rare. Other vehicles use extremely efficient, low-maintenance turbines instead. Although they can gulp down any type of fuel, they unfortunately require large quantities of it.

Solar energy is freely supplied by the Sun — one needs only collect the rays and convert them to a more useable form of energy. Although solar-powered ground vehicles are relatively uncommon, many houses and industries use solar panels for non-critical, low-power applications.



PROPULSION SYSTEMS ▼

The most common type of space propulsion system in use is the fusion-driven PCC (Plasma Combustion Chamber) drive. Using almost any gas or liquid as reaction mass (most often hydrogen or water), the PCC enables ships and other space vehicles to achieve great acceleration for extended periods, reducing the travel time between planets to mere weeks and sometimes even days. Vehicles with fusion powerplants often use plasma thrusters as maneuvering verniers, in which an intense electrical arc ionizes and expels reaction mass at high velocity to produce acceleration. Smaller vehicles, such as repair pods or exo-suits, also use the more conventional chemical engines.

In atmosphere, the flight systems of exo-armors are generally sufficient to lift them and enable them to fly for short periods of time. Unfortunately, this places great strain on the thruster array and gobbles down reaction mass at an alarming rate, so most pilots only use their thrusters as "jump jets" to allow them to cool down periodically.

ELECTRONIC ▼

As advanced manufacturing techniques reduced the size and increased the power of electronic circuitry, more and more items started to feature them. In space, electronics are pervasive — there is a computer in each helmet, each suit and each ship, all monitoring the machinery that keeps their human crew alive. By the twenty-third century, computers and automated workers are an accepted part of the everyday world. Other types of electronic systems, such as the radiation screens (see below) are equally vital to humanity's survival and work in space.

COMMUNICATION ◇

Even though signals travel at near light speed, space communication always suffers from delays due to the large distances involved. In addition, many factors can cause interference with radio waves (strong magnetic fields, solar flares, planets on opposite sides of the sun, etc.). The lag time can be determined by dividing the listed distances (page 168) by 300 if in thousands of km (for the delay in seconds), or by 18 if in millions of km (for the delay in minutes).

A conversation between the Moon and Earth is almost in real time (average distance of 384 thousand kilometers, divided by 300, gives a 1.3 second delay). A call sent from the Inner Belt to Mars, however, would take at least 5.6 minutes to reach its destination (closest distance of 101.2 million km, divided by 18). Any reply from Mars would take the same time to get back.

COMPUTERS ◇

Data-processing machines have evolved the most of all electronic technologies. Once simple calculators, they are now capable of limited intelligence and problem solving. Modern computers can often sound very human on the comm system (although they don't have much imagination and have no sense of humor whatsoever). The Edicts have placed limits on artificial intelligence developments, so there are no known self-aware computers in existence.

All space vehicles have an advanced computer to figure out trajectories and burn time, freeing the pilot to perform more important tasks (like fighting). Relying extensively on superconductive neural nets and complex expert system programs, they are used as virtual crewmembers on spaceships and as copilots in fightercraft (see page 180 for computer rules).

ELECTRONIC WARFARE ◇

Up until the twentieth century, human warfare had an up-close-and-personal outlook. The development of radar and the improvement of existing weapons increased effective ranges expodentially, and soon soldiers did not even have to see their opponents to utterly destroy them. Unfortunately, armor refinement did not follow the same curve as weapon efficiency. It was hard to create an armor plating strong enough yet light enough to be carried by a fighting vehicle. A new approach was needed, and soon the stealth principle was the norm: one cannot hurt what one cannot see.

Each modern fighting vehicle carries a host of defensive electronic modules. Some break up their radar signature, while others interfere with the opponent's targeting equipment. These modules are built-in, and no combat vehicle would be designed without them. As a result, they have a much smaller sensor signature that what would be expected due to their large size, and combat is once again short-ranged; weapons that could hit an unprotected target thousands of kilometers ahead have to be used almost at visual range.

RADIATION SCREENS ◇

Early space vessels relied on sensors and heavily shielded "storm rooms" to protect the crew against solar flares and other cosmic radiations. The problem became more acute while setting up the mining colonies in Jupiter's orbit: the intense radiation belts forced the construction of specially armored stations, very costly and not all that safe.

With the space emigration boom, a solution was found: to equip each station and vessel with a shield generator similar in effect to the magnetic field surrounding Earth. Power is plentiful, and the equipment stops almost all harmful radiations. It even has a side bonus; it also stops smaller space debris, which can damage a spacecraft.

PLASMA LANCE ◇

The plasma lance is a recent development in the military arms race. The resurgence of hand-to-hand combat due to improved spacecraft ECM systems prompted Jovian designers to upgrade the melee capabilities of the JAF's exo-armors by developing this weapon. The lance is a compressed-gas cylinder with an ionizing ejector nozzle at one end. When held by a specially designed manipulator, a direct current from the exo-armor's main fusion reactor is transmitted to the ejector and turns the ejected gas into a giant plasma flame. The overall device looks like a sword made of light and is very effective against armored opponents — it is essentially a giant plasma cutting torch. Unfortunately, the small gas supply limits the usefulness of the weapon and the exo-armor must often carry several spare lances.

SPACE ENGINEERING ▼

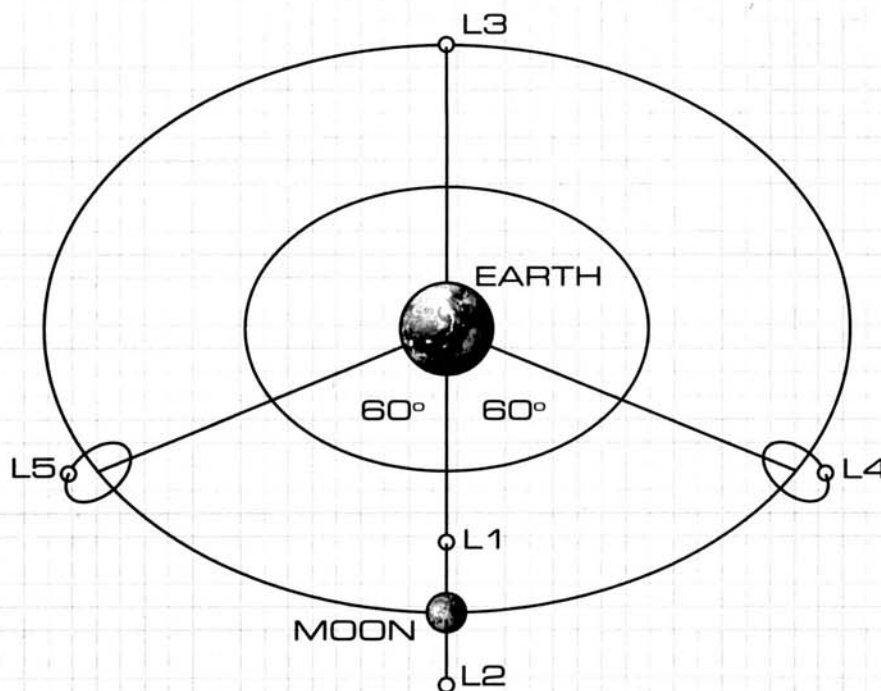
In the late eighteenth century, French physicist Joseph Louis Lagrange was studying three-body systems, calculating the gravitational influence of two masses, like the Earth and the Moon, on a third body in their vicinity. He found that at certain points, the gravitational forces of the two bodies were equal (but did not necessarily cancel each other out), creating "stable" points in space. In reality, these points actually orbit their calculated positions because of the influence of the Sun and the other bodies in the solar system.

The first three Lagrange points are located on the axis linking the two main bodies. All three points are relatively unstable: any perturbation of the satellite along the axis would cause it to gradually fall towards one of the bodies. The other two points, L4 and L5, are on the orbit of the smaller body at 60 degrees on either side of the axis. These are extremely stable points, as demonstrated by the clusters of asteroids found there. These so-called Trojan Asteroids were used as on-site material for the construction of the Earth system's colonies. The supplies from the Moon, added to these asteroids, were used to first build wheel-type stations, then, later, the larger O'Neill islands and cylinder colonies.

By 2210, most of the colonies in existence are O'Neill-type cylinders, except for the Jovian ones, which had to be built on the closed Vivarium model because of the increased radiation levels of the Jovian environment. Both designs are huge cylinders varying between 25 and 40 km in length, usually with thrusters and zero-gee docking bays at both ends. Each is home to up to 15 million people, though smaller ones are not uncommon.

Gravity is simulated by rotation along the axis of the cylinder. O'Neill colonies alternate ground panels with clear panels to let the sunlight inside, and use giant reflectors to direct it; Vivariums use a special "sunline" running the axis of the cylinder for light, since the whole station is thickly covered by rocks for protection against radiation and meteors.

THE EARTH SYSTEM ▲



8.1.7

SCIENTIFIC FACTS

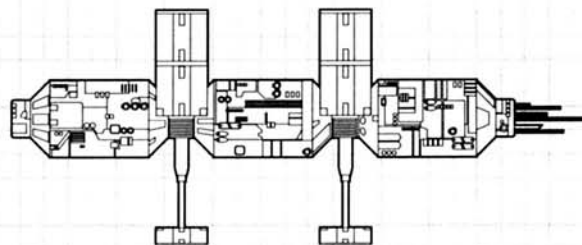
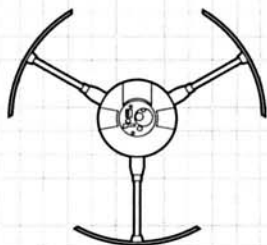
◇ COLONY CYLINDERS IN SILHOUETTE

The cylinders are mainly locations in which (or around which) the game will take place. They are much too big to be destroyed by the players, although they can be damaged. Each 50 x 50 meter section of cylinder wall has 200 points of ablative Structure (150 for O'Neill-type colonies' walls, 100 for their glass panels). One point of damage removes one point of Structure. For collision purposes, each section is considered to be a vehicle of Size equal to its current Structure.

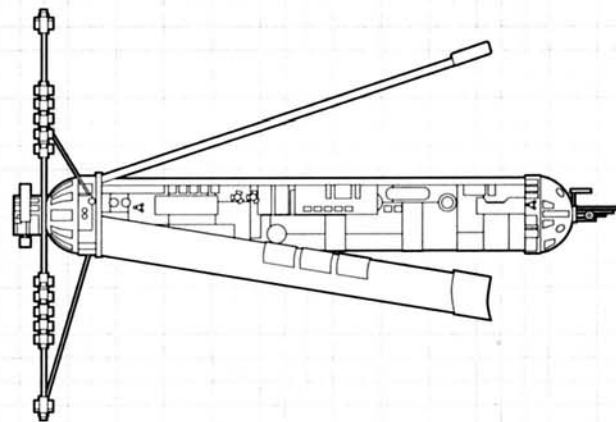
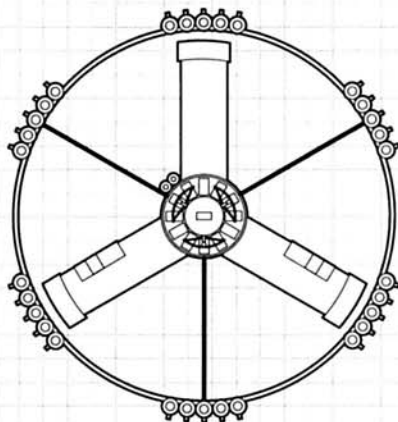
Depleting half the point total of a given section will result in a hull breach and slow loss of interior atmosphere (see p. 119 for indications on the effects of breaches). Special "goop balls" (Structure value = 5) will appear in 1d6 roleplaying turns (30 seconds to 3 minutes) to start blocking the hole until a repair crew arrives. Completely depleting the Structure points of a wall section in one turn cause an explosive decompression that will propel shrapnel all around (x50 damage to anything within 100 meters, dropping off by 5 for every 100 meters of additional radius).

▲ SPACE COLONIES

VIVARIUM STATION



O'NEILL STATION



The upper station in this schema is built along the Vivarium principle. It has no windows and relies on external power sources; the large curved panels are heat-dissipating fins. The other station is a standard O'Neill Island. The small modules on the large ring are dedicated to agriculture.

▼ EXO-ARMORS

Exo-armors (short form for armored exo-skeleton) are the ultimate evolution of the personal combat space suit of the early twenty-first century. Originally no larger than a man, they increased in size until some of the biggest were nothing less than small ships. This was necessary in order to carry the enormous amount of fuel, armament, and electronics necessary to accomplish their assigned mission. Spacefighters remain in use, but their lack of maneuverability and endurance (compared to exo-armors) confines them to strike and fire-support roles.

A vehicle is called an exo-armor when its control system is a linear frame (see below). Exo-armors are usually classified in five categories: exo-suit, light, medium, heavy, and exo-ship. This classification system originated in the Jovian forces, who first fielded exo-armors. CEGA does not have an official classification because they tend to reserve the use of exo-armors to officers. Since the other nations of the solar system have only recently begun to use these vehicles, they normally adopt the Jovian classification.



LINEAR FRAME AND COCKPIT ◇

A linear frame is the main control element of an exo-armor. It looks like an strength-enhancing industrial exo-skeleton and wraps around the pilot, reproducing his every movement. The exo-armor's onboard drive computer then interprets these motions and moves the armor's limbs accordingly, firing apogee motors as needed to compensate. The linear frame control system gives the exo-armor an uncanny maneuverability as well as a strangely human grace. Additionally, a trained pilot can actually use his body motion to shift the exo-armor's center of mass around and change the exo's position without expending propellant. Veteran pilots are thus often able to stay in battle much longer than spacefighter pilots who must fire verniers (and spend fuel) whenever altering course.

The frame also protects the pilot from shock and strong gee forces, reorienting itself in the cockpit if needed. Space flight is controlled via special joysticks located near the hand controls. A minimum of training is necessary to fully control the armor, even if the computer can provide verbal and visual assistance. The cockpit's internal walls are covered with layered monitors linked to various sensors and cameras in the outer hull of the exo and display an unobstructed view of the world around the vehicle. All relevant operational information (IFF, targeting, velocity, etc) is displayed either in the flight helmet worn by the pilot or directly on the screen. The machine's "head" and main sensors are slaved to the motions of the helmet, adding to the "humanity" of the exo-armor.

CHASSIS AND ACTUATORS ◇

Since an exo-armor is designed to emulate and reproduce the movements of the human body, it is built around a composite skeleton to which the various components and actuators are attached. This frame, although serving the same purpose as its human counterpart, looks very different. The "bones" are made of composite material specifically designed to optimize the transfer of loads passing through them. Limited flexibility enables the frame to absorb casual kinetic stress without any damage, just like natural bones.

Exo-armors rely on several different types of actuators to move about, from conventional hydraulic systems or high-strength myomar fibers to highly specialized linear electric motors. The smaller exo-suits almost never use hydraulics, as myomars are easier to adapt to the human form. The fibers are wrapped around an inner shell which contains the wearer and various motion-sensitive sensor arrays.

SPACESHIPS ▼

Space ships are a common sight in the 23rd century. They are used by all settlements, who usually maintain orbital shipyards and a small fleet for commercial and defense purposes. The most often encountered ships are cargo and ore mining ships, followed by gas tankers. It is much cheaper to "mine" metal and gas and transport them to the space stations than prepare them from planet-side resources.

Modern ships sport a thick ablative skin and a massive architecture designed to withstand particle erosion and lengthy acceleration. Other vessels, designed at a lower cost or for shorter trips, are just a support frame for habitat modules, fuel tanks and engines. The skin of a vessel is a ceramic/alloy composite, glazed in alternating layers to resist micro-meteor abrasions and minor surface collisions. Large plates are mounted on a honeycomb structure filled with radiation-absorbing gel, which is also used to quickly close any small hull breach.

Most long-range ships are equipped with a deflector shield. The shield is composed of two parts: an ionizing laser or magnetic field, and the magnetic shield proper. When the ship is moving at high velocity, the particles in its path are first ionized and then swept out of the way. This only works with small particles, however, and larger ones must be either destroyed by the point defense lasers or completely avoided.

Each ship relies on powerful fusion thrusters (Plasma Combustion Chamber drives, see page 163) to accelerate at rates of up to 1 gee. When possible, they accelerate for half the voyage, then turn around and decelerate at the same rate for the rest of the trip. Except for short weightlessness periods midway through the trip, the passengers feel gravity during the trip. When the ship is in acceleration, "up" is toward the nose and "down" toward the engines. The internal organization of a ship is thus very similar to a skyscraper, with decks stacked on top of each other. Because of the occasional periods of zero-gee, the furniture has small Velcro straps to tie down free-floating objects. Large ships are often equipped with one or more rotating decks to provide simulated gravity to the crew. Many living quarters are located on these gravity decks.

A specific category of cargo ships uses a magnetic sail instead of a PCC to slowly but economically propel the ship to its destination. The sail itself consists of a large loop of superconductive material that generates a magnetic field that "catches" the solar wind and the magnetic fields of planets (when close enough) and uses them to propel the vessel forward; when going against the "wind," the vessel tacks just like a sailboat. The magnetic field is far enough not to affect the ship or its crew. Currently, the Mercurian Merchant Guild has the most magsail barges, which are colloquially called clippers.

Ships are generally not equipped to descend on the surface of a planet. Aside from being non-aerodynamic, they are much too heavy to land on anything bigger than an asteroid. The exceptions to this is the Moon, where small ships routinely land to transport cargo.

6.1.5

▼ SPACE TRAVEL

Due to the economy of scale, space travel is a common reality for the societies of the solar system. There are three levels of comfort, Economy, Business and First Class. The basic ticket price in credits is based on the distance covered: the square root of the distance (in kilometers) is the Economy price. For higher comfort, the basic distance is doubled (for Business) or tripled (for First Class) before the square root. Some transport lines adjust the price of the ticket according to weight (add Build to 100, multiply the price with this percentage). These prices include only lodging and basic food — anything else is extra. Each person is allowed a quarter of his weight in luggage, anything more cost (per weight) the same as a person.

Getting on and off-planet by skyhooks cost between 200 and 300 Cr. There are ships leaving twice weekly for frequent close destinations (orbital stations and moons); for example, a one-way trip to the Moon costs about 620 Cr. Interplanetary trips are closer to cruises with their multi-days travel time, so prices are comparatively higher: between 25,075 Cr and 30,460 Cr for a one-way Economy trip from Earth to Jupiter, depending on the position of the planets. A direct flight can be booked weekly for frequent destinations, but only monthly flights to remote settlements are usually available.

Travel times in space are a function of the distance travelled and the velocity of the vehicle used. For simplicity, the orbital path will be abstracted into a linear acceleration and distance equation. This assumes a constant acceleration rate.

□ TRAVEL TIME

$$1d6 \times \text{square root (half Distance + Acceleration)} = \text{Time to midpoint}$$

Distance is in meters, Acceleration in m/s, Time in seconds. Divide the result by 1800 to get total transfert time in hours.

□ INTERPLANETARY DISTANCES

Closest						
	Mercury	Venus	Earth	Mars	Jupiter	Saturn
Mercury	—	50.3	91.7	170.0	720.4	1,363.8
Venus	50.3	—	41.4	119.7	670.1	1,313.7
Earth	91.7	41.4	—	78.3	628.7	1,272.5
Mars	170.0	199.7	78.3	—	550.4	1,194.4
Inner Belt	271.2	220.9	179.5	101.2	449.2	1,092.6
Main Belt	353.5	303.2	261.8	183.5	366.9	1,010.3
Outer Belt	435.8	385.5	344.1	265.8	284.6	928
Jupiter	720.4	670.1	628.7	550.4	—	646.2
Saturn	1,363.8	1,313.7	1,272.5	1,194.4	646.2	—
Average						
	Mercury	Venus	Earth	Mars	Jupiter	Saturn
Mercury	—	122.7	160.4	235.1	780.0	1,442.6
Venus	122.7	—	184.6	252.3	785.8	1,425.5
Earth	160.4	184.6	—	272.6	792.5	1,429.2
Mars	235.1	252.3	272.6	—	811.0	1,439.5
Inner Belt	334.2	346.1	361.5	400.3	845.0	1,459.0
Main Belt	415.5	425.4	437.8	470.3	880.3	1,479.7
Outer Belt	497.1	505.4	515.9	543.8	921.7	1,504.7
Jupiter	780.0	785.8	792.5	811.0	—	1,619.1
Saturn	1,442.6	1,425.5	1,429.2	1,439.5	1,619.1	—
Farthest						
	Mercury	Venus	Earth	Mars	Jupiter	Saturn
Mercury	—	166.1	207.5	285.8	836.2	1,479.1
Venus	166.1	—	257.8	336.1	886.5	1,529.2
Earth	207.5	257.8	—	377.5	927.9	1,570.5
Mars	285.8	336.1	377.5	—	1006.2	1,648.5
Inner Belt	387.0	437.3	418.7	557.0	1107.4	1,750.3
Main Belt	469.3	514.6	561.0	639.3	1189.7	1,832.6
Outer Belt	551.6	601.9	643.3	721.6	1272.0	1,914.9
Jupiter	836.2	886.5	927.9	1006.2	—	2,196.7
Saturn	1,479.1	1,529.2	1,570.5	1,648.5	2,196.7	—

All distances are expressed in millions of kilometers (10^6 km, or 10^9 meters) in straight lines.

Closest, Average and Farthest refer to the orbital positions of the planets in relation to one another.



SATELLITES AND ASTEROIDS

Name	Planet	Distance	Revolution	Diameter	Gravity	Esc. Velocity
Moon	Earth	384	27.3	3500	0.16	2.4
L4, L5	Earth	384	n/a	n/a	n/a	negligible
Deimos*	Mars	48*	*	13	negligible	negligible
Ceres	n/a	Belt	n/a	940	negligible	negligible
Pallas	n/a	Belt	n/a	540	negligible	negligible
Vesta	n/a	Belt	n/a	510	negligible	negligible
Hygeia	n/a	Belt	n/a	410	negligible	negligible
Io	Jupiter	422	1.7	3650	0.18	2.6
Europa	Jupiter	671	3.5	3140	0.14	2.0
Ganymede	Jupiter	1070	7.1	5250	0.15	3.6
Callisto	Jupiter	1880	16.6	4800	0.12	2.4
Titan	Saturn	1222	15.9	5150	0.14	2.7

Distances is expressed in thousands of kilometers (10^3 km) and is measured from the orbited body; Revolution is expressed in Earth days and Diameters in kilometers. Gravity is given in gee, and Escape Velocity is in km/s.

*Deimos' orbit is being modified by tugs; Phobos has been dismantled for material and reaction mass.

THE JOYS OF SPACE TRAVEL ★

While some campaigns might be focused entirely on one location (such as an Orbital Colony or a Martian town), most parties will probably want to race around the solar system for one reason or another. Reporters will chase stories, military personnel will go on maneuvers (or missions) and merchants will have to travel to make a living. Travel in space is not a rapid affair. Unless moving within a subsystem — e.g. between Earth and the Moon — travel time will be measured in days and weeks for military vessels, weeks and months for merchant ships.

The simplest solution — one suited to Cinematic campaigns — is to simply gloss over travel time between major events. Unless there is an important event scheduled to occur during the voyage, Gamemasters can follow the example of high-action films and simply "cut" from the PCs getting aboard to them arriving at their destination. A quick summary of events aboard can be gone through if need be. This keeps the scenario moving along at a fast pace, an essential consideration.

Gamemasters who are running a very realistic campaign should pay a great deal of attention to space travel, especially if the PCs are piloting the vessel. Players will need to account for fuel and life support, make the appropriate course corrections, deal with the hazards of space, and make a few Navigation (Space) and Space Pilot Skill rolls. Gamemasters should assume that characters with a Skill level of 2 or more will not make stupid mistakes, but space travel should remain dangerous.

Nevertheless, regardless of campaign styles, there are some interesting story opportunities inherent in lengthy space travel. Travel time is perfect for character interaction and development. It can be fun to roleplay out conversations between the PCs, especially if the Gamemaster introduces new NPCs at the same time (e.g. a ship crewman who has a crush on a PC, or an old nemesis who happens to be aboard). If a session ends with the PCs in transit, a GM can have a little side adventure for one of the Players before the next session, or simply have an exchange of in-character letters or e-mail (say, to a loved one or a secret contact). Of course, whole scenarios can be set during a long journey. The PCs probably have no real way to get off the ship and so must deal with what happens around them. A murder mystery, a hijacking or a diplomatic incident can all make for exciting short-term adventures or set the stage for new scenarios. One interesting option is to use the journey for a short "change of pace" — say a comedic series of misunderstandings during a gritty military campaign.

MEDICINE ▼

Medicine in the twenty-third century uses limited genetic engineering to create custom drugs and viruses designed to specifically treat an illness. It is customary for an individual to be gene-mapped at birth to check for any possible disease. This map is often saved for future references in designing a suitable cure, and is considered copyrighted by the person.

Limited accelerated cellular regeneration is possible and often used to regrow missing limbs and organs. It is not a routine procedure, however, and places severe stress on the body of the patient. Microids (microscopic robots) and various custom-designed viruses are used; the patient is immobilized for the duration of the treatment. Attempts were made to use nanoids (molecular robots) in the body, but they were impeded in their work by the body's immune system. As a result, their use is restricted to vats located outside the body, where they produce specialized drugs and replacement organs.

Cloning attempts were made as early as 1997. Modern genetics, using DNA from one or several donors, allow custom zygotes to be created and placed within an artificial womb. The only "bottled humans" (as they were called by the press of 2027) made were mentally unstable and most committed suicide in their teens. Whatever the actual cause, cloning an entire person is heavily frowned upon and is now an almost forgotten corner of medicine. It is illegal to clone someone without his or her consent, with harsh penalties for offenders.

historical facts

8.1.11
end of section 8.1 basic sciences of the chronicles



▶ GAME STATISTICS

The basic game statistics of each vehicle is fully explained at the beginning of the *Mechanical Action* chapter, page 131. There are, however, a few items that warrant additional explanations or rules, such as the various Perks, Flaws and weapon characteristics. Each has special effects or rules assigned to it that do not fit on the vehicle record sheet. They have been grouped in the following section for ease of reference.

▼ PERKS

Many vehicles have special features, such as ejection systems and cargo bays, that are not covered by the vehicle's tactical and strategic statistics. These features are represented by Perks. Many Perks are primarily intended for background and roleplaying purposes and do not have significant tactical effects.

Perks whose name is followed by **AUX** are defined as Auxiliary Systems for damage purposes. Perks whose name is followed by **R** have a rating.

◇ ADVANCED CONTROLS

The vehicle has very advanced, user-friendly control interfaces. Few vehicles can boast of featuring these, as advanced controls are generally complex to design and costly to build. The great ease of their use allows the vehicle to have one extra action each combat round, regardless of the number of crewmembers aboard.

◇ AMMO/FUEL CONTAINMENT SYSTEM

The vehicle's ammunition and fuel bays are reinforced and equipped with blast-control panels. The system completely absorbs the first hit when an "Ammo/Fuel Hit" result is obtained on the Fire Control Damage Table — there is no further damage beyond the lost Armor points. The Perk is then destroyed.

◇ AUTOPILOT (AUX)

Autopilots are simple devices that can take over the piloting tasks. They can keep the vehicle going in a straight line, avoid large obstacles, and steer the vehicle towards a specified location. An autopilot is very limited: it can be used to keep a vehicle moving in a straight line or performing 60° (one hex-facing) turns. Autopilots are not affected by Crew hits, cannot fire any weapons and dodge attacks as a level 1 pilot. An autopilot is required if the vehicle is to be computer-controlled or remotely operated.

◇ BACKUP COMMUNICATIONS

The vehicle has extra communication circuits and a second radio system. It may ignore one Communication damage effect when the Auxiliary System Hit result is rolled on the Systems Damage Table. All non-communication auxiliary systems take normal damage effects.

◇ BACKUP FIRE CONTROL

The vehicle has extra fire control computer circuits and reinforced weapon mounts. It may ignore one "Fire Control Destroyed" result on the Fire Control Damage Table.

◇ BACKUP LIFE SUPPORT

The vehicle has backup life support systems that allow the vehicle to continue providing life support functions long after the primary system has been disabled. In game terms, the vehicle continues to have life support even if the vehicle has all of its auxiliary systems destroyed.

◇ BACKUP SENSORS

The vehicle has extra sensor circuits, backup cameras and reinforced sensor arrays. It may ignore one Sensor damage effects when the Auxiliary System Hit result is rolled on the Systems Damage Table. All non-sensor auxiliary systems take normal damage effects.

◇ BACKUP SYSTEMS

This is a package deal which contains one of each of the followings: Backup Communications, Backup Fire Control, Backup Life Support and Backup Sensor. The usual rules apply in full.



CARGO BAY ◇

A cargo bay is a large hollow place within the vehicle to put miscellaneous material. Cargo bays can be designed for unusual cargo: some cargo bays are meant to carry only liquids, like the tank of a fuel truck. Others are compressed gas containers. Of course, cargo bays can always be simple hollows intended to store boxes of goods.

Cargo bays are rated in terms of their general volume in cubic meters. Cargo bays are generally enclosed within the vehicle's hull. Open-topped bays are also possible, but material carried in such a bay is counted as an AUX system for damage location purposes. It is important to note that the cargo space bought represents only the actual space dedicated inside or on the hull of the vehicle, not an increase in the power of the engine. Thus, the cargo's weight counts as "towed" material for game purposes.

Transported vehicles are assumed to occupy a volume roughly equal to $(\text{Size}/2 + 1)$ cubed, rounded up, including some servicing and access space around it.

CATAPULT (AUX, R) ◇

A catapult is a powerful system designed to give a high initial velocity to an object leaving the vehicle, most often a carried aircraft or exo-armor. The catapult gives an initial acceleration equal to $(\text{rating} \times 150)/\text{mass}$ in tons of the catapulted object, in meters/second. This applies directly for spacecraft, aircraft and other vehicles; refer to *Flying with Thrusters*, page 148 of the rulebook, to convert this into airspeed.

COMPUTER (R) ◇

The vehicle has a built-in, general use computer in addition to the computers used to control the vehicle. While it is primarily a roleplaying tool, players can use the computer in tactical combat, using Modules to assist the crew. The Perk's rating is the Processing Power of the computer. Computers are not affected by "Crew" hits. See *Computers*, page 180, for the complete rules and descriptions of Modules.

DECOY SYSTEM (AUX, R) ◇

A Decoy System allows a vehicle to project phantom images of itself or another object by using a combination of either inflatable decoys, holography or electronic signal imaging technologies. In tactical game terms, the Decoy System can create as many false images as its rating. The attacker must make a Notice Skill test against the rating of the system with a modifier of -3 in order to hit the correct target (in tactical games, use Electronic Warfare).

EASY TO MODIFY ◇

Easy to Modify vehicles feature standardized parts and modular aspects. While this type of design is a joy to service or modify and often lasts longer in the field, it is generally more difficult to design. One (or more) of the vehicle's subassemblies is designed in such a manner as to be easy to repair or replace. +2 is added to all technical skill rolls to modify and repair this particular subassembly of the vehicle.

EJECTION SYSTEM (AUX) ◇

The vehicle is equipped with an ejection system to give the crew a chance to escape if the vehicle suffers an Overkill damage result (or before that, if desired). See *Ejection* (page 159) for more details.

An ejection seat is designed to simply get a crewmember away from the craft; a parachute (in atmospheric operations) or a rescue beacon (in space) allow for a safe rescue. An ejection pod is a self-contained life boat for air and space vehicles which allows for a limited amount of maneuvering and for one atmospheric reentry.

ELECTRONIC COUNTER MEASURES (AUX, R) ◇

Electronic Counter Measures (ECM) are devices that are used to jam sensors and communication systems. ECM is especially useful to prevent forward observing and drone operations. Rules for using ECM systems can be found on page 151. ECM range is identical to the vehicle's Sensor range.

ELECTRONIC COUNTER COUNTER MEASURES (AUX, R) ◇

Electronic Counter Counter Measures (ECCM) are devices that are used to block jamming systems and/or punch through their effects. Using ECCM to prevent jamming requires one action. Rules for using ECCM systems can be found on page 151. ECCM range is identical to the vehicle's Sensor range.

◇ HAYWIRE RESISTANT

The vehicle is specially designed to shrug off massive electrical charges through isolated circuitry and grounded structure. This Perk allows the vehicle to reduce the effects of weapons with the "Haywire" effect (see p. 177). On Light Damage results, the second damage roll produced by Haywire is ignored. On Heavy Damage results, the second damage roll is downgraded to a Light Damage roll.

◇ HEAT RESISTANT ARMOR (AUX)

The vehicle's armor is designed to deflect and dissipate the intense energy delivered by weapons like shaped-charge warheads, particle beams and lasers. The rating is added to the vehicle's base Armor rating when the vehicle is attacked by HEAT-based weapons. This Perk has no effect against weapons that are not HEAT-based (see p. 177).

◇ HOSTILE ENVIRONMENT PROTECTION

The vehicle is specially designed for prolonged exposure to some hostile environmental conditions. This Perk is noted "HEP: <chosen environment>" on the vehicle sheet.

Extreme Heat: the vehicle is designed to withstand exposure to scorching temperatures, often well into the hundreds of degrees Celsius, without taking severe damage.

High Pressure: the vehicle is designed to endure the great pressures of locations like ocean depths and the upper atmospheric layers of gas giant planets.

Vacuum: the vehicle is designed to withstand the lack of pressure found in vacuum environments. This means airlock hatches, pressurized hull, and so on (a life support system is still required separately). This Perk does not, however, grant a vehicle the ability to perform atmospheric re-entry.

Radiation: the vehicle is designed to withstand high radiation levels. Foamed armor, rad-absorbing gel layers and additional shielding protects the vehicle's sensitive systems (especially the crew). The rad protection level, in rads/hour, is equal to ten to the power of the rating (e.g., a system with a rating of 3 would give 10^3 — or 1000 — rads/hour of protection).

◇ IMPROVED OFF-ROAD ABILITY

The vehicle is designed to handle rugged terrain even better than standard military grade ground vehicles. In tactical game terms, the vehicle pays one less MP for any terrain type that requires more than one MP. For instance, a Ground vehicle with Improved Off-Road Ability would pay 3 MP instead of 4 MP when crossing Swamp hexes, but would still pay 1 MP per Clear or Sand hex.

◇ LABORATORIES (AUX, R)

Some vehicles are equipped with "laboratories" — systems that help the crew in specialized tasks. Each laboratory is dedicated towards one particular Skill or Skill specialization. Laboratories are rated upon their quality (minimum of 0). This quality rating is added as a modifier to any test performed using the laboratory's skill. Laboratories eliminate any penalty due to missing tools and proper equipment.

◇ LIFE SUPPORT (AUX)

Life Support systems provide the vehicle's crew with a sealed and controlled environment, protecting them from hostile environments such as poisonous atmosphere, vacuum and underwater. If this system is destroyed with no backups while the vehicle is in a hostile environment, the entire crew immediately becomes casualties.

Limited Life Support includes contingencies for breathing and limited nutritional and excretory needs, and provides support for each crewman for one full Deployment Range cycle, in hours. Full Life Support includes complete air recycling, proper waste disposal, hygienic and nutritional facilities; it lasts indefinitely for game purposes.

◇ MANIPULATOR ARM (R)

The vehicle has an arm-like structure that can pick up and manipulate objects. Manipulator Arms are part of the basic layout of practically all exo-vehicles. The arm can lift an object whose Size is equal to or lower than its rating. No matter the rating of a Manipulator Arm, a vehicle cannot lift an item whose Size is greater than twice its own Size. Half the ratings of the weaker arms are added to the full rating of the strongest arm to determine the lifting strength of multiple arms.

Manipulator Arms can be reinforced to punch or crush opponents. These attacks have a Damage Multiplier equal to the rating of the arm. Manipulator Arms can be used for fine manipulations and tasks which require dexterity. A standard Piloting Skill test is required, the threshold varying according to the task. In addition, a negative modifier equal to the difference between the object's Size and the hand's rating is applied to the roll (see Size to Mass table, page 132).

PASSENGER ACCOMMODATIONS ◇

The vehicle is equipped with proper living and sleeping quarters. This is a necessity for long range vehicles if the crew and passengers are to remain fresh and alert. Military grade accommodations are spartan in design and provide little privacy or comfort. Luxury accommodations include private sleeping quarters, a small private lounge, and personal hygienic facilities. A vehicle with numerous living accommodations of either type also generally includes a few common rooms such as galleys and lounges. When possible, the room partitions of the overall habitable module are indicated.

PASSENGER SEATING ◇

The vehicle has extra seats for passengers. The passengers do not confer any extra actions to the vehicle, nor can they control it. They do, however, count as crew for damage purposes (any damage should be randomized between crew and passengers). A number of passengers equal to the Size of the vehicle may enter or exit each turn at no action cost, provided the vehicle is moving no faster than 12 kph (in space, passengers can exit at any speed, but keep the vehicle's vector).

REENTRY SYSTEM (AUX) ◇

The vehicle has been specially reinforced to withstand the high temperature and stress of atmospheric reentry. Every five turns, the pilot must make a Piloting roll against a Threshold of 2 to keep the craft correctly oriented or suffer one Fire attack as per normal reentry rules. Modifiers due to damage apply in full. See page 143 for more detail.

REINFORCED ARMOR (R) ◇

The vehicle has one or more facings (arcs of defense) with better or thicker armor than the rest of the vehicle. When the vehicle is hit in an arc that is reinforced, the rating of this Perk is added to the base Armor rating of the vehicle.

REINFORCED CHASSIS ◇

The frame of the vehicle is designed to absorb considerable punishment. The vehicle may ignore the first Structure hit on the Systems Damage Table, but then loses this Perk.

REINFORCED CREW COMPARTMENT ◇

The crew compartment is layered with additional armor and fitted with shock-absorbant material. The vehicle may ignore the first Crew hit on the Systems Damage Table, but then loses this Perk.

REINFORCED LOCATION ARMOR (R) ◇

One of the vehicle's locations has stronger armor than the rest of the vehicle. When the vehicle is hit in a reinforced location, the rating of this Perk is added to the base Armor rating of the vehicle before determining damage.

RUGGED MOVEMENT SYSTEMS ◇

The vehicle may ignore the first Movement hit on the Systems Damage Table, but then loses this Perk. This protection is due to the inherent strength of the drive system's design, or a built-in redundancy.

SATELLITE UPLINK (AUX) ◇

The vehicle has a specialized add-on to its communication system that greatly boosts its range. The Communication range of a vehicle equipped with a Satellite Uplink is multiplied by one thousand for direct communications purposes only (flight or space range factors still apply). The Satellite Uplink includes tracking and motion-correction equipment so the system can be used at up to half-Combat speed (or half-Thrust).

SEARCHLIGHT (AUX) ◇

The vehicle has a powerful front-mounted lighting system. When used, treat the vehicle's Fixed Forward firing arc as if it were in daylight. Any fire directed at the vehicle is also treated as if the vehicle were in daylight. Searchlights require no action to operate.

SICK BAY (R) ◇

Some large vehicles, like spaceships, have an infirmary or sick bay. These facilities have no value in the tactical game, but, in the roleplaying game are considered to be constant medical aid for healing purposes. Sick bays are rated by the maximum number of patients that may be operated on at once.



A.2.2

◇ STEALTH (AUX, R)

Stealth systems are features that make a vehicle difficult to detect with sensors: heat baffles, radar-absorbing skin, silent systems, etc. In tactical game terms, Stealth adds its rating to the vehicle's Concealment value when opponents use Sensors to detect it. Stealth systems have no effect upon visual detection. The rules relating to the Stealth systems can be found in *Stealth Effects*, on page 51.

◇ STRATOSPHERIC FLIGHT

An aircraft with this Perk can climb past the habitual ceiling of 12 km (altitude level 48 in Air War scale), in effect going into the stratosphere, up to an altitude of 50 km (altitude level 200 in Air War scale). It would need the Space movement mode and sufficient reaction mass in order to move into orbit, however. Vehicles flying in the stratosphere double their Flight MP at no cost because of the rarefied atmosphere.

◇ TARGET DESIGNATOR (R, AUX)

Target designators are used to lock-on guided weapons (see *Guided Weapons*, page 177). To lock-on a designator, the vehicle simply "attacks" the target, using the designator as the weapon. Its Base Range is equal to its rating. It has +0 Accuracy and does no damage. Any successful attack "paints" the target for incoming guided munitions. The target remains designated until the end of the round.

◇ TOOL ARM (R)

The vehicle has an arm-like structure with a specialized tool attachment, such as an earthmoving scoop or a cargo handling claw. They can lift or hold objects whose Size is equal to or lower than their rating, provided it has been attached to or is contained by the arm. No matter what the rating of a Tool Arm, a vehicle cannot lift an item whose Size is greater than twice its own Size. Half the ratings of weaker arms are added to the full rating of the strongest arm to determine the lifting strength of multiple arms. Optionally, Tool Arms can be reinforced to punch or crush opponents. These attacks have a Damage Multiplier equal to the lifting capacity of the arm.

▼ FLAWS

Flaws are the opposite of Perks. They represent defects or shortcomings in the design of the vehicle. Sometimes these shortcomings are consciously planned into the construct as a cost cutting measure, while at other times the defects are the result of design errors. Regardless of their origin, Flaws hamper the vehicle they are part of.

◇ ANNOYANCE

Annoyances are the tiny little things that make vehicle crew scream in frustration. Any design can have something infuriatingly annoying about it. These type of Flaw are too insignificant to have an effect on the tactical game, but are interesting for roleplaying purposes. Annoyances also serve to individualize the various designs, and they add significant "character" to the vehicle.

◇ DECREASED MANEUVER (R)

When using one type of movement, the vehicle loses some of its natural agility. This Flaw is linked with one Movement Type in particular. When this Movement Type is used, the rating of this Flaw is subtracted from the vehicle's Maneuver value.

◇ EXPOSED AUXILIARY SYSTEMS

Whenever an Auxiliary Systems effect is rolled on the Systems Damage Table, it is treated as if the damage was one stage worse (i.e. Light Damage is treated as Heavy and Heavy Damage as all Auxiliary Systems destroyed).

◇ EXPOSED FIRE CONTROL SYSTEMS

The vehicle's Fire Control mechanisms, either the electronics or the mechanical parts, are inadequately protected. +1 is added to the die when rolling on the Fire Control Damage Table.

◇ EXPOSED MOVEMENT SYSTEM

Whenever a Movement systems effect is rolled on the Systems Damage Table, it is treated as if the damage was one level worse (i.e. Light Damage is treated as Heavy Damage, and Heavy Damage results destroy all of the vehicle's movement systems, regardless of their location).

EXTREME OVERHEATING ◇

The vehicle is prone to overheating in a highly dangerous manner. The vehicle will automatically suffer a Light Damage effect if it does any of the following for two combat rounds in a row: move and fire a weapon, fire three or more weapons, or use Space movement. If it does any of those actions for three combat rounds in a row, the vehicle will suffer a Heavy Damage effect.

FRAGILE CHASSIS ◇

Some vehicles use lighter, less expensive chassis to help cut costs. These chassis perform just fine under everyday, normal usage, but they are more vulnerable to weapons fire and physical damage. +1 is added to the die when rolling on the Structural Damage Table.

HAZARDOUS AMMO/FUEL STORAGE ◇

The vehicle's fuel tanks and/or ammunition bays are poorly designed. They are either placed in a prominent place, lightly armored, or even both. A modifier of +1 is added when rolling a Light Damage result on the Fire Control Damage Table, +2 when rolling Heavy Damage.

HEAT VULNERABLE (R) ◇

The armor of the vehicle cannot withstand high energy attacks such as those from lasers or shaped-charge warheads. It may melt at low temperatures or just lack the thermal conductivity necessary to rapidly disperse the heat of the attack. The rating of this Flaw is subtracted from the Armor rating of the vehicle when submitted to a HEAT attack (see p. 177).

INEFFICIENT CONTROLS ◇

The vehicle's control mechanisms are poorly organized, causing the crew to waste precious time in high-stress situations. The number of crew actions is reduced by one. This Flaw is generally only found on vehicles which normally have a large crew complement.

LARGE SENSOR PROFILE ◇

A design element has made the vehicle more visible to sensors. The Flaw's rating is subtracted from the vehicle's Concealment value. The rating is added to the roll of other units performing an Active Sensors check against the vehicle. A large sensor profile is hazardous when trying to ambush enemies or evade pursuit.

NO ENGINE ◇

The vehicle has simply been designed without an engine and must be towed or catapulted. Movement hit effects are ignored, though Armor points are lost as usual.

OVERHEATING ◇

The vehicle is prone to overheating in a dangerous manner. The vehicle will automatically suffer a Light Damage effect if it does any of the following for three combat rounds in a row: move and fire a weapon, fire three or more weapons, or use Space movement.

SENSOR DEPENDENT ◇

The vehicle's cockpit does not give the pilot a direct, clear visual image of his vehicle's surroundings. In tactical game terms, the vehicle must use its sensors to detect everything. If these are destroyed, the vehicle is completely blind. It cannot attack, nor can it move. Any such attempt is automatically randomized on the board (i.e., direction and target are determined by the dice instead of the controlling player).

TRACKABLE EMISSIONS ◇

The vehicle emits large amount of residual heat, smoke, radiation, etc., and is thus easily tracked down. This is not the same as Large Sensor Profile, which relates to the vehicle itself. Sensor rolls to spot the vehicle have a bonus equal to the Rating of this Flaw. Guided weapons automatically lock-on without need for a designator. Computers (such as autopilots) may be instructed to track these emissions.

► OFFENSIVE AND DEFENSIVE SYSTEMS

The basic game statistics of weapons have already been explained on page 135. Other rules pertinent to weapons and defensive systems are explained here. Most of the following texts give special rules that are indicated by the weapon characteristics — those strange letter codes in the "Special" column of the weapon's data sheet.

▼ AMMUNITION FEED

Weapons with ammunition can be fed in one of two ways: either through an internal magazine (through fixed internal belt-feeding, an auto-loader, etc.) or by "clips" (actual ammunition clips, external belt feed, removable battery packs, energy crystals or whatever).

◇ INTERNAL MAGAZINE

Ammunition stored in magazines is entirely internal to the vehicle and is fed to the weapon through the inside. Multiple ammunition types can be stored within the weapon's bay, but switching between types requires one action. Reloading cannot be done in the field and requires specialized equipment.

◇ CLIPS

Clips are external to the weapon and are noted by a "c" after the Ammo number (multiple clips are indicated by a multiplier). Spares are mounted on the exterior hull of the vehicle. This makes them vulnerable to damage. Each clip counts as an AUX system — Light Damage destroys one clip, Heavy Damage destroys one die's worth. Destroyed clips explode, causing a number of damage points equal to the basic Damage Multiplier of the ammunition directly to the hull.

Clips can also be damaged while in the weapon. When rolling a Fire Control damage result (Sub-table A), it is also possible to read "Clip Destroyed" instead of the first two results of the table. Apply the usual damage resolution procedure (see *Damage*, page 158) to decide which option is applied.

Changing clips requires one action and the presence of either a Manipulator Arm or a dedicated ammo-loading Tool Arm. Any type of ammunition can be stored within a single clip, but the order in which the ammo types are loaded must be noted and then followed.

▼ WEAPON CHARACTERISTICS

Weapon characteristics are what makes a kinetic kill cannon different from a missile launcher or a laser. They serve to make each weapon or system unique, much like Perks and Flaws do for vehicles. The descriptions below explain the effects of each characteristic. Its name is followed by the abbreviation used on vehicle sheets, if appropriate.

◇ ANTI-INFANTRY (AI)



The weapon is specially designed to attack infantry units and other man-sized targets. It can be swung around very fast and its tracking system can register fainter readings than normal. The weapon does not suffer the normal Obscurement modifier when attacking human targets (see *Game Scales*, page 130).

◇ ANTI-MISSILE (AM)



The weapon is specially designed to attack or counter incoming missiles, either by misleading them away from the vehicle or destroying them outright. The weapon does not suffer the usual -6 modifier when used for Anti-Missile fire (see page 157 of this rulebook).

◇ AREA EFFECT (AE#)



The weapon affects a large area around the target point. Area Effect weapons always have a minimum MOS of 1 (or 1/2, in space) versus everything in their radius, indiscriminate of friend or foe, even if the target(s) successfully defended. These weapons are rated in Area Effect (AE), followed by the radius of hexes of their blast area (radius 0 means only the target hex is affected).

◇ ARMOR-PIERCING (AP)



The weapon is highly efficient when penetrating armor, concentrating all its energy on a single point to enhance its force. The target vehicle's base Armor rating is halved before determining damage. If the attack is successful, the target does not lose any Armor points (the entry hole is too small to affect the Armor rating), but takes system damage as usual. Targets may not be Overkilled by Armor-Piercing weapons — any extra damage beyond the Overkill score passes right through the target, possibly affecting something beyond.

ARMOR-CRUSHING (AC) ◇

The weapon is highly efficient when destroying armor plating and structures. If the attack is successful, the target loses twice the usual Armor points (2 for Light Damage and 4 for Heavy Damage) in addition to the usual system damage. If the attack's damage total is equal or greater than half the target's Armor (but still under the basic Armor rating), the target loses one Armor point with no additional effect.



ATTENUATING DAMAGE (AD#) ◇

The weapon loses a significant portion of its damage potential over distance. An AD number is subtracted from the Damage Multiplier for each range band beyond Short. For example, a x12 weapon with AD2 would be x10 at Medium, x8 at Long and x6 at Extreme range.



CONCEALED ◇

The weapon is normally hidden within a concealed bay in the hull of the vehicle and pops out only to attack. Such a weapon may use ammunition clips, but they can only be changed when the weapon is deployed.

The weapon cannot be detected while in its retracted position, and can ignore one damage result. Unfolding or retracting a Concealed weapon requires one action for each operation, unless it has been designed to "pop-up" (these require no action and may be deployed instantaneously).



DEFENSIVE (DEF) ◇

The system has been built with a defensive purpose in mind and makes a poor offensive tool. The Damage Multiplier is halved (round down) and a -2 modifier to hit is applied when using the system to attack. Defensive measures such as Parrying, Blocking and Anti-Missile fire do not count as attacks.



ENERGY-HOMING ◇

The weapon uses the target's own electronic emissions to lock-on and destroy it. It is most often used for missiles, but special computer/sensor systems can be adapted for direct fire weapons. If the target made an Active Sensor roll, used communication or has any kind of ECM or ECCM active during the combat round where the Energy-Homing attack takes place, the weapon gains a +2 to hit.



GUIDED (G) ◇

Guided weapons can use targeting information supplied by a friendly unit to improve their accuracy. Guided weapons gain a +2 modifier to their attack roll versus targets that have been "tagged" by an allied target designator within communication range. Guided attacks versus targets marked by a target designators do not need forward observers.



HAYWIRE ◇

The weapon's attack form consists of or causes a massive electrical discharge. In tactical terms, the weapon gets two rolls instead of just one on the Systems Damage Table when it scores Light or Heavy Damage on an opponent. In roleplaying terms (if "Crew" is rolled on the damage table), the weapon's second damage result is treated as an electrical attack with an Intensity equal to its tactical scale Damage Multiplier plus the Margin of Success.



HEAT ◇

Vehicle weapons are divided into two general categories: normal and HEAT (High Energy Anti-Tank, though tank here implies armor more than an actual vehicle). HEAT weapons rely on energy and heat to damage their target and can be counteracted by special armor (see page 172).



HEAVY ◇

The weapon is extremely heavy/cumbersome. It causes a -1 MP penalty to the Top Speed of all movement types (Combat Speeds are recalculated accordingly). This penalty is removed if the weapon is dropped or destroyed.



INDIRECT FIRE (IF) ◇

The weapon can perform indirect fire. It does not need to have a direct line of sight in order to attack or otherwise affect the target, only a forward observer to tell it where to aim. Indirect fire rules are described in *Mechanized Action*, page 156.





◇ INFINITE USE (INF)

Some weapon types do not require ammunition. Others are configured to draw power directly from the vehicle's powerplant or some other inexhaustible energy source instead of relying on capacitors or ammo packs and can operate for a virtually unlimited period of time, provided power and maintenance are adequately supplied. Infinite use weapons have the letters "Inf." in the ammunition column of their data sheet. They can fire in bursts only if they have a ROF of one or more.



◇ LIMITED USE (LU#)

The weapon can only be used for a short period of time before requiring a complete re-haul. They have no data entry for ammunition since they are entirely self contained. The ammunition column is marked with "LU," followed by a number: this is the number of turns the weapon can operate before burning itself out. Burned out weapons need to be completely rehailed at a well-equipped factory and cannot be refueled in the field.



◇ MISSILE (MIS)

The weapon is an aerodynamic tube containing one (or more) warheads mounted on a rocket motor, with or without a guidance system. Some missiles are stored in a launcher that contains the fire control system, others are wholly self-contained and fired as a single unit. The weapon uses the Missile ROF rules, but can be defended against with Anti-Missile fire.

If the multi-turn Seeking option is also available (see below), range is counted based on the Margin of Failure of the previous attack — in effect, the missile corrects its course at mid-point, improving its chances to hit. A MoF of 1 is equal to Short range, a MoF of 2 is Medium range, and so on. Attacks with Margin of Failure of five or more cannot try again, having veered too far off-target. Seeking missiles always move last, regardless of initiative.



◇ POWER-HUNGRY (PH#)

The weapon requires an inordinate amount of power and/or attention before firing. The vehicle can do nothing else while preparing that single weapon for firing. A number of actions equal to the "PH" number listed must be spent to fire the weapon, with any penalties for multiple actions in a turn being applied cumulatively.



◇ REDUNDANT SYSTEMS

The weapon is sheathed in plates of armor or has multiple redundant components. The weapon ignores the first damage result applied to it. This characteristic may be duplicated for extremely resilient weapon systems.



◇ SCATTER

The weapon fires salvos of smaller projectiles bound for the same target point rather than one sudden attack. The weapon can spread its salvo over a larger beaten zone if required. The weapon can increase its Area Effect by one, halving its Damage Multiplier in the process (if the weapon does not normally have an area effect, it gains an AE of 0).



◇ SEEKING (SK#/#)

The weapon can try to hit a moving target more than once: missiles which turn and twist to try and collide with an enemy vehicle, or beam weapons that won't fire until locked-on. If the attack fails, the attacker may reroll it. The maximum number of attacks possible per round is indicated with the characteristic. If the target has already spent action(s) to either shoot down, parry, block or dodge the attack, it can defend itself again with the same method at no additional action cost.

Some weapons are designed to attack over multiple turns. Unless the weapon has been destroyed, it may attack again at no action cost, up to its maximum number of turns in use. Multi-turn seeking missiles use special rules for determining range on the second and subsequent attacks — see *Missile*, above. The number of rounds they may attack in, including the one in which they are launched, is indicated after a slash ("/"). Seeking missiles without a slash operate for a single round.



◇ SELF-DESTRUCT (SD)

The type of weapon is entirely self-contained and is destroyed when used. If it misses, it may not be retrieved and reused. Self-destruct weapons do not have ammunition — they are a one-shot tool and are completely destroyed when used, whether the attack was successful or not.



◇ SHIELD

The weapon can be used to block enemy attacks and absorb some or all of the damage. A vehicle with a Shield system may expend one action to block an attack within the shield's arc; the vehicle's pilot rolls a new defense. If the roll is successful, the vehicle is still hit, but the shield subtracts a number of damage points equal to its DM times the shield block's MOS.

SHIELD CONTINUED

If a vehicle suffers Light Damage after having successfully blocked, the shield's Damage Multiplier is automatically halved (rounded up). If a vehicle suffers Heavy Damage after having successfully blocked using its shield, the shield is automatically destroyed. In either case, no further damage is applied to the vehicle. Overkill results still destroy the vehicle. When not used to block, the shield takes damage as a normal weapon; if its total penalties reach -5, the shield is destroyed.

Vehicles may not carry shields whose DM is greater than their Size rating. When not actively blocking, the shield adds one-quarter of its DM (rounded down) to the vehicle's base Armor in the shield's arc.

SHIELD, ENERGY (E-SHIELD) ◇

Protective devices can also be composed of multiple laser beams that intercept the object before it can strike the vehicle. This is how the space ships' Point Defense System works in Shield mode to ward off the minute particles that would otherwise strike the ship while it moves. Many Jovian scientists have theorized that the screen generator concept may one day be pushed further to create something similar to the classic "force field" of science fiction.

A vehicle with an Energy Shield system uses the same basic rules as a physical one (above). Most E-Shields are designed to be used against only one type of attack and cannot affect others (for example, PDS are useless against energy weapons). Energy shields with an Area Effect allow other units within the AE to benefit from its protection. Active energy fields generally prevent weapon fire by the protected unit(s), unless the shield is designed to allow it.



SMART (SMT #) ◇

The weapon is equipped with a tiny computer brain that allows it to operate by itself. The skill level of this virtual gunner is equal to the rating of the Smart characteristic. The Smart gunner has one action per turn. No crew action needs to be expended when using a Smart weapon, but a logical "program" of up to ten words must be given to each ("Fire on all incoming missiles" would be a valid program).



HAND-HELD WEAPONRY ▼

If one or more Manipulator Arms are present, any weapon can be designed as "hand-held" in a rifle-like mount. Rifles are somewhat more fragile, since they depend on the arm carrying them, but they are also more flexible tactically. Most rifles are clip fed for tactical flexibility.

Rifles can be picked up or put away at the cost of one action, as long as the manipulator is still functional. It costs no action to drop a rifle. If the Manipulator Arm is destroyed, or if the rifle is dropped, the rifle can be picked up by another manipulator-equipped unit with a free hand.

MULTI-FUNCTION WEAPONS ▼

Multi-function weapons are systems that can perform more than one function; for example, a space ship's point defense laser system can fire powerful unidirectional shots or switch to a wide-angle anti-missile beam sprayer by readjusting its focal array. These are listed on two or more lines on the vehicle's record sheet, with one function per line; the name of the weapon is written on the first line, while functions are indicated between parenthesis. The advantage of this is versatility with greatly reduced cost and space. On the down side, if the weapon is damaged or destroyed, all functions are equally affected by the damage received. Switching between functions is normally almost instantaneous and costs no action, except when playing within the Roleplaying time frame (6-second turns). One action is then required to switch from one mode to another.

WEAPON LINK ▼

A Weapon Link allows multiple weapons to be linked to a single fire control mechanism. Although not technically a Perk, it is listed with them for ease of reference. One action is required to fire a set of linked weapons. The link's Accuracy and Base Range are equal to the worst of these ratings amongst the link's weapons. Each weapon's attack is rolled separately, but as soon as one weapon misses, the rest miss automatically (they still expend their ammunition). When a link is fired, all weapons in it fire (though they can still be fired separately if need be).

NOTES ON WEAPONRY ▣

Don't forget that the Base Range must be doubled repeatedly to get the other range bands — the full range bands are not listed on the sheet in order to save space that is better used for other characteristics. There are spaces for three more weapon-related numbers on the standard record sheet (see page 131), identified by the letters MS, WC and AC. These means, respectively, Minimum Size, Weapon Cost, and Ammunition Cost, and all are related to the design procedure. Though they are not used in regular play, space is given for these for those interested in using the Offensive & Defensive System Design Procedure found in the *Jovian Chronicles Companion*.

8.3.3

8.3.4

8.3.5

HOOKS AND TIPS

end of section 8.3 offensive and defensive systems

► COMPUTERS IN THE GAME

Basic computers are described in Silhouette with the following Attributes: Creativity, Knowledge, Processing Power and a series of programs called Modules, similar in effect to a character's Skills. Creativity and Knowledge represent the computer's abilities to find new solutions (CRE) and to make use of past experience and pre-programmed routines (KNO) to solve problems and accomplish tasks, using the proper Modules (Skills). Those rare computers with artificial intelligence have Willpower and Psyche Attributes as well.

Processing Power gives the number of dice the computer can use to accomplish various tasks at the same time. For example, a computer with a Processing Power of 1 can only do one thing at the time, using one die. A computer with a Processing Power of five, on the other hand, could do five tasks at the same time, giving one die to each, or concentrate on only one task using five dice, do three one-die task and one two-die task, etc. In the same manner as humans, only the highest die counts, with additional sixes adding one each to the total; the Attribute bonus related to the Module used is added to the final roll.

All active Modules must be allocated at least one die; inactive Modules take one combat round to load, while active Modules can be interrupted instantly. The same Module can be loaded more than once. A computer can never put more than five dice on any particular task. Unused dice can be put into any currently running Module, instantly and at any time. A computer fumbles only if it rolls ones on all of its PP dice, even those not assigned to the problem.

It is assumed that the basic functions of the computer, like those related to the maintenance of the vehicle or location in which they are installed, always succeed. All computers are assumed to come with standard communication links, hardware and operating software, as well as advanced encryption systems.

▼ MODULES

Modules are divided into three basic types: Academic, Hardware and Vehicular. Each Module has a certain sophistication, reflected in the maximum number of Processing Power which can be used to run them. For example, a Drive 2 Module may not have more than two dice allocated to it, even if the computer has a higher Processing Power.

Academic Modules are used for tasks which are oriented towards the gathering and analysis of factual information. A computer with an Academic Module can help a human operator by giving him more dice to roll. First, a Module roll is made against a threshold equal to the operator's Skill level plus the related stat bonus (for example, a person with Skill level 2 with an Attribute of +2 would result in a threshold of 4). If successful, the operator gets a number of additional dice equal to the Margin of Success, up to a maximum of 5. An unskilled operator automatically gets a single die to roll from an appropriate Module with three or more dice allocated to it.

Hardware Modules are tied to specific pieces of equipment, such as surveillance systems, sensors, communication equipment, etc. These are mostly automated systems; human operators have no real effect on the computer's performance when it activates these Modules. Most are event-driven, which means that a roll is required only when a particular event happens (i.e. an object coming into the sensors' range, etc.). The cost for hardware Modules includes the appropriate interface but not the hardware itself.

Vehicular Modules are similar to Hardware Modules, insofar as they control hardware components, more specifically as part of vehicular equipment. They are usually not as automatic as hardware Modules, often requiring an operator to correctly function; refer to each specific Module for a more thorough description of the Module's effects. The cost for vehicular Modules includes the appropriate interface but not the vehicle itself.

◇ AUTOPILOT (CRE)

Type:	Vehicular
Frequency of roll:	Event-driven
Cost:	2,000 per die

The Autopilot Module enables the vehicle's computer to take full control of the steering and navigation. The computer makes Skill tests whenever an obstacle or potentially hazardous situation is encountered, and whenever a human pilot is required to do one. The vehicle must be equipped with the Autopilot Perk in order to use this Module.

◇ COMMUNICATIONS (KNO)

Type:	Academic/Hardware
Frequency of roll:	Hourly
Cost:	1000 per die

This simple Module handles communications routing and encryption/decryption. It is mostly used to help a human operator decode or transmit a message. If the computer is used to monitor or transmit messages automatically and fails the roll, 10% of the communications are lost per point of Margin of Failure.

DEFENSE SYSTEMS (CRE) ◇

Type:	Academic/Vehicular
Frequency of roll:	On request or Event-driven
Cost:	2,250 per die

The Defense Systems Module is a specialist Module designed to assist a vehicle's pilot in evading incoming attacks. The Module can either take control of a particular defense system (such as a non-automated anti-missile system), replacing a human operator, or assist a human operator in the same manner as would an Academic program. When assisting the crew, the Module can help operate a specific defense system or help to physically evade attacks (i.e. boost defense rolls) using the relevant Piloting skill.

EARTH SCIENCES (KNO) ◇

Type:	Academic/Hardware
Frequency of roll:	On request or Daily
Cost:	1,500 per die

This Academic Module, which assists in the various sciences which concern the geological world, is mostly used by geologists, miners and prospectors. In addition to boosting the Earth Sciences skill of the computer's operator, it can take care of an entire geological laboratory through automated systems.

ELECTRONICS (KNO) ◇

Type:	Academic
Frequency of roll:	On request
Cost:	900 per die

This technical Module is used by engineers and hobbyists to design and test electronic circuits and devices. Unless the computer is an artificial intelligence, it cannot design circuitry on its own. The Module is used in Academic mode to boost a character's Tinker, Electronics or Electronic Design Skill when repairing, modifying or creating circuitry and other electronic devices.

ELECTRONIC WARFARE (KNO) ◇

Type:	Academic/Hardware
Frequency of roll:	On request or Event-driven
Cost:	1,500 per die

This Module, used mostly by the military and special intervention squads, can either replace a human operator, automatically scanning or jamming transmissions, or assist the operator as a standard Academic Module. If used in an event-driven mode, the computer can be ordered (with simple 10-word orders) to seek and block specific transmissions or ECM devices.

FIRE CONTROL (CRE) ◇

Type:	Academic/Hardware
Frequency of roll:	On request or Event-driven
Cost:	3,750 per die

This Module is used either to replace a human gunner (with simple 10-word orders such as: "shoot everything that moves," "cripple all that come within 50 meters" or "do not harm anyone with a white flag") or to assist a human gunner in the same way as would an Academic Module, with a maximum of three additional dice. Regardless of which mode is used, the weapon systems controlled or assisted by the Module are affected by the vehicle's Fire Control rating.

FOREIGN LANGUAGE (KNO) ◇

Type:	Academic
Frequency of roll:	On request or Event-driven
Cost:	100 to 4,500 per die, depending on language

This fairly common Module is used as a handy translator, in which case the computer resolves the task by itself, the threshold of difficulty depending on the level of language used by the person being translated. It can also be used to boost any person's Foreign Language skill in the usual manner, to a maximum of three additional dice.



◇ LIFE SCIENCES (KNO)

Type:	Academic
Frequency of roll:	On request
Cost:	1,500 per die

This Module is mostly used by biologists, physicians and scientists who study living organisms. In addition to boosting the skill of the computer's operator, it can take care of an entire laboratory through automated systems.

◇ MECHANICS (KNO)

Type:	Academic
Frequency of roll:	On request
Cost:	1,250 per die

This purely Academic Module is used by engineers and hobbyists to design, repair and test mechanical systems and devices. Unless the computer is an AI, it cannot design mechanisms on its own.

◇ MEDICINE (KNO)

Type:	Academic
Frequency of roll:	On request
Cost:	3,000 per die

Doctors, physicians and nurses use this particular Module for the diagnosis, treatment and counseling of patients. In addition to boosting the Skill of the computer's operator (First Aid or Medicine), it can take care of an entire hospital through automated systems.

◇ SPACE NAVIGATION (KNO)

Type:	Academic/Vehicular
Frequency of roll:	Once per change of course
Cost:	2,500 per die

All spacecraft require this Module on their vehicle's computer in order to be able to go anywhere outside of an area a few kilometers wide. The computer must have at least one die dedicated to this Module at all times when the vehicle is traveling. To stay on course in normal space, the computer may roll against a threshold set relative to the complexity of the course (Gamemaster's decision) or it can support a ship's navigation officer's Skill.

◇ PHYSICAL SCIENCES (KNO)

Type:	Academic
Frequency of roll:	On request
Cost:	1,400 per die

This Module is often used by researchers in the fields of chemistry and physics. In addition to boosting the skill of the computer's operator, it can take care of an entire laboratory through automated systems.

◇ SENSORS (KNO)

Type:	Academic/Hardware
Frequency of roll:	Event-driven or On request
Cost:	2,000 per die

This Module automatically monitors and analyzes data received from active and passive sensors, warning the vehicle's crew of any anomalous signals. It can also assist a sensor operator.

◇ SURVEILLANCE (KNO)

Type:	Hardware
Frequency of roll:	Event-driven
Cost:	1,000 per die

This common Module is used for routine, automatic surveillance using video, audio, motion and heat sensors — it is the computer equivalent of the Notice Skill. Roll separately for each unwanted intrusion; the threshold of difficulty depends on the total surface monitored; add 1 for each 50 m x 50 m zone. Stealth and electronic countermeasures can be used to further raise this threshold, at the GM's discretion.

SPACE SHIPS AND LARGE VEHICLES ◀

Space ships and large vehicles (in fact, anything above Size 30) are broken down into smaller parts (called **sections**) to facilitate construction, reduce costs and increase their survivability. As such, they require a few special rules and some clarification as to their use in the game.

In Silhouette terms, this means that the vehicle is composed of a main hull plus a number of superstructures and components that perform certain function and move with the hull. Examples of this include weapon turrets, communication towers, and booster units. For the sake of simplicity, these are all referred to as "sections" in the text.

CREW ▼

Each section has its own crew. Actions are determined separately for each part of the vehicle, including the main hull. Crew casualties are likewise applied to each separate section as damage is received. Crew may be reassigned to other sections as desired. A number of crewmembers equal to the Size of the smallest section involved in the exchange may be transferred each turn. Transferred crewmembers do not count for action purposes in the round during which they are transferring.

MANEUVER ◇

All sections have the same Maneuver rating as the main hull. They use the same movement modifiers in combat (e.g. if the main hull is moving at Combat speed, each section will be treated as moving at Combat Speed). Sections ignore any Maneuver-related damage result, but still lose Armor points as usual (1 for Light Damage, 2 for Heavy Damage). They are affected by any Maneuver damage suffered by the main hull.

MOVEMENT ◇

Motive sections contribute motive power by adding their total mass to define a common "towing capacity" (see page 143 for space towing rules). This is then used to tow the rest of the vehicle (the main hull simply adds its own Thrust, if applicable). If a motive section is Overkilled or can no longer supply any motive power, the speed drops according to the regular towing rules (damaged drive sections are often jettisoned on space ships to reduce the ship's mass). Non-motive Sections ignore any Movement-related damage result, but still lose Armor points as usual.

ELECTRONICS ◇

The electronic systems (Sensor, Communication, Fire Control) are distinct for each part of the vehicle. Some sections can dispense with Sensor, but they all have a Communication system to connect with the rest of the vehicle. Communication lines between sections are not affected by ECM as they are hardwired within the vehicle. Should it be destroyed, however, that section is cut off and may no longer receive orders from (or supply them to) the rest of the vehicle. It also cannot benefit from Command points or transfer crew unless a messenger physically fetches them. Fetching crew in other sections or transferring messages takes an entire combat round; that crewmember does not count for action purposes while he is away from his post.

DAMAGE EFFECTS ◇

Each section has its own Armor rating. Sections are targeted as if they were a separate vehicle in the same hex, and takes damage separately from the main hull. Should a section be Overkilled, any remaining damage is applied to the Armor of the main hull to see if additional damage is suffered. For example, a turret section with an Overkill value of 72 takes a glancing blow from a powerful laser beam and suffers 110 points of damage as a result. The Overkill result automatically destroys the turret, while 38 points of damage are transferred to the hull.

Sections are usually attached permanently to the main hull, but most spacecraft have provision to discard damaged turrets, communication arrays or drive sections with explosive bolts. If this occurs, the damaged section's mass is removed from the ship, and the total thrust is recalculated.

If the main hull is Overkilled, each section still has power for a number of turns equal to its Size, after which they lose all power and become inactive.

WEAPONS ◇

Weapons and ammunition are determined separately for each section. A section is considered fixed in place on the main hull. If the design calls for a turret, any weapon mounted on the turret section will have the appropriate fire arc. The actions required to fire the gun(s) are supplied by the section's crew, though they can use sensor and communication devices from the other sections using the standard Forward Observer procedure (see page 156).

8.5

8.5.1

end of section 8.5 space ships and large vehicles

▶ HA-101 BRIMSTONE

8.6



VEHICLE DATA

The Hermes Aerospace *Brimstone* is the newest exo-armor to enter service in the ranks of the Mercurian defense force. It is the first exo-armor entirely produced in Mercurian space and was designed to answer the needs of both the army and the Merchant Guild. The prototype took its first steps in March of 2203, after a long and arduous development period. Most of these growing pains came from Hermes' limited experience in the field of exo-vehicle design, as the company's exo-craft division had only produced one in the past (the HA-600 exo-suit, back in 2190).

The most prominent feature of the *Brimstone* is its large thrust rating. Its eight main engines can propel the craft forward at almost three gees. Unfortunately, this is achieved at the expense of reaction mass reserve. The *Brimstone* has large maneuver thruster arrays located on the shoulder and feet. The Hermes design team heard of JAW's experiment with removable engine pods, and applied a similar principle to the exo.

Hermes incorporated a number of design elements that were specifically requested by the government. The *Brimstone* has large manipulators that are useful when handling material in space docks. It also features numerous cooler units since it often operates under high temperatures.

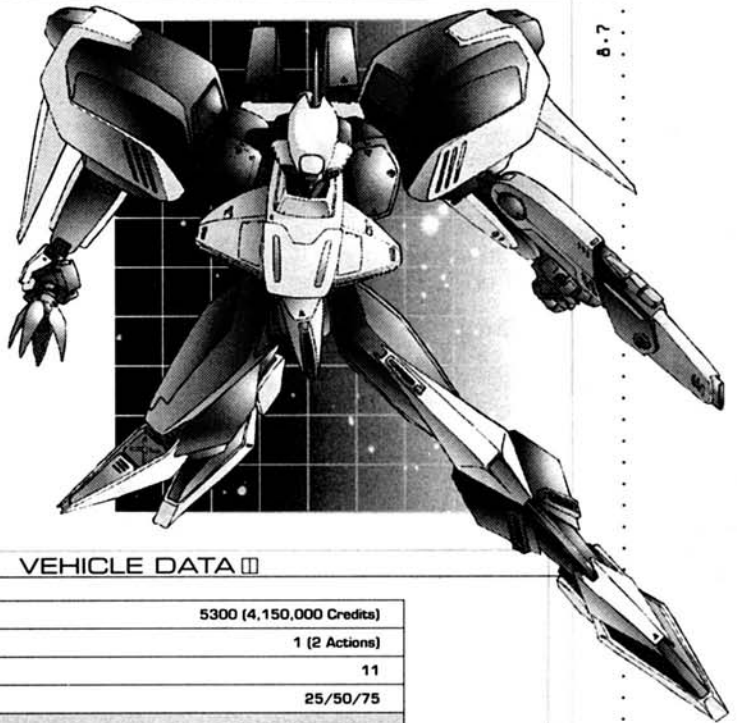
Threat Value:							7500 (8,125,000 Credits)		
Crew							1 (2 Actions)		
Size							12		
Armor							26/52/78		
► MOVEMENT DATA									
Movement Mode			Combat Speed			Top Speed		Maneuver	
Walker			2 (12 kph)			4 (24 kph)		-1	
Space			14 (1.4 g)			28 (2.8 g)		+1	
Deployment Range:							150 km		
Reaction Mass:							200 BP		
◆ ELECTRONICS DATA									
Sensors:							0/2 km		
Communications:							0/10 km		
Fire Control:							0		
► PERKS & FLAWS DATA									
Name				Rating			Game Effect		
Autopilot				-			Acts as Level 1 pilot		
Backup Systems				-			Comm, Fire Con, Life Support, Sensors		
Computer				2			CRE 0, KND 0, PP2		
Ejection System				-			Escape Pod		
HEAT-resistant Armor				2			Add against HEAT attacks		
HEP: Extreme Heat				-			Extra heatsinks		
HEP: Radiation				3			Screen		
HEP: Vacuum				-			Space protection		
Life Support				-			Limited		
2 x Manipulator Arm				12			Can punch		
Reinforced Crew Compartment				-			Absorbs first "Crew" hit		
Decreased Maneuver				2			Walker		
Large Sensor Profile				3			Too large to hide		
► OFFENSIVE & DEFENSIVE SYSTEM DATA									
Qty	Name	Fire Arc	DM	BR	Acc	ROF	Ammo	Special	
1	FESTer-12 Rifle	Forward	x10	4	0	2	60c x 3	-	
6	M10 Light Missile	Forward	x15	3	-2	0	n/a	Mis, SD, Sk1, Smt2	
2	M30 Heavy Missile	Forward	x30	5	-2	0	n/a	Mis, SD, Sk1, Smt2	
2	L6 Plasma Lance	Forward	x12	M	0	0	LU3	AC, Concealed, HEAT	

G-1 RYU ◀

The G-1 Ryu is a relatively recent development of the Venusian exo-armor industry. It is a state-of-the-art, high performances exo-armor which is intended to become the main Venusian trooper unit in the next decade. The Ryu uses both hydraulic and myomar technologies to move its limbs and weapon systems, and is powered by a standard micro-fusion reactor located in the rear section of the body. The standard G-1 configuration has a large thruster backpack, giving it a good reaction mass reserve and good or superior acceleration.

The Venusian exo-armor does not seem to have been intended as a "slugger" combat unit. The legs are very thin, indicating a possible structural weakness. The only built-in ranged weapons are the twin pulse lasers mounted in blisters on either side of the head unit. There are hard points on both shoulders and backpack, probably for missiles or rocket packs, but there are no other apparent weapon-bearing location. Most likely, any other armament will be carried in the manipulator hand units.

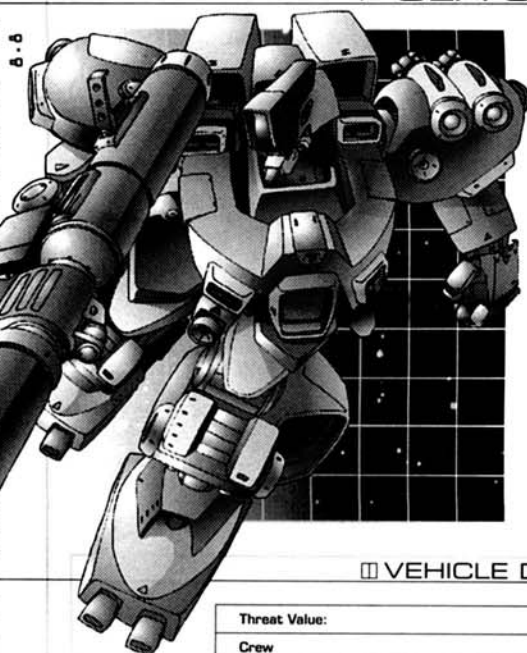
The vehicle is far from defenseless in melee combat, however, as it can carry two to four plasma lances in a special compartment located behind mobile armor panels on the upper thighs.



VEHICLE DATA □

Threat Value:		5300 (4,150,000 Credits)						
Crew		1 (2 Actions)						
Size		11						
Armor		25/50/75						
► MOVEMENT DATA								
Movement Mode		Combat Speed		Top Speed		Maneuver		
Walker		6 (36 kph)		11 (66 kph)		+1		
Space		11 (1.1 g)		22 (2.2 g)		+1		
Deployment Range:							500 km	
Reaction Mass:							300 BP	
► ELECTRONICS DATA								
Sensors:							0/2 km	
Communications:							0/20 km	
Fire Control:							0	
► PERKS & FLAWS DATA								
Name		Rating		Game Effect				
Autopilot		-		Acts as Level 1 pilot				
Backup Systems		-		Comm, Fire Con, Life Support and Sensors				
Computer		3		CRE 0, KNO 0, PP3				
Ejection System		-		Escape Pod				
HEAT-resistant Armor		2		Add to Armor versus HEAT weapons				
HEP: Radiation		3		Screen				
HEP: Vacuum		-		Space protection				
Life Support		-		Limited				
2 x Manipulator Arm		11		Can punch				
Reinforced Crew Compartment		-		Absorbs first "Crew" hit				
Weapon Link		-		Link pulse lasers				
Large Sensor Profile		1		Too large to hide				
► OFFENSIVE & DEFENSIVE SYSTEM DATA								
Qty	Name	Fire Arc	DM	BR	Acc	ROF	Ammo	Special
2	Najima P8 Head Pulse Laser	Forward	x6	1	0	3	Inf.	AM, AI, HEAT
1	Kreuss K-675R Massdriver Rifle	Forward	x12	3	0	2	200	-
4	ALM-16 Medium Missile	Forward	x16	3	-1	0	n/a	Mis, SD, Sk1, Smt2
2	Xidar-4 Plasma Lance	Forward	x16	Melee	0	0	LU5	AC, Concealed, HEAT

► CEA-05 WYVERN



As new exos were introduced in the JAF's front line units, the CEGA Navy decided they needed a new exo-armor design to face them. Although efficient, the most recent updates of the Syreen were hopelessly outclassed, so research was oriented in a new direction. Arrangements were made with the Martian Federation to buy two *Defenders*. These were moved with great secrecy to the LAC base in the Tycho Crater to be disassembled and studied. Using the basic frame as a guide, the engineers set out to create an exo-armor comparable to current Jovian designs: the *Wyvern*.

The head unit was completely redesigned, scrapping the front and lateral sensor arrays of the *Defender* and replacing them with a single large plate. Although this somewhat limited the field of vision of the pilot, it was easier to maintain and made room for a laser anti-missile system as well as two rapid-fire massdrivers for close combat.

It was decided that a large hypergolic bazooka would provide the main firepower. Hip missiles, once considered, had to be dropped to save some tonnage. The leg-mounted missile launchers were retained but the light rockets were replaced by more powerful ones. A pair of medium missiles complete the *Wyvern*'s usual offensive payload.

▣ VEHICLE DATA

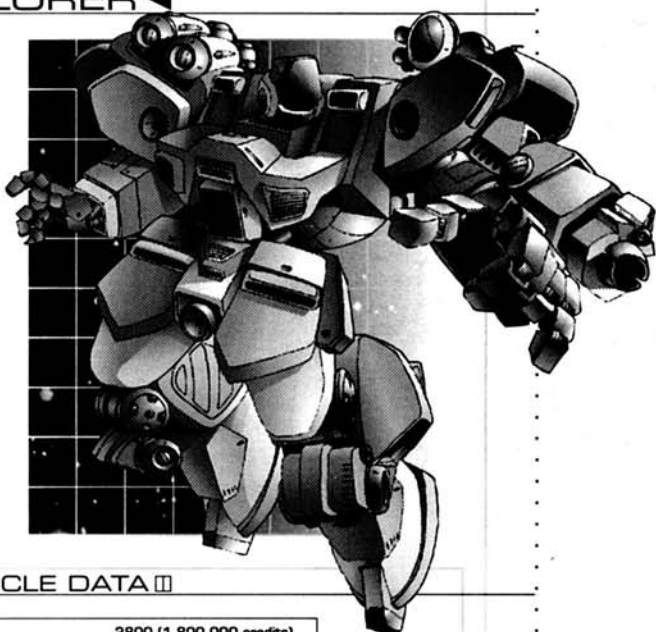
Threat Value:		5100 (3,700,000 Credits)						
Crew		1 (2 Actions)						
Size		13						
Armor		32/64/96						
► MOVEMENT DATA								
Movement Mode		Combat Speed		Top Speed			Maneuver	
Walker		3 (18 kph)		6 (36 kph)			-1	
Space		12 (1.2 g)		24 (2.4 g)			-1	
Deployment Range:		500 km						
Reaction Mass:		450 BP						
► ELECTRONICS DATA								
Sensors:		-1/3 km						
Communications:		0/10 km						
Fire Control:		0						
► PERKS & FLAWS DATA								
Name		Rating		Game Effect				
Autopilot		-		Acts as Level 1 pilot				
Backup Systems		-		Comm, Fire Con, Life Support, Sensors				
Computer		2		CRE 0, KNO 0, PP2				
Ejection System		-		Escape Pod				
HEP: Radiation		4		Screen				
HEP: Vacuum		-		Space protection				
Life Support		-		Limited				
2 x Manipulator Arm		13		Can punch				
Reinforced Crew Compartment		-		Absorbs first "Crew" hit				
Large Sensor Profile		2		Too large to hide				
Weapons Link (Head Guns)		-		Link LACW-1M massdrivers				
► OFFENSIVE & DEFENSIVE SYSTEM DATA								
Qty	Name	Fire Arc	DM	BR	Acc	ROF	Ammo	Special
1	Zapper Mk2 AMS	Forward	x3	1	+1	6	Inf.	AM, Def, HEAT
2	LACW-1M Massdriver	Forward	x5	1	0	4	240	AI
1	LACW-8 Hypergolic Bazooka	Forward	x15	5	0	0	6c	Mis, Seek1
2	3M-3 Heavy Missile	Forward	x30	5	-2	0	n/a	Mis, SD, Seek1, Smart2
2	3MC-2 Rocket Canister	Forward	x6	1	-1	5	20	Mis, IF

MEAL-02 EXPLORER ◀

The *Explorer* was originally a Jovian Armor Works design which the JAF sold to the Martian governments in the late 2180s. It is representative of the first true exo-armors and as such is not very sophisticated.

The *Explorer*, was used by the JAF from its introduction in 2175 to its gradual replacement by the more advanced *Pathfinder*. The machines still in service were gradually sold to the Martian Free Republic Rangers, although a few ended up as the first exo-armors of the Martian Federation (the Nomads responsible for delivering them simply sold their cargo to the Federation for a higher price). Eventually, Martian Metals, a mining and heavy equipment company, began producing a home-grown copy which was almost identical to the original Jovian design. The name was retained, but the identification code was changed to MEAL-02.

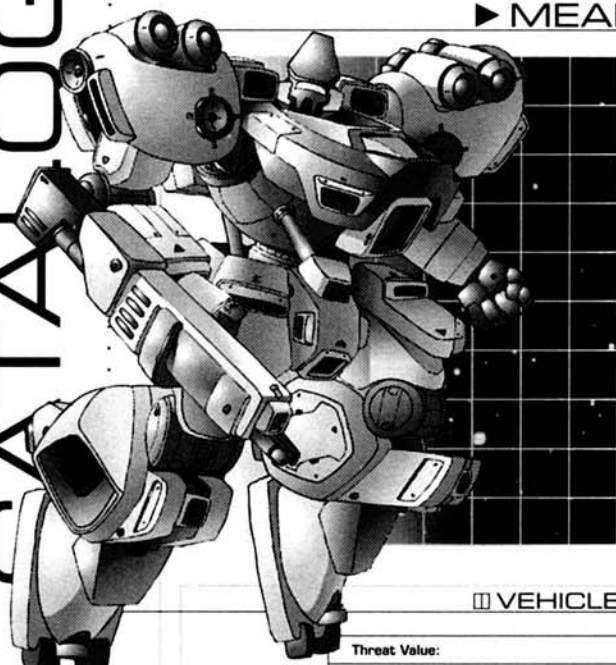
The machine has not changed much over the years. Except for the Martian-built computers and communication systems, everything is pretty much the same as it was when the *Explorer* served with the JAF. The armament is still of Jovian manufacture, although many units sport home-grown designs instead of the JAW railgun (such as the Ares RJ-3 railgun — a pale copy of the original weapon).



VEHICLE DATA □

Threat Value:		2800 (1,800,000 credits)						
Crew		1 (2 Actions)						
Size		11						
Armor		23/46/69						
► MOVEMENT DATA								
Movement Mode	Combat Speed		Top Speed			Maneuver		
Walker	2 (12 kph)		4 (24 kph)			-1		
Space	6 (0.6 g)		12 (1.2 g)			-1		
Deployment Range:		300 km						
Reaction Mass:		400 BP						
► ELECTRONICS DATA								
Sensors:		+1/2 km						
Communications:		-1/10 km						
Fire Control:		0						
► PERKS & FLAWS DATA								
Name		Rating		Game Effect				
Autopilot		-		Acts as Level 1 pilot				
Backup Systems		-		Comm, Fire Con, Life Support and Sensors				
Computer		2		CRE -1, KNO 0, PP2				
Ejection System		-		Escape Pod				
HEP: Radiation		3		Screen				
HEP: Vacuum		-		Space protection				
Life Support		-		Limited				
2 x Manipulator Arm		12		Can punch				
Reinforced Crew Compartment		-		Absorbs first "Crew" hit				
Large Sensor Profile		3		Too large to hide				
► OFFENSIVE & DEFENSIVE SYSTEM DATA								
Qty	Name	Fire Arc	DM	BR	Acc	ROF	Ammo	Special
1	Ares RJ-3 Railgun	Forward	x15	3	0	0	50	-
2	GPM-1 Missile	Forward	x20	5	-2	0	-	Mis, SD, Seek1, Smart2
2	MCJ-1 Missile Canister	Forward	x10	3	-1	4	10	Mis, G, IF

► MEAM-01 DEFENDER



Like the *Explorer*, the *Defender* was originally a Jovian Armor Works design sold to the Martian governments. The initial project was started at the same time as the *Explorer* project, which may account for the visual similarities of the two machines.

The *Defender's* early flights proved the overall soundness of the design. It served in the JAF for the same period of time as the smaller *Explorer*, and was also sold to the Free Republic after its tour of duty in the Jovian forces. At first, the Federation couldn't get their hands on the new unit, much to their despair, until a commando team successfully stole the plans and some test data from the Martian Metals plant in Republic territory in 2191. Soon after, Ares Corporation became the second manufacturer of the MEAM-01.

The *Defender* is a well-rounded machine. It was designed as a soldier unit, capable of fulfilling many types of missions in a variety of environments. Though its internal systems lack sophistication, they are easy to repair and maintain. Tech crews are particularly grateful for the well-designed electronic bays, because the panel linings do an exceptional job keeping the red Martian dust out of the circuitry.

▣ VEHICLE DATA

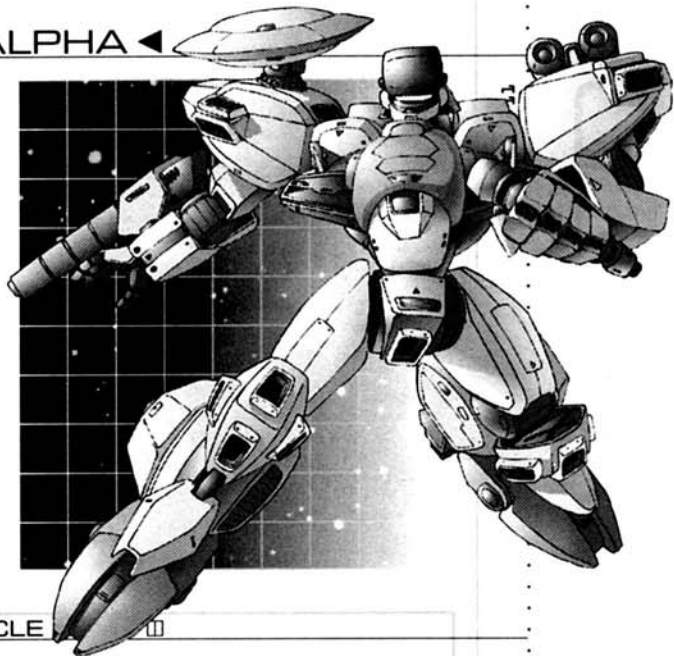
Threat Value:		5700 (4,300,000 Credits)						
Crew		1 (2 Actions)						
Size		12						
Armor		25/50/75						
► MOVEMENT DATA								
Movement Mode		Combat Speed		Top Speed		Maneuver		
Walker		2 (12 kph)		4 (24 kph)		-1		
Space		7 (0.7 g)		14 (1.4 g)		-1		
Deployment Range:		250 km						
Reaction Mass:		400 BP						
► ELECTRONICS DATA								
Sensors:		-1/2 km						
Communications:		-1/10 km						
Fire Control:		0						
► PERKS & FLAWS DATA								
Name		Rating		Game Effect				
Autopilot		-		Acts as Level 1 pilot				
Backup Systems		-		Comm, Fire Con, Life Support and Sensors				
Computer		2		CRE -1, KNO 0, PP2				
Easy to Modify: Aux. Systems		-		+2 to repair and modify				
Ejection System		-		Escape Pod				
HEAT-resistant Armor		2		Add to Armor vs. HEAT weapons				
HEP: Radiation		3		Screen				
HEP: Vacuum		-		Space protection				
Life Support		-		Limited				
2 x Manipulator Arm		12		Can punch				
Reinforced Crew Compartment		-		Absorbs first "Crew" hit				
Large Sensor Profile		2		Too large to hide				
► OFFENSIVE & DEFENSIVE SYSTEM DATA								
Qty	Name	Fire Arc	DM	BR	Acc	ROF	Ammo	Special
1	MM-324 Beam Cannon	Forward	x15	3	+1	0	Inf.	AD2, Haywire, HEAT
4	GPM-1 Missile	Forward	x20	5	-2	0	n/a	Mis, SD, Seek 1, Smart2
2	MCJ-1 Missile Canister	Forward	x10	3	-2	4	10	Mis, G, IF

EAL-04A PATHFINDER ALPHA ◀

The original *Pathfinder* was one of the oldest exo-armors in the Jovian military arsenal. About half of the JAF's exo-armor squadrons were composed of *Pathfinder* at the time of the Battle of Elysée, and although somewhat fragile by exo-armor standards, they performed admirably despite heavy losses.

Even before the Battle of Elysée, an upgrade program was started to rebuild the forces of the JAF. The objective was to rapidly increase the defenses of the Confederation, so exo-armors had to be turned out at faster rate. The engineers at JAW reworked the design, reshaping the *Pathfinder*'s complex rounded skin into something that was easier to mass-produce. The resulting machine was given the identification code *Pathfinder Alpha*, to distinguish from its predecessor.

The standard armament carried by the *Pathfinder* is light because front-line combat is not a primary design requirement. Long range sensors are standard issue on all *Pathfinder* variants. A medium-range radar and EWAC system is mounted on the right shoulder hardpoint to enable the *Pathfinder* to find any intruder using either standard radio communication or a search radar near its patrol trajectory.

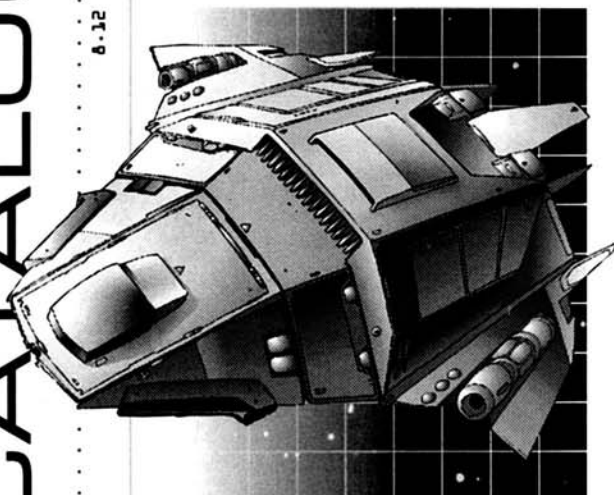


VEHICLE

Threat Value:		5000 (3,900,000 Credits)						
Crew:		1 (2 Actions)						
Size:		11						
Armor:		22/44/66						
► MOVEMENT DATA								
Movement Mode		Combat Speed		Top Speed		Maneuver		
Walker		6 (36 kph)		12 (72 kph)		0		
Space		14 (1.4 g)		28 (2.8 g)		0		
Deployment Range:		700 km						
Reaction Mass:		500 BP						
► ELECTRONICS DATA								
Sensors:		+2/5 km						
Communications:		0/15 km						
Fire Control:		0						
► PERKS & FLAWS DATA								
Name		Rating				Game Effect		
Autopilot		-				Acts as Level 1 pilot		
Backup Systems		-				Comm, Fire Con, Life Support, Sensors		
Computer		2				CRE 0, KNO 0, PP2		
ECCM		4				Defensive Electronic Warfare Equipment		
Ejection System		-				Escape Pod		
HEAT-Resistant Armor		4				Add to Armor vs. HEAT weapons		
HEP: Radiation		4				Screen		
HEP: Vacuum		-				Space protection		
Life Support		-				Limited		
2 x Manipulator Arm		11				Can punch		
Reinforced Crew Compartment		-				Absorbs first "Crew" hit		
Satellite Uplink		-				1000 x Comm Range		
Searchlights		-				Front, 200 meters		
Exposed Aux Systems		-				"AUX" Hits are one step worse		
Large Sensor Profile		2				Too large to hide		
► OFFENSIVE & DEFENSIVE SYSTEM DATA								
Qty	Name	Fire Arc	DM	BR	Acc	ROF	Ammo	Special
1	652A Particle Cannon	Forward	x15	3	+1	0	Inf.	AD1, Haywire, HEAT
2	MMJ-4 Missile	Forward	x20	5	-2	0	-	Mis, SD, Seek1, Smart2
2	PL3 Plasma Lance	Forward	x12	Melee	0	0	LU5	AC, Concealed, HEAT

8.12

► CF-03 WRAITH



The *Wraith* is one of the better known interceptor designs in the Solar System. Though it is starting to show its age, it is still a reliable and versatile workhorse, capable of handling a large variety of missions both in atmosphere and in low orbit. Its two modular wing weapon hardpoints allow it to carry a large variety of offensive systems, which can be supplemented by the ordinance loaded in the shielded ventral bay.

The *Wraith* was designed as a multi-role vehicle, capable of handling threats both nearby, on the other side of the globe and in the depths of space. Though it lacks a transatmospheric capability of its own, it can be mated to a fully reusable flyback booster unit to put it into low orbit, allowing it to be anywhere over Earth within an hour of launch.

The *Wraith* fighter had its finest hours during the various conflicts of the late twenty-first century. It was designed and fielded by forces of the European Union (before its incorporation into what would become CEGA) under the name *Spectre*, flying against other well-known fighters such as the CFB-10D *Gnome*. After the ratification of the CEGA Treaty of Union in 2184, all existing *Spectres* were renamed *Wraith* and incorporated in the armies of the newly-formed world government.

▣ VEHICLE DATA

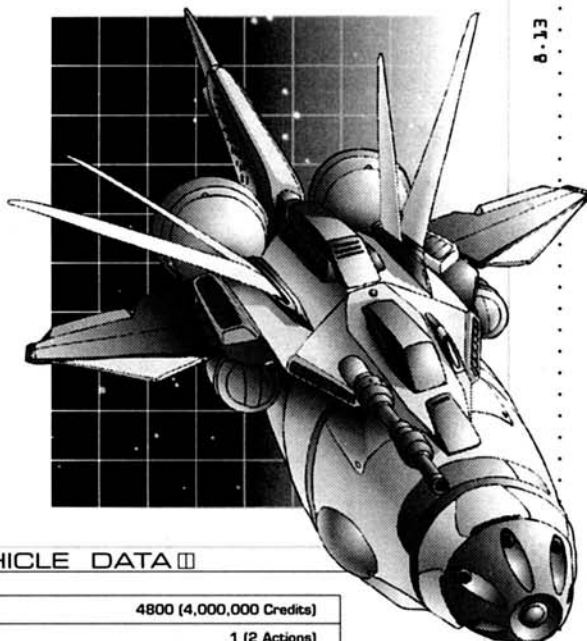
Threat Value:		2800 (1,650,000 Credits)						
Crew		2 (3 Actions)						
Size		12						
Armor		30/60/90						
► MOVEMENT DATA								
Movement Mode	Stall Speed	Combat Speed	Top Speed	Maneuver				
Space	-	13 (1.3 g)	25 (2.5 g)	-2				
Flight	3 (90 kph)	20 (600 kph)	40 (1200 kph)	-2				
Ground	-	0 (0 kph)	0 (0 kph)	-2				
Deployment Range:		2000 km						
Reaction Mass:		250 BP						
► ELECTRONICS DATA								
Sensors:		0/2 km						
Communications:		+1/10 km						
Fire Control:		0						
► PERKS & FLAWS DATA								
Name		Rating		Game Effect				
Autopilot		-		Acts as Level 1 pilot				
Backup Systems		-		Comm, Fire Con, Life Support and Sensors				
Computer		2		CRE -1, KNO -1, PP2				
Ejection System		-		Escape Pod				
HEP: Radiation		3		Screen				
HEP: Vacuum		-		Space protection				
Life Support		-		Limited				
Reentry System		-		Permanent feature				
Reinforced Crew Compartment		-		Absorbs first "Crew" hit				
Stratospheric Flight		-		Double Flight above 12 km				
Weapon Link		-		Link particle accelerators				
► OFFENSIVE & DEFENSIVE SYSTEM DATA								
Qty	Name	Fire Arc	DM	BR	Acc	ROF	Ammo	Special
2	Xander X10 Particle Accelerator	F. Forward	x10	4	0	0	Inf.	AD1, Haywire, HEAT
3	MH-3 Heavy Missile	F. Forward	x30	5	-2	0	-	Concealed, Mis, SD, Sk1, Smt2

IM-09 LANCER ◀

Interceptors remain an important part of most modern space navies. They are simpler to maintain than exo-armors and are generally capable of higher acceleration at a cost of endurance and maneuverability. The *Lancer* is the most common Jovian Armed Force interceptor as of 2210, where it constitutes about half the total number of interceptors in service.

The *Lancer* was designed around paired fusion drives, and the reliable Nakasu engines provide the craft with good acceleration. Due to its limited on-board reaction mass reserve, however, the *Lancer* suffers from poor range. The most obvious feature of the *Lancer* is the large payload module attached to its belly. The Advanced Tactical Mission Pod (ATMP) is a modular pod system designed to increase the versatility of the vehicle and can be exchanged for a new one in minutes by a trained crew.

The hull sports several protusions, all of which have a specific function. The large blades along the top are an antennae array which the craft uses for both sensor and communication purposes. The rear section features twin reaction mass tanks, which are armored separately to reduce the chance of a fatal leak in combat. Finally, the long dorsal boom mounts an array of heatsinks and the missile countermeasures launcher.



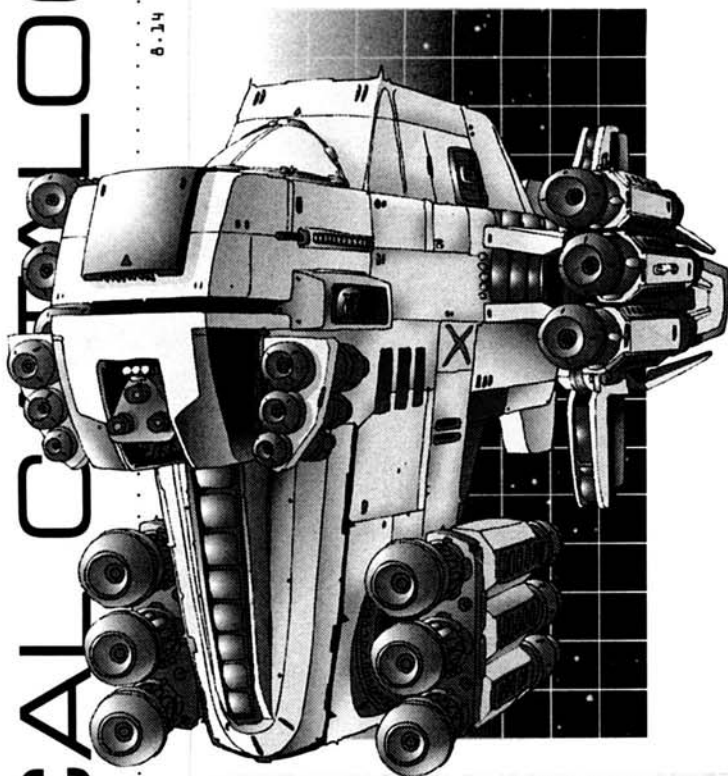
8.13

VEHICLE DATA

Threat Value:		4800 (4,000,000 Credits)						
Crew		1 (2 Actions)						
Size		10						
Armor		20/40/60						
► MOVEMENT DATA								
Movement Mode	Combat Speed	Top Speed	Maneuver					
Space	16 (1.6 g)	32 (3.2 g)	-2					
Ground	0 (0 kph)	0 (0 kph)	-2					
Deployment Range:		100 km						
Reaction Mass:		200 BP						
► ELECTRONICS DATA								
Sensors:		0/2 km						
Communications:		0/10 km						
Fire Control:		0						
► PERKS & FLAWS DATA								
Name	Rating	Game Effect						
Autopilot	-	Acts as Level 1 pilot						
Backup Systems	-	Comm, Fire Con, Life Support, Sensors						
Computer	2	CRE 0, KNO 0, PP2						
Easy to Modify: Fire Control	-	ATMP system, +2 to repair and modify						
Ejection System	-	Escape Pod						
HEP: Radiation	4	Screen						
HEP: Vacuum	-	Space protection						
Life Support	-	Limited						
Reinforced Crew Compartment	-	Absorbs first "Crew" hit						
Exposed Fire Control	-	"Fire Control" hits are one step worse						
Weapon Link	-	Link all MMJ-2LR missiles						
► OFFENSIVE & DEFENSIVE SYSTEM DATA								
Qty	Name	Fire Arc	DM	BR	Acc	ROF	Ammo	Special
1	ACMS	Turret	x6	1	+2	4	120	AM, Defensive, Smart1
2	MMJ6D Wing-Launched Missile	FF	x15	3	-1	0	5	Mis, G
12	MMJ-2LR Missile	FF	x10	6	-2	0	-	Mis, SD, Seek1
4	HMJ-6 Missile	FF	x30	5	-2	0	-	Mis, SD, Seek1

► BRICRIU-CLASS CORVETTE

6.14



The many ships of the Bricriu-class actually predate the formation of CEGA. The *Bricriu*, first vessel to bear the name, was launched from Dock 3A at the L5 point in 2134. It was the first patrol ship commissioned by the Orbital Colonies to defend the cylinders in case conflicts "spilled out" of the Earth's atmosphere.

The ships proved to be exceptionally sturdy and rugged, and so the design was not retired in 2160 as originally planned, but merely refitted and updated with modern equipment. The original scatter missile launchers were replaced by the now familiar kinetic kill cannon batteries when the CEGA Navy took over in 2184, lowering firepower in favor of greater range.

The modern Bricriu boasts impressive firepower for a vessel of such small size. It carries double batteries of kinetic kill cannons and particle accelerators, as well as an extensive network of point defense laser guns. There are minor variations on this within the multitude of ships in the class: some Bricrius have only two particle accelerators on their rear turrets, while other exchange them for multi-missile launchers.

Living accommodations aboard the Bricriu vessels are best described as cramped. Each crewman is only given a few cubic meters of space, and quarters are little more than one-man bunks with opaque curtains for privacy. In many ways, the Bricriu design philosophy is similar to that of the German WWII U-Boat submarines, both in term of striking power and living conditions.

Bricriu-class vessels are expected to be replaced by a new, more advanced design within the next decade. The existing ships will be slowly transferred to second line units or coast guard groups, while the most ancient will be recycled or stripped down and sold as private vessels.

▣ VEHICLE DESCRIPTION

Total Threat Value:		47,000 (81,000,000 credits)						
Movement Mode		Combat Speed		Top Speed		Maneuver		
Space		3 (0.3 g)		5 (0.5 g)		-3		
► MAIN HULL		Cost: 8,500,000 credits						
Crew:		18 (5 Actions)						
Size:		34						
Armor:		50/100/150						
Sensors:		0/2 km						
Communications:		0/10 km						
Fire Control:		0						
◆ Perks & Flaws Data								
Name		Rating				Game Effect		
Autopilot		-				Acts as Level 1 pilot		
Backup Systems		-				Comm, Fire Con, Life Support and Sensors		
Cargo Bay		-				100 m³		
Computer		3				CRE 0, KNO 0, PP3		
Ejection System		-				Escape Pods (40 places)		
HEP: Radiation		4				Screen		
HEP: Vacuum		-				Space protection		
Life Support		-				Full		
Passenger Accomodations		-				3500 m³		
2 x Reinforced Crew Compartment		-				Absorbs first two "Crew" hits		
Large Sensor Profile		3				Too large to hide		
◆ Offensive & Defensive Systems Data								
Qty	Name	Fire Arc	DM	BR	Acc	ROF	Ammo	Special
1	PDS (ranged)	Turret	x8	1	+1	6	Inf.	AM, HEAT
	(shield)	FF	x20	M	+1	4	Inf.	Def, E-Shield, HEAT



▷ VEHICLE DESCRIPTION CONTINUED

► DRIVE SECTION

Cost: 9,300,000 credits

Crew:	6 (4 Actions)		
Size:	30		
Armor:	50/100/150		
Movement Mode	Combat Speed	Top Speed	Maneuver
Space	7 (0.7 g)	1.4 (1.4 g)	-3
Deployment Range:	3000 km		
Reaction Mass:	15,000 BP		
Sensors:	-3/2 km		
Communications:	-3/10 km		
Fire Control:	0		

◆ Perks & Flaws Data

Name	Rating	Game Effect
Backup Life Support	1	Redundent systems
Ejection System	-	Escape Pods (10 places)
HEP: Radiation	4	Screen
HEP: Vacuum	-	Space protection
Life Support	-	Full
Reinforced Crew Compartment	-	Absorbs first "Crew" hit

► KKC TURRET (X2)

Cost: 21,000,000 credits

Crew:	3 (3 Actions)		
Size:	10		
Armor:	20/40/60		
Sensors:	-3/2 km		
Communications:	-3/10 km		
Fire Control:	0		

◆ Perks & Flaws Data

Name	Rating	Game Effect
Backup Fire Control	1	Absorbs first "Fire Con" hit
HEP: Radiation	3	Screen
HEP: Vacuum	-	Space protection
Life Support	-	Full
Reinforced Crew Compartment	-	Absorbs first "Crew" hit
Weapon Link	-	All cannons

◆ Offensive & Defensive Systems Data

Qty	Name	Fire Arc	DM	BR	Acc	RDF	Ammo	Special
3	Kinetic Kill Cannon	R/L Side	x25	6	-2	3	300ea	AP

► BEAM TURRET (X2)

Cost: 10,700,000 credits

Crew:	3 (3 Actions)		
Size:	7		
Armor:	10/20/30		
Sensors:	-3/2 km		
Communications:	-3/10 km		
Fire Control:	0		

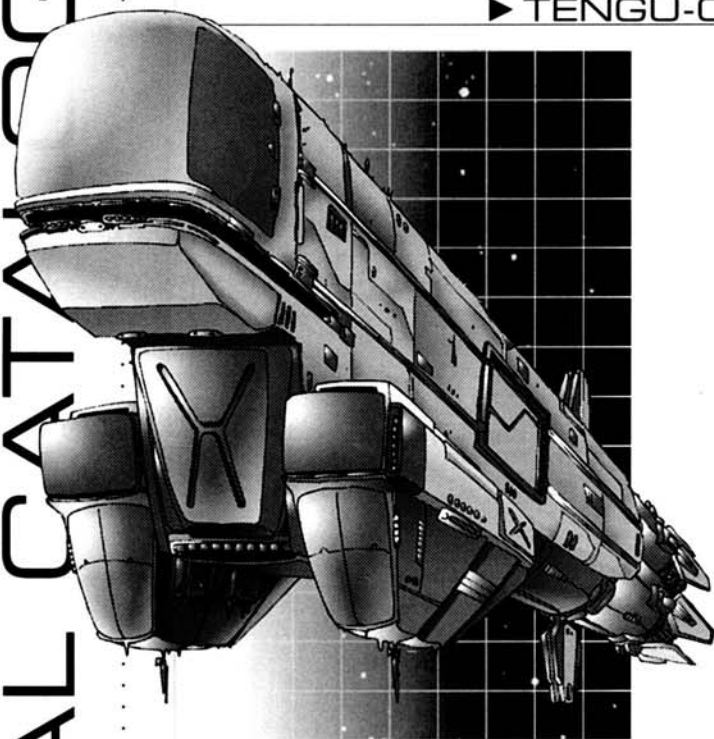
◆ Perks & Flaws Data

Name	Rating	Game Effect
Backup Fire Control	1	Absorbs first "Fire Con" hit
HEP: Radiation	3	Screen
HEP: Vacuum	-	Space protection
Life Support	-	Full
Reinforced Crew Compartment	-	Absorbs first "Crew" hit
Weapon Link	-	All beam cannons

◆ Offensive & Defensive Systems Data

Qty	Name	Fire Arc	DM	BR	Acc	RDF	Ammo	Special
3	Beam Cannon	R/L Side	x20	5	-1	0	Inf.	AD1, Haywire, HEAT

► TENGU-CLASS ESCORT CARRIER



As CEGA began to realize the tactical usefulness of exo-armors — mostly by observing the Jovian Confederation's efforts in the field — the Navy's lack of adequate vessels to carry these new weapons into combat became evident. The Tengu-class escort carrier was thus commissioned in 2198 and put into production as early as 2201.

The primary concerns of the ship's designers were speed and range. A large twin drive assembly was mounted on the hull along with big reaction mass tanks. For simplicity and improved resource management, the drive units are the same model as the ones used on the smaller Briciu-class corvette. Extra reaction mass tanks are sandwiched between the drive mounts and the main vehicle bay for additional range.

The position of the drive units and the external missile launchers leave a lot of room inside the hull, making the Tengu-class one of the most spacious in the CEGA fleet in term of living accommodations. The mid-body vehicle bay is large, but it is normally filled with extensive stores of spare parts, fuel and additional ammunition. This leave little space for the exo-armors themselves, only two of which are carried and handled in standard, routine deployment.

The ship can carry vehicles in an emergency by jettisoning most of these extra stores, as proved by the CSS Pinta during the Belt Trial Accident of 2202. The Pinta's crew had to fit no less than seven Syreens (or part of) in her bay and on her hull when the exo-armors' own carriers were destroyed in a catastrophic docking accident, leaving the pilots stranded in space. Since then, many Tengus have been modified to carry two additional vehicle bays, one above and one below the main body of the ship.

▢ VEHICLE DESCRIPTION

Total Threat Value:		36,000 (35,000,000 credits)						
Movement Mode		Combat Speed			Top Speed		Maneuver	
Space		3 (0.3 g)			5 (0.5 g)		-4	
► MAIN HULL		Cost: 12,000,000 credits						
Crew		78 (8 Actions)						
Size		37						
Armor		50/100/150						
Sensors:		0/2 km						
Communications:		0/10 km						
Fire Control:		0						
◆ Perks & Flaws Data								
Name		Rating					Game Effect	
Autopilot		-					Acts as Level 1 pilot	
Backup Systems		1					Comm, Fire Con, Life Support and Sensors	
Cargo Bay		-					24,000 m³ (60x20x20 m)	
2 x Catapult		4					(600/mass) m/s² acceleration	
Computer		3					CRE 0, KNO 0, PP3	
Ejection System		-					Escape Pods (80 places)	
HEP: Radiation		4					Screen	
HEP: Vacuum		-					Space protection	
Life Support		-					Full	
Passenger Accomodations		-					24,000 m³ total	
2 x Reinforced Crew Compartment		-					Absorbs first two "Crew" hits	
Satellite Uplink		-					1000 x Communication Range	
Large Sensor Profile		4					Too large to hide	
◆ Offensive & Defensive Systems Data								
Qty	Name	Fire Arc	DM	BR	Acc	ROF	Ammo	Special
1	PDS (ranged)	Turret	x6	1	+1	6	Inf.	AM, HEAT
-	(shield)	FF	x20	M	+1	4	Inf.	Def, E-Shield HEAT



VEHICLE DESCRIPTION CONTINUED

► DRIVE SECTION (X 2)							Cost: 9,300,000 credits				
Crew							6 (4 Actions)				
Size							30				
Armor							50/100/150				
Movement Mode		Combat Speed			Top Speed		Maneuver				
Space		7 (0.7 g)			5 (1.4 g)		-4				
Deployment Range:							3000 km				
Reaction Mass:							15,000 BPs				
Sensors:							-3/2 km				
Communications:							-3/10 km				
Fire Control:							0				
◆ Perks & Flaws Data											
Name				Rating			Game Effect				
Backup Life Support				-			Redundent systems				
Ejection System				-			Escape Pods (10 places)				
HEP: Radiation				4			Screen				
HEP: Vacuum				-			Space protection				
Life Support				-			Full				
Reinforced Crew Compartment				-			Absorbs first "Crew" hit				
► MISSILE LAUNCHER SECTION (X 2)										Cost: 2,500,000 credits	
Crew										10 (5 Actions)	
Size										12	
Armor										25/50/75	
Movement										Towed by Drive Sections	
Sensors:										-3/2 km	
Communications:										-3/10 km	
Fire Control:										0	
◆ Perks & Flaws Data											
Name				Rating			Game Effect				
Backup Fire Control				-			Absorbs first "Fire Con" hit				
HEP: Radiation				4			Screen				
HEP: Vacuum				-			Space protection				
Life Support				-			Full				
2 x Reinforced Crew Compartment				-			Absorbs first two "Crew" hits				
◆ Offensive & Defensive System Data											
Qty	Name	Fire Arc	DM	BR	Acc	ROF	Ammo	Special			
1	Missile Bay	Forward	x30	5	-2	5	60	Mis, G, Concealed			
MODULAR VEHICLE BAY SECTION (X 2)*											Cost: 940,000 Credits
Crew											3 (3 Actions)
Size											10
Armor											20
Sensors:											n/a
Communications:											-3/10 km
Fire Control:											-5
◆ Perks & Flaws Data											
Name					Rating			Game Effect			
Backup Life Support					-			Redundent System			
Cargo Bay					-			8000 m³			
2 x Catapult					4			(600/mass) m/s² acceleration			
HEP: Radiation					4			Screen			
HEP: Vacuum					-			Space protection			
Life Support					-			Full			
Reinforced Crew Compartment					-			Absorbs first "Crew" hit			
No Sensors					-			Cannot perform active sensor checks			

*Overthrust drops to 0.4 g when these sections are used.

► JAVELIN-CLASS MISSILE CRUISER

The Javelin-class missile cruiser evolved out of a need for a long distance support ship that could still inflict heavy damage at all engagement ranges. Starting from a hull design similar to the one used for the successful Thunderbolt-class cruiser, Olympus Shipyards designed a relatively inexpensive space ship capable of carrying the deadly *Space Dart* long range autonomous missile.

The ship carries its missile complement in a large "keel" mount on the underside of the main hull. Although each hardpoint can only hold three missiles (for a total of six *Space Darts* per ships), the heavy damage they can inflict on targets of virtually any size improves the odds of any battles in favor of the Javelin.

Assignment to these ships is popular because of the comparatively large living accommodations. These were made possible by mounting the *Space Darts* in the keel, thus saving internal space in the main hull, and by reducing the crew of the vessel. The Javelin is served by a comparatively small crew, and most of the systems are entirely automated. The ship's main computer has slightly more processing power than the computers found aboard other military of the same size in order to cope.

The twelve existing Javelin-class vessels have been divided equally between the three JAF divisions. Once the 2210 field testing period is over, more ships of the same design will be produced, probably in an upgraded form carrying more missiles or an upgraded weapon complement.

□ VEHICLE DESCRIPTION

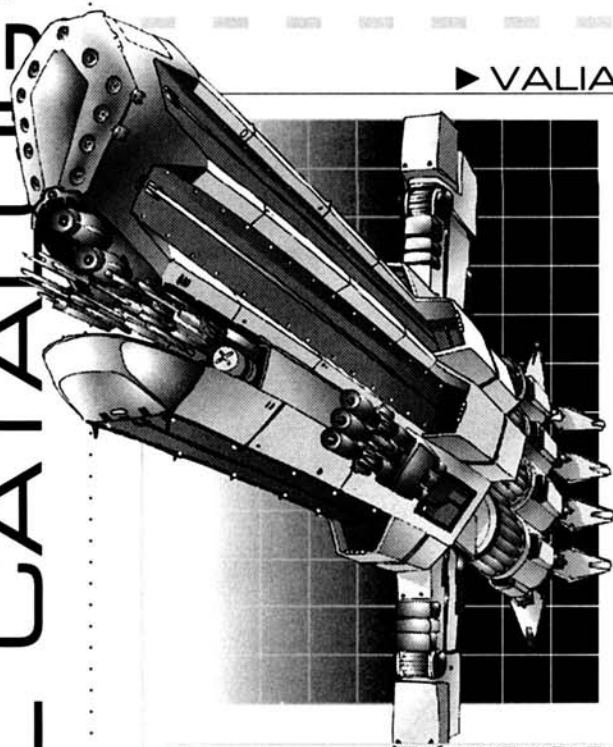
Total Threat Value:							42,000 (63,000,000 credits)		
Movement Mode		Combat Speed			Top Speed		Maneuver		
Space		3 (0.3 g)			5 (0.5 g)		-3		
► MAIN HULL							Cost: 11,000,000 credits		
Crew							24 (6 Actions)		
Size							32		
Armor							50/100/150		
Sensors:							0/2 km		
Communications:							0/10 km		
Fire Control:							0		
◆ Perks & Flaws Data									
Name				Rating			Game Effect		
Autopilot				-			Acts as Level 1 pilot		
Backup Systems				-			Comm, Fire Con, Life Support, Sensors		
Cargo Bay				-			200 m³		
Cargo Bay				-			Missile housings, 3000 m³		
Computer				4			CRE 0, KNO 0, PP4		
Ejection System				-			Escape Pods (40 places)		
HEP: Radiation				4			Screen		
HEP: Vacuum				-			Space protection		
Laboratory: Cooking				-			Galley		
Life Support				-			Full		
Passenger Accomodations				-			6000 m³ total		
2 x Reinforced Crew Compartment				-			Absorbs first two "Crew" hits		
Satellite Uplink				-			1000 x Communication Range		
Sick Bay				1			Operating theater		
Large Sensor Profile				4			Too large to hide		
◆ Offensive & Defensive Systems Data									
Qty	Name		Fire Arc	DM	BR	Acc	ROF	Ammo	Special
1	PDS (ranged)		Turret	x8	1	+1	6	Inf.	AM, HEAT
	(shield)		F. Forward	x20	M	+1	4	Inf.	Def, E-Shield, HEAT
1	Missile Bay		Forward	x30	5	-2	5	30	Mis, G, Concealed



VEHICLE DESCRIPTION CONTINUED

► DRIVE SECTION								Cost: 8,400,000 credits
Crew								6 (4 Actions)
Size								26
Armor								50/100/150
Movement Mode		Combat Speed		Top Speed		Maneuver		
Specs		7 (0.7 g)		14 (1.4 g)		-3		
Deployment Range:								1000 km
Reaction Mass:								15,000 BP
Sensors:								-3/2 km
Communications:								-3/10 km
Fire Control:								0
◆ Perks & Flaws Data								
Name			Rating			Game Effect		
Backup Systems			-			Comm, Fire Con, Life Support, Sensors		
Ejection System			-			Escape Pods (10 places)		
HEP: Radiation			4			Screen		
HEP: Vacuum			-			Space protection		
Life Support			-			Full		
2 x Reinforced Crew Compartment			-			Absorbs first two "Crew" hits		
► KKC TURRET (X2)								Cost: 18,000,000 credits
Crew:								3 (3 Actions)
Size:								10
Armor:								25/50/75
Sensors:								-3/2 km
Communications:								-3/10 km
Fire Control:								0
◆ Perks & Flaws Data								
Name			Rating			Game Effect		
Backup Fire Control			-			Absorbs first "Fire Con" hit		
HEP: Vacuum			-			Space protection		
HEP: Radiation			4			Screen		
Life Support			-			Full		
Reinforced Crew Compartment			-			Absorbs first "Crew" hit		
Weapon Link			-			All kinetic kill cannons		
◆ Offensive & Defensive Systems Data								
Qty	Name	Fire Arc	DM	BR	Acc	ROF	Ammo	Special
3	Kinetic Kill Cannon	R/L Side	x30	7	-2	3	3000ea	AP
► SPACE DART MISSILES (x 6)								TV 750, Cost: 1,300,000 credits
Crew								0 (0 Actions)
Size								5
Armor								10/20/30
Movement Mode		Combat Speed		Top Speed		Maneuver		
Specs		30 (3 g)		60 (6 g)		-2		
Deployment Range:								10 hrs
Reaction Mass:								300 BP
Sensors:								0/2 km
Communications:								-2/10 km
Fire Control:								0
◆ Perks & Flaws Data								
Name			Rating			Game Effect		
Autopilot			-			Acts as Level 1 pilot		
Computer			2			CRE 0, KNO 0, PP2		
HEP: Vacuum			-			Space protection		
Exposed Aux. Systems			-			"AUX" Hits are one step worse		
Sensor Dependent			-			Require Sensor to function		
◆ Offensive & Defensive System Data								
Qty	Name	Fire Arc	DM	BR	Acc	ROF	Ammo	Special
1	Warhead	F. Forward	x50	M	-1	0	-	AEO, SD

► VALIANT-CLASS STRIKE CARRIER



The Valiant-class Strike Carrier was already on the drawing board when the Battle of Elysée took place. If anything, the conflict accelerated the progress of an advanced program dedicated to supplying the Jovian Confederation with a line of vessels that could serve as roving defense outposts, accomplish long patrols on the fringes of Jovian space but still pulling their weight as dedicated front-line battle units.

Once in the testing phase, the three Valiant-class vessels proved to be unusually sturdy and resilient, routinely escaping damage and facing tough situations that would have rendered any other ship inoperable. Their quadruple engine pods supply them with high thrust, though it is seldom used to save reaction mass. The ships are heavily armed and armored, and feature deployable habitat sections that are always oriented correctly for gravity purposes, increasing crew comfort on long patrols.

Though much of the internal space of the ship is taken up by consumables, additional stores and machinery, the crew quarters are relatively spacious and comfortable. Each crewman is assigned to a two-man cabin, each with two private bunks, lavatory and desk with personal computer. Commons and a galley are available in all three main crew habitat areas.

Once the initial shake-down period is over and the crew have settled in to their new ships, the Valiant class is expected to become the pride of the Jovian fleet. Three more space ships are in the planning stage.

▣ VEHICLE DESCRIPTION

Threat Value:		270,000 (1,420,000,000 Credits)						
Movement Mode		Combat Speed		Top Speed			Maneuver	
Space		4 (0.4 g)		8 (0.8 g)			-5	
► MAIN HULL		Cost: 985,000,000 credits						
Crew:		260 (10 Actions)						
Size:		90						
Armor:		100/200/300						
Reaction Mass:		70,000 BPs						
Sensors:		+1/5 km						
Communications:		0/15 km						
Fire Control:		0						
◆ Perks & Flaws Data								
Name		Rating			Game Effect			
Autopilot		-			Acts as Level one pilot			
Backup Systems		3			Comm, Fire Con, Life Support and Sensor			
Cargo Bay		-			80,000 m³			
6 x Catapult		3			(450/mass) m/s² acceleration			
Computer		4			CRE 0, KNO 2, PP4			
Ejection System		-			Escape Pods (300 places)			
HEP: All		-			Multi-environment protection			
HEP: Radiation		4			Screen			
Life Support		-			Full			
Passenger Accomodations		-			15,000 m³ total			
3 x Reinforced Crew Compartment		-			Absorbs first three "Crew" hits			
Satellite Uplink		-			1000 x Communication Range			
Sick Bay		2			Two surgical theaters			
Large Sensor Profile		5			Too large to hide			
◆ Offensive & Defensive Systems Data								
Qty	Name	Fire Arc	DM	BR	Acc	ROF	Ammo	Special
1	PDS (ranged)	Turret	x10	1	+1	6	Inf.	AM, HEAT
	(shield)	F. Forward	x25	M	+1	4	Inf.	Def, E-Shield, HEAT
1	Missile Bay	Forward	x40	5	-2	5	90	Mis, G
1	Spinal Laser	F. Forward	x80	3	-2	0	3	HEAT, PH9

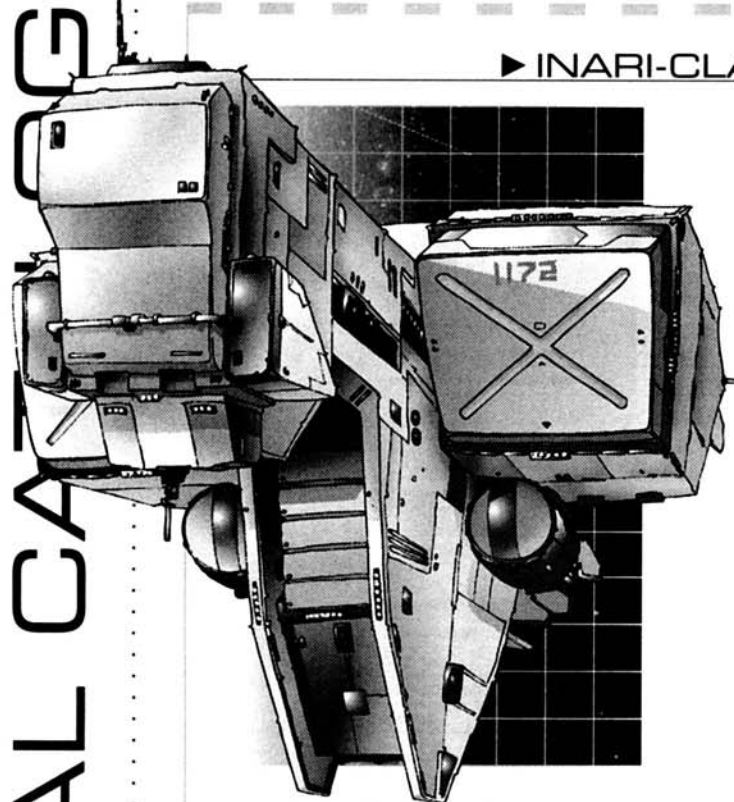


▷ VEHICLE DESCRIPTION CONTINUED

► KKC TURRET (X2)								Cost: 20,000,000 credits		
Crew:								3 (3 Actions)		
Size:								10		
Armor:								25/50/75		
Sensors:								-3/2 km		
Communications:								-3/10 km		
Fire Control:								0		
◆ Perks & Flaws Data										
Name				Rating			Game Effect			
Backup Fire Control				-			Absorbs first "Fire Con" hit			
HEP: All				-			Multi-environment protection			
HEP: Radiation				4			Screen			
Life Support				-			Full			
Reinforced Crew Compartment				2			Absorbs first two "Crew" hits			
Weapon Link				-			Link all kinetic kill cannons			
◆ Offensive & Defensive Systems Data										
Qty	Name			Fire Arc	DM	BR	Acc	ROF	Ammo	Special
3	Kinetic Kill Cannon			R/L Side	x30	7	-2	3	300 ea	AP
► HABITAT SECTION (X2)								Cost: 27,500,000 credits		
Crew:								12 (5 Actions)		
Size:								20		
Armor:								50/100/150		
Sensors:								-3/2 km		
Communications:								-3/10 km		
Fire Control:								-2		
◆ Perks & Flaws Data										
Name				Rating			Game Effect			
Backup Life Support				-			Life Support			
Cargo Bay				-			800 m³			
Ejection System				-			Escape Pods (10 x 20 places)			
HEP: All				-			Multi-environment protection			
HEP: Radiation				6			Screen & shielding			
Laboratory: Cooking				-			Galley			
Life Support				-			Full			
Passenger Accomodations				-			20,000 m³ total			
3 x Reinforced Crew Compartment				-			Absorbs first three "Crew" hits			
► DRIVE SECTION (X4)								Cost: 65,000,000 credits		
Crew:								16 (6 Actions)		
Size:								42		
Armor:								50/100/150		
Movement Mode		Combat Speed			Top Speed			Maneuver		
Space		14 (1.4 g)			28 (2.8 g)			-5		
Deployment Range:								3000 hrs		
Reaction Mass:								17,500 BPs		
Sensors:								-3/2 km		
Communications:								-3/10 km		
Fire Control:								0		
◆ Perks & Flaws Data										
Name				Rating			Game Effect			
Backup Systems				-			Comm, Fire Con, Life Support and Sensors			
Ejection System				-			Escape Pods (20 places)			
HEP: All				-			Multi-environment protection			
HEP: Radiation				5			Screen			
Life Support				-			Full			
2 x Reinforced Crew Compartment				-			Absorbs first two "Crew" hits			
2 x Rugged Movement System				-			Absorbs first two "Movement" hits			



► INARI-CLASS PASSENGER LINER



Inari-class liners have a long history of reliability and endurance, having plied their trade in the solar system for more than fifty years. They have been touted as "the most efficient commercial ship in existence." Indeed, their double role as cargo and passenger liner rarely lets them leave a spaceport at less than full capacity. Their twin drive units can propel them at a significant fraction of a gee, though cargo and reaction mass reserve generally drop the ship's acceleration rate to 0.3 gee on average.

The spacious passenger lounges and cabins take up the whole center portion of the ship, just above engineering and the crew section. Most of the internal partitions are modular and can be quickly rearranged to fit the requirements of the passengers. The ship can have spacious rooms but few passengers on one flight, while having only a few common bunk-houses filled with people for the return trip.

Cargo is carried in two huge bays located on either side of the main hull, each having a separate life support system from the rest of the ship. This allows the economical transport of goods which do not necessitate an atmosphere. The cargo bays can be detached with the help of the proper facilities and replaced by other types of bay, the most common of these being large tanks capable of holding many tons of liquefied gasses.

A few Inaris have been sold to private interests and ply the solar system as free traders, luxury cruise ships or mobile stations. Like most of these venerable transport ships, they are generally extensively modified and seldom look much like the original design. Only a close examination of the lines of the hull will allow one to recognize the ship as an Inari.

▣ VEHICLE DESCRIPTION

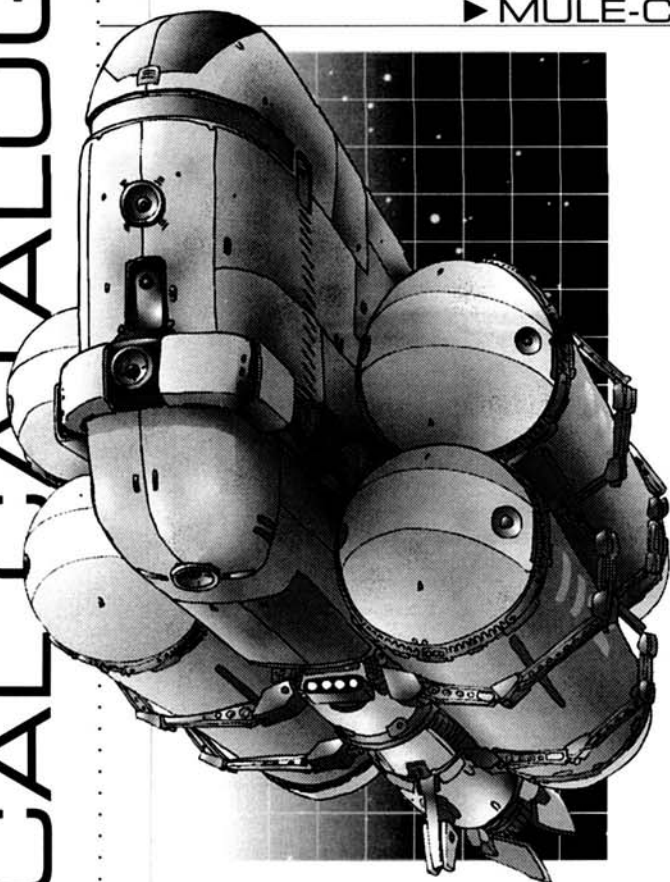
Total Threat Value:		19,000 (19,200,000 credits)						
Movement Mode		Combat Speed			Top Speed		Maneuver	
Space		3 (0.3 g)			5 (0.5 g)		-5	
► MAIN HULL		Cost: 8,200,000 credits						
Crew:		24 (6 actions)						
Size:		60						
Armor:		80/160/240						
Sensors:		-2/2 km						
Communications:		-2/10 km						
Fire Control:		-2						
◆ Perks & Flaws Data								
Name		Rating					Game Effect	
Autopilot		-					Acts as Level 1 pilot	
Backup Systems		-					Comm, Fire Con, Life Support and Sensors	
Cargo Bay		-					20,000 m³	
Computer		4					CRE -2, KNO 0, PP4	
Ejection System		-					Escape Pods (400 places)	
HEP: Radiation		5					Screen	
HEP: Vacuum		-					Space protection	
Laboratory: Cooking		-					Full Galley	
Life Support		-					Full	
Passenger Accomodation		-					Luxury, 25,000 m³ total	
2 x Reinforced Crew Compartment		-					Absorbs first two "Crew" hits	
Satellite Uplink		-					1000 x Comm Range	
Brittle Armor		-					Loses twice as much Armor per hit	
Large Sensor Profile		5					Too large to hide	
◆ Offensive & Defensive System Data								
Qty	Name	Fire Arc	DM	BR	Acc	ROF	Ammo	Special
1	PDS (ranged)	Turret	x6	1	0	4	Inf.	AM, HEAT
1	(shield)	FF	x20	M	+1	2	Inf.	Def, E-Shield (matter), HEAT



D VEHICLE DESCRIPTION CONTINUED

► DRIVE SECTION (X 2)			Cost: 2,200,000 credits
Crew:	6 (4 actions)		
Size:	20		
Armor:	50/100/150		
Movement Mode	Combat Speed	Top Speed	Maneuver
Space	1.5 (0.15 g)	3.0 (0.3 g)	-5
Deployment Range:			3000 km
Reaction Mass:			3250 BP
Sensors:			-3/2 km
Communications:			-3/10 km
Fire Control:			0
◆ Perks & Flaws Data			
Name	Rating	Game Effect	
Backup Life Support	-	Comm, Fire Con, Life Support, Sensors	
Ejection System	-	Escape Pods (10 places)	
HEP: Radiation	4	Screen	
HEP: Vacuum	-	Space protection	
Life Support	-	Full	
Reinforced Crew Compartment	-	Absorbs first "Crew" hit	
► CARGO SECTION (X 2)			Cost: 3,300,000 credits
Crew:	0 (0 actions)		
Size:	30		
Armor:	50/100/150		
Movement Mode	Combat Speed	Top Speed	Maneuver
Space	0.3 (0.03 g)	0.6 (0.06 g)	-5
Deployment Range:			1000 km
Reaction Mass:			3250 BP
Sensors:			-3/2 km
Communications:			-3/10 km
Fire Control:			0
◆ Perks & Flaws Data			
Name	Rating	Game Effect	
Backup Life Support	-	Redundant systems	
Cargo Bay	-	30,000 m³	
HEP: Radiation	4	Screen	
HEP: Vacuum	-	Space protection	
Life Support	-	Full	
► ALTERNATE CARGO SECTION (X 2)			Cost: 590,000 credits
Crew	0		
Size	16		
Armor	50/100/150		
Sensors:	n/a		
Communications:	n/a		
Fire Control:	-5		
◆ Perks & Flaws Data			
Name	Rating	Game Effect	
Cargo Bay	-	Liquefied Gasses, 40,000 m³	
HEP: Vacuum	-	Space protection	
No Communication	-	Cannot communicate	
No Engine	-	No powerplant	
No Sensor	-	Cannot perform active sensor checks	

► MULE-CLASS BULK FREIGHTER



Ships of the Mule-class are a common sight to the citizens of the solar system. Like its slightly larger sibling, the Aquarius, the original design of the Mule was based on the space cargoes of the early twenty-first century, and it has changed very little since then.

The ship is composed of a box of sturdy composite spars to which armor plates and a living module are attached. This give the entire vessel a boxy but rugged appearance. A pair of fusion-driven PCC engine modules are attached to the stern, each capable of high thrust to move the heavy cargo pods lashed to the side of the vessel. A limited reaction mass capacity makes the Mule useful for short to medium range transport only.

The Mule is designed to be used as a modular cargo ship, with special hardpoints mounted on either side of the hull to attach cargo pods. These are usually tanks to carry the liquefied gasses or water used as reaction mass in modern ships. A spacious pressurized bay located between the crew section and the engines is used to house additional cargo, though it most often contains one or two Maneuver pods that help the ship to its moorings and move the cargo tanks about.

Life aboard a Mule is confined and somewhat boring. The cabins are small and the few commons generally have multiple purposes, such as galleys, recreation rooms and meeting offices. They are often crowded when the entire crew is present, so multiple shifts are required.

Private individuals or organizations, such as prospectors and Nomad settlers, often buy Mules because they are relatively inexpensive to produce. The ship's sturdy structure provides a strong backbone to which a large variety of assorted equipment can be attached. Additionally, its reliability is a godsend for groups of settlers moving to the Belt in the tiny, chemically propelled home-build spacecraft that are colloquially referred to as "O'Neill Bubbles." Settlers will often buy a single Mule to serve as the "flying city hall" of their community.

▣ VEHICLE DESCRIPTION

Total Threat Value:		5100 (5,100,000 credits)						
Movement Mode		Combat Speed			Top Speed		Maneuver	
Space		4 (0.4 g)			8 (0.8 g)		-4	
► MAIN HULL		Cost: 2,200,000 credits						
Crew:		10 (5 actions)						
Size:		26						
Armor:		50/100/150						
Sensors:		-2/2 km						
Communications:		-2/10 km						
Fire Control:		-2						
◆ Perks & Flaws Data								
Name		Rating					Game Effect	
Autopilot		-					Acts as Level 1 pilot	
Backup Systems		-					Comm, Fire Con, Life Support and Sensors	
Computer		3					CRE -2, KNO -2, PP3	
Ejection System		-					Escape Pods (16 places)	
HEP: Radiation		4					Screen	
HEP: Vacuum		-					Space protection	
Life Support		-					Full	
Passenger Accomodation		-					500 m³ total	
Reinforced Crew Compartment		-					Absorbs first "Crew" hit	
◆ Offensive & Defensive System Data								
Qty	Name	Fire Arc	DM	BR	Acc	ROF	Ammo	Special
1	PDS (ranged)	Turret	x5	1	0	2	Inf.	AM, HEAT
-	(shield)	F. Forward	x15	M	+1	0	Inf.	Def, E-Shield (matter), HEAT



▷ VEHICLE DESCRIPTION CONTINUED

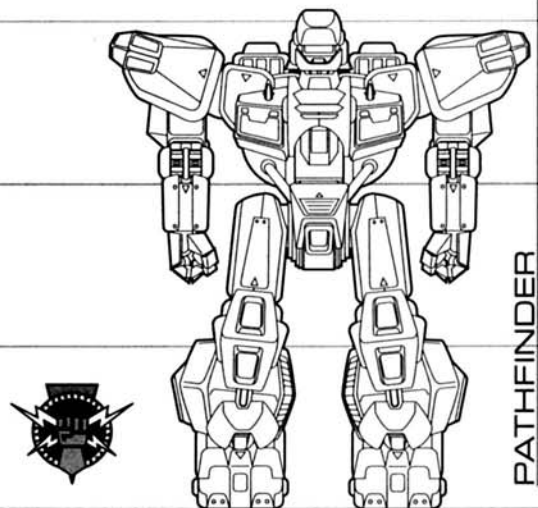
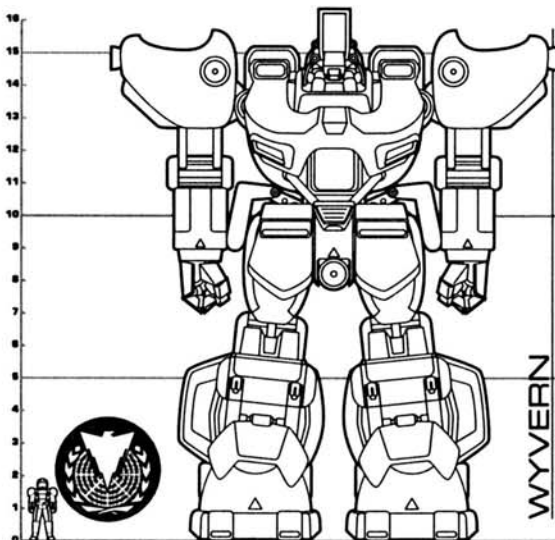
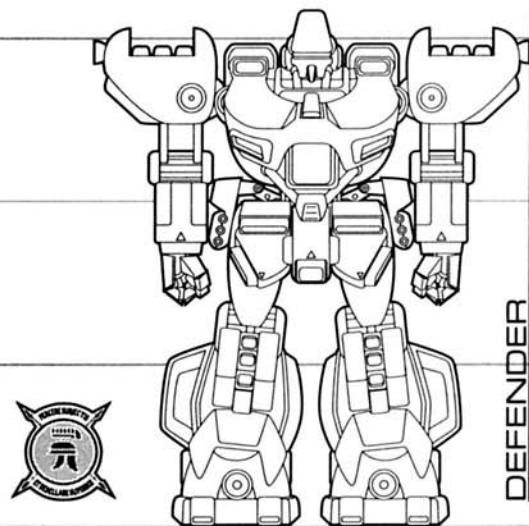
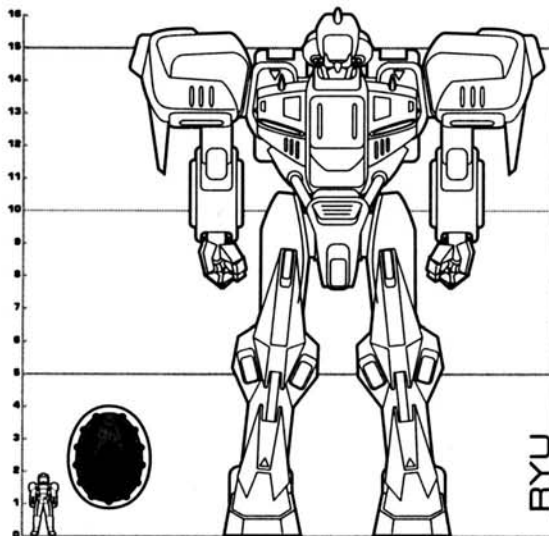
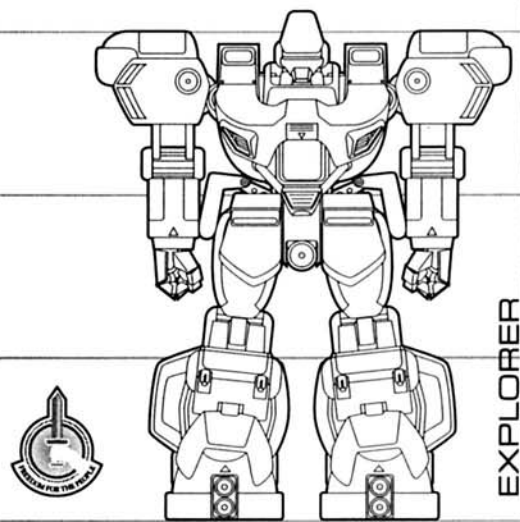
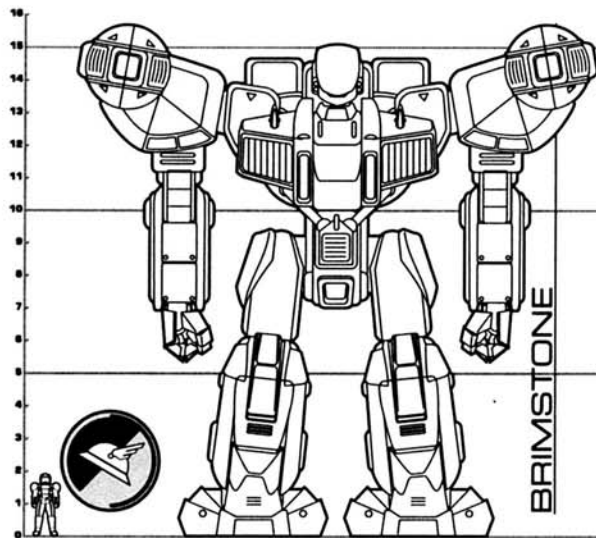
▷ DRIVE SECTION (X 2)			Cost: 790,000 credits
Crew:			3 (3 actions)
Size:			15
Armor:			20/40/60
Movement Mode	Combat Speed	Top Speed	Maneuver
Space	2 (0.2 g)	4 (0.4 g)	-4
Deployment Range:			1000 km
Reaction Mass:			3000 BP
Sensors:			-3/2 km
Communications:			-3/10 km
Fire Control:			0
◆ Perks & Flaws Data			
Name	Rating	Game Effect	
Backup Life Support	-	Redundant systems	
HEP: Radiation	4	Screen	
HEP: Vacuum	-	Space protection	
Life Support	-	Full	
Reinforced Crew Compartment	-	Absorbs first "Crew" hit	
Large Sensor Profile	5	Unshielded drive	
▷ CARGO SECTION (X 4)			Cost: 330,000 credits
Crew:			0 (0 actions)
Size:			14
Armor:			30/60/90
Sensors:			n/a
Communications:			n/a
Fire Control:			-5
◆ Perks & Flaws Data			
Name	Rating	Game Effect	
Cargo Bay	-	4000 m³	
HEP: Radiation	4	Screen	
HEP: Vacuum	-	Space protection	
No Communication	-	Cannot communicate	
No Engine	-	No powerplant	
No Sensor	-	Cannot perform active sensor checks	
▷ ALTERNATE CARGO SECTION (x 4)*			Cost: 1,100,000 credits
Crew			0 (0 Actions)
Size			20
Armor			50/100/150
Sensors:			-3/2 km
Communications:			-3/10 km
Fire Control:			0
◆ Perks & Flaws Data			
Name	Rating	Game Effect	
Backup Life Support	-	Absorbs first Life Support hit	
Cargo Bay	-	4,000 m³	
HEP: Radiation	5	Screen	
HEP: Vacuum	-	Space protection	
Life Support	-	Full	
Passenger Accommodations	-	1000 m³	
No Engine	-	No powerplant	

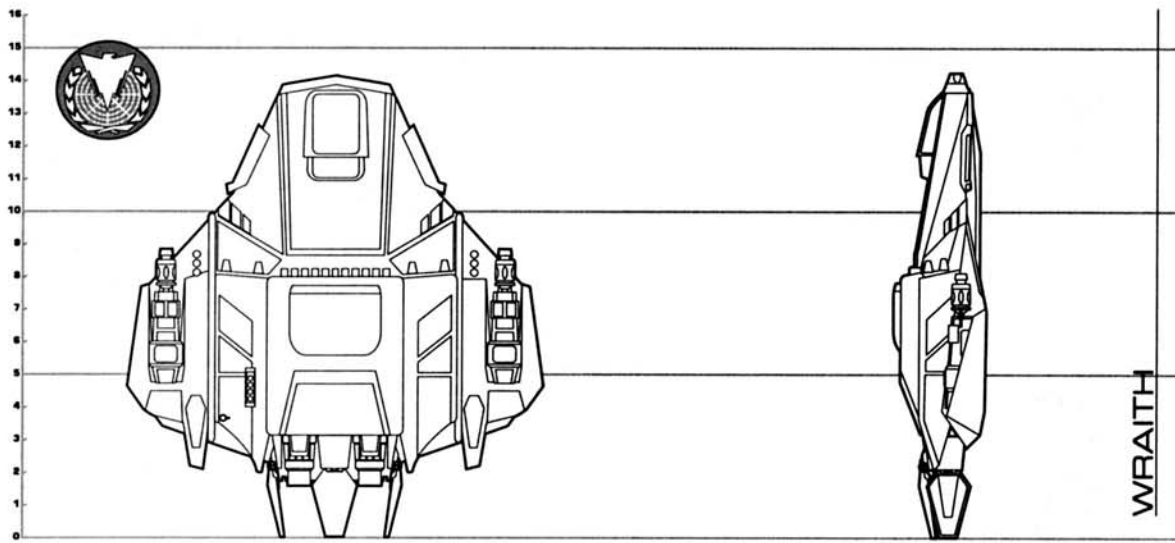
*When this type of cargo section is used, the Overthrust drops to 0.5 gee.

MECHANICAL CATALOG

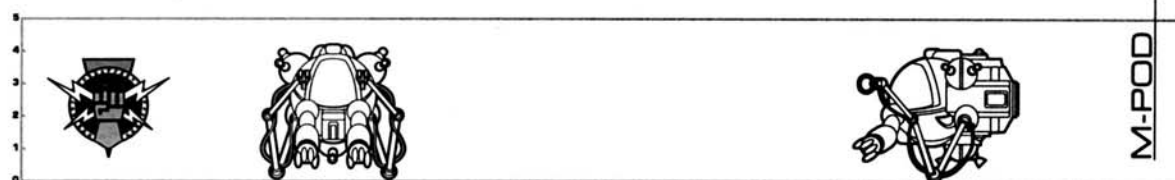


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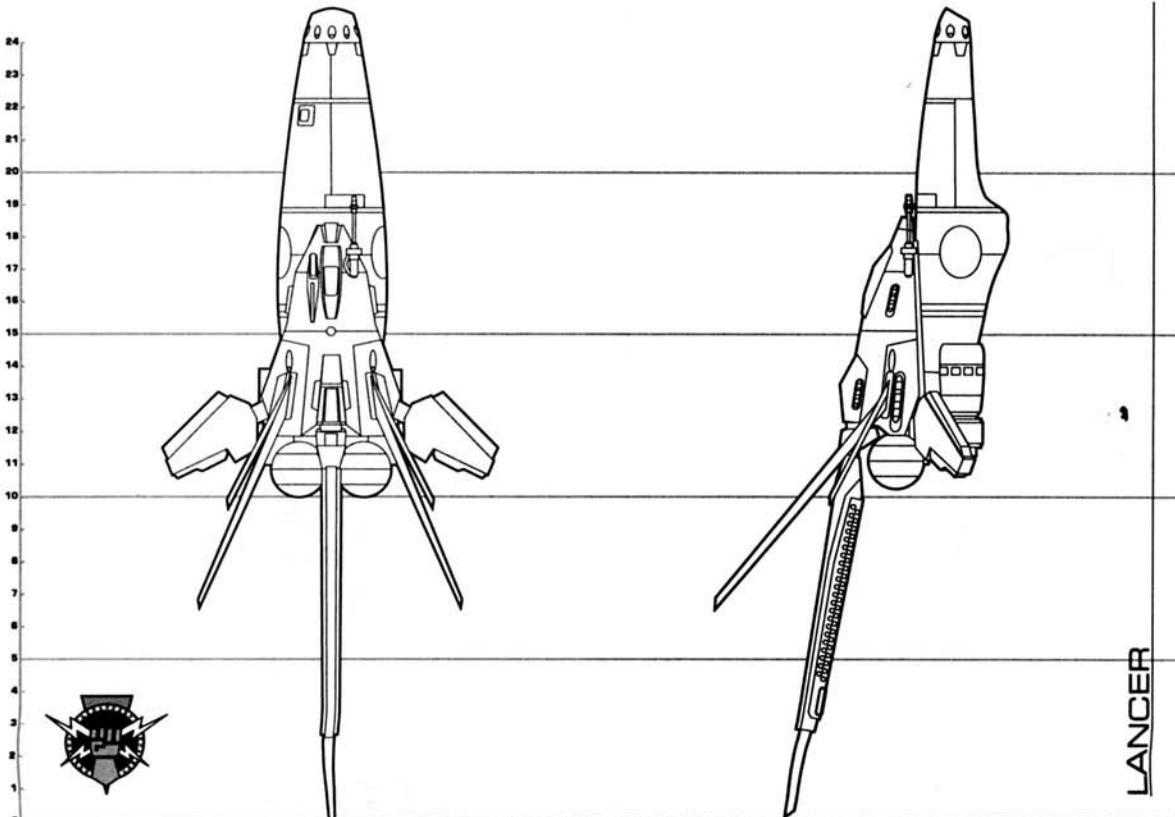




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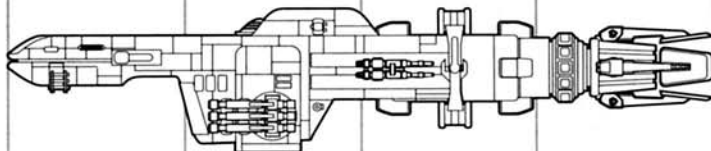
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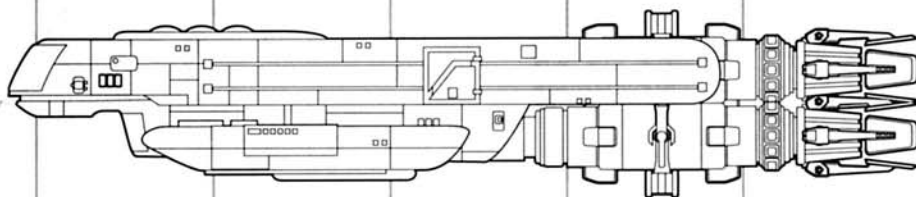
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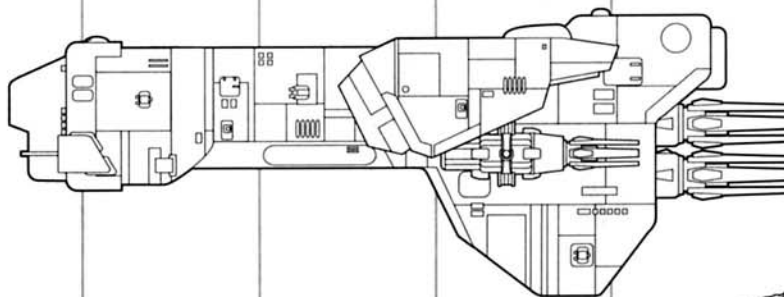
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TENGU ESCORT CARRIER

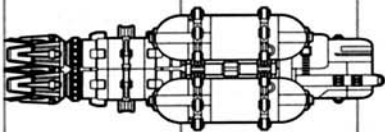


INARI COMMERCIAL LINER

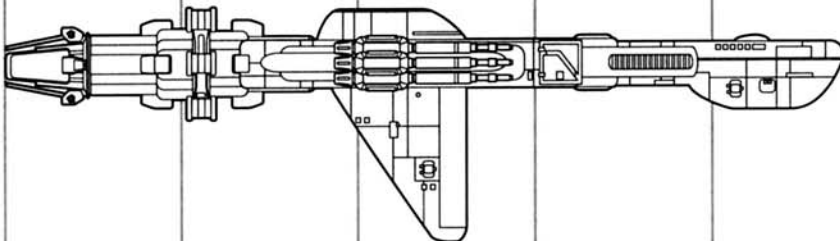


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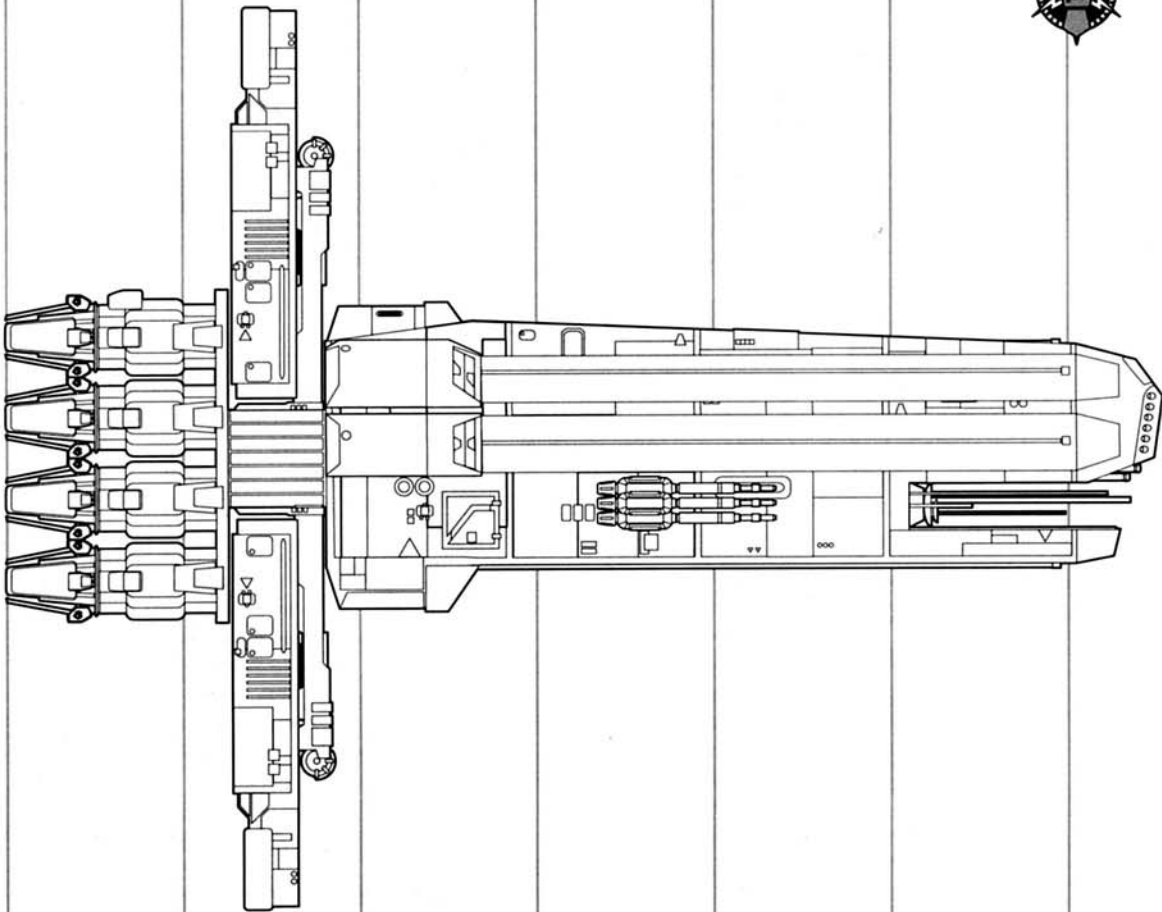
MULE SHORT-RANGE FREIGHTER



JAVELIN MISSILE CRUISER



VALIANT STRIKE CARRIER



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► WELCOME ABOARD

This ten-page section gives Jovian Chronicles Gamemasters and Players a place to start their campaigns. The pride of the Jovian Armed Forces' Gamma Division, the newly commissioned *JSS Valiant* is ready to enter service. The maiden journey will be a critical one indeed. The Jovian Confederation is determined to bolster its new ally, the Martian Free Republic, and show both the militaristic Martian Federation and CEGA that Mars cannot be considered theirs (see *Chapter 2: World Cyclopedica* for more details). To do this they have called their current ambassador back to Olympus and are sending Anton Priam III to replace him. Priam is a very high-profile diplomat who is thought to carry the full authority of the Confederation with him. It is the *Valiant's* job to deliver Priam to Mars and then to make for Jupiter where it will take its place in Gamma Division. Of course, many people would love to see the ship fail.

▼ CHAOS UNLEASHED

All the ill will directed at the *Valiant* has been channeled by an ambitious Venusian named Devon Malachai. Malachai was once a rising star in the Venusian Bank, but lost most of his prestige in 2208 when the illegal Project Lancelot was uncovered. Luther Columbus, then the head of the JAF's third destroyer group and now the *Valiant's* captain, and several other members of the crew were involved in the debacle. Malachai now seeks retribution. He also wishes to shatter the status quo in the solar system so he can rise in the hierarchy of the Bank.

Malachai, who still has many allies on Venus, is a master manipulator and has convinced the Black Cross Pirates that the *Valiant* will be used to "pacify" the Belt, a lie that may well be made true once the pirates attack the carrier. He has also manipulated Samuel Hectors, the *Valiant's* chief NCO, into believing that the *Valiant* will be used to wage a war of aggression and should be delivered into the hands of CEGA. He has leaked information to CEGA that the *Valiant* will be used to launch an attack on their installations and a special wing of fighters and exo-armors has been dispatched to destroy the "invaders." Venusian forces personally loyal to Malachai will kidnap the ambassador at that time. The Martian Federation will be made to appear as the kidnappers, leading to a civil war on Mars. By the end of the *Valiant's* flight, war should be raging from Earth to Jupiter; only by saving their ship, rescuing Priam and exposing Malachai can the crew avert disaster.

▼ LIFE ON THE JSS VALIANT

The command staff of the *Valiant* is highly experienced and has been hand picked by Captain Luther Columbus, a well-respected veteran of Gamma Division. Many of the soldiers, pilots and crewmen, however, are fresh recruits. Security Chief Katherine Leo must spend a lot of time reigning in the youthful enthusiasm of these newbies. The presence of a high-profile diplomatic team aboard for the maiden journey adds more tension. Civilian aids often do not understand the requirements of life aboard a military vessel and some minor scuffles have broken out even before the journey's beginning. Reporter Lea Nomaru is also aboard to cover the maiden flight and is very anxious to get dramatic footage, regardless of the price. Captain Columbus has already warned her to stay out of trouble, but she is not known for following orders.

▼ THE PLAYER CHARACTERS

We assume that Players in *Madman's Gambit* will take on the role of fighter or exo-armor pilots aboard the *JSS Valiant*, but other characters are possible. The ship usually deploys with 3 *Lancer* fighters and 3 *Pathfinder* exos. Each flight of three fighters or exos includes one leader of slightly elevated rank and experience and two wingmen. Helena Juno commands both flights and is equally comfortable in an exo or a fighter.

□ NON-PLAYER CHARACTER GAME STATISTICS

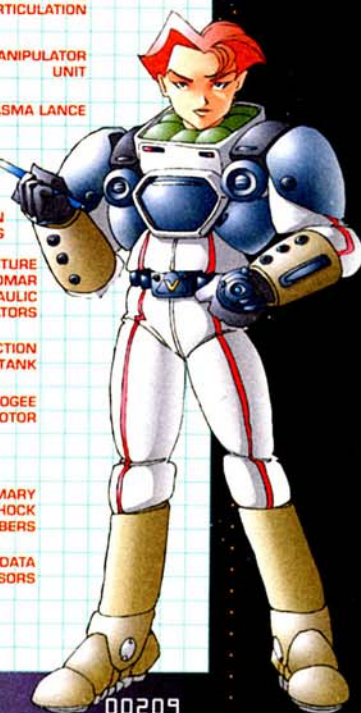
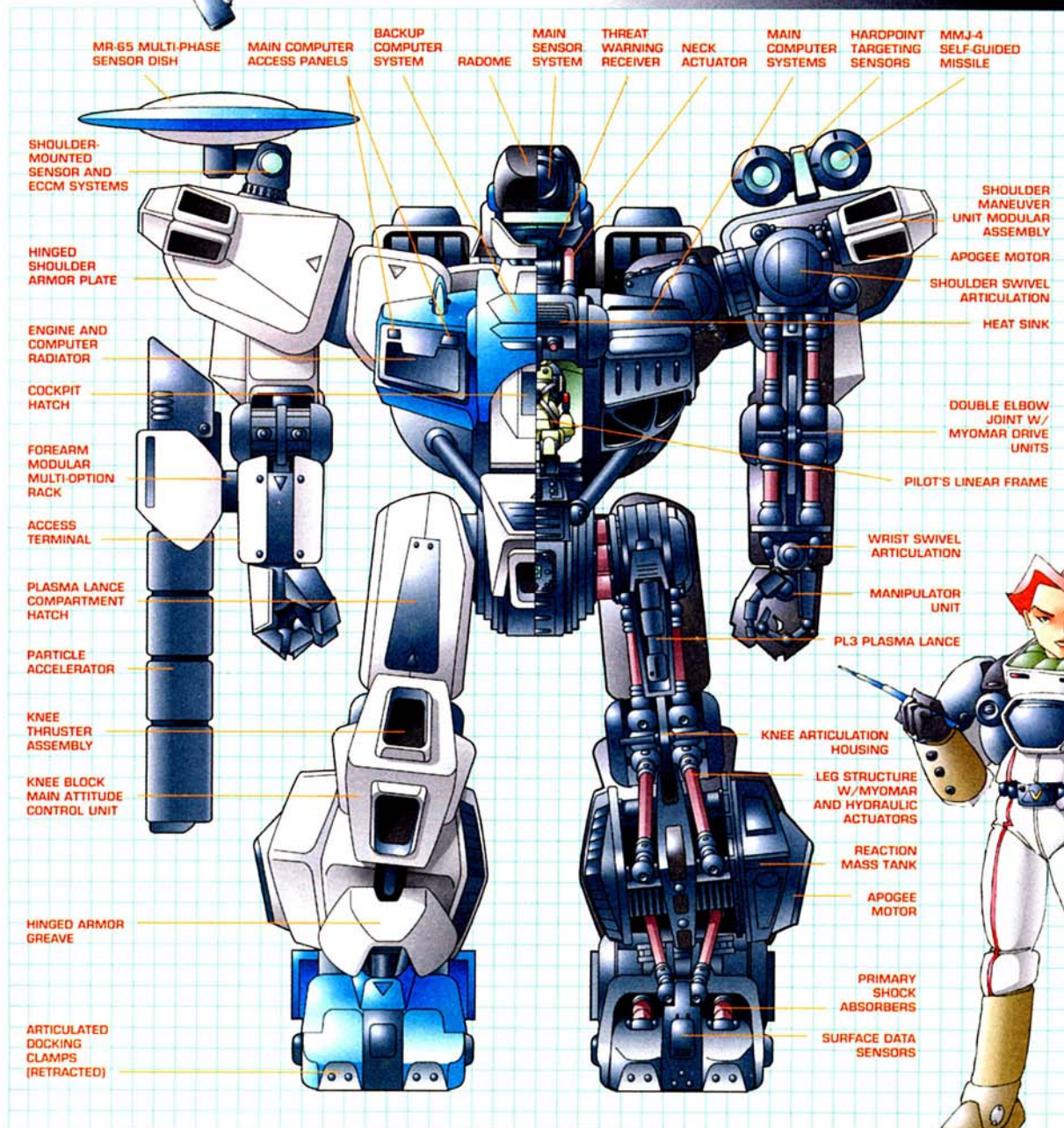
Name	Archetype	Modifications to Archetype
Luther Columbus	Shipmate, p. 106	INF 1, Leadership 3/1, Navigation 2/2, Tactics 3/1
Samuel Hectors	Merchant, p. 104	PSY -2, Leadership 2/1, Small Arms 2/0
Helena Juno	Veteran Pilot, p. 104	CRE 1, Exo & Space Pilot/Gunnery 3/1, Leadership 2/0
Cassandra Pellis	Medic, p. 103	Life Sciences (human biology) 3/1, Medicine 3/1
Rosie Mora	Technician, p. 108	Exo Pilot 1/0, Space Pilot 1/2, Tinker 3/2
Kat Leo	Soldier/Security Officer, p. 107	Investigation 3/1, Z-G Move & Combat 2/0
Anton Priam	Official, p. 105	Etiquette 2/1, For: Language (German, Japanese) 2/1
Marcus Royal	Official, p. 105	none
Lea Nomaru	Freelance Reporter, p. 103	none
Devon Malachai	Official, p. 105	AGI 1, INF 2, Exo Gunnery & Pilot 3/1
Marlon Karribdys	Shipmate, p. 106	INF 1, Leadership 2/1, Tactics 2/1
Adrian Fredricks	Veteran Pilot, p. 109	Space Pilot 3/0, Gunnery 3/1, Leadership 2/0, Tactics 2/0

ENGINEERING DATA ◀



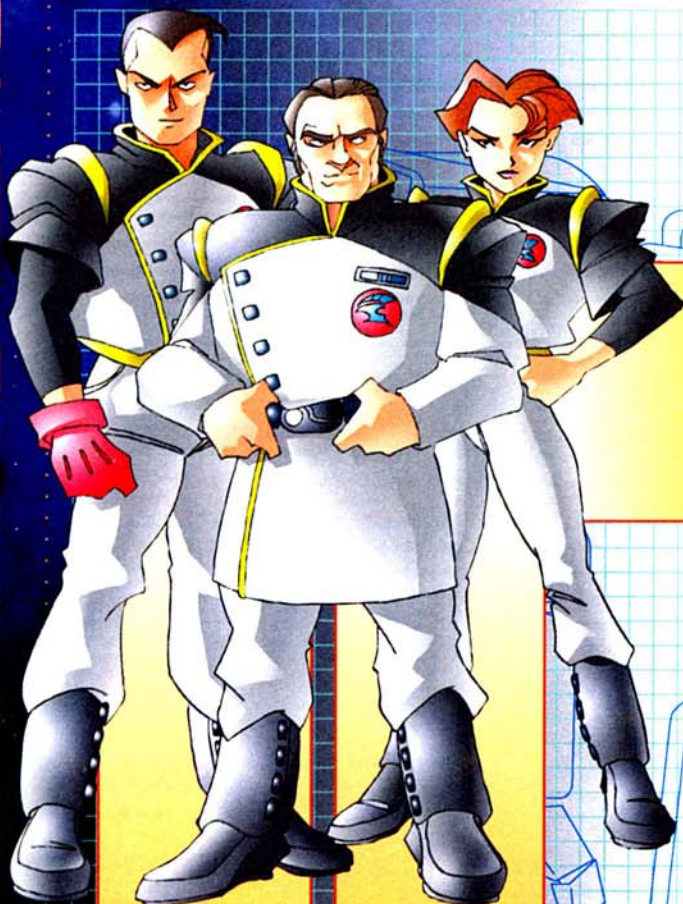
- Powerplant Nakasu Fusion model 6-762A/1550 KW nominal power
- Drive System Nakasu Nova-762A PCC Booster/7.5 MW nominal power
- Linear Frame JAW Mark 31A
- Electronics 1 JIT Mark 14 Computer System/2 JIT CU-7689 Backup Computers/1 Maelstrom Electronics TP12 Fire Control System
- Sensor Array Jovian Optics AWS 1226 Multipurpose Sensor Array/Jovian Optics MR-65 Medium Range EWAC System
- Screen Generators 2 Maelstrom Electronics Mark 12 Generators
- Armor JAW CLA-8 Laminated Composite Armor Plating
- Armament 1 x Jovian Optics 652A Particle Accelerator/2 x Dextra MMJ-4 Self-Guided Missiles/2 x JAW PL3 Plasma Lance
- Optional Equipment JAW MPBU-1 Booster Unit

STRUCTURE ◀



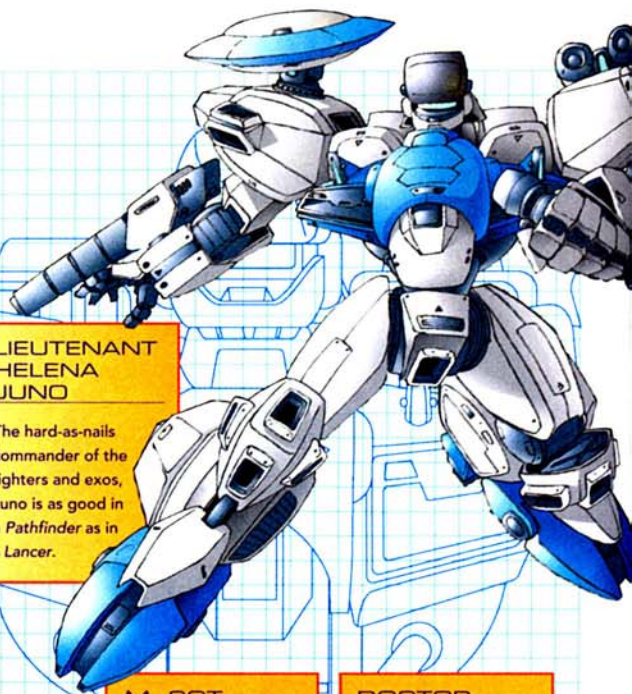
00209

THE CHARACTERS



**LIEUTENANT
HELENA
JUNO**

The hard-as-nails commander of the fighters and exos, Juno is as good in a Pathfinder as in a Lancer.



**M. SGT.
KATHERINE
"KAT" LEO**

The security chief, Kat won't stand for any nonsense. A careful investigator, she thinks pilots are all untrustworthy hotshots.

**DOCTOR
CASSANDRA
PALLIS**

The chief medical officer, Pallis knows of Hectors' feelings but will not say anything out of loyalty to her friend.

**CHIEF
SAMUEL
HECTORS**

Columbus' trusted chief NCO, Hectors has been manipulated into betraying the ship. He may seek redemption once his betrayal is revealed.

**CAPTAIN
LUTHER
COLUMBUS**

The heart and soul of the ship, Columbus treats all his crew like family. He is a brave soldier, but seeks solutions other than warfare.



**SERGEANT
ROSIE
MORA**

A hyperactive tech, Rosie treats the fighters and exos like her best friends. She only likes pilots who respect "her babies."





LEA NOMARU

A reporter for ZONet, Lea loves to be where she isn't wanted. She asks a lot of questions, but respects the JAF.

CAPTAIN MARLON KARRIBBYS

A noble pirate, Karribbys has been manipulated into thinking the Valiant is invading the Belt. He will fight only as long as he continues to believe this.

LT. CMDR. ADRIAN FREDRICKS

Head of CEGA's Wing 27, Fredricks thinks the Valiant will attack Earth forces. He wants the glory of defeating the mighty ship.

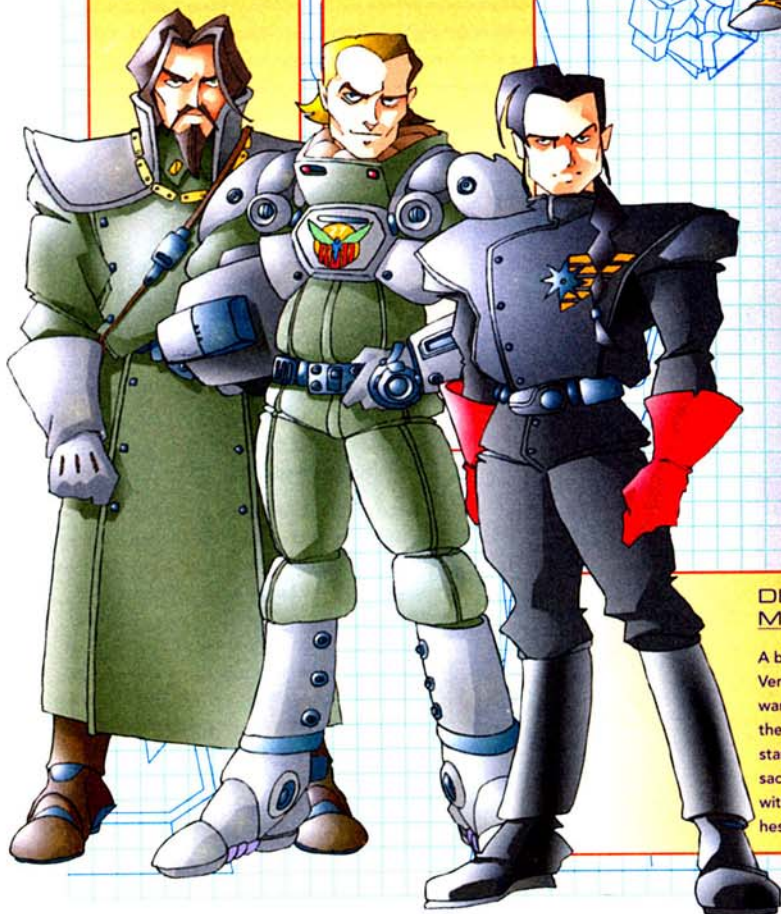


ANTON PRIAM III

The Jovian ambassador to Free Mars, Priam is stylish and arrogant. He loves mind games and would like to seduce a female pilot.

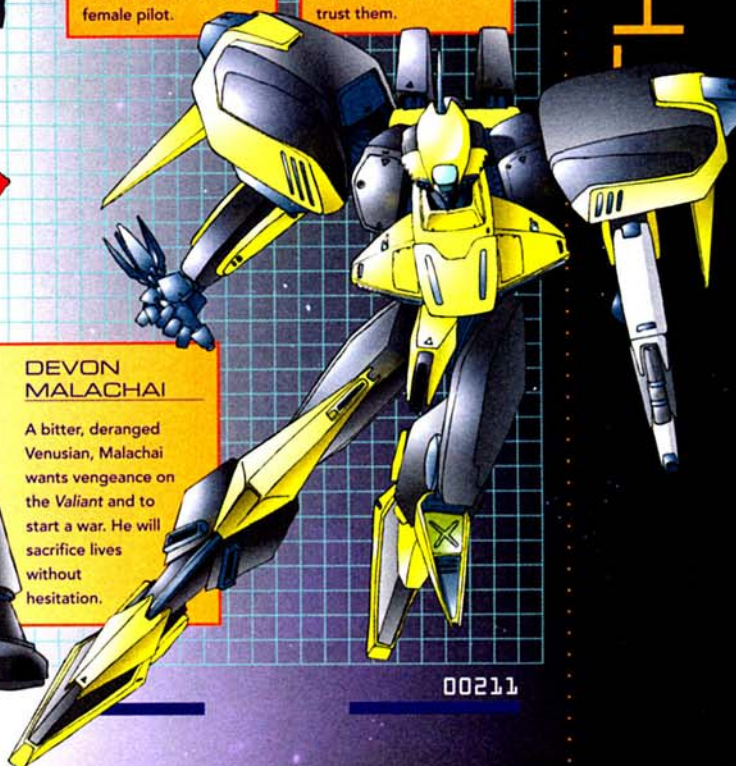
MARCUS ROYAL

Priam's assistant, Royal hates the military and can't hide his spite. Only if soldiers save Priam will he learn to trust them.

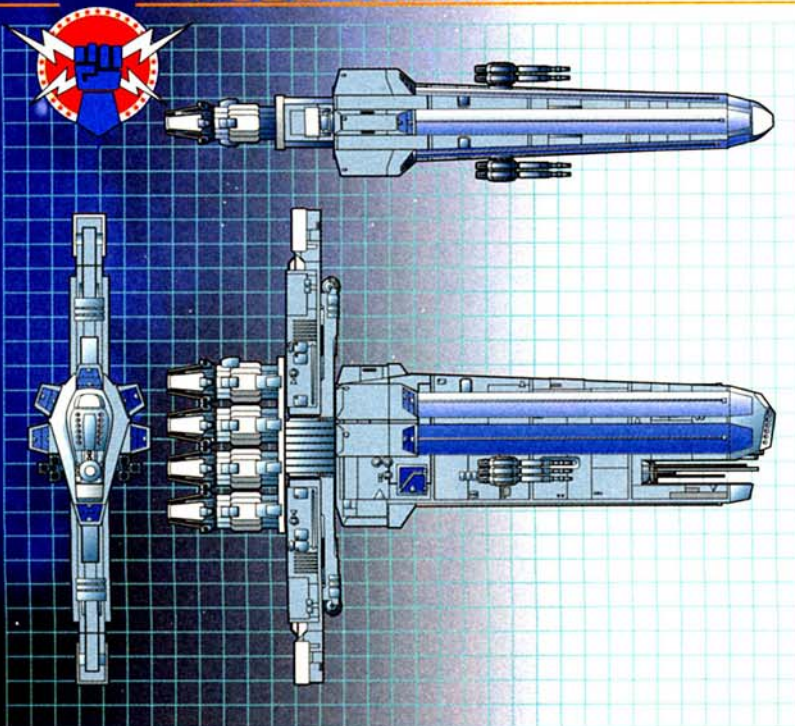


DEVON MALACHAI

A bitter, deranged Venusian, Malachai wants vengeance on the Valiant and to start a war. He will sacrifice lives without hesitation.



► JSS VALIANT

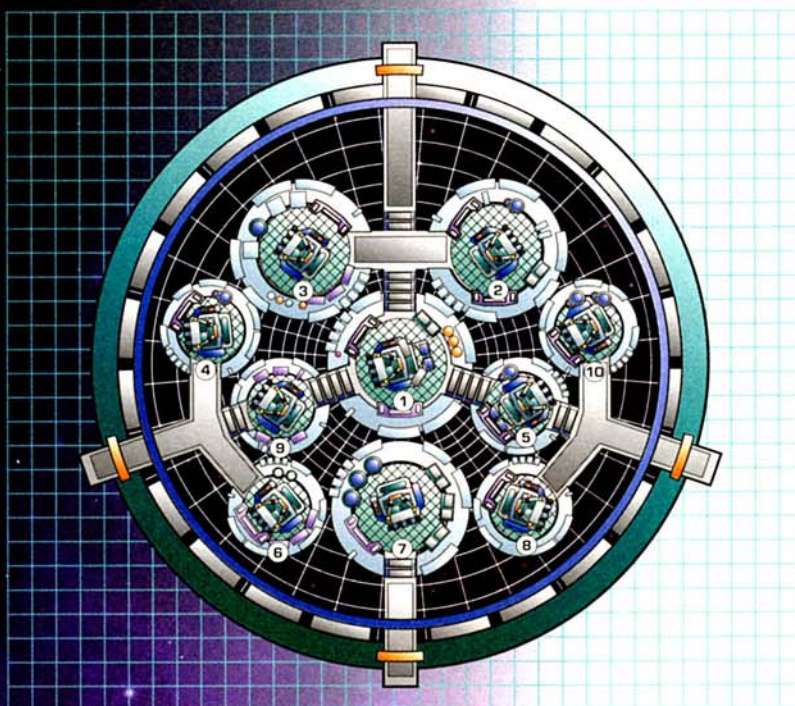


Commission:	GD-2001 (11/23/2210)
Origin:	Jovian Confederation
Manufacturer:	Valiant Consortium
Type:	Valiant-class Strike Carrier
Control system:	Bridge w/astronomical display
Length:	350 m
Width:	50 m
Empty Weight:	29,000 Tons
Loaded Weight:	50,000 Tons
Main Powerplant:	4 x 0.8 GW
Secondary Powerplant:	550 KW
Main Thrusters:	4 x 13,750 tons
Apogee motors:	100
Acceleration:	1.1 g
Avionics:	Fire Control Radar, Infrared/ Ultraviolet, Lidar, Low-light, Magnetic Anomaly Detector, Microwaves, Motion Detectors, Radcounter, Search Radar, Telescope
Fixed Armament:	PDS, 6 x kinetic kill cannons, 1 x missile bay, 1 x spinal laser
Additional Armament:	Carried vessels (3 x Pathfinder, 3 x Lancer)
Defensive Systems:	Mag screen, PDS
Equipment:	Escape pods, vehicle bay, centrifuge
Crew:	22 officers, 185 enlisted personnel

▼ JSS VALIANT (LEVEL 2 CREW)

The lead vessel of the new Valiant-class strike carriers, the *JSS Valiant* is able to face almost any other warship in the solar system and will undertake long-range solo patrols, bringing the might of the JAF across human space. Well armed and carrying six fighters or exo-armors, the *Valiant* also features orientable living quarters for comfort. When the ship is not accelerating, the quarters turn 90° so that they are parallel to the ship's axis; they then rotate around the axis, creating artificial gravity. The *Valiant's* main gun is a mighty spinal laser capable, at full charge, of punching all the way through a colony cylinder.

► BRIDGE

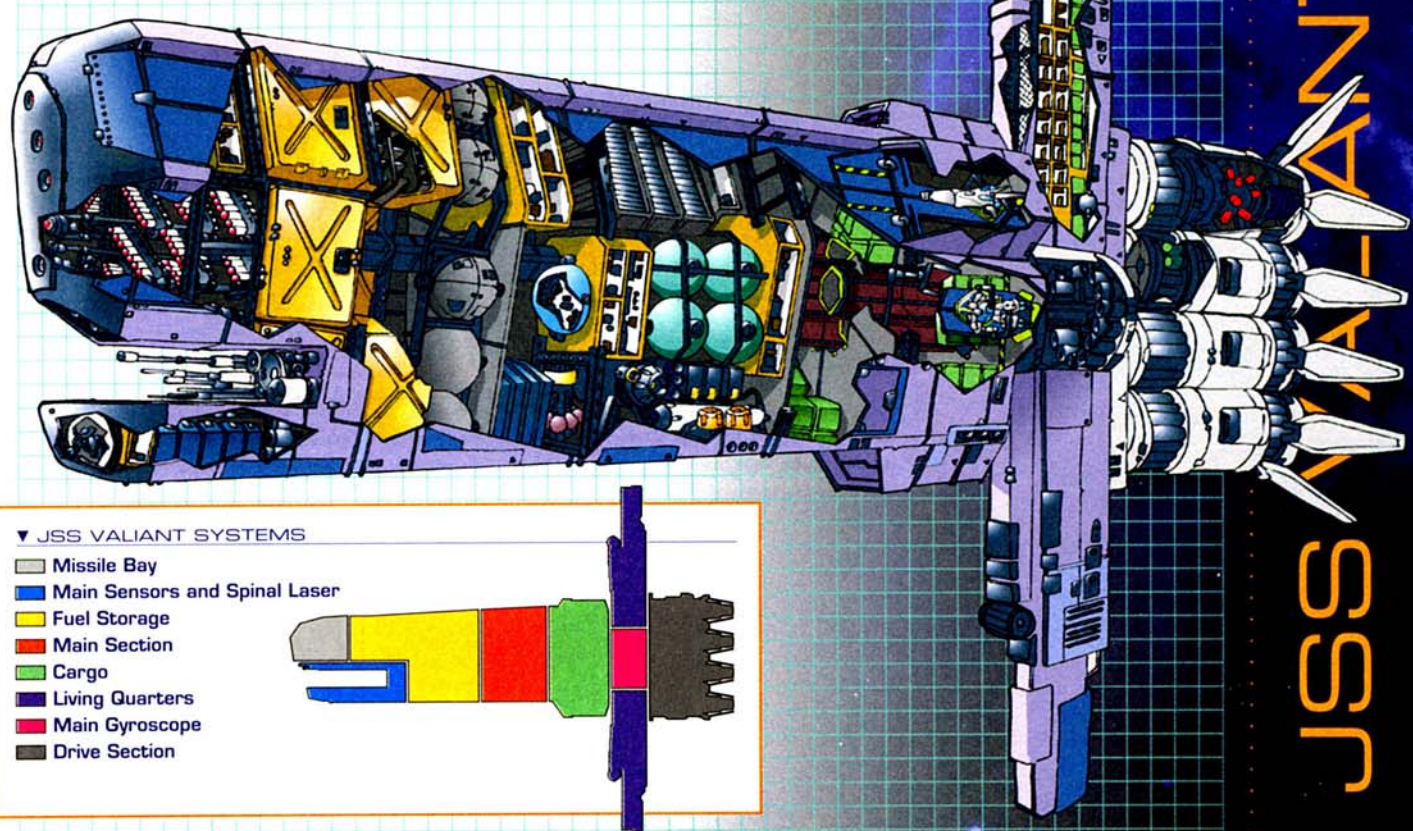


▼ BRIDGE STATIONS

1. Captain
2. Sensors
3. Navigation
4. Gunnery (Spinal Laser)
5. Second-in-Command
6. Gunnery (KKC Batteries)
7. Engineering
8. Gunnery (Point Defense)
9. Communications
10. Gunnery (Missile Bay)

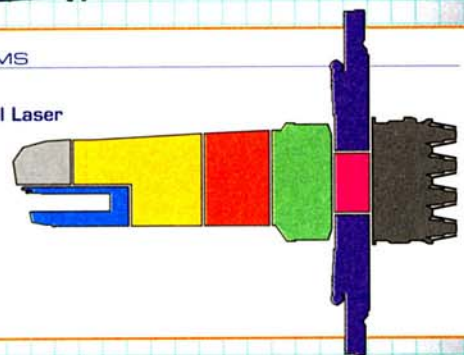
The ten-station bridge of the *Valiant* gathers together most of the key command personnel in battle. Located deep within the armored hull of the strike carrier, the bridge is well protected during combat. All the stations are equipped with thorough restraints to keep the command staff secured during the frequent accelerations and attitude changes of space combat. Not equipped for centrifuge operations, the bridge remains in microgravity when the ship is not accelerating. A view screen linked to several external cameras allows the captain to have a point of view from almost anywhere on the hull.

SHIP INTERIOR VIEW

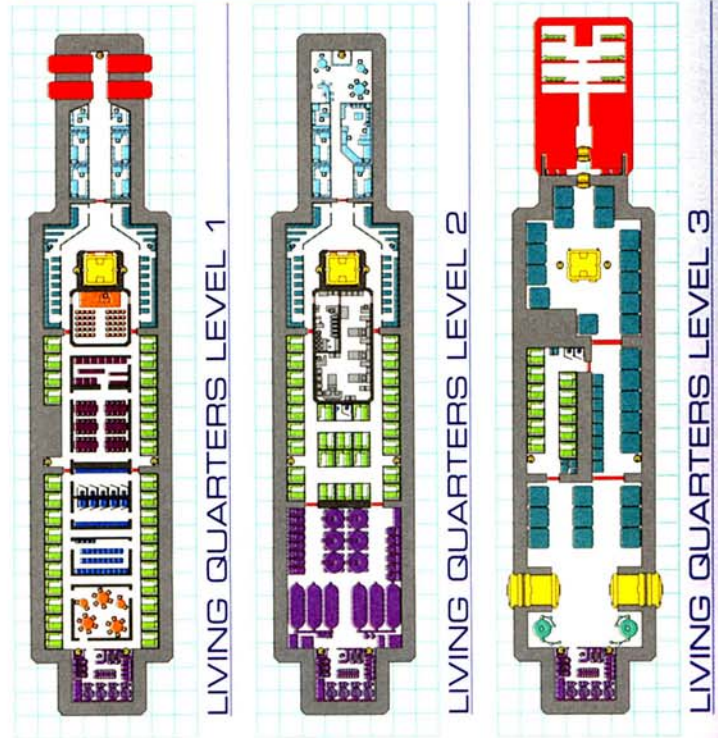


JSS VALIANT SYSTEMS

- Missile Bay
- Main Sensors and Spinal Laser
- Fuel Storage
- Main Section
- Cargo
- Living Quarters
- Main Gyroscope
- Drive Section



LIVING QUARTERS



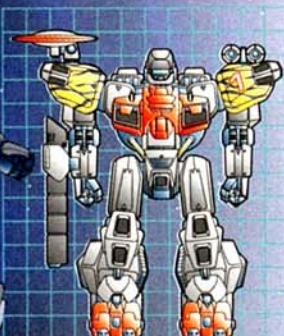
LEGEND

- Commons
- Crew Quarters
- Elevators, Airlocks, Access Panels
- Escape Pods, Lifeboat, Emergency Doors
- Galley
- Life Support
- Officer Quarters
- Sickbay
- Storage
- Waste Processing
- Work Pods

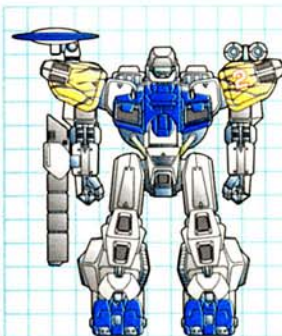
ACCELERATION AND CENTRIFUGE

When the vessel ceases acceleration, the Valiant's two living quarters modules rotate 90° and become elements of a centrifuge, turning about the central axis of the ship. This maintains artificial gravity in the quarters, although everything is also set up to work in zero gravity. Because long access halls between the quarters and the main hull of the ship then become vertical shafts, loud warning sirens and flashing lights are activated several minutes before rotation begins or ends. The main section of the ship has no centrifuge so remains at microgravity if the ship ceases acceleration. A series of rungs in the walls allows the crew to move about.

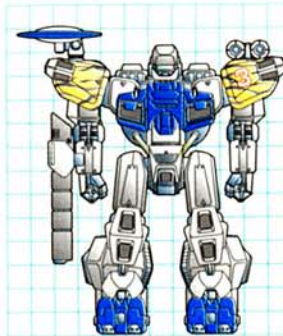
► TIGER FLIGHT



TIGER LEADER



TIGER TWO



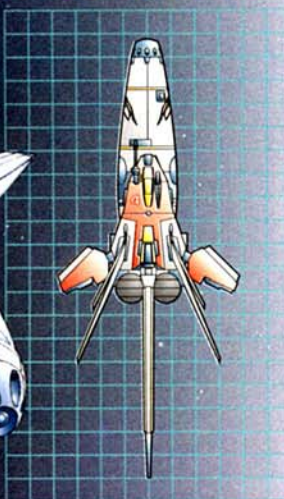
TIGER THREE



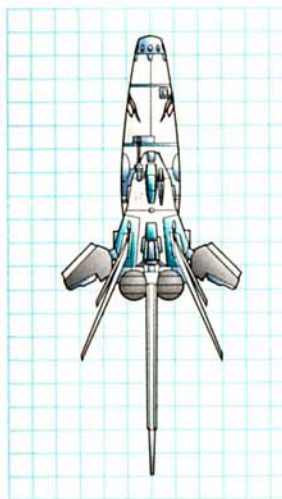
TIGER FLIGHT (PATHFINDER ALPHAS)

Bearing ID numbers 1 through 3, Tiger Flight consists of three Pathfinder Alphas, bearing distinctive tiger striping on their shoulder plates. Tiger Leader has a dominant red color scheme, while Tigers Two and Three have a blue paint scheme.

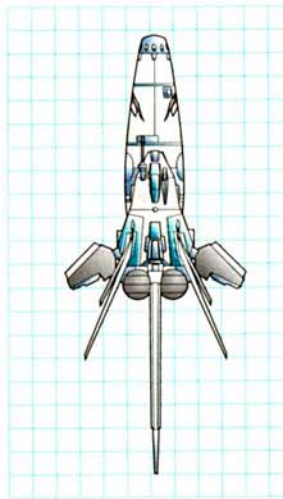
► SHARK FLIGHT



SHARK LEADER



SHARK FIVE



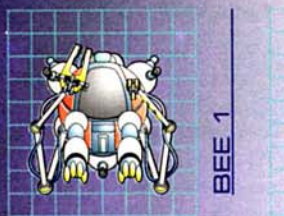
SHARK SIX



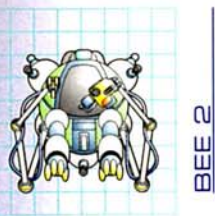
SHARK FLIGHT (LANCERS)

Painted with gaping shark mouths and piercing eyes, the Lancer fighters of Shark Flight bear ID numbers 4 though 6. Shark Leader uses a red paint scheme, while Sharks Five and Six use a green color instead.

► WORKER BEES SQUADRON



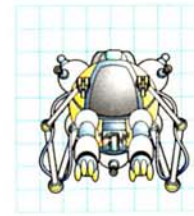
BEE 1



BEE 2



BEE 3



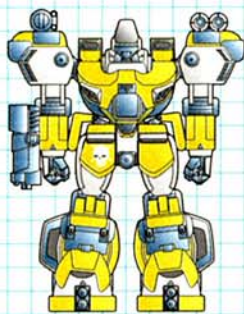
BEE 4



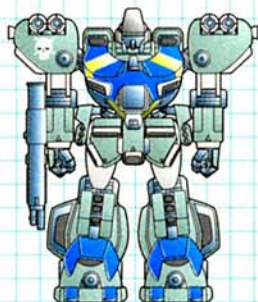
WORKER BEES (M-PODS)

Painted in garish colors and using a variety of specialized appendages, the M-Pods of the Worker Bees maintenance crew keep the Valiant running during its long journeys. Sergeant Rosie Mora usually pilots Bee 3, equipped with a pair of heavy pincers.

BLACK CROSS EXOS ◀



EXPLORER



DEFENDER

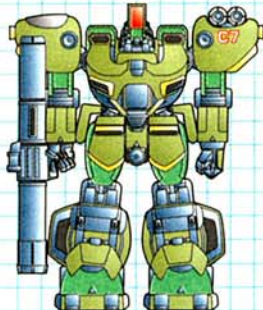


BLACK CROSS EXOS (LEVEL 2 PILOTS) ▼

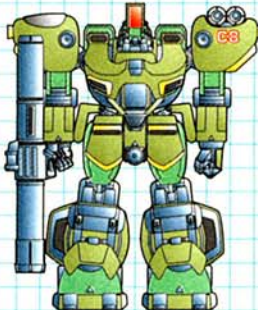
The Black Cross Pirates stole an Explorer and a Defender bound for Mars in TN 2208. Painted in bright colors, the two units are carried on the hull of the Black Cross. The pilots use very little teamwork in battle.



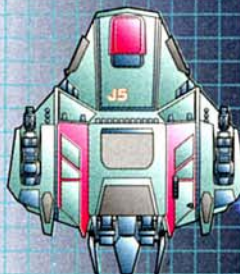
CEGA WING 27 ◀



WYVERN X2



WYVERN X2

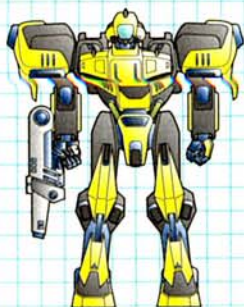


CEGA WING 27 (LEVEL 2 PILOTS) ▼

Wing 27's 4 Wyverns and 4 Wraiths are painted in drab green, except for Fredricks' Wraith which is more vibrant. Trained soldiers, they use teamwork and have skilled leaders; Fredricks and Wyvern flight leader Luce Sonora are Level 3 pilots.



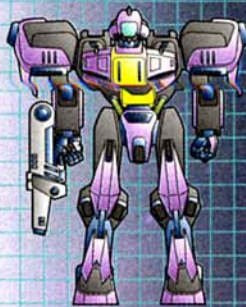
HDF SHURIKEN FLIGHT ◀



MALACHAI'S RYU



RYU X2

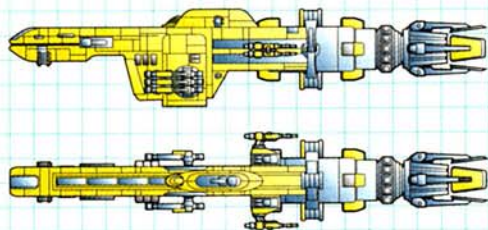


HDF SHURIKEN FLIGHT (LEVEL 3 PILOTS) ▼

Fanatically loyal to Malachai, Shuriken Flight from the Venusian Home Defense Force is transported in the SS Guinevere. The three violet HDF Ryus lead any attack and Malachai's vibrant yellow Ryu will come in for the kill.



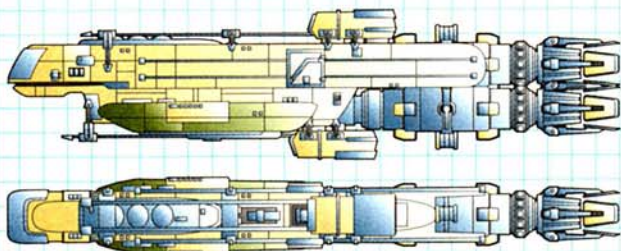
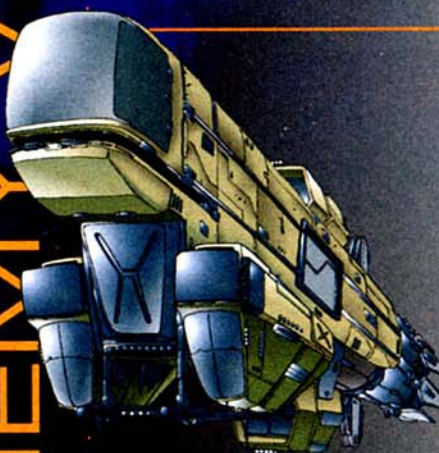
► SS BLACK CROSS



SS BLACK CROSS (LEVEL 2 CREW) ▼

In 2203, the crew of the Bricriu corvette CSS Oderta mutinied. Under the leadership of "Captain" Karribdys, the ship was renamed the Black Cross. The ship carries two exo-armors strapped to its hull.

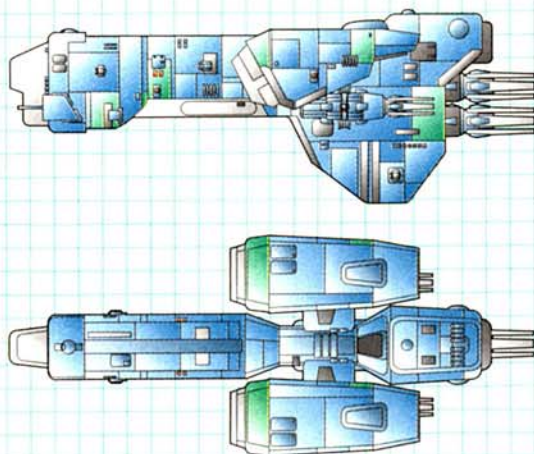
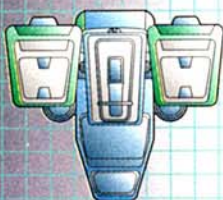
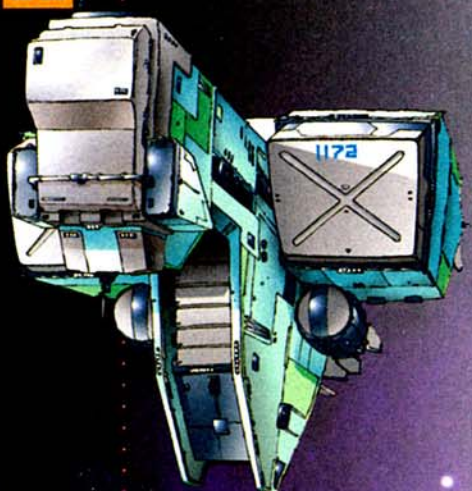
► CSS KASADO & YUBARI



CSS KASADO & YUBARI (LEVEL 2 CREW) ▼

CEGA Wing 27 uses a pair of Tengu escort carriers to transport their Wraith fighters and Wyvern exo-armors. Both ships feature two additional modular fighter/exo bays with magnetic catapults.

► SS GUINEVERE



SS GUINEVERE (LEVEL 3 CREW) ▼

The modified Inari liner Guinevere is Malachai's ship. Its cargo bays carry four Ryus, and its panels hide 4 KKC's and two Space Dart missiles (use weapon stats from Javelin cruiser, Fire Control is 0).

FLIGHT PLAN AND FLIGHT FACTS ◀

The planned flight of the *Valiant* involves the carrier effectively flying backwards in order to use its thrust to slow its orbital velocity. As this happens, it will gently fall toward the Sun until it matches the orbital velocity of Mars, at which point it is to enter the red planet's orbit. A diplomatic shuttle will then deliver the old Martian ambassador and take Priam aboard. The *Valiant* is then to accelerate and reach the orbit of Jupiter. The flight goes terribly wrong when pirates attack as the *Valiant* passes through the Belt. Hectors then sabotages the ship so that it decelerates too much and rigs the diplomatic escape pod. Before repairs can be completed, the *Valiant* has greatly decelerated and fallen past the Martian orbit into CEGA space. It is then attacked by the elite Wing 27 of the CEGA Navy. Ambassador Priam follows procedure and moves to his sabotaged escape pod, which then launches without his order. A Ryu exo catches the pod and brings it to Malachai's ship. The PCs must defend their ship, pursue the Ryu, save Priam and stop Malachai before it is too late. Wing 27 must also be defeated or convinced that they have been used.

— PREDICTED COURSE
 - - - - - ACTUAL COURSE
 ESTIMATED TRAVEL TIME: 58 DAYS

VANGUARD MOUNTAIN

OLYMPUS

JUPITER

NEWHOME

1. BLACK CROSS AMBUSH!

As the *Valiant* decelerates through the Belt, the *Black Cross* will attack. They may do damage, but will likely be pushed back by superior firepower.

2. SABOTAGE!

As the *Valiant* makes repairs, CWO Hectors sabotages the ship's fusion engine, keeping it at full thrust and sending the ship down the gravity well. Kat Leo suspects the Player Characters, can they clear their name?

3. CEGA ATTACK!

The *Valiant* slips inside Martian orbit before the sabotage can be repaired and Wing 27 attacks. In the confusion, an HDF exo manages to kidnap Priam in his escape pod.

4. SHOWDOWN!

The ambassador is delivered to Malachai's ship with the Player Characters in hot pursuit and Wing 27 just behind them. A battle royal ensues in which Priam is hopefully saved, but Malachai surely escapes to plot anew. The *Valiant* stops decelerating and heads for home.

THE FUTURE

While wars were avoided, there are still diplomatic pieces to be put back together. The crew of the *Valiant*, however, should be more concerned by Malachai, who blames them for his defeat. He will now do everything in his power to get revenge, hopefully humiliating, disgracing and killing them (in that order).

SUN

MERCURY

VENUS

EARTH

MARS

ASTEROID BELT

► TELLING A STORY

The art and craft of Gamemastering is best learnt by experience and observation. By playing an RPG you can pick up hints from your own Gamemaster and learn what to do (and sometimes, what not to do). Most of the learning will come by actually doing it and discovering what techniques work best for your own style of play. The amount of description to provide, how often to roll the dice, what kind of stories to create; the answers to these questions all change from GM to GM and from player group to player group. This chapter provides several pages of good advice to help you along, however. The basic steps are laid out and some helpful advice is provided, which can be useful for beginners and experienced GMs alike.

Newcomers to roleplaying should not feel daunted by the prospect of GMing. The only "mysterious principles" necessary to understand are telling a story, describing things and having fun with your friends. Beginning GMs should also look to their Players for help. It is the whole playing group's responsibility to have fun and tell a good story. GMs should not be afraid to ask Players what they would like to see happen or for help running combat or designing props. It can even be fun to trade places for a few sessions and let someone else Gamemaster while you have the joy of playing.

A particular place in which Players can be very helpful is using the rules system. Although only the GM absolutely needs to know the rules, try to train the Players as the campaign grows. Combat in particular becomes much easier when everyone can calculate their own modifiers and just give the final results of die rolls. Players can also help with other "administrative" parts of GMing, such as keeping a record of the campaign or helping to define minor characters.



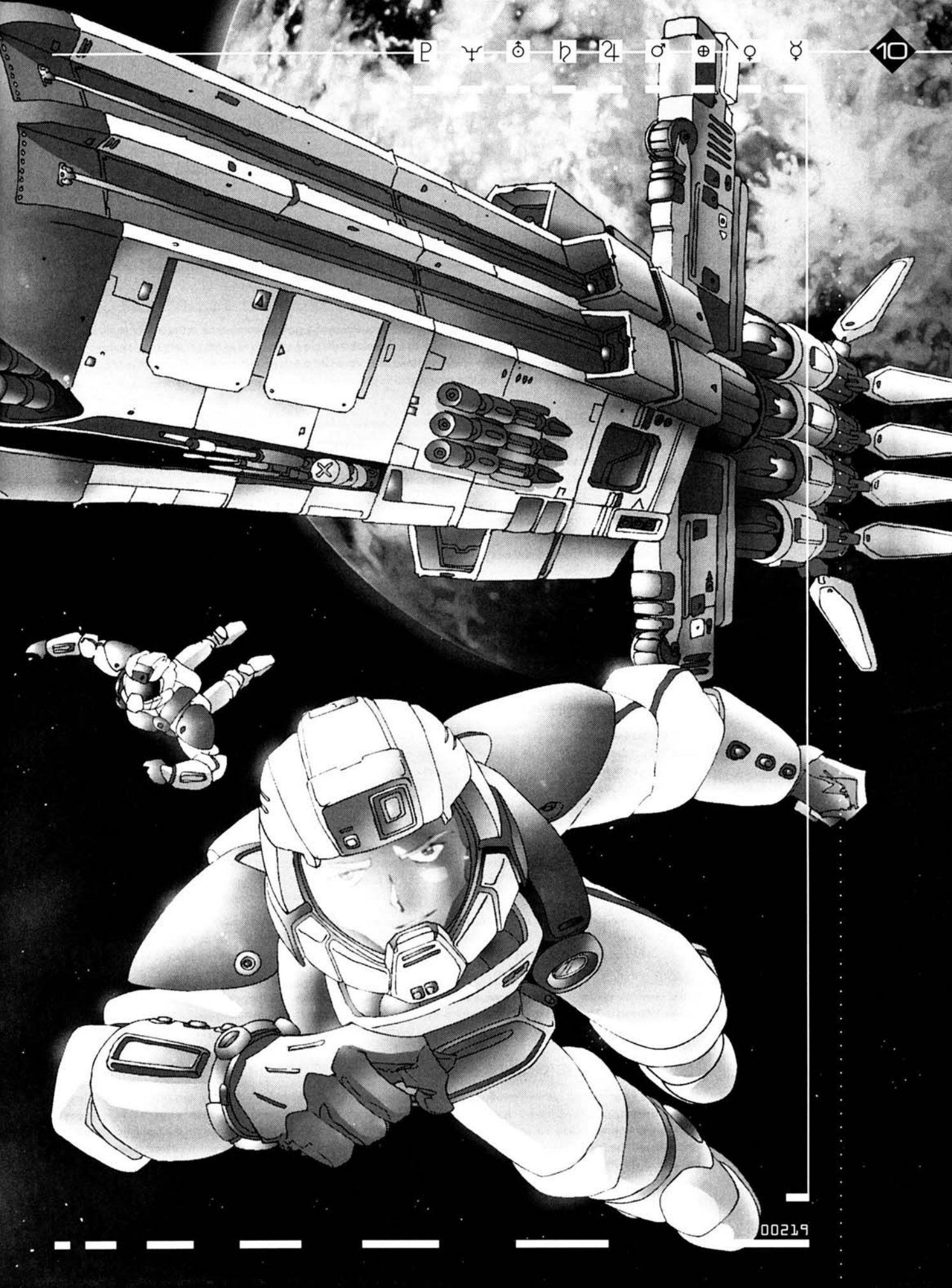
Advertisement 5467-11-210J
 Date: November 26, 2210
 Location: Jovian System
 Organization: Jovian Armed Forces
 Source: Jovian Public Access Network

Once we lived safely and securely, carving out a life for ourselves on the edges of the solar system. Acting out of aggression and spite, the new Terran leaders attacked us without provocation. Only through the sacrifice and bravery of the members of the Jovian Armed Forces were we able to push back the attackers.

Our confederation is in need. Gleaming new fighters, exo-armors and warships stand ready to defend us from the tides of war. But they are lacking the most important component:

You.

Join the Jovian Armed Forces.



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► CREATING A JOVIAN CHRONICLES CAMPAIGN

10.1

A **Jovian Chronicles** campaign is different from most other roleplaying campaigns because the characters will probably spend most of it in space or on other planets. While most people have swung a make-believe sword, very few have stepped outside the boundaries of Earth's atmosphere. This will challenge the Gamemaster's descriptive skills, since he has a few more factors to take into consideration (lack of gravity and pressure differentials, for example).

Of course, it is also possible to play the game as the typical science fiction or anime show, which usually take a much lighter approach to the scientific aspects of space flight. This style also presents a few peculiarities and requires a few specific rules, all of which are covered in this chapter.

▼ PRELIMINARY WORK

10.1.1

Campaigns should not be improvised, although one of the qualities of a good Gamemaster is the ability to do just that when all else fails. Some preliminary work is essential to a successful campaign, much of which actually requires far less time than most Gamemasters invest into it. The following steps can help a GM cut down in preparation time, while still providing the tools that will be needed later during the campaign.

◇ BRAINSTORMING

The first step in any story development is to come up with story ideas. This need not be done in any organized manner, but it is usually preferable to write them down as they come. Clever GMs carry little notebooks with them in which they can scribble their ideas at any time. Those concepts can later be organized and developed into stories, characters or locations.

Gamemasters should not be afraid to borrow ideas from other sources. For one thing, roleplaying is usually done to have fun and reliving a version of a favorite movie or book can be just that. Sometimes, a new twist on an old story can be as enjoyable as an original tale. One potentially great (and inexpensive) source of story bits is the local TV guide. All the movies are briefly summarized and can provide a story seed which a GM may find relevant to his or her campaign.

◇ CREATING AN OUTLINE

Once concepts are set on paper, the Gamemaster has a vague idea of what will happen in the campaign, but not necessarily in what order. At that point, the GM should work out some sequence of events, in either a linear or a tree organization, to see which scenes or concepts readily fit within that framework. Most likely, not everything will fit, but that should not be a concern. It is always a good idea to have backup scenes to plug in at unexpected times or when things get dull.

◇ PREPARING THE BASICS

Once the outline is ready, the Gamemaster will realize there are many elements in the game which he will need on a regular basis: little character biographies, locations, vehicles, etc. Without spending too much time on each, a clever GM should create little packages of Skills and Attributes for various professions, and call upon these when he needs to create an NPC on the fly. This way, he can quickly conjure up a new character by choosing a few personality traits and selecting an appropriate profession. That is usually enough to last one game session. The Gamemaster can spend some time after the game to fully flesh out or even completely redesign the character.

Another viable option is to select an archetype among those provided within this book, quickly modify one or two Attributes, and add a few Skills. This ensures that the Gamemaster does not get carried away during the game and provide an inordinate amount of Skills to his NPCs. It is also useful to prepare some typical groups of opponents for combat. That requires a bit more time when preparing the campaign, but speeds up the scenario design process.

A prudent Gamemaster should also prepare a set of typical locations which his Players may visit frequently. In the case of a military campaign, for instance, he should design the local bar, the briefing room, the hangar bay, the engine room, the sick bay, some typical personal quarters and the ship's bridge (if appropriate). There is no need to be fancy — even a rough map will generally be sufficient. This way, no matter what happens, the GM has something to work with.

Lastly, Gamemasters should always have a series of generic sub-plots handy that they can throw into a game to keep the Players interested. This can take almost any form, from romance to mechanical failure during combat, as long as it comes as unexpected to the PCs. Usually, at most a dozen plot twists are enough to start a stimulating campaign.

▼ THE BEGINNING

10.1.2

Campaigns have to start somewhere. Surprisingly enough, the simplest way to know how to start one is to know how it ends. Gamemasters should have a clear picture of what kind of campaign they have in mind, so they can decide more easily what kind of approach they will use. The next step is to focus on the actual start of the campaign: the first gaming session, which we call the "pilot." Through that first game, the GM will discover many story threads which interest their players and the kind of storytelling that appeals to them.

HOW TO APPROACH THE CAMPAIGN ◇

The early sessions of a campaign often set the tone for the games to come. It is important to have an interesting angle with which to approach the story since it gives the whole campaign a very characteristic flavor. There are two approaches often used in storytelling. The first one is "Ongoing Involvement," where characters are already immersed in a situation and keep doing what they do best, such as piloting exo-armors. This leads to more "action" scenarios and a storyline that circumvents cumbersome mind games. The second angle is the "Ascension," where the characters start very small (socially, or economically) and get involved in something much larger than themselves. This leads to less action but provides many opportunities for character growth. The first approach is better for players who are already experienced with the game and the world, while the second one allows a GM to gradually introduce new players.

THE PILOT ◇

A campaign plan is akin to a sales pitch for a television series. The first game, also called the pilot, is probably the most important one. Gamemasters should put some extra effort into it and give each character some importance in the storyline. A player who feels his or her character belongs in the series will come back for more, while one who has been neglected will hesitate to play again. The pilot should give everyone a taste of things to come and have enough appeal and mystery that players (the "viewers") will be hooked.

Always remember that the PCs are the heroes and should be at center stage. Nothing kills a campaign faster than players who have no interest in playing. On the other hand, a game where players "just can't wait until next session" is very successful. In television lingo, it means having high ratings.

OPENING THREADS ◇

One of the important responsibilities of the Gamemaster during the first few games is to open story threads that parallel or reinforce the main storyline. Despite the prevalence of the main story during the gaming sessions, a sharp GM will open new subplots which will only interest a limited group of Player Characters, perhaps even only one. There should be enough threads that everyone can take part in something other than the main story and feel they have their "own little thing going on the side." For some Players, it can be something as simple as their characters going out on a date. For others, it can mean that their character is involved in some seedy, underground affair which they do not want anyone to know about. The possibilities are endless. Some subplots may have a larger campaign significance as well. Characters may realize that they are pawns in a political chess game and they may want to do something about it.

Gamemasters should pay close attention to these threads — Players certainly will. Whenever a Player voluntarily pays attention to a NPC or a current event, the Gamemaster should make note of it and see how it could be expanded into an interesting story. If they become important enough, some of these threads may eventually turn into complete sessions. Be careful not to have sessions that concern only one Player, however.

THE MIDDLE ▼

This is the meat of the campaign. Most of the games should have something to do with a main storyline which the Gamemaster has prepared from the beginning, but there should also be a number of limited-access or solo sessions for some of the characters who wish to delve deeper into a subplot. The Gamemaster should not feel limited by the main storyline he or she has built and allow the Players to contribute to it by exploring tangents of their own. Both Players and GM should remember that roleplaying has more to do with interactive storytelling than with competition.

PREPARING A SCENARIO ◇

Most Gamemasters do not have a lot of time to prepare a session. They should write a general outline of how they expect the adventure to run, plus which NPCs they imagine will show up and what equipment will be featured. It is also useful to have one or two potential complications to spice up the scenario if the game runs stale. Some of those complications can stem from subplots introduced earlier during the campaign, or they can be very short-term ones that only apply to the actual scenario. It is crucial to design a scenario which will keep the Players on their toes, either through very dynamic and fast-paced action, or through intricate and involved storytelling.

HANDLING THE UNEXPECTED ◇

If there is one law to Gamemastering, it is that Player Characters are unpredictable. This fact is little known by beginning GMs and has caused many a campaign to fold. Many Gamemasters react badly to unpredictable Players who do not follow the path they have prepared with their scenario. They are unconsciously offended that they would deviate from their well-orchestrated story and would take a tangent for which they have no contingency plans. Unfortunately, there is only one way to deal with Players who go off the beaten path: GMs must cope. They must improvise until a time when they can subtly orient the characters back on track.



HANDLING THE UNEXPECTED CONTINUED

It is vital not to railroad the characters into what the Gamemaster believes is the best scenario. In order to fully enjoy themselves, Players must be left as free as possible. Many of them enjoy coming up with surprises for the GM, and there is nothing wrong with that. Too many Gamemasters adopt a confrontational attitude with their Players. Rather, they should let the Players get away with it and concentrate on what to do next to make the scenario enjoyable. This is why it is useful to have enough threads and background NPCs to bring into the game at a moment's notice.

◇ IMPACT OF PLAYER CHARACTERS

Like heroes in movies, Players often expect their characters to have an impact on the world around them. Nothing makes a game more pointless than having an NPC come in to save the day, or to feel that even if the characters had not been there to take action, the crisis would have resolved itself in the same way. Players who feel they have affected the world around them usually show more loyalty to the game and adopt a less confrontational attitude toward the Gamemaster. Roleplaying is a collaborative effort, not a competition. Much as the Player Characters are expected to work with one another to solve the puzzles before them, the Players and Gamemaster should work hand in hand to make a great story.

▼ THE ENDING

Most Gamemasters start a campaign without the ending in mind. They assume they have plenty of time to prepare for it. This is not so. The ending of the story should receive as much attention as the beginning, and not just during the few last game sessions. A good ending can leave the players with such a good impression of the campaign that they will talk about it for years. Much like movies, campaigns with a pat ending leave everyone feeling they have been cheated.

◇ FORESHADOWING THE FINALE

The first important rule about the finale is that it should be foreseeable, though not necessarily predictable. The storyline should feature multiple discreet hints that it is coming, and how it will come, without ever saying it outright. Gamemaster can also feature minor events that make little or no sense until the characters understand the "grand design" at the end. In order to do this, however, Gamemasters have to know what the "grand design" will be.

Near the end of the campaign, there should be a substantial increase in tension. Players should easily feel something important and final is about to happen. Failing to build up to a finale will have very negative effects on the impact it would normally have. Gamemasters should make it clear that the conclusion is near by making their villains more vicious or desperate, or by creating rumors that "something big is gonna happen any time now."

◇ ENDING THE THREAT

That last confrontation is undoubtedly the most important moment in the campaign. Everything has built up to it and everyone has to be involved in some way. If the Gamemaster has a group of Players who are not all at the same place at the same time, he must tread very carefully and make sure to split the whole game session into small scenes that concern each of the characters. This is used in movies with great effect: whenever the tension in a scene is at its height, the Gamemaster should shift to someone else's scene and proceed similarly. The GM then returns to the first Player, finishes the scene, builds up the tension again, and goes on until the game ends. Needless to say, this requires a great deal of preparation and inventiveness, but if this is the conclusion of a year-long campaign, it is definitely worth it. After coming so far and working so hard, why not go the extra mile and make the campaign end with a bang?

If all the Players happen to be together during the ending, it is still good to try and build up consecutive waves of tension, alternating between the actions of the Player Characters and those of some important NPCs caught somewhere else in a difficult situation of their own. This requires the Gamemaster to narrate events to which the Players are not normally privy, but at this point in the campaign, it does not really matter. The important factor is to make the finale enjoyable for the Players (who can act as viewers during those narrative "cut-scenes").

The villains should be difficult to defeat during the final battle, if there is one. They should fight with teeth and claw, throwing everything they have at the Players and going for the kill. If players die at this point, it should be through some kind of meaningful death scene. Few Players will object to their character dying a heroic death at the end of a campaign; they will be very disappointed if all they get is a "You're dead. Next?"

◇ SOUND THE TRUMPETS

Victory at last. Now that the Player Characters have earned their victory, they should get some recognition from their peers (and the population, if the fight was a public one). There should be a reward of some kind, although it does not have to be money. In some cases, a medal or a handshake from a former enemy might suffice. It is also important to have a denouement for all of the subplots in which the Player Characters took part. After the climax of the campaign, there should be a sense of achievement and closure. It does not mean that the ending must always be happy, just satisfying. The heroes should be able to walk away with their heads high, and move into the next campaign (a sequel, perhaps?) with some pride.

CAMPAIGN STYLE ◀

Movie characters often succeed at outrageously difficult tasks that would be impossible for real folks. For example, Rambo® can blow up a heavily armored Mi-24 *Hind* gunship with a bow and a single explosive tip arrow — never mind the fact that *Hinds* have been known to survive direct impacts from anti-tank missiles...

In reality, elite troops and world-class professionals are impressive but they still have their failings. Even U.S. Green Berets and Russian Spetsnaz die like mayflies when they are outnumbered ten to one. Even geniuses like Einstein make mistakes. But in the movies and on television, a single Green Beret can take down legions of enemy troops. A lone villain can create doomsday devices on a weekly basis. The **Silhouette** game engine allows players to choose how heroic their version of reality is by allowing them to select their game's Reality Distortion Level (RDL).

REALITY DISTORTION LEVELS ▼

There are three Reality Distortion Levels. The lowest is **Gritty**: at this level, firefights are very dangerous and heroes are just brave people taking great risks. While not a perfect simulation of plain old everyday Real Life™, this is as close as it gets.

The middle level is the **Adventurous** reality. This is recommended as the default Reality Distortion Level for most games and is the one used in the various **Silhouette** books. Heroes and villains will tend to stand out just a bit more than Joe Average and death is easier to avoid.

The highest Reality Distortion Level is called **Cinematic**. This is anime-like adventuring where the laws of physics are temporarily on vacation, heroes and villains are larger than life and puny screen extras are mere cannon fodder for the lead characters. The odds are heavily skewed in favor of powerful characters, and even the most outrageous action has a chance of succeeding as long as it looks good.

Every rule in this book is written with Adventurous reality in mind. Gritty or Cinematic reality only alters a result when it is clearly stated in the rules. In roleplaying situations, the Gamemaster is encouraged to enhance the grimness of the Gritty game and the zany risk-taking of the Cinematic one by modifying his descriptions and his props (music, etc.) accordingly.

In a tactical game, the Adventurous reality level is assumed to be the default setting unless all players agree *prior to the game* to use another RDL. In the case of any disagreement, Adventurous reality should be used. In the roleplaying game, the Gamemaster should select the Reality Distortion Factor of the campaign after consulting with his players.

REALITY DISTORTION AND SKILL TESTS ▼

One of the main effects of the Reality Distortion Level is to change the way the dice are read. At the Gritty level, the maximum die result is six (6). Additional sixes do not add +1 — one can only get so good in real life. The only exception to this is when Emergency dice are used, as they (and only they) can bring the total above six.

Adventurous games read the dice normally — each additional six gives +1 to the die roll. The Cinematic reality level works the same way, except that additional fives also count as +1 for the Player Characters and the main villains! Hence, if three dice are rolled and turn up 5, 5 and 6, the total result is now 8. If 4, 5 and 5 are rolled, the result would be 6, and so on. The table below summarizes the Reality Distortion Levels and their effects on dice rolls.

REALITY DISTORTION LEVELS AND DICE ▢

Reality Level	Die Roll
Gritty	Extra sixes (6) do not add +1 to the total
Adventurous	Additional sixes (6) give +1 to the total
Cinematic	Additional fives (5) or sixes (6) give +1 to the total*
*Player Characters and Main Villains only	

REALITY DISTORTION AND ARMOR DEGRADATION ▼

To allow different game styles and backgrounds, Armor degradation is subject to an optional Reality Distortion effect. This simulates the armor-piercing power of modern weaponry or the "go out with a bang" movie effect. The following table should be consulted for Armor loss due to combat damage.

ARMOR LOSS TABLE ▢

Reality Level	Light Damage	Heavy Damage
Gritty	0	-1
Adventurous	-1	-2
Cinematic	-2	-4



▼ REALITY DISTORTION OPTIONAL RULES

The different Reality Distortion Levels will make for very different gaming styles. Not all game styles require a slavish adherence to the rules. Likewise, bookkeeping is one of the tasks that will be most affected by the chosen RDL.

In a Gritty game, everything should be written down. In space, the slightest mistake can be fatal — characters are likely to spend as much time worrying about fuel, orbit and oxygen as the enemy.

In an Adventurous game, Players should keep track of ammunition and fuel, but not worry so much about “mundane” things like orbital mechanics (that is what navigation computers are for, after all).

In a Cinematic game, all bets are off. Unless it fits the plot, the Players never have to worry about fuel or maintenance. They always have a ready supply of adhesive patches to plug the stylish gash in their spacesuit, and their radio is never jammed by solar flares.

◇ SCRIPT IMMUNITY

Script Immunity (SI) is an optional rule designed to be used in Cinematic games. It simulates screen heroes’ incredible luck when faced with the worst possible situations and allows Gamemasters to save doomed characters without fudging the rules. At the group’s choice, it can also be used at the other RDLs.

Characters with Script Immunity may try to cancel the result of an opponent’s die roll. The defender rolls a number of dice equal to his current SI level against a threshold of 3. If he succeeds, the attacker’s die roll is reduced to zero, presumably cancelling the attack or losing an Opposed Skill Test. Regardless of the test result, the SI level automatically drops by one.

The following table lists the various SI levels along with a description. Threat Value Multipliers are provided to play pure tactical games with a movie feel.

□ SCRIPT IMMUNITY LEVELS

Level	TV Multiplier	Description
4	x 2	Main Villain
3	x 1.75	Main Hero (PCs)
2	x 1.5	Recurring Character, Henchmen
1	x 1.25	“This Is My Only Line”
None	x 1	If they don’t speak, they don’t get SI

◇ THE WOO FACTOR

The WOO Factor (Weapons Out of Ordinance) is designed to simulate the endless shoot-outs of Hollywood movies. Ammunition magically appears in the gun’s receiver, allowing both heroes and villains to put a ludicrous amount of lead in the air. This rule can only be used for Cinematic games.

With the WOO factor, a die roll replaces the usual ammunition expenditure procedure — as long as the roll is successful, the weapon keeps firing. Weapon systems are assigned an Ammunition Threshold, which is rolled against with two dice (Emergency Dice may be added to this). If the die roll fails, the weapon is out of ammunition or is jammed, and must be reload/cleared at the cost of one action (spare ammunition is assumed to be readily available).

All weapons start with an Ammunition Threshold of eight (8). This is decreased by one for each full five shots or two missiles the weapon can hold in its ammunition bay, with a minimum Threshold of two (2). Firing a single shot adds +3 to the die roll. Using ROF adds -1 to the die roll per point of ROF used.

WOO Factor applies to both character and vehicular weapons.

◇ EXISTENTIAL ANGST

Cinematic characters, especially in anime, are often subject to traumatic events — the death of a loved one, the destruction of their home, etc. In reaction, they become driven fighters, to inflict their revenge or make the situation right again. In game terms, this is represented by exchanging PSY points for boosted Attributes or Skills after a particularly traumatic event. Existential Angst must be approved by the Gamemaster and requires strong roleplaying. If properly played, it can be used at any RDL.

If the character is subjected to a very traumatic event, the player may shift points from the PSY Attribute to either AGI, PER or a combat-related skill on a one-to-one basis. The new numbers should be marked down in pencil beside the current values. As soon as the traumatic situation is resolved (revenge achieved, true love found, etc.), the bonus disappears. If the Player wishes the improvement to be permanent, he will have to buy the improved statistic with Experience Points as per the usual procedure (see page 124).

CHALLENGING OPPOSITION ◀

Conflict is the bread and butter of a campaign. Without conflict, there is little that will allow a character to grow and a game to move forward. While the term roleplaying can apply to characters having tea in a salon, such activities hardly make for challenging or exciting roleplaying. Having conflict means giving some opposition to the Players. One problem often found in entertainment is that of challenging opposition. Too often, villains are given little attention and only serve to demonstrate the Hollywoodian principle that the good guys always win. In gaming, however, this need not be the case. Opposition should be what it is, not what it needs to be for box office success. The Players will have a greater sense of achievement if they encounter adversaries which make sense and do not give them a break just "because it's convenient and it's the script."

10.3

VILLAINS FIGHT TO WIN ▼

In many campaigns, villains are treated as incompetent and harmless. This is often due to the Gamemaster's inability to give them successful combat tactics similar to those used by Player Characters. The simplest solution is for the Gamemaster to give his bad guys stronger attributes, skills and equipment than the Players, but this leads to a warping of reality and tends to annoy the players. Here are a few techniques to make the villains more threatening and to ensure that the Players feel they really have earned their victory.

10.3.1

FOOLS RUSH IN ◇

Offense is *not* the best defense. Most villains do not wish to die and act accordingly to avoid that fate. A smart enemy will use ranged weapons at first to weaken his adversary, and will use weapons with an area of effect if at all possible before his opponent is upon him. Also, he will not move in close range and risk being shot in the back. Rather, he will stay far from the enemy until it is absolutely necessary to get into short range.

SEND IN THE GRUNTS ◇

Smart villains seldom engage their adversaries without first sending in their weaker but more numerous allies, which are more expendable and serve to soften up the opposition. This is a tremendous advantage for the villains, and one which is often neglected by Gamemasters. The enemy does not always have to be very powerful, but if there is a lot of them, the Players have a run for their money.

COORDINATE WITH YOUR TEAMMATES ◇

Experienced pilots have learned the value of teamwork. They know a dead opponent does not hit back. Consequently, they much prefer to strike one enemy hard and kill it than wound or damage several opponents and face their gunfire seconds later. A clever Gamemaster will aim multiple shots at one target and hopefully cause more damage (perhaps even a kill). To avoid killing off PCs mercilessly, it is preferable to demonstrate the effectiveness of this tactic on a friendly NPC as a warning to those who are not expecting a serious opposition.

HE WHO RUNS AWAY TODAY... ◇

Running away is *always* an option. Often enough, heroic sacrifices where the villains fight to the end occur during the final confrontations between the Players and the "bad guys." Most enemies will realize when their chances of winning have become ridiculously low, and will try to flee. This way, they can come back later and avenge the deaths of their comrades. Many Players reluctantly enjoy the sight of the familiar markings on that enemy exo-armor coming back game after game.

VILLAINS WITH MOTIVATIONS ▼

Confrontation usually stems from conflicting interests. Sadly, Gamemasters tend to rely on motivations that are too cliché to be entertaining. Gamemasters are encouraged to spend a bit more time delving into the interests of their villains and finding out what makes them tick. It is acceptable to have a master villain who just wants to kill the Player Characters because he is a psycho, but it is far more dramatic and interesting if he does it because his family is held captive by a group of terrorists and will be killed if he fails to obey. While there are people who are inherently "evil," most of the opposition in **Jovian Chronicles** is composed of individuals with very specific, human (and often selfish) motivations.

10.3.2

THE OPPOSITION'S WEAKNESS ◇

In order to make for more interesting storytelling, no "bad guy" should be without flaws. As with PCs, it is the weaknesses of a villain which make him interesting and different, not his strengths. All master villains are, by definition, superlative in Skills and Attributes. Providing them with flaws is a good way to keep them vulnerable and to make them feel more "human." It also gives the Players an opportunity which they can use to defeat the villain, or provides the Gamemaster with a valid reason not to kill the Player Characters in certain situations.

▶ SETTING UP A CAMPAIGN

10-4

There are several ways to use this book. **Jovian Chronicles** provides a detailed setting, and Gamemasters are strongly encouraged to make use of it. It is designed in such a way that it should save them hours of design time. Not everyone, however, enjoys playing a pre-generated campaign. This section aims at providing GMs with the necessary guidelines and design instructions to set up his own series of adventures.

The text below features several abbreviations between parentheses to indicate designs which the Gamemaster should take care of before starting the campaign. These abbreviations are: LEAD for Lead Character; CAST for Supporting Cast; EXTR for Extras, henchmen and miscellaneous Non-Player Characters; MAP for any location layout; MCHX for mechanical designs (ships, fighters or exo-armors); PROP for all personal weapons, equipment or various props; ORG for any group or organization; and PLOT for the various story threads which are part of a particular campaign style.

▼ SPACE EXPLORATION

10-4.1

The characters work as solar explorers for the military or for a private corporation. Their job is to find new minerals to mine or new resources to exploit on various moons, asteroids or outer planets. Unfortunately, they are not the only ones doing this kind of work, and may find their efforts hampered by their competitors or enemies. This campaign style provides a good blend of intrigue, action and roleplaying which may help introduce new Players to the game.

◇ PRELIMINARY WORK

The characters are likely to be part of the exploration group (ORG). This requires some scientific personnel (CAST) as well as some professional protection (CAST, MCHX). The group should travel aboard a ship (MCHX, MAP) accompanied with a small escort (MCHX). Using their various sensors and planetary exploration vehicles (MCHX, PROP), they race against their competitors (LEAD, CAST, EXTR) or fight them for supremacy. Traditionally, there should be some level of internal strife or sabotage (PLOT, CAST) that would impede their progress and make their victory more difficult.

▼ INTRIGUE/ESPIONAGE

10-4.2

The characters may be politicians, spies, private detectives or journalists trying to uncover some deep, dark secret, such as a conspiracy of some sort. They may work for some private or public organization, or simply follow an agenda all their own. Each truth hides another truth and three more lies. Over the course of the campaign, the investigators encounter increasingly tough opposition, until they meet the mastermind behind it all. This is a campaign style best suited for Players already very familiar with the intricacies of the world and for those who prefer pure, raw roleplaying to action-packed games.

◇ PRELIMINARY WORK

These campaigns often start with a "McGuffin" (PLOT), an event which only exists to trigger or justify the real action which follows. More often than not, the PCs work for a party or an agency (ORG) who has a vested interest in finding out the truth about an event (PLOT) or an individual (LEAD or CAST). The characters will uncover several mysteries (PLOT), only to find out that several more opponents (EXTR) and mysteries (PLOT) lie before them. Depending on their profession and who they work for, characters use various equipment (PROP) and have some form of meeting place (MAP). Most likely, the mastermind behind it all (LEAD) eventually notices their nosing around and sends his lieutenants (CAST) and their henchmen (EXTR) to harass them and their families (CAST).

▼ POLICE/SECURITY

10-4.3

The characters are members of the police force for a particular city, station or organization. They maintain order, investigate various crimes, handle anti-terrorist situations and intervene for crowd control during riots. Such a campaign has a more episodic flavor. After some time, a long-term plot can emerge, involving internal corruption or a local crime lord who is gathering too much power. The heroes decide that enough is enough, and go on a quest to fix the problem. A Police/Security campaign is best suited for Players who want a stronger emphasis on action than on roleplaying, although it provides numerous opportunities for non-combat situations.

◇ PRELIMINARY WORK

The Player Characters work for some local police or security force (ORG) operating from conveniently located headquarters (MAP). Their superior officer (LEAD) assigns them and their coworkers (CAST) various tasks and missions (PLOT) which they must fulfill adequately. They use their various gear (PROP) to apprehend some two-bit criminals (EXTR) until the story gets in full swing. They then start facing increasingly competent opposition (EXTR, CAST), slowly learning of a greater enemy (LEAD) behind it all who is about to hatch some kind of master plan (PLOT). As that enemy hears of the PCs' interference, he will try to discourage them from investigating him by kidnapping or killing their friends and families (EXTR, CAST). The story ends in a frantic chase and a final confrontation.

REBELLION/TERRORISM ▼

The world is a harsh place and the heroes are taking steps to change that. They are part of a resistance cell, itself often part of some larger group, and take the law into their own hands to break the status quo. They commit various acts of terrorism and violence, and may occasionally hurt the innocent in the name of a greater cause. As the rebels get closer to their goal, the opposing forces of law and order become increasingly determined. They may lay traps and send undercover mole agents to hinder the heroes, until one side or the other wins. This is a perfect campaign style for Players who just want to blow it all up after a hard day's work. It requires little thought and a lot of enthusiasm, and sets the Gamemaster in charge of pointing the storyline in the right direction. Such a campaign may appear black and white in the beginning, but shades of gray may appear over time.

10-4-4

PRELIMINARY WORK ◇

The heroes are part of a small cell (ORG) working for a greater group of rebels or terrorists (ORG). They usually operate from their hideout (MAP) and have their own equipment (PROP, MCHX). The leader of the group (PC or CAST) is in contact with a member of a higher cell (LEAD) who hands them down their targets and missions (PLOT). Those missions are usually part of a greater plan (PLOT) that may become clear over time, should the Players investigate it. Each mission may come with its complement of opponents (EXTR, CAST), who become gradually tougher and better equipped (PROP, MCHX). If the group leader is an NPC, the GM may opt to make him a traitor and eventually have the Player Characters find out and replace him. It is possible that through some twist of fate (PLOT), the PCs discover they are fighting the wrong fight and decide to strike back against those who misled them.

MERCENARIES/TROUBLESHOOTERS ▼

The characters are independent adventurers or specialists who perform special missions (sometimes seemingly impossible ones), either at the request of a client or to promote their own interests. They may have fixed headquarters or a mobile base of operations. Depending on the task at hand and the specialties required, certain individuals may participate or not. These groups may have recurring opponents or competitors to make their lives more difficult. Such a campaign has the marked advantage of blending action and careful planning, and does not require all the Players to attend each single gaming session. The episodic format also does not require a long-term campaign, which gives everyone more flexibility and simplifies scheduling problems.

10-4-5

PRELIMINARY WORK ◇

The Player Characters form a tightly knit group, with one of them being the leader. They either work as an independent operation for their client base (multiple ORG) or to further their own interests. They may have contacts (EXTR) who work for them and provide them with the information they need, but no member of their group is an NPC. They have their own equipment and vehicles (MCHX, PROP) and usually have their own headquarters (MAP). Their missions tend to be fairly difficult (PLOT) and require a great deal of planning and preparation — which is why they are paid so well to do what they do. Although the opposition can be constituted of almost anyone, their typical nemesis should be some rebel/terrorist group, an oppressive government or a corporate target (ORG).

ACE PILOTS ▼

Fighting for a military force has its rewards and none knows it better than the group of heroic and patriotic ace pilots from the space navy. This is a broad genre popularized by countless aircraft fighter movies. One or more recruit pilots face one challenge after the other, fighting a war they do not understand (or even approve of), and finally gain insight as to the politics and corruption which led to a conflict that could have been easily avoided. As they see more and more of their friends die in combat, the heroes decide to take action. A campaign such as this one is very heroic and can appeal to Players who wish to be under the spotlight. It provides excitement, glamour and dynamic storytelling.

10-4-6

PRELIMINARY WORK ◇

The characters may be part of a regular unit (ORG) or a special squadron (ORG) within the military (ORG). The Players and their teammates (CAST) are usually highly skilled pilots for some type of combat vehicle (MCHX). Operating from a military base (MAP) or a space ship (MAP, MCHX), they go through a series of simple missions (PLOT), fighting their counterparts (EXTR, CAST, MCHX) during some conflict. The story may be either very episodic or follow a specific arc. A typical variation on that theme is that of the unit stranded far behind enemy lines and trying to make it back home. They can be on their own or led by some authority figure (LEAD) who may be right or wrong (PLOT) about how best to return.

end of section 10.4 setting up a campaign

NAME:
PROFESSION:
RANK:
NATIONALITY:
UNIT:

AGE:
EYE COLOR:
HAIR COLOR:
HEIGHT:
WEIGHT:
HANDEDNESS:

AGI	APP	BLD	CRE	FIT
INF	KNO	PER	PSY	WIL

STR	HEA	STA	UD	AD

INJURY	SCORE	ARMOR	PENALTY	#
FLESH				
DEEP				
DEATH				

▼ SKILLS

[illegible]

NAME	ACC	DAM	RANGE	AMMO	ROF

PESSIMISM NOTES

[illegible]



VEHICLE SHEET

THREAT VALUE:
OFFENSIVE:
DEFENSIVE:
MISCELLANEOUS:
COST:
PRODUCTION TYPE:
INDV. LEMON DICE:

CREW:
ACTIONS:

SIZE:
DEFAULT SIZE:
STACKING SIZE:
ARMOR:
LIGHT DAMAGE:
HEAVY DAMAGE:
OVERKILL:

MOVEMENT MODE	COMBAT SPEED	TOP SPEED	MANUVER
WALKER:			
SPACE:			
DEPLOYMENT RANGE:			
REACTION MASS:			

SENSORS:
COMMUNICATIONS:
FIRE CONTROL:

[illegible][illegible]

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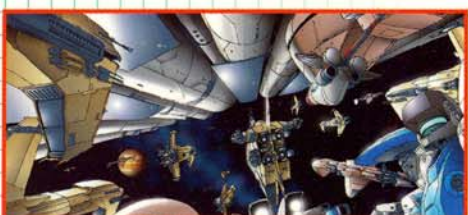
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With lightning speed, Chris spun her Pathfinder about and brought her particle cannon to bear on the incoming missiles. The verniers of her exo-armor swiveled obediently at the quick strokes of her deft fingers and she jerked forward against the restraints of her linear frame as the machine backed up at full throttle. Pressing control keys and twisting command sticks, she zigzagged backwards, shooting a suppressive hail of hyperspeed ions at the missiles. They detonated in a chain reaction, bright balls of light erupting on her screen. She instinctively averted her eyes, although the display automatically dimmed the intensity of the explosions.

She tapped on a few keys, and the stars and ships in the background stopped spinning. So did her machine. All around her, the battle raged on, blazing beams of energy streaking past the combatants against a backdrop of Jupiter. CEGA and JAF fighters were locked in a deadly dance, missiles spiraling around each other as they arced toward their mark. Mammoth ships were slowly coming about to face each other for more lightning strikes. Further behind Jovian lines, the point defense systems on Elysée station were hard pressed to counter wave after wave of high-explosive rockets.

"Seek CEGA," she whispered, and her combat screen came alive at once, targeting several enemy Wyverns and Wraiths. She discarded the smaller targets and selected one of the CEGA ships. Her Pathfinder thrust forward on an intercept vector, the gees pushing her into her seat.

A war was about to erupt and there was nowhere to run. She felt sick and she felt like a hero.

She had to make a difference...

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