CHALLENGE The Magazine of Science-Fiction Gaming

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Twitight: 2000™ Naval Rules

MegaTraveller Wet Navy

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SHADOWRUNTM Maiden Run

Craig Sheele



THE GAME FOR A NEW GENERATION...

You've probably already heard of it. *Cosmic Encounter* has been around for over a decade and has quite a following. Die-hard fans enjoy the fast-paced action, the ever-changing strategies and the constant shift of alliances. Now this award-winning game is back and better than ever.

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144 page trade paperback. Fully illustrated with Mark Schultz's art. Game rules by Frank Chadwick. GDW: 3000.\$18. Available in November 1990.

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Our model Haesslich poses here in artist Jeff Laubenstein's "Still Life with Dragon," which originally appeared on the cover of the *Shadowrun* anthology *Into the Shadows*.

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The Magazine of Science-Fiction Gaming

Twilight: 2000

Naval Rules for Twilight: 2000

Most navies include three main branches, plus a variety of minor services, each with its own mission and training. This variety creates a need for more character classes and skills than the standard few. *Mitch Berg*

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Details the M58A3 MICLIC, M1A1 Bangalore Torpedo, SADARM Mine and Soviet Field Rations. Kevin J. Bluck

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At last! Here are the much-anticipated nautical vessel design rules for MegaTraveller.

Terrence R. McInnes

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How do you tell whether someone is who she says she is without ID or proper records—especially when she's supposed to have been dead for over 3000 years?

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Parents told their children to stay away from the house on White Chapel Lane. Strange things went on there....

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Shadowrun

48 Maiden Run The dragon's voice is surprisingly deep and smooth, like a sub-bass croon. "Above all, this person must not be harmed, molested or violated in any way." A rumble creeps into his voice. "As for the penalties of failure, none of you have the life-experience to even begin to imagine." Craig Sheeley

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Information technology in 2300 AD. Andy Slack

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66 Armor Penetration and Damage

A common problem that plagues game combat systems is that weapon damage is equated with penetration. In order to realistically include the effects of armor, weapon damages have to be inflated. The system of dealing with armor penetration is refined and streamlined for use with all weapons in this Cyberpunk 2.0.2.0. variant. Craig Sheeley

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Flight of the Tyrannisaur If the TOG has truly left the CP naked, a single Tyrannisaur would be enough to flatten it with its main battery of four 150mm Gauss cannons. If the CP was more heavily guarded, it was better to lose one vehicle than a whole platoon or Century on a mass raid.

Dan Schmidt and Rich Ostorero







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NEW GAME!

ūΜ

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CHALLENCE Opinion

It's no secret that I think Star Wars: The RPG is one of the best roleplaying games ever designed. By that, I mean that Star Wars recreates the feel of the movies admirably, is extremely easy to play, and is incredibly easy to run. Recently, however, I ran across a review that begins like this: "Star Wars: The Roleplaying Game sucks. No, really, it stinks on wheels." I was shocked. I couldn't imagine how someone could hate the game so thoroughly.

Come to find out, the reviewer liked everything about the game—except its background. His complaint was that West End set the game between the first and second movies, placing players in a position in which they knew what was fated to occur with Darth Vader and the Emperor but were helpless to do anything about it. In other words, the PCs were relegated to "second-class" hero status; they could never become a Luke Skywalker.

Iread a similar complaint recently about Call of Cthulhu and **Dark Conspiracy** (two other RPGs very dear to me), saying the PCs can never really win, so what's the point? I guess the answer to this question depends on why you're playing the game in the first place.

As a Star Wars player, I know I can't defeat Darth Vader (Luke's going to), but I also know that there are whole planets out there whose fates I can change.

In Call of Cthulhu, I know that humans possess the Earth for a paltry few millenia, yet I can hold the dark off for awhile by defeating Nyarlathotep's latest plan.

And in **Dark Conspiracy**, I know there are way too many plots going on for me to ever figure them all out, but that doesn't stop me from destroying a local bloodkin vampire and his minions.

I don't need to kill Darth Vader and the Emperior, obliterate Cthulhu and his cronies, or seal all the Dark Ones forever from the Earth to feel like a hero. That would end the game—and what fun is that?

Lester W. Smith

ANOTHER VIEW ON LAW

I read every article (in **Challenge 50**), always with a view as to how it will help me referee and play **MegaTraveller**. "If You Go Into the Woods Today" and "Water Rights" looked like the average shoot-'em-up **Twilight** adventure. A lot of combat, not much talking. Which is probably why I don't play **Twilight**.

"No Time to Rest" was reasonable, if not terrific. More detailed deck plans for the Venturi would have helped. "Behind Blue Eyes" was great. Maybe not so much as an adventure, but the detail on Essex was fantastic. Maps, encountertables, descriptions of politics and economy—keep it up!

I was looking forward to "Law in the Imperium" but was a bit disappointed. Possibly part of that is that the author disagrees with some of my own longheld opinions, but I'm used to reality shifts when new rules come along; these disagreements run deep. For one thing, his list of crimes is humano-centric, even Amero-centric. Why is rape an extraditable offense, yet assault or committing grievous bodily harm isn't? I know the list is inclusive, not exclusive! Just seems that the only assault-type crime, rape, relates more to humans than any other species, and the emphasis on recognized crimes

seems to be those harmful to citizens of the Imperium.

Not mentioned were crimes that would have added an SF flavor to the article. For example, damaging a planetary ecology or crippling a planetary economy, waging a tradewar, or evadingtechnology restrictions. What about shipping regulations-various adventures have mentioned Imperial safety inspections, but no mention was made of evading/ ignoring these.

Anotherpoint is the size of the Ministry of Justice---- more than one field agent per 100,000 citizens? This is an incredible number of law enforcers! (Keep in mind support staff are not included in this number.)

Another note here: IRIS was originally described as a variant. Now it seems to have evolved into a mainstream agency, yet it it is not "official."

Court procedure seemed to have some rather large holes. Are the proceedings adversarial or inquisitorial? Who pays costs? Are sessions open or closed? Is precedent binding?

"Thymiamata: 1889" isn't a bad description. Might be useful someday.

The index will be very useful.

"Operation Back Door" and "The Ylii" were pretty good. A bit more attention to alternatives during **2300** AD adventures would be useful. The recent ones seem to rely on the players making the "right" decisions and leave it up to the referee to guide them "back on track." I prefer adventures that allow multiple ways of getting to the same point.

> Rob Prior Ontario, Canada





An When my grandchildren ask me what I saw of the Third World War, I'll be able

I saw of the Third World War, I'll be able to look them in the eye and say, "the bottom of the bunk above me and a CRT sonar screen." I'm talking about the war, understand. Not this BS that's been going on since '99 or so.

I was a sonar man with the USS Olympia, a nuclear attack sub based out

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FOR TWILIGHT: 2000

of Holy Loch, Scotland. We stayed deep, ran quiet, and only made our presence known when we popped whatever Warsaw Pact ships we could find.

The Oly never got sunk. It was back in '97, and we'd just come off a rough patrol in the Barents Sea, and we'd put into Holy Loch for a refit. I drew three days' liberty and took it in the Highlands. My first night out of Glasgow, the Loch got nuked. No more Olympia. Typical. We cleaned Russki clock when we were at sea, and some pencilnecked-geek commie missile crewman wastes the boat in port.

Things sort of went to heck in Scotland after that. Finally, I hooked up with this crew that was taking an old Dutch harbor lugger, it's called a "skoot," across the Atlantic to the States.

We was all navy, but we were still a real mixed bag. Skipper used to be the execon a minesweeper. Chief of the boat was a former flight deck chief off the carrier Roosevelt. We had three deckhands from some frigate, a chopper pilot, and a couple motor mechs from a landing ship.



Me and my friend Higgins were the only guys from subs. "Bubbleheads," the skimmers called us. Higgins is a "nuke"-he tended the reactor on the Grant.

The skimmers and the Seabees were dogging us pretty bad-just 'cuz they bob around on the surface where any idiot can get shot at, they think they can grow hair on their chests. Anyway, me and Higgins fixed up the boat's old nav radar set, which has saved our cans a few times. Load that in a five-inch gun and shoot it, surface pukes. You can thank me later."



ost navies include three main branches-surface, aviation and submarineeach with a different mis-

sion and its own brand of training. Minor services within the navy-ranging from Seabees to the coast guard to naval intelligence-also have different purposes and types of training. This variety creates a need for more character classes and skills than the standard ones listed in 2nd edition Twilight: 2000.

The listings below cover the US Navy. Other navies are modified as listed in the Other Navies section at the end of the article.

New Skills

Guided Weapon: The ability to use weapons that fire at an indirectly obtained firing solution (such as torpedoes and surface- or subsurface-to-surface missiles). Firing a Mark 48 torpedo or a Harpoon missile from a submarine at a target nobody can see, only hear, has very little in common with the Heavy Weapons skill (firing a tank gun or firing a howitzer at a target called in by an observer). However, if you prefer to stick to standard Twilight skills, replace Guided Weaponskill with Heavy Weapons.

Reactor Operator: The ability to operate a nuclear reactor. No skill in Twilight really prepares a character to operate a nuclear reactor. This operation is too complex to simply cascade under Electronics. However, if you prefer to stick to standard Twilight skills, replace Reactor Operator skill with Electronics.

Basic Training

Entry: No prerequisites.

Basic Training: The character receives the following skills as part of his naval basic training:

Small Arms: 1 Small Boat: 1 Swimming: 1

Melee Combat: 1

Rank

The character's rating is listed in parentheses after most of the first term enlisted skills. The rating is an integral part of a naval character's rank (in the navy, the character's "rate").

For example, a submarine service character who chose Computer 2 as a first term skill would see (Sonarman) listed in parentheses. When the character is promoted to NCO rank (petty officer in naval parlance) as per the Twilight rules, his rank becomes sonarman 3rd class. If the character continued to the highest rank allowed. he'd be a senior chief sonarman.

SURFACE BRANCH

We put out from this little port on the west side of Scotland, with fairly smooth sailing for the first couple of days. I was starting to feel sort of confident in my ability to handle being forcibly demoted to surface puke.

Then it got nasty.

We hit this really rough squall line. The boat was bobbing around like a rubber duck in a hyperactive threeyear-old's bubble bath. Me and Higgins, we was so sick, we just sort of lurched



Lt. Commander

Commander

Captain

Third Class (Rating) Second Class (Rating) First Class (Rating) Chief (Rating) Senior Chief (Rating)

around the deck like the hunchbacks of Notre Dame, trying to do our jobs between woofing.

The skipper, deckhands and engineers had all been on surface ships. They just laughed at us and started rattling off all these tall tales about how they'd all done such-and-such in much worse weather than this. and had to keep station and accomplish their missions at the same time.

Surface warfare characters come from the variety of cruisers, destroyers, frigates, minesweepers, patrol boats, landing craft and support ships that make up most of any nation's navy. In the US Navy, their primary mission is to protect the aircraft carriers. In the Soviet Navy, the idea is to sink American ships. Other navies have other missions.

Surface Warfare—Enlisted Entry: No restrictions.

First Term Skills: The character receives his choice of any one of the following skills or groups of skills in the first term:

Mechanic: 2 (Motor Mechanic) Heavy Weapons: 2 (Gunner's Mate) Electronics: 2 (Electrician's Mate or Electronics Tech)

Warhead: 2 (Ordnanceman or Torpedoman)

Machinist: 2 (Machinist)

Guided Weapon: 2 (Fire Control Technician)

Medical: 2 (Hospital Corpsman)

Computer: 2 (Sonarman)

Computer: 1 and Scrounging: 1 (Yeoman)

Subsequent Term Skills: A total of four levels from any one or a combination of the following:

Small Arms Melee Combat Swimming Small Boat Mechanic Electronics Heavy Weapons Medical Computer Language Warhead Machinist

Contacts: One per term. Roll 1D10 for 8+ for the contact to be foreign.

Special: The titles in parentheses are the character's "rating." See the section entitled Rank.

Enlisted

Surface Warfare—Officer

Entry: OCS, military academy or commission.

First Term Skills: The character receives the following skills in the first term:

- Navigation: 2
- Leadership: 1
- Heavy Weapons: 1

Subsequent Term Skills: A total of three levels from any one or a combination of the following:

Heavy Weapons Small Arms Small Boat Scuba Swimming Navigation Leadership Persuasion Instruction

Contacts: Two perterm, military. Roll 1D10 for 7+ for the contact to be foreign.

AVIATION BRANCH

One of my favorite things about pulling into port used to be seeing the aircraft carriers.

They were the most impressive sight you could imagine.

Problem was, the guys on 'em knew it and tried not to let you forget it. Hard to blame 'em, but hey, a carrier is just a larger surface ship, and that just makes it a bigger target for a sub. The flyboys didn't like you saying that. Truth hurts, I guess.

I don't know if there're even any left anymore.

Naval aviation includes maintenance, air traffic control and dozens of support specialties that keep the carrier and ground-based aircraft flying.

Naval pilots fly a variety of aircraft frommany types of bases, ranging from the American F14 pilot on one of our supercarriers to the Soviet Helix antisubmarine helicopter pilot based on a frigate, to the Dutch P-3 Orion patrol plane pilot flying from a land base.

Naval Aviation—Enlisted Entry: No restrictions.

First Term Skills: The character receives any one of the following skills or groups of skills during the first term:

Electronics: 2 (Aviation Electronics Tech)

Aircraft Mechanic: 2 (Aviation Mechanic)

Medical: 1 and Swimming: 1 (SAR Specialist)

Computer: 1 and Electronics: 1 (Air Traffic Controller)

Machinist: 2 (Aviation Machinist) Meteorology: 2 (Weather Specialist) Warhead: 2 (Aviation Ordnanceman) Second and Subsequent Term

Skills: A total of four levels from any

one or a combination of the following: Swimming Medical Aircraft Mechanic Meteorology Observation Electronics Small Arms Warhead Scrounging Pilot

Contact: One per term, military. Roll 1D10 for 8+ for the contact to be foreign.

Special: The titles in parentheses are the character's "rating." See the section entitled Rank.

Naval Aviation—Officer

Entry: Agility 8+, and OCS, military academy or commission.

First Term Skills: The character receives the following skills in the first term:

Pilot: 6 Parachute: 1 Navigation: 1 Subsequent Term Skills: A total of three levels from any one or a combination of the following:

Pilot Small Arms AircraftMechanic Navigation Leadership Persuasion Parachute Observation Instruction Foraging **Contacts:** Three per term, military or specialist (pilot). Roll1D10

for7+forthe contact

to be foreign.

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SUBMARINE BRANCH

Submarine Service—Enlisted

Entry: Intelligence+Education: 11+. First Term Skills: The character receives one of the following skills at a level of two and one of the following at a level of one in the first term:

Mechanic (Motor Mechanic) Electronics (Electronics Technician) Navigation (Quartermaster) Warhead (Torpedoman or Missile

Tech)

Computer (Sonarman)

Guided Weapon (Fire Control Technician)

Medical (Hospital Corpsman)

Second and Subsequent Term Skills: A total of four levels from any one or a combination of the following:

Mechanic Electronics Navigation Warhead



Computer Medical Small Boat Swimming Scuba Small Arms Small Boat Leadership

Contact: One perterm, military. Roll 1D10 for 8+ for the contact to be foreign.

Special: The titles in parentheses are the character's "rating." See the section entitled Rank. (Use the rating in which the character took the two-level first term skill.)

Submarine Service— Officer

Entry: Intelligence: 6+, OCS, military academy, or commission.

First Term Skills: The character receives the following during the first term:

Navigation

Leadership

- **Guided Weapons**
- Computer

Second and Subsequent Skill Terms: A total of three levels from any one or a combination of the following:

Leadership Persuasion Small Arms Reactor Operator Navigation Swimming Guided Weapon Computer Instruction

Contact: Three per term, military. Roll 1D10 for 7+ for the contact to be foreign.

SEABEES (CONSTRUCTION BATTALIONS)

Seabees build things fast.

Their claim to fame during World War II was moving into an area just taken by the marines and making a usable base out of it in an unbelievably short period of time.

Seabees—Enlisted

Entry: No prerequisites.

First Term Skills: The character receives the following skills in the first term:

Tracked Vehicle: 1 (Bulldozer) Small Arms: 1 Mechanic: 1 Second and Subsequent Terms: A

total of three from any one or combination of the following: Mechanic Machinist Tracked Vehicle Metallurgy Small Boat Civil Engineer Swimming Wheeled Vehicle Small Arms

Contacts: One perterm, military. Roll 1D10 for 8+ for the contact to be foreign.

Special: The character's NCO rating can be constructionman, builder or machinist.

Seabees-Officers

Entry: OCS, military academy or commission.

First Term Skills: The character receives the following skills in the first term:

Civil Engineering: 2 Leadership: 1

Second and Subsequent Term Skills: A total of three in any one or combination of the following: Civil Engineering

Leadership Persuasion Small Boat Scuba Swimming Tracked Vehicle Wheeled Vehicle Small Arms Navigation Metallurgy **Contacts:** Two per term, military or

specialist (construction). Roll 1D10 for 8+ for the contact to be foreign.

COAST GUARD

To generate a US Coast Guard character, consult the Basic Training, Surface Branch and Aviation Branch sections above. There are no submarines, Seabees, or nuclear reactors in the coast guard.

Surface: Add another level of Small Boat Handling to the first term skills for both officers and enlisted characters. Delete the Warhead skill, with its associated ratings.

Aviation: Add Small Boat Handling to the officer's first term skills. Delete the Warhead skill. Aviation officers start with a rating of Pilot: 4 rather than 6.

NAVAL INTELLIGENCE

Use the military intelligence tables from Twilight II.

NUCLEAR POWER

Higgins is a reactor operator—a "nuke," we call them. If there's one thing they pound into your head on nuclear sub, it's reactor safety. Nuke school is hard—you gotta be sharp to get in and a lot sharper to stay in.

Navy nuclear reactor operators spend the better part of several years training to operate nuclear reactors. They are found on nuclear carriers, cruisers, and missile and attack subs. This specialty is found only in the United States, British, French, Soviet, and Chinese navies.

Nuclear Reactor Operator— Enlisted and Officer

Entry: Intelligence+Education: 13+ (OCS, military academy or commission—officers only).

First Term Skills: The character receives the following skills during the first term:

Reactor Operator: 2

- Electronics: 1
- Computer: 1

Second and Subsequent Skill Terms: A total of four of any one or a combination of the following:

- Reactor Operator
- Electronics
- Computer
- Swimming
- Mechanical
- Small Arms
- Language
- Scrounging

Contacts: Two per term, military. Roll 1D10 for 8+ for the contact to be foreign.

Special: The NCO rating is Reactor Operator (see the section entitled Rank).

OTHER NAVIES

Non-US navies use the US Navy listings above, modified as follows.

Albania

Basic Training: Same as Soviet Navy. **Careers:** Use surface careers only. No nuclear reactor operators.

Belgium

Basic Training: Same as US Navy. Careers: All naval careers are the same, with the following exceptions: No submarine service or Seabees. No nuclear reactor operators.

Canada

Basic Training: Same as US. Careers: All naval careers are the same, with the following exceptions: No Seabees. No nuclear reactor operators.

Czechoslovakia

Basic Training: Same as Soviet Navy.

Careers: Use the coast guard section, above. The Czech Navy is composed of river patrol craft. No coast guard aviation.

Denmark

Basic Training: Same as US Navy. Careers: All naval careers are the same with the following exceptions: No Seabees. No nuclear reactor operators.

Finland

Basic Training: Same as Soviet Navy.

Careers: All naval careers are the same, with the following exceptions: No submarine service. No Seabees. No naval aviation. No nuclear reactor operators.

France

Basic Training: Same as US Navy. Careers: All naval careers are the same with the following exceptions: No Seabees.

Germany

Basic Training: Same as US Navy. Careers: All naval careers are the same, with the following exceptions:No nuclear reactor operators. No Seabees.

Greece

Basic Training: Same as US Navy. Careers: All naval careers are the same with the following exceptions: No nuclear reactor operators. No Seabees.

Hungary

Basic Training: Same as Soviet Navy.

Careers: As in Czech Navy, above. Hungary's fleet is also a riverine force, composed of small patrol craft.

Italy

Basic Training: Same as US Navy. Careers: All naval careers are the same, with the following exceptions: No nuclear reactor operators. Naval aviators (officers) use the same career description as air force pilots.

Yugoslavia

Basic Training: Same as Soviet Navy. Careers: Use coast guard surface careers only (see Coast Guard, above).

Lithuania

Basic Training: Same as Soviet Navy. **Careers:** Use coast guard surface careers only (see Coast Guard, above).

The Netherlands

Basic Training: Same as US Navy. Careers: All naval careers are the same, with the following exceptions: No nuclear reactor operators. No Seabees.

Norway

Basic Training: Same as US Navy. Careers: All naval careers are the same, with the following exceptions: No nuclear reactor operators. No Seabees. No naval aviation.

Poland

Basic Training: Same as Soviet Navy. Careers: All naval careers are the same, with the following exceptions: No nuclear reactor operators. No Seabees.

Submarine Service, Enlisted: For first term skills, pick only one skill, at a level of two. (Don't pick the backup skill atone.) Prerequisite for enlistment is Intelligence+Education: 10+.

Romania

Basic Training: Same as Soviet Navy.

Careers: All naval careers are the same, with the following exceptions: No nuclear reactor operators. No Seabees. No naval aviation.

Submarine Service, Enlisted: For first term skills, pick only one skill, at a level of two. (Don't pick the backup skill at



one.) Prerequisite for enlistment is Intelligence+Education: 10+.

Soviet Union

Basic Training: Soviet Navy basic training covers only the following:

Swimming: 1

Small Boat Handling: 1

Careers: All naval careers are the same, with the following exceptions: naval aviation pilots use the air force officer career description in Twilight.

Submarine Service, Enlisted: For first term skills, pick only one skill, at a level of two. (Don't pick the backup skill at one.) Prerequisite for enlistment is Intelligence+Education: 10+.

United Kingdom

Basic Training: Same as US Navy. Careers: All naval careers are the same, with the following exceptions: No Seabees. Naval aviation pilots take Pilot: 5 rather than Pilot: 6. Ω



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New Equipment



MICLIC stands for *mine clearing line charge*. Mounted on a one-ton trailer, the system consists of 1000 individual one-kilogram blocks of C4 explosive linked by a cable, forming a 100-meter-long chain of explosive.

The explosives are carried across a minefield by an integral rocket. Once the line charge is extended through the minefield, it is detonated. The explosion sets off all nearby mines sympathetically, leaving a 8×100-meter cleared path through the minefield. The explosives, of course, may be cannibalized.

Twilight Price: \$10,000 (R/R) Merc Price: \$7500 (—/R) Weight: 1.5 tons







SADARM Mine

SADARM stands for search and destroy armor.

This FASCAM mine is a nasty little surprise for overequipped players. When deployed, it senses vehicles when they come within 50 meters and launches a submunition into the air. The munition wobbles, searching for the vehicle, then fires an explosively formed projectile at the thin top armor.

There is an 80% chance of hitting the overhead aspect only.

Available as 155mm round, using the RAAM line of the FASCAM Table on page 258 of **Twilight: 2000**.

Туре	Damage	Pen
SADARM	C:3, B:4	18C

Wt: 50 kg per round Twilight Price: \$7500 (R/---) Merc Price: \$3500 (---/R)

Soviet Field Rations

The Soviet Army uses a packaged field ration when the tactical or logistical situation does not allow bulk food to be prepared.

A standard ration pack (intended to last one day) is contained in a 175×145×135mm cardboard box. The package includes two 300-gram cans of meat (various types, none being particularly appetizing), a lump of black bread (prepared for long-term storage, meaning it must be soaked in tea or water before it can be eaten), two grams of tea, and nine small packs of sugar.

There is no seasoning, not even any salt, and none of the accessories (utensils, matches, toilet paper, etc.) found in US ration packs.

From Jane's Soviet Intel Review

Wt: 1 kg Twilight Price: \$6 (S/S) Merc Price: \$4 (C/V)



CHALLENGE Conventions

NOVACON, October 4-6 at the Memorial Student Center, Texas A & M University, College Station, TX. For more information, you can contact MSC Nova, Box J1, College Station, TX 77844-9081.

PEW KAHN UI, October 12-13 at the New Villa Inn in New Cumberland, PA. For additional details, you can write to M. Foner's Games Only Emporium, 200 Third St., New Cumberland, PA 17070.

BORDERCON, October 12-13 at Salem Econolodge (NH), Interstate 93, Exit 2 (halfway between Boston, MA and Concord, NH). For more information, you can write to Denice Keller, c/o Econolodge, 1 Keewayden Dr., Salem, NH 03079.

ARTYCON III, October 12-14 at the Caisson Recreation Center, Fort Sill, OK.

MILEHICON 23, October 18-20 in Denver metro, Colorado. For more in-



formation, you can write to MileHiCon 23, PO Box 27074, Lakewood, CO 80227.

BORDERCON '91, October 18-20 at the Rodeway Inn in Kansas City, Missouri, sponsored by the Role-Players Guild of Kansas City and the Heart of America Historical Miniatures Gaming Society. For information, write to BorderCon '91, PO Box 7457, Kansas City, MO 64116-0517.

STAR CON '91, October 26-27 at the Americano's Center, 1585 Appleton Road, Menasha, Wisconsin. Write to Star Con, 1112 N. Lake St., Neenah, WI 54956.

NOVAG VI, October 26-27 at the Elks Lodge in Sterling, VA (Route 50 and 495). For more information, write to NOVAG VI, c/o Wargamers Hobby, 101 E. Holly Ave., Suite 5, Sterling, VA 22170.

GAELCON'91, October 26-28 at the Royal Hospital Kilmainham, Kilmainham, Dublin

8. Write to the Irish GamesAssociation, c/o 49 Russell Ave., Clonliffe Road, Drumcondra, Dublin 3, IRELAND.

GAME FAIR XIV, November 8-10 at the ITOO Hall, 4909 W. Farmington Road, Peoria, IL, sponsored by the Illinois Central College Game Club. For information, write to Game Fair XIV, PO Box 308, Groveland, IL 61535.

LAGACON-12, November 9 at Kasper's Ark (five miles north of Lebanon, PA on Route 72). For more information, write to Lebanon Area Gamers, 806 Cumberland St., Lebanon, PA 17042.

PROVOCATION '91, November 10-11 at John F. Kennedy School, 3030 Villeray, Montreal, Quebec, CANADA, organized by the Quebec Gamers' Association (AQJS).For additional details, write to Provocation, C.P. 63, succ. M, Montreal, Quebec, CANADA H1V 3L6.

COCOA CON '91, December 27-29 at the Holiday Inn in Grantville, PA, sponsored by Pastimes Hobby and the Fantasy Fortress Gaming Club. For information, write to Cocoa Con '91, 210 South Grant St., Palmyra, PA 17078.

WARCON '92, February 7-9, 1992, in the Memorial Student Center, Texas A&M University, College Station, TX. For more information, write to MSC Nova, Box J1, College Station, TX 78440-9081.

ORCCON 15, February 14-17, 1992, at the Los Angeles Airport Hyatt Hotel. For more information, you can contact Strategicon, PO Box 8399, Long Beach, CA 90808.

WORLD HORROR CONVENTION, March 5-8, 1992, at the Holiday Inn Crowne Plaza, Nashville, TN. Contact the World Horror Convention 1992, PO Box 22817, Nashville, TN 37202.

GAMEX '92, May 22-25, 1992, at the Los Angeles Airport Hyatt Hotel. For more information, you can contact Strategicon, POBox 8399, Long Beach, CA 90808.

GATEWAY 12, September 4-7, 1992, at the Los Angeles Airport Hyatt Hotel. For more information, you can contact Strategicon, PO Box 8399, Long Beach, CA 90808.

Announcements should be sent in a minimum of four months before a convention takes place. **Challenge** is not responsible for errors in convention announcements. Write to **Challenge** Conventions, PO Box 1646, Bloomington, IL 61702-1646 USA.





The passage to the inner system had not been easy.

Two of Dulinor's cruiser squadrons were driven off around the gas giant, but not before Lucan's forces had lost a battle cruiser, two light cruisers and a fleet carrier. Then the local SDBs took their toll, clawing into destroyers and escorts on the fleet's flanks, and claiming a strike cruiser as well. Finally, the pesky guardian satellites and orbital fighters were cleared away by the remaining fleet fighters before a safe orbit could be established—but not before these too claimed casualties.

Lucan's fleet had orbited Avery for three days, hanging in synchronous orbit over the opposite side of the world from Avery's main continent. While the troop carriers waited, fighters and scouts, supported by destroyers in close orbit, dipped into the atmosphere to suppress ground-based missile and laser sites.

Finally it was safe enough to bring the remaining warships and the troop carriers they shepherded into close orbit. The fleet was on the night side 200 kilometers up with only the dawn line and the Argent Ocean separating Lucan's ships and troops from landing on Avery's main continent.

Fleet Admiral Wilmuth smiled to himself as he watched the system's single star rise over Avery's horizon. Jump capsules and assault shuttles were poised with their Imperial Marines to make a meteoric descent onto Avery's population center and starport. He'd soon be the first of Lucan's admirals to seize a world in Dulinor's home sector. It would be the first world to fall in the final campaign to restore the supremacy of the Iridium Throne in the Ilelish sector.

Far below the Argent Ocean, four dark shapes cruised silently westward 50 kilometers apart. Their fusion power plants were cold while silent fuel cell-powered electric drives generated no neutrinos to be detected by orbiting sensors. Nonmagnetic hulls assured against detection by magnetic anomaly detectors. The subs had sailed more than a week earlier from bases built into the undersea caves that pock the west coast of Avery's major continent, gliding through an undersea tunnel to emerge undetected in the Argent Ocean almost as soon as Lucan's fleet began heading in-system.

The only evidence of their presence was the sensor buoys trailing on the surface at the ends of kilometerslong cables. Their radar-absorbent coating would make them resemble floating driftwood on any radar screen. The buoys carried passive electro-optical sensors and neutrino sensors. The sensors were data-linked through their tow cables to their mother ships beneath the waves.

Wilmuth's fleet burst into daylight as it crossed the dawn line. The sensor buoys noted the fleet's neutrino emissions as it rose above their horizon and trained the electro-optics on Lucan's ships. Target information passed through the data links to fire-control computers which in turn updated guidance packages in dozens of missiles aboard the submarines. Fusion power plants ignited, and full power flowed to all the subs' systems. Laser floats mounting 250-megawatt lasers broke free of the subs' hulls and rose to the surface, locking on to the fleet as they broke water.

Green solution lights appeared on fire-control panels, and fingers reached toward touch pads to begin the last defense of Avery.

Surprised cries of "Incoming fire!" in Wilmuth's commdot jerked him out of his dreams of glory. He turned to see missiles rising from the sea on his view screen, just as concentrated laser fire began boiling away the armor of his flagship.

The missiles snarled skyward to blossom with fusion fire among Wilmuth's ships. Radiation sleeted through Wilmuth's body as his last order sent the surviving ships of the invading force back toward far orbit with their marines still aboard. He obviously had overlooked something.





he nautical force command is often regarded as the junior force in the Imperial (and other) army force structure—something of an anachronism that's been eclipsed by hard-charging ground force

units and the glamorous heroes of COACC. However, the modern wet navy has a role in the defense of a world and sometimes provides the final insurance against an invading force.

Using wet navy ship design and combat rules, players no longer need ignore the major bodies of water existing on most worlds. **MegaTraveller** campaigns can finally go to sea.

Characters can sail vessels they design or travel aboard ships designed by the referee, ranging from TL1 wooden galleys to TL15 fusion-powered deep-diving submarines.

"Wet Navy" opens with water craft design rules covering vessels ranging from primitive canoes and galleys to gravitic submarines. Later installments include detailed information on the maritime environment, naval weapons and combat, and a detailed naval character generation system.

LAW OF BUOYANCY

All vessels, from hollow logs to fusion-powered submersibles, observe a basic natural law that affects every aspect of their design—the law of buoyancy. If an object weighs less than the weight of fluid it displaces, it will float in the fluid. If it weighs more than the displaced fluid, the object will sink. This law applies to any fluid—be it a gas or a liquid. Buoyancy enables steel ships to float on oceans and balloons filled with light gases to float in atmospheres.

With buoyancy as a starting point, virtually any wet vessel may be designed using one of three basic design sequences. These include:

 Nonpowered Vessels: Muscle and wind-driven craft ranging from simple rafts propelled by poling or rowing to large sail-powered merchant vessels and warships.

• Powered Vessels: Surface craft beginning with TL4 steam-powered, paddle-driven riverboats and steam/sail vessels to TL15 grav-powered hydrofoils and triphibious craft.

• Submersibles: Powered undersea craft available beginning at TL5 and becoming the only practical wet navy combat vessels at higher tech levels. Submersible designs are essentially variants of powered surface craft with highstrength hulls and ballast tanks added, and deck houses and hull fittings deleted to enable them to submerge. Submersibles can range from small deep-diving exploration vessels to massive bulk carriers that cruise just beneath the surface to escape severe weather effects and the friction of the atmosphere/ocean interface.

Ship designs are not confined to water oceans. With adaptations, ships may be designed to sail across or within oceans of ammonia or methane.

UNITS IN SHIP DESIGN

UCP Displacement Tons: This is the standard Mega-Traveller hull volume measurement. One UCP displacement ton is equal to 13.5 kiloliters of volume (the volume occupied by one ton of hydrogen). In wet navy ship design, the hull's resistance through the water and the vessel's resulting power requirement to reach a desired speed are calculated using UCP displacement tons. This unit is also used to calculate the speed that can be reached with a given amount of power.

Metric Tons: One metric ton of displacement is equal to one kiloliter of volume (the volume occupied by one ton of water). It is also equal to one ton of mass. The vessel's weight, the weight of the water it displaces, and the available free buoyancy is calculated in metric tons.

Kiloliter: The kiloliter is the standard unit of volume. One kiloliter equals one cubic meter in volume. One kiloliter of water weighs one metric ton; 13.5 kiloliters of hydrogen weigh one metric ton and equal one UCP displacement ton in volume.

Kilowatts: One kilowatt equals 1000 watts. This is the standard unit of power for small water craft.

Megawatts: One megawatt equals 1000 kilowatts. This is the standard unit of power for large water craft.

Kilometers Per Hour: This is the standard unit of speed in MegaTraveller. Two kilometers per hour are roughly equal to the ancient Terran "knot" unit of speed.

DISPLACEMENT

Displacement is the weight of the fluid moved aside by a vessel's hull when it is floating or submerged in the fluid. If the displacement of the vessel is greater than the weight of the vessel, the vessel floats. If the displacement is less than the weight of the vessel, the vessel sinks. If both weight and displacement are equal, the vessel is in a state of neutral buoyancy and remains at a fixed depth, neither surfacing nor sinking.

Submersibles are designed so that their displacement is only slightly greater than their weight, with the difference accounted for by air or gas-filled ballast tanks. When these tanks are filled with the surrounding fluid, the submersible's total weight becomes slightly greater than the surrounding fluid, and the submersible sinks at a controlled rate. To level off and remain at a set depth, the ballast tanks are partially emptied until the vessel's displacement and weight are equal.

Displacement is the starting point for all ship, boat or submersible designs. It is a fraction of the total hull volume expressed in UCP displacement tons converted to the weight of the fluid it displaces expressed in metric tons. The percentage of total hull volume varies with hull type. A submerged submarine, as an example, displaces 100% of its hull volume. On the other hand, a planing hull displaces only 30% of its total volume.

Displacement is calculated at one standard gravity, as is the weight of the craft being designed. If the vessel is built on a world with a greater or lesser gravity, the gravity affects the weight of the fluid and the weight of the vessel equally. Therefore, the ratio of displacement to weight is independent of local gravity. But the absolute weights of the displaced fluid and the vessel are not. A vessel that weighs more than the fluid it displaces on a 0.7G world will sink just as surely as one on a 1.2G planet.

Displacement is listed in tons for vessels of one ton or greater and in kilograms for smaller vessels.

To calculate the displacement vs. the weight of standard hulls listed on the Basic Hull Design Table in the **Referee's Handbook**:

Select a hull size from the UCP column in the **MegaTraveller** basic hull design section of the Small Craft Hull Table on page 62 of the **Referee's Manual**, and the material from which it is to be built from the Hull Materials Table below.

Decide on the thickness of the hull in centimeters. A thicker hull will have a greater armor value but will weigh more. The minimum permitted thickness, regardless of the hull material selected, is 0.25 centimeters.

Calculate the weight of the hull by looking up its weight from the weight column entry on the same row as the

hull size in the Small Craft Hull Table. Then multiply this figure with the appropriate weight modifier from the Hull Materials Table. Finally, multiply this number by the hull's actual thickness in centimeters. The resulting number is the hull's true weight in metric tons. The equation is:

(Basic hull weight)×(weight modifier)× (thickness in centimeters)=true weight.

Determine the hull's armor value by multiplying the hull material's hardness modifier by the hull's thickness in centimeters. The resulting number is the hull's equivalent armor modifier (see the Armor Table on page 63 of the **MegaTraveller** Basic Hull Design section about how to use the armor modifier). The full equation is:

(Material hardness modifier)× (thickness in centimeters)=equivalent armor modifier.

The equivalent armor modifier defines the resistance of the hull in terms of its equivalent value in centimeters of hard steel. The armor factor corresponding to the armor modifier is the hull's armor value.

A water vessel's equivalent armor modifier may never be less than 0.15. Any value of less than 0.25 has an effective armor value of zero.

5 Note the hull's volume in kiloliters from the **Referee's Manual** Hull Table. This is needed to calculate damage points.

O Calculate hull damage points. Divide the volume of the hull by 15 to determine inoperative hull damage; divide the volume by 6 to determine the destroyed damage.

When the hull is inoperative, the vessel is taking water and may sink unless damage control measures are applied. When the hull is destroyed, the vessel sinks. Determine hull type by selecting from the Hull Type Table below.



8 Multiply

the hull's UCP displacement tonnage by the "% of Hull Displacing Fluid" figure for the selected hull type. This yields the tonnage of the hull that displaces fluid and the tonnage of fluid displaced.

9 Multiply the UCP tonnage of the displaced fluid by 13.5, then multiply the result by the appropriate modifier from

	Hull	Type	
Hull Type	Resistance	% of Hull Displacing Fluid	Price Modifier
Deep displacement	0.9	90%	0.75
Parallel displacement	0.7	75%	0.85
Curved displacement	0.5	50%	1.00
Planing	0.3	30%	1.10
Hydrofoil (at speed)	0.1	10%	1.50
Air cushion vehicle	0.05	5%	1.0*
Submerged submersibl	e 0.9	100%	1.50
Surfaced submersible	0.5	80%	1.50
Submerged submarine	0.3	100%	2.00
Surfaced submarine	1.0	90%	2.00

*For basic hull only. Thrust-based transmission must be added according to the design sequence in the MegaTraveller Referee's Manual.

	Hull Material	Hardness	Weight	Price
TL	(and UCP code)	Modifier	Modifier	Modifier
0*	Cured hides (Z)	0.02	0.15	0.5 †
0*	Bone/light wood (Y)	0.005	0.05	0.15†
1**	Wood (W)	0.025	0.1	0.2 †
4	Iron (I)	1.0	1.35	1.1
5	Soft steel (A)	1.0	1.25	1.0
6	Hard steel (B)	1.0	1.0	1.0
7	Composite laminate (C)	1.0	0.44	1.8
7	Aluminum (Ca)	0.5	0.4	1.2
7	Fiberglass (Cf)	0.125	0.05	1.2
8	Titanium alloy (Ct)	1.0	0.4	1.4
9	Lightweight compos. lam. (D) 1.0	0.35	1.6
10	Crystalliron (E)	1.0	0.31	1.1
12	Superdense (F)	1.0	0.26	1.0
4	Bonded superdense (G)	1.0	0.16	1.0

**Hulls constructed of this material cannot maintain pressure integrity in vacuum.

*Hulls constructed of this material cannot maintain pressure integrity in undersea or vacuum environments.

†If purchased commercially. Material may be obtained for free from local resources. However, if the material is obtained from local resources, the ship's total construction time is *doubled*.

the Fluid Density Table below. This yields the weight of the fluid the vessel displaces. If the displaced fluid's weight is greater than the vessel's weight, the vessel floats; if it is less, the vessel sinks.

Fluid Density					
Fluid	Density Multiplier				
Fresh water	1.0				
Sea water	1.0				
Ammonia	0.75				
Methane	0.7				

The result is the weight of the fluid displaced by the hull.

10. Compare the weight of the hull with the weight of the displaced fluid. If the fluid weighs more, the vessel will float; if the vessel weighs more, it will sink. In that case, build a larger hull or choose a lighter hull material.

LENGTH, BEAM AND DEPTH

It's necessary to determine the length, beam (width) and depth in meters (from the keel at the bottom of the hull to the main deck at the top) for the vessel you are designing. Multiplying these figures together will give you your vessel's volume in cubic meters or kiloliters.

This figure should equal the kiloliter volume figure for the size of hull you have chosen. If it does not, adjust one or more of these measurements so the result equals the UCP volume figure.

As an example, a 100 kiloliter hull may be 25 meters long, four meters wide and one meter deep. Or it might be 10 meters long, two meters wide and five meters deep.



FREE BUOYANCY

Free buoyancy is the figure expressed in tons or kilograms calculated by subtracting the total weight of a vessel from the weight of the fluid it displaces. This is the weight of all additional elements you may add to the design until the vessel sinks. Calculate free buoyancy at each step during the design process when the weight of new elements such as weapons, cargo space, superstructure, fuel tankage and crew accommodations are added to the design.

WEIGHT

Weight is the total weight of the vessel listed in tons for large craft and kilograms for small craft of less than one ton. This figure includes the weight of the hull, superstructure (if any), propulsion machinery, fuel, cargo, weapons, crew, passengers and, in the case of wind-driven craft, sails and masts. Hull weight varies widely and depends on the size of the vessel and the weight per ton of displacement of the material from which the hull is made.

HULL FORM

After you have determined your displacement and the weight of the hull, select the hull form from the Hull Type Table. This determines the resistance of the vessel through the water, and each hull form's resistance figure affects the power needed to reach a powered vessel's design speed.

Note that certain hull types apply only to specific vessel types with their own design sequences. These include air cushion vehicles and submarines. The remaining hull types may be used for powered vessels, while the displacement hull types may be used for wind and muscle-powered vessels as well. Each type includes certain advantages and

> disadvantages. Although they efficiently carry cargo and passengers, deep and parallel displacement hull vessels are limited by their wave-making characteristics to top speeds no greater than a ratio of 1.4 times the square root of their length.

Hydrostatically Supported Hulls

The displacement-type hulls are known collectively as hydrostatically supported hulls—hulls supported by the buoyancy of the fluid they displace. These types include:

Deep Displacement: These highcapacity hulls are suitable for large merchant ships such as tankers and bulk carriers. However, they require more power to reach and sustain a given speed than other displacement hull types. Some 80 to 90% of a fully loaded deep-displacement vessel's hull is below the water line.

Parallel Displacement: The sides of a parallel-displacement hull run parallel to each other except at the bow and stern. Although easier and cheaper to build, this hull form has higher drag than a curved-displacement hull. Most medium-sized merchant ships, including freighters and passenger liners, have parallel-displacement hulls.

Curved Displacement: This is the hull form used for most surface warships. The hull begins with a sharp bow and gently curves around the widest part of the hull, then tapers into the stern. The displaced fluid flows more efficiently and with less drag around a curved hull. A vessel with a curveddisplacement hull will travel at a higher speed than a paralleldisplacement hull using the same amount of power.

Submersible: These are sealed variants of the curveddisplacement hull and are designed to cruise for long distances on the surface and spend a relatively short time submerged. Vessels designed with these hulls are essentially submersible vessels rather than true submarines. The design of these hulls makes them relatively inefficient underwater, as well as noisy and easy to detect.

Submarine: This is a special type of displacement hull, one designed to submerge beneath the surface—displacing its total volume by becoming heavier than the fluid it displaces. A true submarine hull is extremely efficient when underwater because its smooth, rounded shape offers little drag. However, when surfaced, this shape produces a very large bow wave that generates tremendous resistance and requires a large amount of power to overcome.

Hydrodynamic Hulls

The planing hull and the hydrofoil are both known as hydrodynamic hull forms, hulls supported at least in part by the lift generated as they move through water.

Planing Hulls: Planing hulls are shallow and wide. When at rest and travelling at low speed, they function as curveddisplacement hulls. However, when a planing-hull vessel reaches a speed equal to 1.8 times the square root of its length, it begins rising out of the water and is supported by lift generated by its motion through the water. The resistance of the water drops markedly, and the planing-hull vessel can travel at substantially higher speed than a displacement-hull vessel at the same power setting.

Planing hulls are very popular for small, high-speed, motor-driven watercraft.

Hydrofoils: A hydrofoil rides on underwater wings that lift the craft's hull clear of the water at speeds greater than 55 kilometers per hour. Because of this, the resistance is quite low while riding the foils, and hydrofoil craft can reach high speeds in excess of 90 kilometers per hour. However, the hydrofoil surface area and the resulting weight of the foils must be increased in a greater proportionate size to the resulting gain in lift whenever larger foil-borne craft are built. This weight increases as the cube of the foil's dimensions, while lift increases as the square of these dimensions. This cube/square law effectively limits the use of hydrofoils to craft weighing no more than 300 tons.

Air Cushion Vehicle: These vehicles ride on a trapped bubble of air and have virtually no water resistance. They have reached speeds in excess of 200 kilometers an hour. They are also amphibious, capable of skimming across flat land as easily as the sea. However, ACVs require a high amount of power to maintain the air bubble on which they ride, and have difficulty maintaining speed in heavy seas and rough weather.

POWER

Power is neededto drive the vessel through the water. This can come from several sources, including



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muscular power (from humans, other sentients or animals), wind power, mechanical power, electrical power or gravitic power.

Types Available

Power interacts with the vessel's displacement and its hull form to produce velocity through the water. Mechanical, electrical and gravitic power can be constant and drive a vessel at a constant maximum speed. Wind power is variable and is applied through a different set of principles than mechanical or other power, and consequently requires its own design sequence. Muscle power may be constant for a period of time then decline.

After determining the hull's displacement, material, configuration and weight, the ship designer must choose the vessel's source of power. If the he chooses to design an wind-powered vessel, he should skip to the wind-powered design sequence later in this article.

Powered Ships

A powered ship may range from a paddle-powered canoe to a grav-propelled submarine. The design sequence is basically the same for each of these vessels and any other vessel that has a relatively constant source of power. To design a powered vessel:

Determine Top Design Speed: The maximum speed at which your vessel can travel. Note that power requirements increase by a factor of eight for each doubling of the top design speed.

Calculate Hull Resistance: Use the formula $R=\sqrt{D\times rf}$ where *D* is the square root of the hull's UCP displacement and *rf* is the hull resistance factor found with each hull type in the Hull Types Table. The result is *R*: hull resistance.

Calculate Power Needed to Reach Design Speed with Fully Loaded Hull: Use the formula $P=RV^2/2$ where *P* is power in kilowatts, *R* is the hull's resistance calculated in the previous step, and *V* is the top design speed. If you wish to calculate the power in megawatts, divide the result by 1000 or calculate the power needed with the formula $P=RV^2/2000$.

Determine Power Plant: Power plants range from primitive steam engines available at TL3 through TL15 fusion plants. Power plants available at TL3-6 are listed in the Power Plants Table included with this article. These include steam reciprocating, steam turbine and diesel. Others may be chosen from the Power Plants Table in the **MegaTraveller Referee's Manual** on page 64, including internal combustion, gas turbine, MHD gas turbine, fuel cells, batteries, fission and fusion plants. As with other vehicle designs, install as many kiloliters of power plant as you need to produce the output needed to reach the top design speed as well as to provide for the vessel's other power needs. Note the weight of the power plant and subtract it from the available free buoyancy. Also, note the total fuel consumption of the power plant. **Fuel Options:** Steam engines of all types can be designed to use solid hydrocarbons instead of regular hydrocarbon fuels. Steam engines of TL3 and 4 can *only* use solid hydrocarbons.

Batteries: Lead/acid batteries used to store current aboard TL5-6 submarines weigh four tons per kiloliter. Beginning at TL7, advancing battery technology using nickel/cadmium cells (and later other materials) reduces this weight to one ton per kiloliter of batteries. The storage and price figures in the **MegaTraveller Referee's Handbook** Storage Batteries Table on page 64 apply to all batteries.

Determine Power Plant Damage: Inoperative or destroyed.

Inoperative: Divide the volume of the power plant by the hull volume and multiply the result by the hull's inoperative damage points. The vessel is dead in the water with an inoperative power plant; however, the damage is reparable.

Destroyed: Inoperative value $\times 2$. The power plant is irreparable and may suffer a catastrophic failure, such as an explosion.

Determine Power Transmission: Choose one from the Marine Power Transmission Table. These may be paddle wheels, screw propellers, hydrojets or gravitic drive units. Note the efficiency multiplier of each unit. Multiply the power

 adjust the power or speed as needed. Note the weight and volume of each transmission unit and subtract the weight from the available free buoyancy. Where applicable, subtract the volume from the available hull volume.

Diameter Ratio: Meters in diameter of wheel, screw, or jet per metric tons of vessel being propelled. Note that where propeller or jet diameter becomes excessive, the total diameter may be divided among two or more propellers or jets. Propeller diameters may not exceed 10 meters.

needed to reach the design speed with this multiplier, and

Weight: Tons per meter in diameter of wheel, screw, jet or tunnel.

Volume: Kiloliters per meter in diameter of wheel or screw. Kiloliters per ton of internal hull volume used for power transmission.

Cost: Credits permeter in diameter of wheel, screw, jet or tunnel.

Slippage: Propellers tend to "slip" in the water and become less efficient with increasing load. One propeller operates at full (95%) efficiency for vessels displacing up to 10,000 metric tons, then efficiency begins to drop off at a rate of 5% per additional 10,000 fluid displacement tons of the vessel's displacement. This may be overcome by adding additional propellers.

For example, a 10-meter-diameter screw propeller may

propel a vessel displacing up to 10,000 metric tons at 95% efficiency. Two 10meter propellers would be needed to propel a 20,000 metric ton vessel at 95% efficiency. If only one 10-meter propeller were available to propel a 20,000 metric ton vessel, its efficiency would decrease to 90%. A 50,000 metric ton vessel would be propelled at 75% efficiency.

Note that gravitic propulsion may be applied at a sufficient force level to propel the craft while letting natural buoyancy or hydrodynamic forces provide lift.

Power Transmission Damage: For transmissions that occupy internal volume, divide the transmission's internal volume by the hull volume and multiply by the hull inoperative damage points to determine the transmission's inoperative damage level. Multiply by 2 to determine the destroyed level. Inoperative damage may be repaired; destroyed damage may not. Calculate damage to external transmissions by dividing their volume by 15 for inoperative damage or by 6 for destroyed.

Available power transmission types, their advantages and disadvantages include:

Side Paddle Wheel: The least efficient and most primitive marine power transmission. These have been used aboard inland and deep sea vessels, mostly powered by primitive steam engines. Side wheels are best suited for

Early steam reciprocating0.08200020.150.06Hydrocrb (S)Steam reciprocating0.12300040.10.04HydrocrbSteam turbine0.3500020.200.035HydrocrbDiesel0.3200020.0050.02HydrocrbUnless stated otherwise, values are per kiloliter.***	Early steam reciprocating 0.08 2000 2 0.15 0.06 Hydrocrb (S) Steam reciprocating 0.12 3000 4 0.1 0.04 Hydrocrb Steam turbine 0.3 5000 2 0.20 0.035 Hydrocrb Diesel 0.3 2000 2 0.005 0.02 Hydrocrb Unless stated otherwise, values are per kiloliter. * * Hydrocrbon (S) indicates that this engine can only be built to accept	Туре	PowOP	Price	Weight	Volume	KI/Hour	Fuel Type
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TL	Tvpe	Efficiency	Diameter Ratio	Weight	Volume	Cost
3	Side wheel	.75	1/10	1 ton/meter	1 Kl/meter	100/meter
4	Stern wheel	.80	1/10	3 ton/meter	3 Kl/meter	300/meter
4	Screw	.95	1/1000	7 ton/meter	1 Kl/meter	1000/meter
6	Water jet	.98	1/10	5 ton/meter	5 Kl/ton	5000/meter
8	MHD tunnel	.25	1/5	10 ton/meter	10 Kl/ton	50,000/meter
10	MHD tunnel		1/10	5 ton/meter	5 Kl/ton	100,000/meter

calm waters and may be better suited to extremely shallow waters than screw propellers. Also, they greatly aid steering a vessel in tight quarters. An experienced ship's captain can spin a vessel around its vertical axis by going forward with one side wheel and reversing the other.

Side wheels are susceptible to damage. A collision, debris in the water, or a well-placed shot could destroy a side wheel. They also cause problems in docking. And, in rough seas, they may be intermittently thrown clear of the water and race, causing damage to the engine by the rapidly varying load.

Stern Paddle Wheel: As the name suggests, stern wheels are located at the stern of the vessel. Because they are in the vessel's wake, they are more efficient than side wheels. They are also less susceptible to damage.

Stern wheels are best suited to calm inland waters, and may experience racing and cause engine damage in rough ocean waters. They can also become quite large and bulky, and would not be suited for propelling large vessels.

Screw Propellers: Screw propellers are the most common transmission devices and are the most efficient marine power transmissions for speeds up to 65 kph at mid-technology levels. They share the advantage of paddle wheels of not occupying volume within the vessel's hull. And they are relatively small and light compared with other transmissions for the size of vessels they propel.

Water Jets: Water jets are high-speed pumps that suck in water and then eject it at high velocity, providing thrust to drive the vessel. They are powered by gas turbine engines or similar high-output power sources, including fusion power plants. Early versions are most suitable for high-speed surface vessels, including planing hull vessels and hydrofoils. More advanced water jets coupled to the abundant electricity generated by fusion plants are the transmissions of choice for high-speed submarine craft because of their efficiency and relative silence.

Their only disadvantages are that they require internal hull volume and that early models are susceptible to breakdown.

MHD Tunnel Drive: Electric current applied across a tunnel filled with sea water will generate a magnetic current that will cause the sea water to flow in a single direction. In effect, this becomes a silent pump without blades or vanes, developed to silently propel submarines.

Early models are very inefficient and require large amounts of power for slow speed maneuvering. MHD tunnel drives also need large, cryogenically cooled superconducting magnets which take up a considerable amount of internal hull volume (factored into the Marine Power Transmission Table entry) and weigh a great deal. More advanced models weigh less, take up less volume, and are more efficient. They are superseded by grav thrusters at TL11 and above.

Gravitic Thrusters: Gravitic thrusters are used at high tech levels to propel watercraft, similar in principle to the way they propel spacecraft. Because buoyancy provides lift, only relatively low-powered thrusters are needed to move vessels across or through the seas of a world.

SAIL-POWERED CRAFT

Wind pressure against the sails and aerodynamic forces, particularly with fore and aft-rigged sailing vessels, generate the power that drive a vessel forward. Because wind is variable, the force that powers the vessel is variable. How-

ever, since it is possible to determine the maximum number (and area) of sails a ship can carry without being dri-

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ven under, and it is possible to determine the force generated by the wind blowing against these sails, the maximum speed for a sailing vessel can be predetermined.

Sail Configurations: There are two basic sail configurations: square rigged, and fore and aft. These configurations may be and often are combined on sailing vessels with more than one mast.

Square Rigged: Square-rigged sails are large rectangles of cloth rigged perpendicular to the hull's main axis. They are designed to catch winds coming from the stern and from within 45° from either side of the stern and take maximum advantage of these winds. To enable the vessel to sail courses closer into the wind and to help in tacking, a squarerigged watercraft often has a number of fore and aft sails mounted both on its after-most mast and as jibs close to the bow. Square riggers are well-suited for worlds with steady winds blowing from predictable directions where trade routes can take advantage of wind directions. Large merchant and man-of-war sailing vessels are square rigged.

Fore and Aft Rigged: These sailing craft have their sails mounted parallel to the main axis of the ship. They are exceptionally well-suited for sailing with the wind coming from the beam and for sailing high up into the wind, where aerodynamic forces can pull the vessel along rather than push it. Fore and aft-rigged craft are much less efficient than square riggers in taking advantage of a following wind because the after-most sail often blocks the wind from driving other sails to forward. Choose this type of rig if your craft is sailing in confined waters where frequent tacking and turning take place, or where you can't count on a steady wind from the same direction.

Sail Area: The total sail area determines the maximum amount of force available to power a sailing vessel, and consequently the vessel's top speed. This area depends on the height and number of the vessel's masts, and the length of the yards (wooden or metal beams that run at right angles to the mast).

Masts may be added at a rate of one per 15 meters of the ship's length. Large sailing ships are known to have three to five masts, while seven or eight masts are not unknown on the largest ships. Maximum mast height in meters equals the square root of a hull's volume in kiloliters. Maximum mast height for any vessel is 50 meters. Yards on both squarerigged ships and fore and aft-rigged vessels equal 50% the mast height in length.

With a square rig, calculate the sail area based on the rectangular area of the total number of sails rigged on the masts, plus 20% of the total to allow for jibs and stay sails rigged at the bow or between the masts.

Fore and aft-rigged vessels have basically triangular sails one per mast, plus an additional 10% for jibs rigged at the bow.

Sail Force: The force generated by wind on sails is determined in a standard atmosphere by these formulae:

Force in kg/m=1286 kg×square meter sail area×wind velocity (m/sec.).

Force in watts=kg/m×0.1.

In other words, wind blowing at one meter per second exerts a force of 1286 kilograms on a square meter of sail. And, to convert the force into watts, multiply the result by 0.1.

On a world with a dense atmosphere, multiply the resulting force in watts by 1.5.; on a world with a thin atmosphere multiply by 0.75. Sails are impractical on worlds with very thin or trace atmospheres.

1 km/hr=0.28 m/s.

To convert wind velocity in kilometers per hour to meters per second, multiply the kph figure by 0.28.

Below are two examples of how 10 kilometers per hour of wind can produce a vastly different amount power, depending on the sail area. The power output in both cases would increase as the wind velocity increases.

Sail Area	Wind (in km/hr)	Wind (in m/s)	Watts	Kilowatts
200	10	2.8	72016	72.016
1	10	2.8	360.08	0.36008

When the power output (in kilowatts) of wind on the vessel's sails exceeds its displacement (in kiloliters), the vessel's sails begin to take damage equal to one point per kilowatt of excess power.

If the power output exceeds a vessel's displacement in kiloliters plus its free buoyancy, the vessel is either capsized (if it has a beam wind) or is driven under (if it has a following wind).

If the vessel has wooden masts rather than iron or steel, the masts break when the wind load exceeds 75% of the vessel's displacement.

Sails should be shortened to reduce their area in heavy weather to prevent these disasters, and the ship should be headed into the wind in extreme cases.

When the total sail area is determined, calculate the potential speed expected at several wind velocities. Do this by calculating the power generated by the wind at various wind speeds, then calculate the potential speed with this formula:

V2=P2/R, where P is force in kilowatts and R is hull resistance.

This formula is based on kilowatts of power modified by the resistance of vessel's hull. Most sailing vessels have curved displacement hulls with a resistance factor of 0.5. Calculate the total resistance (R) by multiplying the square root of the displacement by the resistance factor.

R=√D×rf

Sail Damage: Determine sail damage levels: Divide the total sail area by 15 to calculate the level to destroy half the sail area; divide by six to calculate the level to destroy the sails and demast the vessel. Double these damage values for extra-strength synthetic sails.

Sail Costs: Sails cost Cr100 per square meter.

Sail Weight: Dry canvas sails weigh approximately one kilogram per square meter. When wet, increase their weight to two kilograms per square meter. Synthetic sails (TL7) weigh 0.9 kilograms per square meter. However, they do not soak up water and weigh approximately the same wet or dry.

Extra-strength synthetics (TL8) weigh 0.3 kilograms per square meter wet or dry.

Sail Stowage Volume: Canvas sails require one kiloliter of volume for every 25 square meters of sail area when stowed belowdecks (they may alternatively be furled on their yard arms.) Synthetic sails require 0.5 kiloliter of volume per 25 square meters, and extra-strength synthetics require 0.3 kiloliter per 25 square meters.

Mast Weight and Cost: Wooden masts weight 10 kilograms and cost Cr10 per meter of height.

Iron masts become available at TL4. They weigh 0.125 tons and cost Cr100 per meter of height.

Steel masts become available at TL5. They weigh 0.1 tons and cost Cr100 per meter.

Titanium masts become available at TL7. They weigh 60 kilograms and cost Cr200 per meter.

These values include the weight and cost of the yardarms.

Auxiliary Power: Beginning at TL4, auxiliary power sources may be added. These can include steam engines, internal combustion engines, batteries, fuel cells or solar cells. Calculate the amount of auxiliary power needed for the desired speed while using the "iron breeze," and determine the weight and volume of the auxiliary power plant. Finally, calculate the auxiliary's endurance, fuel requirements and range. Be sure to include sufficient fuel tankage for the required endurance and range. Remember, auxiliary power is needed to power any on-board electronics such as radios or sensors. This may be included in the form of wind generators, batteries, fuel cells or solar cells if power is not desired for propulsion.

MUSCLE-POWERED VESSELS

Watercraft may be powered by muscles as well as wind or machinery. Devices used to transfer muscle power to thrust include paddles, oars, and lever-powered screws.

Oars: Oar locks allow oars to be used as mechanical levers that provide the most efficient way to transfer muscle power to propulsive thrust. Determining the amount of power generated by rowers is based on the species and skill of the rowers.

The basic value for any given species that is capable of rowing is half the species' average weight in kilograms. The average human weighs 70 kilograms. Therefore, the basic human rowing value is 35—measured in watts of power produced by an individual human.

This basic wattage value is modified by ability. A rower's ability is determined by the total die modifier received for: Strength, Endurance and Small Watercraft skill level.

For each point of rowing ability, the rower is able to increase power output by 40% of the basic wattage value. As an example, an individual with STR 7 (DM+1) and END 7 (DM+1) has two points of rowing ability. Accordingly, the individual's basic wattage value is increased by $2\times40\%$ or 80%. This means that: 35 basic wattage×1.8=63 watts of total power.

Well-trained, highly fit individuals can easily double this level of output. On the average, professional rowing crews can be assumed to produce two times the wattage of average individuals of a given species.

For reference, average for Vargr and Aslan rowers are given below:

Species	Avg Mass	Basic Wattage	Avg Individual
Vargr	55	27.5	50
Aslan	100	50	90

Oar-powered watercraft require allocating 100 kilograms weight for each human and each rower's oar. Allocate 150 kilograms for each rower and oar if the rowers are Aslan, or 75 kilograms if the rowers are Vargr. Allocate two kiloliters of volume for each human rower stationed belowdecks within the hull, three kiloliters for each Aslan, and 1.5 kiloliters for each Vargr.

Calculate the total power output by multiplying the individual rower's output by the number of rowers on board. Potential top speed may be calculated from the total power output.

Oars can have more than one rower to increase power. Each additional rower (after the first) adds 75% of his power to the oar. Each rower requires one meter of beam.

There is a limit to the number of oars that can be placed in a hull. Subtract twice the beam from the length of the hull in meters to calculate usable rowing space. Each oar in a bank of oars requires one meter within this space. Oars can be stacked to form more than one bank. Each bank requires one meter of height.

Oars weigh 10 kilograms each and cost Cr10 each.

Paddles: Light watercraft may be propelled with paddles. Though this is similar to rowing a vessel with oars, less power is transferred because paddles have no leverage. A paddle will transmit 60% of the power generated by a rower using an oar.

Paddles weigh two kilograms and cost Cr10 each.

Muscle Engines: Mechanisms that convert muscle power to usable wattage. The following "engines" use muscleproduced wattage to power marine transmission systems.

Levers and Cranks: These devices are available at TL3. They can only be used by sophonts, or creatures which can be trained to perform a repetitive, noninstinctual task. All workers require at least adequate crew positions. Species that are much larger or smaller than humans may have greater or lesser requirements.

Turnstiles/Treadmills: These devices are available at TL1 and can be powered by any type of creature that has a movement rate of greater than 0.

All workers require one kiloliter per 10 kilograms of weight. So a human (average weight of 70 kilograms) would require seven kiloliters of space.

PUMPS

All vessels leak at one or more points in their lives. Leaks may occur through damage, through joints that gradually loosen or through seepage. Water may also come aboard during heavy weather. Therefore, all vessels need pumps. Pumps aboard primitive vessels are muscle-powered, and pumps are mechanically or electrically powered on modern vessels. Be sure to install pumps with enough capacity to handle flooding in at least one large sealed compartment in case of damage.

Pumps are rated by the number of kiloliters they can pump per hour. Pumps take up hull volume at 10% of their rated pumping capacity in liters. They weigh 10% of their rated capacity in kilograms.

As an example, a pump with a capacity of one kiloliter per hour has a volume of 100 liters and weighs 100 kilograms.

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SUPERSTRUCTURES

All surface vessels may have superstructures built on top of their hulls. Superstructures increase the total weight and volume of a vessel but do not add to its fluid displacement. Superstructures may range from small deckhouses built aboard sailing vessels to massive structures almost the length of the vessel built to accommodate passengers aboard liners. Cargo vessels and warships generally have smaller superstructures—generally not more than 20 to 30% of the hull's volume. To build a superstructure:

Determine the volume of the superstructure(s) in kiloliters.

L Determine superstructure damage points. Multiply the superstructure's volume by six to determine its destroyed value.

 ${f 3}_{{\scriptscriptstyle f B}}$ Convert these to tons in hull equivalent tonnage.

Q Determine the weight of the superstructure(s) by multiplying the tonnage with the weight modifier from the Hull Materials Table.

D • Determine the price of the superstructure by multiplying the tonnage by the price modifier for the selected material from the Hull Materials Table.

Note that the hull and the superstructure may be (and often are) built of different materials, such as a wooden deckhouse on a steel hull.

Superstructures may be used for the ship's bridge, passenger and crew accommodations or additional cargo. Deck cargo, stowed in sealed containers and stacked on deck, becomes a type of temporary superstructure on many cargo ships. More than one superstructure may be built. Acommon cargo ship design is the "three-islander," with a superstructure housing the deck crew above the bow, a midship's superstructure housing the bridge and officers' quarters as well as messing facilities, and an aft superstructure over the fantail housing the engine room crew.

Flight decks may be treated as long, thin superstructures laid down on top of the basic ship's hull. Aircraft carriers may have an off-center island built to one side of the flight deck. Carriers, therefore, may have two superstructures.

Weapon turrets are another form of superstructure.

Small sealed superstructures may be built above a submarine's hull. However, a submarine superstructure must be included in the vessel's displacement when the submarine is submerged. Ω

Look for the completion of the design sequence in the next issue of **Challenge**. The second segment will include weapons, sensors, controls and design evaluation rules.



he British government hires the PCs to deliver an aerial steam launch to the prince of Noorlan as a birthday gift. They will make the trip aboard an *Aphid*-class gun-

boat, the *Gnat*, travelling via Shastapsh, Karkarham and Syrtis Minor to avoid Oenotrian raiders. The trip is subject to Oenotrian ships, thieves, pirates, High Martians, and cheating merchants—all in all, an ordinary trip by cloudship. After a four-day voyage from Shastapsh, the PCs at last see Noorlan, at the junction of three canals amid lush fields and pastures. The party's ship is signalled to land at the naval landing field on the west side of the city, where the group will be met by Lleweleyn Rhys-Owen, the British consul.

CITY DATA

Noorlan is a prosperous city, with a population of about 100,000. The city's wealth comes from farming in the rich seabed land. nized, which is trained and equipped along the latest European lines. If any of the British PCs are military men, the prince will offer to show off his new regiment tomorrow.

The PCs will also be introduced to Aroniav's chief minister, Lord Mairol—an old, aristocratic Martian who obviously does not share the prince's tastes. He dresses traditionally and will say nothing to the humans, contenting himself with an icy glare. Mairol is always accompanied by a clique of young noblemen, who are less than subtle about their dislike of Earthmen. If asked, the British consul can identify all of them as being the heirs of the most powerful nobles in the city. Rhys-Owen will add that the nobles and Lord Mairol are opposed to the prince's plans for reform.

A small suite of adjoining rooms are at the PCs' disposal, furnished with imported British goods. The bathrooms even have hot and cold running water. Portraits of contemporary European rulers adorn the walls. The



Space: 1889 Adventure

By James L. Cambias

It is ruled by young Prince Aroniav, though much power is in the hands of the great landowning nobles. The army is of fair quality, and consists of 1200 infantry, 600 cavalry and 20 cannon. There is a good quality mercenary contingent of 300 infantry, 300 cavalry and 10 cannon. The city's air fleet has 10 ships.

The bureaucrats and merchants are neither more nor less corrupt than is usual for Martian cities, despite the prince's efforts at reform. The citizens are generally hostile toward Earthmen, and pro-Oenotrian sentiment is strong. There have been several antihuman riots in Noorlan, which the prince has put down with soldiers.

The official language of Noorlan is Bootnai, but Oenotrian, Parhooni and Koline are widely understood. Only the prince and a few merchants know any European languages.

HIS ROYAL HIGHNESS

Prince Aroniav dwells in the ornate royal palace in the center of Noorlan. He is fond of Earthmen and their technological marvels, and will enthusiastically greet his human visitors. He is delighted with his new present and invites the PCs to stay in the palace as his guests. Aroniav will show off his collection of machinery to the PCs—a huge hall filled with electrical generators, steam engines, agricultural equipment and even a small railway locomotive. He also chatters happily about the new regiment he has orgaPCs may freshen up and change into formal wear before the prince's birthday ball. Martian servants, looking very uncomfortable and slightly embarrassed in English servant costumes, are on hand to offer assistance.

HAPPY BIRTHDAY

The celebration begins at sunset with a reception in the grand hall, where the PCs are the only humans in a throng of elegantly dressed Martian nobles. Ambassadors from all the neighboring cities are on hand with exotic gifts—coronets adorned with fire gems, ceremonial armor covered with gold filigree, opulent robes trimmed with rare furs and ancient Canal Builder treasures.

After the reception, a banquet is served, with 26 courses of spicy Martian dishes. Blue Martian wine is in abundance, and the PCs should make a Moderate Endurance task roll to avoid getting drunk. Drunken characters subtract 1 from their Agility and Intelligence for the remainder of the evening, and subtract 1 from their Endurance the following day.

Following the banquet is a fireworks display, then dancing in the ballroom. Martian dances are complex and ritualized; any human attempting to join in must accomplish a Formidable Agility task roll to avoid looking like a clod.

Amid the celebration, a PC may spot the high minister, Lord Mairol, speaking with some of the other guests. Mairol constantly confers with Duke Nochoor, the Oenotrian



LLEWELEYN RHYS-OWEN (GREEN NPC)

Rhys-Owen has been assigned here as a punishment for failing in an earlier posting. He is determined to succeed in his new duties, and is above all loyal to the crown. He is extremely knowledgeable about the political situation in Noorlan, but the coup will still take him by surprise. His wife lives at the family home in Wales. Motives: Loyal, Driven.

Appearance: He is a small, quiet, dark Welshman. He is not generally armed.

Attribu	Jte	Skills
Str:	2	Fisticuffs 1, Throwing 1
Agl:	1	
End:	3	Wilderness Travel 2 (mountaineering), Swimming 1
Int:	4	Observation 5
Chr:	6	Eloquence 5, Bargaining 4, Linguistics 6 (French, Parhooni, Koline, Bootnai, Oenotrian, German)
Soc:	5	Riding 4 (horse)

PRINCE ARONIAV (GREEN NPC)

Aroniav is the friendly young ruler of Noorlan and the surrounding territories. As a boy, he was sent by his father to accompany a diplomatic mission to Syrtis Major, where he was entranced by the British way of life. Since then he has collected Terran machinery and is determined to modernize Noorlan. His desire is partly a drive to make himself more powerful, but it goes beyond that to the level of a minor obsession. His plans have made him very unpopular with the city's rich and powerful nobles, but the revolt will come as a shock. **Motives:** Eccentric, Friendly.

Appearance: Aroniav prefers European-style clothes. He is not usually armed.

Attribute		Skills	
Str:	1	Close Combat 1 (sword)	
Agl:	4	Stealth 3, Marksmanship 2 (rifle)	
End:	3	Wilderness Travel 2 (mapping), Fieldcraft 1, Swimming 1	
Int:	2	Observation 1, Science 1 (chemistry)	
Chr:	5	Eloquence 4, Linguistics 6 (Oenotrian, Parhooni, Hellan, English)	
-		DIN STATE DEPARTMENT	

Soc: 6 Riding 5 (gashant), Piloting 2 (cloudship), Leadership 4

LORD MAIROL (TRAINED NPC)

Mairol is responsible for the city's day-to-day administration. A staunch traditionalist, Mairol has thwarted Aroniav's reform measures—particularly the anticorruption campaigns—as Mairol makes a huge profit from bribery and extortion. He has always lusted for greater and greater power, and is loyal only to himself.

Motives: Ruthless, Arrogant.

Appearance: Mairol dresses traditionally and carries two concealed daggers.

Attribu	1	Skills Close Combat 2 (edged weapon)
Agl:	3	Stealth 2
End:	2	Wilderness Travel 1 (mapping), Swimming 1
Int:	5	Observation 4
Chr:	4	Eloquence 4, Bargaining 3, Linguistics 3 (Oenotrian, Parhooni, Koline
Soc:	6	Riding 5 (gashant), Piloting 2 (cloudship)

GRAAZITH (VETERAN NPC)

Graazith thinks he is manipulating Mairol to his own ends, but he is actually just a pawn of the high minister and the Oenotrians. He is fond of battle and danger. Motives: Ambitious, Adventuresome.

Appearance: Graazith is powerful and handsome. He is generally armed with a sword.

Attribute		Skills	
Str:	4	Fisticuffs 3, Throwing 2, Close Combat 4 (edged weapons)	
Agl:	4	Stealth 3, Marksmanship 3 (rifle)	
End:	3	Wilderness Travel 2 (mountaineering), Swimming 1	
Int:	1		
Chr:	3	Eloquence 3	
Soc:	6	Riding 5 (gashant), Piloting 2 (cloudship), Leadership 2	

ambassador. The high minister also has several brief but significant-looking conversations with the four most powerful nobles in the city—Lord Imletar, Baron Tokaar, Lord Biihal and Count Elvriyiaaden. If approached, Mairol will haughtily ignore the humans.

A PC would have to make an Impossible Stealth task roll to get near enough to overhear what is being said, and would then need to make a Moderate task roll in Bootnai to understand the conversation. If both rolls are accomplished, the character will overhear the following exchange:

"All is in readiness, Lord Mairol." "Excellent. We move at sunrise."

A MATTER OF HONOR

At 11 p.m., Graazith, one of Mairol's young nobleman, will ask the PCs their opinion of the Oenotrian War. He will soon turn insulting, making slighting remarks about British courage, intelligence and manhood. From there, he will get personal, impugning the honor of the PCs. The moment any British character responds to the provocation, Graazith will challenge him to a duel. (If the PCs are sufficiently self-controlled to avoid responding to Graazith's insults, Rhys-Owen will lose his head and slap the Martian after a nasty insinuation about Mrs. Rhys-Owen.) Graazith will invite his opponent to duel him at midnight at the ruined west fortress just beyond the city walls. The one who has been challenged may select the combat weapon. Backing out or failing to show up would seriously erode British prestige in Noorlan and would be exploited by the pro-Oenotrian party. The prince will not interfere since this is a matter of honor.

The western city gate is watched by a single guard, who will allow the PCs to pass for a small consideration (bribe). The ruined fortress lies a mile beyond the walls.

Fortress: The fortress is mostly rubble (it was destroyed by the armies of Trinacria during the War of the Ausonian Succession over 100 ago). The shell of the central keep remains, and the PCs can see a light inside. Within the keep is a large circular space, ideal for honorable combat. Graazith is already there, along with 10 other young nobles as his seconds. The seconds are all armed with swords and pistols, but Graazith carries only the agreed-upon duelling weapon.

Ambush: As they enter the keep, any PCs making an Impossible Observation task roll will see several figures lurking in the shadows on top of the building. Any reaction to this will result in Graazith's springing his ambush early.

If the PCs haven't noticed the Martians in hiding, Graazith and his opponent will enter into combat normally. If the weapon of choice is a firearm, the ambush will begin when Graazith fires his gun. If the method of combat chosen is hand-to-hand, the attack will begin at the start of the second combat round.

Twenty Experienced Oenotrian soldiers (the

guard force from the Oenotrian Embassy) are hiding atop the keep. They will fire at the English party, and one of Graazith's seconds will call upon the humans to surrender. Graazith is armed with the duelling weapon and wears no armor. The Martian forces include the 10 noble seconds, who should be treated as Trained troops (their statistics are the same as Graazith's, but they are wearing doublets, and carrying sabers and single-barrel pistols). The Oenotrians are armed with muzzle-loading rifles and sabers, and wear breastplates and helmets.

The Martians' goal is to take the PCs prisoner to use as hostages during the planned coup in order to prevent any action by the commander of the British gunboat.

IN CAPTIVITY

The Martians will take the PCs' weapons, tie their hands and take them in a closed wagon to Lord Mairol's palace on the canal. Their captors will only say that the PCs are being kept alive "to avoid any complications."

Prison: The PCs are locked in a cellar a large, dimly-lit room containing nothing but rubbish. It has two doors, both very heavy and locked. One opens onto a passage, guarded by a two of Mairol's private guards., who speak only Bootnai and will ignore anything the captives say to them. They are Trained soldiers, armed with muskets and knives, and wearing doublets and helmets.

The other door is long unused and is partially concealed by heaped rubbish at the far end of the room. The PCs will only notice it if they examine the debris. The door has been gnawed by rats at the base, leaving a gap of several inches. Though the gap can be seen a small, well-appointed room, with several Martians seated at a table in the middle. They are speaking in Oenotrian:

"The Red Men will not interfere. My forces will surround the palace at dawn. Tokaar's men will immobilize the cloudships."

"Very good, Lord Mairol. You will have the full support of the empire in case any other princes wish to challenge your right to rule Noorlan."

"Then let us drink to victory!"

After a few moments, the Martians will depart, leaving the room empty.

Escape: To open the door requires either a Difficult test of Lockpicking skill or a Formidable Strength task roll. If Strength is used, the guards outside the other door will hear the noise and attempt to subdue the prisoners—if one of them is incapacitated, the other will try to run for help. If guns are fired, three more guards will arrive after five minutes. Further disturbances will bring an entire squad.

The conference room has one exit, a door which leads into a large cellar where 50 soldiers are quartered. The only other way out is a small window high up in one wall. It is an Easytask of Agility to slither out through it. Beyond lie the gardens, sloping down to a road along the edge of the canal.





THE COUP

As the PCs make their way away from Mairol's palace, they can hear gunfire erupt from various sites around the city as the rebel forces go into action. Most of the citizens stay indoors, but there are riots in the poorer sections near the docks. The PCs encounter a group of rioters on a roll of one on 1D6. The rioters will all be Green NPCs, armed with clubs and rocks.

If any PCs have remained at the palace instead of going off to fight the duel, they will learn of the coup only when cannon fire erupts around the palace.

Opposing Forces: The prince's guards have manned the walls and are holding out for now, but they are outnumbered by Mairol's contingent. The palace is surrounded by Mairol's force of 300 infantry, 300 cavalry and 10 cannon—10% Elite, 40% Veteran, 40% Experienced and 10% Trained. Three hundred of the city's cavalry—80% Veterans and 20% Experienced—have sided with the rebels and are guarding the cloudship landing field, keeping the loyal crews of the prince's navy in their quarters.

The prince is guarded by the palace guard of 100 infantry, 100 cavalry and five cannon—all Veterans. The prince's most powerful and loyal regiment is his New Model Regiment—10% Veterans and 90% Experienced. NMR troops wear no armor except helmets, are armed with Lee-Metford boltaction rifles and have five 20-pounder rifled breechloading cannons. This regiment is quartered in the north fortress 10 miles outside of town along the canal to Gorklimsk. (Mairol persuaded the prince that the NMR should guard the border.)

The rebels have posted soldiers to prevent any word from reaching the NMR until the prince is dead.

The remaining 800 infantry and 200 cavalry in the city are not participating in the rebellion, but neither are they aiding the prince. The commanders have confined their troops to their barracks, and the units will join the winners of a decisive victory.

TO THE RESCUE

The only way into or out of the palace is the aerial steam launch the PCs brought to the prince. It is unarmed and normally holds eight passengers (though it can carry up to up to 20 people for short distances).

If the PCs wait until the palace is overrun, the prince will agree to go to the northern fortress. If they leave while the battle is in progress, it will require a Formidable Eloquence task roll to convince him to flee. He has no objection to the PCs' leaving alone, but requests that they send word to the NMR.

Landing Field: The *Gnat* commander has remained at the field, hoping the PCs can get to him. The field is surrounded by a 10-foot wall, and cavalry members patrol outside. It will require a Difficult Fieldcraft task roll to reach the wall without being spotted and a Difficult Agility (or Moderate Mountaineering) task to climb the wall. Once past the wall, the PCs will be in sight of the *Gnat*, and any hostiles will be annihilated before they can harm the party.

A group approaching the field by air aboard the steam launch will be shot at from the ground for two rounds before the *Gnat*'s crew notices and suppresses the ground fire.

The *Gnat* could disperse Mairol's forces besieging the palace, but the rebels would find cover and regroup once the gunboat left. Or the PCs can help Aroniav link up with his NMR, which should be able to take the landing field, pushing the rebels back street by street. With the aid of the cloudship crews Aroniav can move against Mairol's troops at the palace.

ARONIAV'S GRATITUDE

When the prince regains his throne, he will will give each PC a gold medallion bearing his likeness (worth about £1000 each) and will offer any military PCs commissions in his army. Though the prince cannot give any military aid against Oenotria (he will need his troops to fight unrest) Britain can count on Noorlan's friendship in the future. The *Times* will undoubtedly give the PCs a favorable story, and the British government might decide to reward them as well. Ω





DARKTEK EQUIPMENT GUIDE: A handbook of equipment used by and against the disciples and minions of the Dark Ones. From HiTek ET weaponry to hideous biological devices to survival tools. By Charles E. Gannon. GDW: 2102. \$12.

NEW FROM ICE: Lord of the Rings Adventure Game, Lord of the Rings Adventure 1 and Lord of the Rings Adventure 2 (Middle-Earth subseries), Cyber HERO, and Spell Users Companion (Rolemaster sourcebook). Also available are Champions Presents #1 (Hero) and Nazgul's Citadel (Middle-Earth sourcebook).

MAYFAIR GAMES' recent releases include *Cosmic Encounter*, a social science-fiction boardgame for 3-6 players. Also, *The Xanth Boardgame* captures the spirit and worlds of Piers Anthony's Xanth books. Heroes must travel by air, land or sea to complete their quests before their opponents do. HARD TIMES: Move forward to the post-Rebellion period of MegaTraveller: It's a whole new galaxy out there, and it's yours for the taking! GDW: 0221. \$12.

WEST END GAMES' October releases include Space Gods Sourcebook (Torg) and Deathstar Companion (Star Wars). Also available are Crucible of Pain Adventure (Torg) and the New Star Wars Campaign Pack.

TWILIGHT NIGHTMARES: Exotic, bizarre (yet scientifically plausible) scenarios to shake up your Twilight or Merc campaigns. GDW: 2010. \$12.

BATTLE OF THE BULGE is now available from The Avalon Hill Game Company. The first in the New American History Series of boardgames, *Battle of the Bulge* recreates this historic situation in a two-player, entry-level game.

ALTERNATIVE ARMIES has announced that Alternative Armies miniatures are now available exclusively in the United States from The Armory, 4145 Amos Ave., Baltimore, MD 21215 USA.

THE BATTLE FOR BASRA: This introductory wargame of the Gulf War is available free from your local hobby store. With full-color counters, game map and terrain effects chart, Battle for Basra plays out a battle from the Gulf War which never actually took place, but which very easily could have. Based upon the award-winning First Battle series.

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completely different state, and that rich-poor juxtaposition breeds enmity and contempt: enough to send this Sprawlzone's residents into violent fits of rampaging and destruction - just what every



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Continued on page 35.



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Continued from page 33.

Parents told their children to stay away from the house on White Chapel Lane. Strange things went on there, and strange people visited. Strangest of all, there seemed to be a lot of package delivery—the type of packages a hearse might deliver....



he frequency of missing persons cases in the United States has increased drastically lately. People fear that no streets of any city are safe to walk during the day or night—no class of person is

immune to abduction. At the height of this paranoia, an entrepreneur has started a very successful agency to find missing people—the Missing Persons Location Agency.

The MPLA is essentially a large private detective agency, with a large staff of private investigators who accept any cases having to do with disappearances of any sort. The agency has had a large pool of cases to chose from and has quickly become overloaded. Its success rate is phenomenal, even considering the high number of disappearances lately and now there's a branch office in almost every city with a population of 80,000 or more.

One person finds the MPLA's success story a little too good to be true, and he contacts one of the player characters. "Something has to be done to stop MPLA," he says.

If only it was that simple for the PCs. If only the MPLA were the only thing to stop....

VIDEOTAPE

A whistle blower calling himself "Stan" contacts a PC, insisting that MPLA is committing illegal acts. The PC contacted should be someone who could potentially do something about the situation (police or other law enforcement), someone who has access to public media (reporter or celebrity), or a gnome. Stan will ask to meet the PC, and will bring a videotape with him to the meeting.

The tape shows the parking lot of a supermarket, with a closeup of a red Yugo parked in the lot, then a closeup of an elderly man walking what would appear to be his grandson out to the car. Ablack van is parked next to the Yugo, with the panel door of the van facing the passenger door of the car. The man and boy reach the car, and the boy waits for his grandfather to unlock the cardoor for him. Suddenly, the van door opens, and hands reach out to grab the boy and drag him in. The door shuts immediately, and the van squeals out of the parking lot. The camera zooms in on the license plate of the van-DXO1039. That segment stops, and the next shows the same van parked in the local MPLA office parking lot. As the camera rolls, someone holds up a state department of transportation card that shows that the van with the licence plate DXO1039 is owned by Jason Peters. The registration card is replaced by a clipping from a newspaper section dealing with local businesses. That clipping announces that Jason Peters has been named the new director of the local MPLA office.

Stan will admit that he made the tape and that he's tried to find the boy who was kidnapped—with no luck. He also tried to warn the grandfather, but the elderly man suffered a stroke a few days after the kidnapping and died shortly thereafter. The parents of the boy divorced and relocated to different coasts of America, so the grandfather was hamed legal guardian. The FBI has been looking for the parents since the boy's abduction, but has been unable to find them.

Stan is not willing to take the tape to the police or media or to testify in any investigation. His greatest fear is being identified as the one who filmed the "Turik abduction," as that, he is certain, will get him killed. About the only thing he will say about himself is that he used to be a janitor at a local office building and that he heard about MPLA's activities from a fellow janitor. That janitor was killed in a car crash, and Stan vowed to carry on the crusade. Thus far he has managed to suppress his fear in light of the importance of his task, but now he feels that he has done enough, and he would like someone else to take over.

REFEREE'S INFORMATION

If the PCs are able to check police or media files, they will find out that the missing boy is five-year-old William Turik—a mathematical genius who used to compete for prizes awarded for feats of calculation. MPLA did in fact kidnap the child.

MPLA is a front organization that kidnaps people to harvest organs—particularly brain tissue—for use in electronics. Turik was kidnapped by MPLA, then taken to a house on White Chapel Lane and killed. His brain was used for experimentation—it was divided up into slices, which were put into highly advanced computers to increase their processing speed.

MPLA also kidnaps the children of rich families, then accepts the job of searching for those same children. After waiting a couple of months and charging many thousands of dollars, MPLA will "solve the crime" and release the child thus earning its apparent legitimacy and its high rate of success. Victims of the kidnapings usually report that they were taken to a house in the country, told that they were being held for ransom, then rescued by MPLA agents some weeks later.

MPLA's numerous private investigators follow people to discover the best time to catch them, and thugs and criminals do the dirty work. MPLA is very careful to disassociate itself from the crimes. One time, however, the organization slipped up, and the thugs forgot to switch the front license plate on the van that abducted the Turik boy. Unfortunately for the MPLA, Stan was already on its trail and captured the incident on film.

If the PCs give the tape to the authorities, an investigation will follow, and MPLA will stop what it is doing for about a week. During that time, however, no one will be able to talk to or find MPLA Director Jason Peters. His office will inform any callers that he is on vacation and cannot be reached. If the PCs get his address (he's unlisted in the phone book) and stake out his house, there will be no activity while the PCs are there.

Jason Peters killed the first janitor by tampering with his car. He knows about Stan as well and has had him followed for some time. He was about to have Stan killed (in a seeming accident) when Stan complicated the matter by handing the videotape over to the PCs. When the authorities investigate MPLA, Jason will be forced to forgo subtlety and have Stan violently murdered. It's this murder which makes one or more of the PCs have a particularly bad nightmare.

BAD DREAM

The character with the highest combination of Foreboding and Human Empathy should have the following nightmare on the night that Stan is killed. If several characters have the same Foreboding plus Human Empathy total, they will share the same nightmare.

Read the following to those having the nightmare:

You've come to visit someone in an apartment high-rise complex, but you're not sure who or why. You arrive at the apartment, number 1039, and knock on the door. It swings open from the force of your knock. Inside, Stan is busily typing something on his computer, apparently unaware of your presence.

Suddenly, a harsh purple-pink light shines through an open window near Stan, accompanied by a low growling sound. The light is very bright and harsh—you can barely make yourself look toward the window it's coming from.

Stan stops typing and looks up. The growling becomes louder, and the harsh light more intense. Stan gets up and goes to the window—he apparently can hear the growling but is not aware of the light.

You call out to him, but he doesn't hear you.

As he approaches the window, the light become brighter.

Soon, all you can see is the light, as bright as the sun, burning into your eyes. Suddenly silhouetted against the light is the form of some animal, something resembling a small bear or large cat. The growling turns into a frantic, high-pitched squeal, and the form lunges at Stan. The light disappears.

The dream image begins to fade, and all you are left with is the sound of chewing coming from the apartment, and a strange, oily smell carried on the light breeze from the open window.

Stan, of course, is dead. Although Stan refused to give out his address (he left a post office box registered under a false name and address), the PC who had the dream will recognize the apartment complex. If the PCs go there the next day, they will find what's left of Stan's body. A large part of his chest seems to have been removed—yet there is only a small amount of blood on the carpet and on Stan himself. Stan's face is frozen in an expression of horror, and his skin shows just the lightest trace of a pink hue.

The PCs will undoubtedly want to call in the police at this point. An examination by police investigators or by a doctor PC will reveal that Stan's organs were torn from his body with unknown instruments, but not surgically removed. Animal bites cannot be ruled out.

The Mystery of the Eerie Phantom Cats

By John Coffin

"They look like giant house cats, and they can be as large as panthers. Some are two feet across at the shoulders," says author and naturalist Di Francis, who has been on the track of the beasts in England for the past 15 years.

Francis, author of *Cat Country*, claims she's heard so many eyewitness accounts that she's become fascinated with capturing one.

"A forest ranger was eating his lunch in his automobile when a large, black panther-like feline emerged from the brush and circled his car," she recalls.

The ranger says the beast stood on its hind legs and peered into the car, its face only a few feet away from the window. He said the golden-eyed beast bared its large, white fangs before running off.

Later, he checked the prints, and they were of no known cat species, large or small, Francis explains. Eyewitness accounts describe the monster cats as "highly intelligent and very elusive."

There are photos of the mysterious monster cats, and naturalist Trevor Beer says reports of the animals go back over 100 years.

Some experts believe they are hybrids of common household cats and native wild cats.

Still others, like Beer, believe they are the offspring of panthers that escaped from Victorian menageries in the late 1800s.

But there are still others who believe the cats are supernatural creatures, pointing to accounts given by witnesses who claim they've driven right through large cats that mysteriously appear and disappear in the road.

"This would explain why the animals are said to mysteriously vanish into thin air so often, and why they are rarely photographed," offers David Farrant, president of the British Psychic and Occult Society.

But one prominent British expert goes so far as to say the monsters are either a "mutant species or even dangerous ghosts roaming the countryside."

This article (reproduced in part here) originally appeared in the July 2, 1991 issue of The Sun.

Stan's apartment is in a nice area of town, yet is simple and spartan. If the PCs search his apartment after calling the police, all they will discover is that Stan has been working as a freelance reporter for a tabloid called *Voice of Reason*, where he mostly wrote about ghosts and haunted houses.

If the PCs go back to the apartment during the night or if they search the apartment before they call the police, they will learn that in addition to the MPLA, Stan was also investigating a house on White Chapel Lane that is said to be haunted. He has gathered some basic information:

• The house is owned by a law firm that pays taxes on the property. It refuses to give out the name of the owner, claiming that the house is part of a trust and that certain things need to be settled in court before the owner's name can be made public.

• Neighbors' stories differ on whether or not the house is occupied. The grounds are not maintained at all, and most people think it to be vacant. Some people say that they've seen vans enter the driveway at night and leave just before dawn.

• Many people report that during the night, a low moan comes from the house, and occasionally strange pinkish lights are seen in the windows.

HUNTING TRIP

Within two days of Stan's death, one of the PCs will be approached by Laurie Hiller, an Englishwoman. The PC contacted should be a member of the police or other law enforcement, someone who has access to public media (reporter or celebrity), or a gnome.

Hiller explains that she has been following the trail of a pack of animals hunting livestock in England, and she recently learned that the cats are now in the United States. In fact, she says, two cases of livestock death in the county the PCs are in fit the MO of the cats from England. Hiller produces a newspaper article that explains what has been going on in her native country.

Hiller suggests that the cats are the product of some kind of experiment, and that the animals might be bred to be used as weapons by the government or by a multinational corporation. She is intent on capturing one of the cats for examination and needs help.

Hiller's explanation follows. Read her tale to the players. If one of the PCs is a federal agent or law enforcement, don't read the last paragraph.

These cats are dangerous! They're bigger than anything normal—two feet across at the shoulder. They're powerful too—able to leap from the ground through a second-story window.

The tracks I've studied show that the cats are released at a certain point, then run through the country hunting livestock, particularly cattle and sheep. A few people have also been killed.

The cats apparently only attack at night. What's really unusual is that they don't eat their prey—they just kill it and leave the corpse.

Their tracks always lead back to the point at which they started, but there are no other tracks like from a truck or other vehicle. In fact, there aren't any other tracks at all.



I need some helping hands in snaring one of these things so we know what we're up against.

I've already asked your government for help, but they're too shorthanded, and your local law enforcement didn't believe me.

Hiller claims to be a housewife with a large inheritance who's been bothered by stories of the cat attacks and decided to take action. If the PCs check her out, they'll find that she's properly registered with immigration. If the PCs have the right contacts, they'll learn that there really is a Hiller who just received a large inheritance.

Hiller says that according to the pattern the cats follow, the next farm to be attacked will be the Donner farm, about 20 miles outside of town. She says she's already asked the Donners' permission to set up traps on their property.

Hiller has tranquilizer darts, two nets, five bear traps and other assorted hunting gear from England, plus a tranq rifle and portable cage she bought in America. Each net could hold one cat if the animal is injected with tranquilizer immediately after being trapped.

If the PCs come up with a logical plan, Hiller will go along with it. Otherwise, she will suggest that they lock all the livestock in the barn, then set traps around the barn for the cats. The Donners will help with whatever plan the group agrees on. They are emphatic, though, that their livestock be corralled safely in the barn. If one of the characters is a gnome and offers to buy any animals killed, then the Donners will consent to having their livestock remain outside and unprotected. The Donners will seem understandably tense through the proceedings, and will not invite the party into their home.

During the night, PCs will experience a strange series of events. An ideal method of leading the players through these events is to talk to each privately; an alternative is to write or photocopy the information before the game begins, then hand out notes during the game. Before the game starts, secretly note who has Willpower skill and who does not those with the skill will experience different events than those without.

NO WILLPOWER EVENTS

Read the following events to those who do not have Willpower skill, at approximately one-hour intervals. These events coincide with the events listed in Willpower Events, below. After relaying these events to the players, proceed to The Pounce, below.

As you look around, watching carefully for cats, you suddenly see one just a few meters away from you! It is slinking around, moving with total silence.

You hear a faint growling nearby. You can't quite tell where it's coming from, but it is definitely close. It's a sharp, clear sound that sends chills up your spine. The rest of the sounds of the night fall silent to the low, hungry moans from the cats.

You don't know where the cats are, but you can suddenly feel their presence. They've surrounded you and your comrades like Indians around a wagon train. You get the unmistakable feeling that they are going to attack soon, and all at once. Despair hits you as you wonder whether you'll survive.

If the player characters fire on the cats at any time during these events, the animals will flee. The bullets or tranq darts fired will apparently pass through the cats, striking anything on the other side. PCs with Willpower skill will not see the cats at all.

WILLPOWER EVENTS

Read the following events to those who do have Willpower skill, at approximately one-hour intervals. These events coincide with the events listed in No Willpower Events, above. After relaying these events to the players, proceed to The Pounce, below.

While you watch for cats, you see a pair of glowing yellow eyes looking right at you. The eyes are off in the distance, but they're definitely there. Just as quickly as they appear, they are gone. You see another pair at another location, bobbing and weaving between the trees at the edge of the farm. Just as suddenly, all the eyes disappear and the night is as dark as ever.

The eyes return, only much larger and brighter. They lurk on the edge of the farm, among the trees. This time, you are certain that the eyes are looking right toward you—looking right into your soul. You look back at them, and for a moment you're filled with the impression that the eyes are like the coals that fuel hell's fires—evil and eternally bright. Even when you blink or turn away, you feel as though the eyes are looking through your skull and into your mind, reading your



thoughts and invading your soul. You can't help looking away, and when you turn back, the eyes are gone.

The following is experienced by the character (or characters, if there is a tie) with the highest Empathy attribute:

You hear heavy breathing, and at first you think one of your friends is in trouble. But you realize that there is another source to the heavy panting in the air. You can't tell where it's coming from, but it's very close. It's as if you are standing in the jaws of the beast as it looks down on you. The panting becomes louder and more pronounced—soon, it's loud enough to drown out the voices of your friends. You find yourself shouting to hear your own voice over the constant, evil sound.

THE POUNCE

After the events listed above, six cats will attack the PCs. Hiller and the Donners will duck out of sight as soon as the attack begins. (The number of cats may be adjusted according to the size of the party to ensure that the characters have a fighting chance but that the battle is close.) If the group is in the barn, the cats will rush the barn and attempt to crash through the wooden planks of the wall. If the group is in the house, the cats will try to jump through the windows. If the group is outside, the cats will seemingly appear out of nowhere, suddenly surrounding the party.

The cats will try to make three successful attacks on each PC. Once a character is stunned or has his Initiative reduced to 0, attacks against him will stop. The cats will leave when all the characters are stunned or at Initiative 0, or when the cats have made three successful attacks against each character, whichever comes first. Anyone trying to track the cats through the countryside will lose them within minutes.

The cats are the product of genetic engineering by one of Jason Peter's contacts. He has borrowed them to get rid of the PCs and to see how they do against armed humans.

Any PCs not incapacitated by the cats will enjoy only a short reprise—then the Donners and Hiller will suddenly turn their weapons against them. Unconscious PCs will be taken by van to the house on White Chapel Lane, where they will wake up in the storage room after an hour. PCs who escape may track the group to their destination.

AN URBAN FARMHOUSE

Jason Peters' uses the house on White Chapel Lane as a chop shop for bodies, harvesting internal organs and selling them to his clients. A doctor on his payroll does all the dirty work.

The house is located at the end of a new line of houses to the east is fresh dirt and vacant plots where a few foundations have been laid and a few walls constructed. The house, in effect, stands alone.

The building appears to be a standard two-story suburban house with rather expensive furnishings. However, it hides a series of tunnels and added rooms, which are accessed through the basement door.

Freight Elevator: Through a tunnel is an elevator leading to a small dock a few blocks away from the house. The tunnel is a few hundred meters long. The elevator is used to carry

Cats

The statistics and attack methods for the cats are the same as those listed on page 191 and 192 of **Dark Conspiracy** for large cats, with the following exceptions:

Appear: 6 (or more, depending on party size) Attack: 100% Move: 15/45/70 Skill/Dam: 8/3D6 Hits: 20/40

Special: The cats hunt in packs, led by a pack leader. This leader has the same physical attributes as the rest, but has the ability to project an empathic attack on its prey. This attack has a line of sight range and allows the projector to instill a sense of paranoia and fear among its victims. The direct effect on the target is a series of visions and sounds which instill fear and panic on the prey, thus slowing reactions. *In game terms the effect is that each person attacking one of the cats does so at one less Initiative point than normal.* If a character's Initiative drops to 0, he is too stricken with panic to attack. But since such a character is effectively incapacitated, the cats will make no effort to attack him.

The cats also have Dissolution skill (see page 210 of **Dark Conspiracy**) that enables them to escape any physical trap or net. They will use this skill to breach any barrier the PCs might have set up, and this skill plus their speed will enable them to seemingly vanish in mid-air.

The cats will make every effort to retreat to prevent capture. If a cat is incapacitated, one or more other cats will drag the wounded one away.

Description: These cats resemble huge black panthers. Their shoulders are indeed two feet across, and their teeth as proportionally long. Their eyes are a brilliant yellow and seem to glow from any angle.

bodies and equipment to the basement level.

Examination Room: The room is filled with tables for examining corpses, plus jars and containers of harvested organs.

Weapons Trunk: Inside this trunk are four G3 battle rifles and five Colt Kraits. There is no ammo here.

Storage Room: Excess corpses are kept here. A door connecting the storage room to the examination room can be opened from either side. The storage room, kept at freezing temperature, contains a row of tables—it is on these tables that the characters awake. They have been left alone by a careless guard who assumed they were dead.

Lounge: This area serves as a place for Peters to discuss business matters. It includes a large-screen TV, VCR and rack of tapes of popular movies.

If the characters search the farmhouse after regaining consciousness, they will eventually enter the lounge, where Peters is meeting with a customer from Chicago. One bodyguard is also present.

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Laurie Hiller (Experienced NPC)

Hiller was sent by Jason Peters to lure the PCs into the cat trap. Hiller's instructions are to help the PCs whenever she can, then take out any PCs the cats don't incapacitate. After the attack, she is to call in a nearby van to collect the bodies, then report to Peters. Hiller is armed with a Colt Krait (see page 281 of **Dark Conspiracy**).

Donners (Experienced NPC)

The Donners are imposters—the real Donners were killed and their bodies taken to Peters' house for harvesting. Their instructions are basically the same as Hiller's. The two thugs are armed with Colt Kraits.

JASON PETERS (Experienced NPC)

When encountered in the basement of his house, Peters is armed with a Colt Krait and will not hesitate to shoot anyone he sees in his basement and doesn't recognize. He wears a Kevlar vest.

If outnumbered five to one (or more), he will attempt to flee down the elevator tunnel and leave his bodyguard to fight for him. If taken alive, Peters will not say anything and will depend on his lawyers to get him out.

Peters' Bodyguard (Elite NPC)

Peters' bodyguard, named Günter, is an Elite NPC with Initiative 6 and Strength 8. He carries a G3 rifle (page 291 of **Dark Conspiracy**) with four clips of ammo. His instructions are clear enough—shoot anyone the boss doesn't like. This includes, of course, people who burst into the basement.

As soon as he sees the PCs, he'll run to a table, dragging Peters along with him, tip it over and use it as cover (add one level of difficulty when trying to hit him or Peters). The table is made of heavy metal and has an armor value of two.

Günter will only attempt to surrender if he's about to die. Otherwise, he'll keep shooting until he's out of ammunition, then will attempt to rush the PCs with his knife drawn.

Chicago Connection

The customer from Chicago is actually a Dark Minion. He will use his Dimension Walk ability to escape if he is let out of sight even briefly, or if he is threatened or found out. Anyone trying to establish empathic contact with him will instantly realize that he is a Dark Minion. Although his race is difficult to determine, he radiates evil. He has a total of 50 hit points, and is immune to the effects of stun grenades and tear gasses.

If the referee desires, the dimensional portal the darkling opens to escape can remain open just long enough for the PCs to try to follow the darkling. Of course, the proto-dimension used may not be exactly the perfect environment for humans.... If the PCs enter the room with stealth, they will overhear the following:

"I'm about to fulfill the rest of the agreement all at once. I'm even calling in another doctor to help with the harvesting. You should have 80 more in two weeks, plus a pretty constant supply for the future."

"I would very much like to see that. Your work has been exemplary to date. I and those I represent would be very interested in supporting a method that creates a constant flow of product."

The rest of the conversation is essentially small talk, with a few words about arranging truck schedules.

If the PCs attack or do not enter the room with stealth, Peters and the bodyguard will try to fight. The customer will show no fear, yet will make no hostile action and will surrender instantly. On the table is an order form for a total of 136 brains, with a notation that half of the merchandise has already been delivered.

ENDING THE ADVENTURE

If Peters is taken alive, the authorities will have no trouble convicting him based on the organs they find in the storage room and the weapons in the trunk. If the Chicago customer gets away, he will certainly be back to attempt to salvage Peters' operation or seek revenge.

Characters should receive two experience points for surviving and one Initiative experience point for the combat they went through. Ω



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By J. Duncan Law-Green



ow do you tell whether someone is who she says she is, without ID or proper records—especially when

she's supposed to have been dead for over 3000 years?

IT'S HOT

Date: The starting date for this adventure is 114-1119 (29th April 5637).

Place: Suran, a major population center on Teucer (Solomani Rim/Capella 0605 A759966-E).

Suran is sweltering under a heatwave it is rumored that the planetary weather control system is slowly breaking down as technicians are recruited by the confederation navy for projects elsewhere in the sector. SolSecBureau ChiefHarry Pickering is no longer a young man, and the unseasonable weather has not improved his mood. Neither has the stack of navy reports on his desk indicating that the Solomani war effort is continuing to falter in the Vega region. He glares at the characters as they enter and waves for them to be seated.

"I suppose you want to know why your contracts have been renewed," he mutters, searching through the piles of document folders on his desk. "Well, early this morning-ah, found it-we got a vidphone call from some chairwarming navy guy down at Suran Port. Jev Yeates-here's his file. The call was barely coherent-he went on about how he'd found something really important, which could affect the course of the war. Normally, we'd ask him to bring it in, in a cardboard box-like all the other loonies. However, it turns out that this guy has some political connections, and it's possible he could bend a few ears if he doesn't get what he thinks is fair treatment."

If the PCstake the time to read through Yeates' file, it supports what Pickering says. Lieutenant Jev Yeates works as a 44 Challenge 53 liaison officer between the navy and the Suran Regional Starport Authority. His aptitude ratings and his commitment to the Solomani cause have been unspectacular, to say the least. The picture the PCs get is of a bumbler who has managed to get himself a cushy job away from the war, with a little help from some distant relations who happen to occupy quite senior positions in the local Solomani Party.

"What I want you to do," Pickering continues, "is go check him out and give me a complete report as soon as you can." He swivels his chair to face the panoramic window and gazes out at the glittering ocean. "Just humor him until you find out what he's up to. If it turns out he's wasting our time, then you have my permission to convey SolSec's displeasure in the normal manner."

Before they leave, Pickering gives the PCs the appropriate chits to requisition personal weapons (pistols) and a vehicle (the Sirvaan air/raft from 101 Vehicles is suitable). He will also provide a holocrystal copy of Yeates' file.

A WILD GOOSE CHASE

Yeates' file specifies that a meeting will take place at the mezzanine level of the Suran Metro Center at 1300 local time, which gives the PCs about three hours before the meeting.

If the PCs call Yeates' vidphone number, they will get no reply. If they call a neighbor or the concierge of the apartment block where Yeates lives, they will learn that he has not been seen for four days.

Yeates' apartment is about 20 minutes away. If the PCs search it, they will find little of interest—apart from a message on his service computer from his office at the naval base asking why he hasn't turned up for work. The majority of the service computer's holocrystals appear to have been wiped. The PCs will also find that Yeates seems to have a taste for pulp adventure novels (which should worry them!).

The metro center is busy with lunchtime crowds visiting the restaurants and many simply taking advantage of the air conditioning to recover from the heat outside. Yeates does not arrive by the scheduled meeting time. At 1310, a nearby public vidphone begins to bleep insistently. If the PCs ignore it, a passerby will answer, look baffled and hang up again. After about a minute, it rings again.

If one of the PCs answers, the screen is blank, and a male voice asks, "Did Pickering send you?" If the PC replies in the affirmative, the voice says, "Go to the vidphone booth at the intersection of Destiny Boulevard and 167th Street" and hangs up.

Smart PCs may well have anticipated Yeates' next move. It is possible to trace a vidphone call using a hand computer and a nearby vidphone unit.

To trace Yeates' call:

Difficult, Computer or Commo, Int, 2 sec (safe)

On a successful result, the PCs learn that the call was placed from the foyer of the SeaSpray Complex, a condominium development to the south of Suran Port, about 30 minutes away. If they fail at the task, then Yeates will bounce them around from one phone to another for an hour and a half. Then hot, tired and very annoyed—they are told to go to the condominium complex.

CAN I

INTEREST YOU IN ...?

Assuming the characters have played Yeates' game and kept up with vidphone calls, he will meet them in the foyer. A small, slight man, Yeates appears very nervous—particularly if the characters seem to be on the point of donning brass knuckles. If pressed about the vidphone "game," he says, "I thought that was what I was supposed to do...." He does not answer any questions about his mysterious "find" as he leads the PCs to the apartment he has rented.

If the PCs traced Yeates' call and headed straight to the complex, Yeates will be nowhere in sight. The receptionist will be friendly, but a little too enthusiastic in extolling the virtues of the spacious and ultramodern units available with 95% financing.



To gain useful information from the receptionist:

Difficult, Interview, Carousing, 1 min (unskilled OK)

Referee: The task becomes Routine if the PCs study the promotional material.

On a success result, the receptionist reveals that no one named Yeates lives there. But a woman and two men, one of whom answers Yeates' description, rented an apartment about three days ago, paying for a week in advance. Oh, and the woman looked kind of familiar, but the receptionist couldn't place her exactly.

Once the PCs locate Yeates' apartment, they find his hired muscle standing outside, armed with a snub pistol under his jacket.

APARTMENT

If the PCs have not already met Yeates (or if they manage to get past his guard), they will find him in his new apartment, in a state of near panic. Identifying themselves to him will reassure him somewhat.

The apartment appears to be quite expensive and tastefully furnished, with a balcony overlooking a lagoon and several smaller rooms leading off a central living area. Seated by a glass table in the living area is the other occupant of the flat, a woman in her mid-sixties, welldressed and apparently in good health. She barely acknowledges the PCs' entry, seeminally engrossed in the glossy books and magazines which cover the table. They seem to cover a wide range of subjects-starship design journals, Morton Fielding's Gazetteer of Old Earth, several issues of Capella Newsweek, the Solomani Party's Official History of the Human Race. She constantly refers across to the output of a hand computer on the table beside her.

Yeates places his hand on the book she is reading. She looks up, and he nods. She sighs wearily, as though what she is about to say has been said many times.

"Strider, Lorette Kathryn. Colonel, United States Space Force, Retired, 234115-6723."

Once the PCs have picked themselves up off the floor, they can begin to consider the implications.

LORETTE STRIDER

To recall the following information: Routine, Edu, Instant

Lorette Kathryn Strider was born July 14, 2053 AD, in Kansas City, Kansas. The 46 Challenge 53 pictures she saw of NASA's Comet Halley Intercept Mission, at the age of eight, convinced her that her future lay in space. After attending the University of Arizona, she joined the US Space Force. She worked on the construction of space force facilities at Oceanus Procellarum (Luna) and Phobos, rising through the ranks to become one of the USSF's most experienced and respected astronauts.

The greatest turning point in her career came in 2094, when she was selected to command the international crew of *StarLeaper One*, the joint Space Force/ NASA/UNSCA interstellar mission to Barnard's Star. The mission departed in 2096 and returned less than a year later with astonishing news. The Barnard system was already occupied by humans— *StarLeaper* had discovered a Vilani prospecting base.

Following the discovery, Strider, together with several other crewmembers, offered to work for the United Nations as diplomats. Her natural linguistic ability enabled her to learn Old High Vilani relatively quickly. She travelled several times to Barnard and Agidda in order to learn more about this mysterious race.

The clash of Terran and Vilani cultures meant that war was never far away. The final trigger was an attack on a Vilani merchant convoy at Barnard in early 2118. At that time, Strider was travelling to the Barnard system aboard the American frigate *Jefferson* with a last-ditch proposal to avoid conflict. She was too late. The *Jefferson* was attacked by a Vilani warship and destroyed—the first major Terran casualty of the First Interstellar War.

Strider is portrayed as a heroic figure of Solomani history. Patriotic paintings of the *StarLeaper* crew hang in the high schools of every world in the Confederation.

LORETTE'S STORY

Strider speaks Galanglic slowly and haltingly, with an accent the PCs find difficult to understand. She frequently has to refer to a partial American English-Galanglic translation program Yeates compiled on his hand computer. As far as the PCs can tell, she seems to be in full control of her faculties.

According to Strider, the USS Jefferson had already spotted the combat in the inner Barnard system and was attempting to escape into jumpspace when it was attacked. The Vilani ship made one attack run at very close range, crippling the maneuver, primary power and lifesupport systems, and the commander gave the order to abandon ship.

She says sheremembers an officer shouting, "Get clear before the field closes!" And as she launched her escape pod, she saw the actinic glow of the hull's jump grid: The jump command was still locked into the ship's computer. There was a wrenching sensation and a blinding light—then she lost consciousness. The next thing she remembers is a man in an orange jumpsuit standing over her asking her questions in a strange language.

Strider tires of her attempts at communication, and Yeates takes up the story at this point. Strider was reportedly picked up in the Tarsus system (Capella 0306) by a free trader. She was found in an escape pod "of archaic design," which appeared to have suffered burndamage. Still semi-conscious, she was taken to the sick bay. The trader captain was in no mood to turn back, however, and handed her over to the starport authorities at his next stop, Luuru. He claimed the escape pod as salvage.

On Luuru, she received treatment for what appeared to be the effects of hyperspace exposure. The authorities were baffled at this uncommunicative woman, who lacked any kind of identification. They only managed to coax one word out of her—"Earth"—so they just shrugged their shoulders and officially labeled her "someone else's problem." She was then placed on the next commercial ship heading in the direction of Terra—which took her to Teucer.

The situation would have repeated itself at Suran Orbital Port if Yeates had not been working there four days ago. The immigration department supervisor (a friend of his) called Yeates to see if he could understand the woman— Yeates studied several confederation minority languages at college.

The first thing Yeates learned was her name, at which point he panicked. He quickly secured shuttle transportation for her on the pretext of checking records at the surface naval base, then smuggled her to the condominium complex. Since then, he has done his best to teach Strider Galanglic and learn more about her in the process.

WHAT NOW?

The PCs may think of going to Pickering immediately with what they have found. Yeates pleads with them to do otherwise he wants their help in finding out whether or not Strider is genuine. Besides, he points out, lowering his voice, it would be a considerable feather in their caps if they could hand her over to the confederation authorities "on a platter." Just think how much she'd be worth in propaganda holovideos and personal appearances, exhorting the Solomani to greater effort.

Yeates is very reluctant to let Strider out of the apartment. To persuade him to cooperate if the PCs need to take her elsewhere is a task:

To persuade Yeates to let Strider leave:

Difficult, Persuasion or Admin, Int, 5 min *Referee:*Apply a +1 bonus for each extra PC taking part (Yeates is a coward). The task becomes Routine if the PCs have a sensible plan to move her discreetly.

Question Strider: The language barrier is considerable, despite the computer translation system. However, after a couple of hours, the PCs will come to the conclusion that Strider is quite knowledgeable about prestarflight Solomani history. Some discrepancies do arise—she attributes these to errors in the historical record, rather than defects in her memory.

Physics: Reading through scientific papers with titles like "Nonstandard Interaction Dynamics in Hyperspace Entry" should be enough to put off the most determined PC. Asking questions at the local university is time-consuming, but eventually provides the answer—yes, such a thing is theoretically possible, but the impact with the jump field must be timed to the nanosecond. The odds against such a thing ever happening are astronomical.

Historical Precedent: Use this task:

To collect the following information: Routine, Computer, Edu, 20 min

In 995 (AD 5513), during the Solomani RimWar, the Solomani battle tender *Valkyrie* was attempting to escape from the Muan Issler system when one of its riders accidentally uncoupled and struck the jump field. The *Valkyrie* reemerged into normal space at Vega, heavily damaged and minus the rider. The 64 maintenance crew on board the rider were listed as missing, presumed dead.

In 1109 (AD 5627), a Transstar liner at Chernozem (Solomani Rim 1836) was struck by debris which appeared "out of nowhere." The debris was tentatively identified as part of the docking mechanism of an obsolete *Valhalla*-class battle rider. Immigration: The Suran Orbital Port Authority Immigration Department has been hassled before by SolSec—they're busy right now, and they really don't have time to answer any dumb questions. If the PCs are persistent, they find that, yes, the officials remember a woman passing through a few days ago who had "problems with her documentation." The supervisor who interviewed her is "on vacation," and they don't know where.

Genetics: Use the following task:

To perform a DNA scan using handheld equipment:

Routine, Medical or Biology, Edu, 30 sec (uncertain)

A DNA scan is useless because the PCs have no profile to compare it with. They merely discover that Strider is a pure-blood Solomani Caucasian female with no genetic abnormalities.

To know of mitochondrial RNA "dating":

Routine, Medical, Edu, instant (unskilled OK)

Geneticists have found that the RNA structure of the mitochondria in human cells evolves over time—therefore, Strider's RNA structure should theoretically differ from that of "modern" humans. RNA dating is quite an esoteric procedure, however, and only three medical facilities on Teucer are routinely equipped to do it. The nearest one is 2000 kilometers away.

Note that this procedure only requires a cell sample from Strider. There is no absolute need for her to travel there, but don't tell the PCs that! How the PCs ensure secrecy is up to them.

Escape Pod: The pod from the USS *Jefferson* may well be halfway to Magyar by now, taken by an unscrupulous trader captain. The confederation navy requires salvagers to report salvages made in deep space and routinely publishes lists detailing such work. This is done both for the benefit of starship insurers and to assess which areas pose navigational hazards. The naval base at Twylo may have listed the discovery of the escape pod, which will corroborate Strider's story.

The next salvage report from Twylo is due at the Suran naval base in three days. As (bad) luck would have it, the base computer net is "down for maintenance," meaning that those wanting

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copies of the list will have to turn up in person or wait another 24 hours.

REFEREE'S NOTES

The referee may choose which of these variants suits him and his PCs the best.

Variant 1: Strider is a fake, hypnotically programmed by Imperial agents as part of a plot to discredit the Solomani Party. A forged report on the escape pod has been "inserted" into the naval courier system. CNI is liable to take out its displeasure on the PCs when Strider is unmasked.

Variant 2: Strider is a fake, an out-ofwork holovideo actress recruited by a splinter faction of the Solomani Party to discredit the Suran City Party Committee (of which Pickering is a member). Violence may ensue if Strider is unmasked prematurely.

Variant 3: Strider is Marianne de Fouilloy, a historian and linguist of little repute, who was returning to her home in Jardin subsector on a tramp liner. Depressed after failing to sell a documentary holocrystal series to a publisher and suffering from the effects of drugs, she lapsed into the fantasy of believing she is Strider. She ejected from the liner in an escape pod just before it jumped (the tramp liner was a retrofitted freighter with military surplus escape pods to bring it up to specs).

Yeates may panic and attempt to conceal evidence once he knows the truth. Strider's mental condition will deteriorate day by day.

Variant 4: Strider is who she says she is. The escape pod is "recovered" by Twylo naval personnel and found to be "of ancient Terran design, unaccountably well-preserved."Naval intelligence is interested and traces Strider's progress to Teucer.

The PCs are arrested by CNI either at the naval base or at the apartment on the evening of the same day. They are caught in a struggle between CNI and SolSec for this propaganda asset. The group may escape with Strider—which will force the confederation to "bury" the incident by revising their records to make it appear that Strider was a fake.

The PCs may begin to doubt their Solomani doctrine when they talk to Strider and find that she abhors the confederation's racist policies. Ω





he word was on the streetsomeone wanted your talents and wanted to meet you ASAP. The meeting seems to have

been sited as much for subterfuge as for privacy. Not many runs begin with terse orders to congregate beneath a deserted storefront awning at 1300 hours during a storm. Since when are rainstorms running on a timetable? But there it is, coming straight down in buckets and throwing lightning bolts from cloud to cloud. Couldn't ask for a better antisurveillance environment.

Your contact is a small, stout man in a long raincoat and snap-brim hat. He's too tall to be a dwarf, but doesn't seem tall enough to be a human. He waits until everyone has arrived, then sets his briefcase up on the store's window ledge, saying, "Here are your instructions." He opens the case to reveal a flatscreen, which lights up. The visage displayed on the screen isn't human. It isn't even remotely terrestrial: Fanged, scaled, horned, snouted-adragon. The more politically aware members of your group realize, with a shudder, that it's not just any dragon-it's Lofwyr. The Lofwyr, the dragon that went corporate. One of the neighbors to the south that the city politicians don't talk about.

"I have a simple job for you." The dragon's voice is surprisingly deep and smooth, like a sub-bass croon. "I want you to take a person from my agents arriving at the airport and transport her to the borders of Tir Tairngire." He smiles, showing an impressive array of teeth. "Of course, it's not quite as simple as that. Other people will attempt to harm this person. Therefore secrecy is important. Above all, this person must not be harmed, molested or violated in any way." A rumble creeps into his voice. "Is that clear? And rest assured, if she is harmed, I will know."

He pauses theatrically. "The rewards for success are 2500 nuyen and the prospect of future contracts. As for the penalties of failure, none of you have the life experience to even begin to imagine."The image fades as the screen shuts off.

The short man closes the briefcase and takes a slip of notepaper from an inner coat pocket. "Here are the details of the pickup. You're to deliver her to the Tir Taimgire border ASAP. You'll be paid on arrival." He picks up the case and steps out from under the awning, just as the worst downpour in weeks stops with the abruptness of a thrown switch. A small, black city carpulls up and he gets in.

IF YOU ACCEPT

By accepting the invitation to show up in the first place, you've already committed yourself to the mission—or to a whole lot of trouble. The notepaper the PCs are given bears the words "Flight 1313 from Sweden. Ingra Swolderssen. 0545 hours."

STREET RUMORS

Should the PCs go out into Seattle that night and look for more information, they can test the rumor mill with what they have. If they seek the information on the street, the appropriate skill is Etiquette (street). The target number is 4. The results depend on the number of successes:

No. Results

- 1-2 Sure, chummer. There's been a big call lately for blondes. Some sorta babe market, eh? Word has it that there's a slavery ring outta Nippon.
- 3-4 "There is a slavery ring importing Cauc women to Nippon. Corp sponsored through the Yakuza. Watch your step, though; there's competition to this ring from another source.
- 5-6 The Yakuza are importing roundeyed, fertile women to Nippon for breeding purposes. They're trying to increase normal births. They're all afraid their pure blood'll have pointed ears. Seems that someone in the tribes doesn't agree with this; there's organized opposition from Tir Tairngire. But you didn't hear it from me, mind you.
- 7+ All the above, plus: There's a move on against Lofwyr. The word says he's importing virgins for some ceremony—something having to do with his longevity. Of course, the virgin won't survive the ceremony. The sacrifice is supposed to be taken to Tir Tairngire sometime in the next couple of days.

CORPORATE RUMORS

If someone wants to try the corporate grapevine on for size, he requires the Etiquette (corporate) skill and at least



one Corporate Secretary or Mr. Johnson contact. The target number is 3. The results are as follows:

No. Results

- 1-2 There's a plot going on against Lofwyr. We're not involved, but the execs have been making contingency plans.
- 3-4 Someone's trying an attack on Lofwyr. Not a hostile takeover, but an attempt on his person. We're bracing for the aftermath; if he dies, we can clean up. If he lives, his opponents are in a world of hurt, and vulnerable. Whaddaya mean, vultures? That's business, chummer. Live and let die. It's an ill windfall that blows nobody good.
- 5-6 Lofwyr's in trouble. Some sort of plot on his life. It has something to do with a woman arriving soon. Rumor has it he needs her for a secret magical ceremony. There are people trying to stop it. No, I don't know who they are, and I wouldn't spill even if I did know. It's worth a man's life at this point. The operation begins tomorrow. That's all I know.
- 7+ All the above, plus: It's a plot worthy of a spy novel. The Yakuza are in this up to their noses. Heavy hitters have been headed for Seattle for a week. Some are Lofwyr's, some are independent, and some are here to stop the transfer. Probably some are just here for confusion factor. I pity the poor suckers doing the carry job. What, you? Been nice knowing you. You want your relatives informed now or later? Here's a tip: Watch out for the woman. She's not what she seems.

If any of the characters tell their contacts they're the people hauling the girl, reactions should range from pity and swift avoidance ("Uh, I just remembered an urgent appointment—see you again sometime. How about next century?") to avaricious interest ("You're hauling the sacrifice? How interesting. Sure, I won't tell anybody, no matter how much money they give me. Trust me. Tell me more. How do you intend to go about this?"). It should become apparent to the PCs that there is enough information on the street to place them in jeopardy.

THE TASK AT HAND

The straightest, easiest way to get from Seattle to Tir Tairngire is by taking Interstate 5 southto Portland. It's about a 350-kilometer run (almost 300 kilometers as the crow flies), a little over three hours in the average vehicle (one and a half in a fast plane). Counting in the time for the round trip, that's around 600 nuyen an hour. Not bad wages, boyo.

If the PCs don't have any vehicles, they need to rent some. Rental fees are based on the new cost of a vehicle. For vehicles priced under 100,000 nuyen, the rental cost is a deposit equal to 2% of the new cost and a rental fee equal to 1/2% (.005) of the new cost, per day. For instance, renting a Ford Americar would cost 400 nuyen for the deposit plus 50 nuyen per day.

Renting vehicles costing 100,000+nuyen gets expensive. The deposit is 5% of the

vehicle's new cost, plus 1% of the new cost per day. A rented Fed. Boeing Commuter chopper has a deposit of 12,500 nuyen and costs 2500 nuyen per day.

Any vehicle adapted for rigger operation has its cost for rental purposes based on the new cost, plus the cost of the Adaptation Rig. The Ford Americar above would have a deposit of 600 nuyen and a rental cost of 75 nuyen perday if it were adapted for rigger operation.

Warning to the runners: If their main plan is to fly from Seattle to Tir Tairngire, they'd better have a backup plan. The weather report isn't favorable; there's an extremely heavy storm cell moving in off the ocean.

D-DAY, H-HOUR, M-MINUTE

The next day dawns without the sun. The heavy clouds that cover the sky barely let in enough light to show that it's day. Any metahumans that have problems with sunlight can leave their sunscreen home today. The dark purple clouds loom over the city, threatening to drench the entire coast with heavy rain. As the PCs head to the airport to pick up their Swedish cargo, the clouds make good on their threat, turning the gloomy day into an even gloomier (and wetter) one.

At the airport, any hopes of taking the aerial route are quashed. The storm

Ingra Despite appearances, the rumor that Ingra is not what she seems is true. She is actually an agent—a young, relatively inexperienced agent, but a highly trained one, gifted with natural acting talent. She has been specially trained by Lofwyr's organization for jobs needing an agent without a record.

Skills:	Special Skill:
Unarmed Combat: 6	Acting: 6
Armed Combat: 3	
Firearms: 4	
Stealth: 3	
Athletics: 4	
Psychology: 2	
Swedish: 6	
English: 2	
	Armed Combat: 3 Firearms: 4 Stealth: 3 Athletics: 4 Psychology: 2 Swedish: 6

Notes: Ingra has no cybernetics, but she does have an interesting weapon: Her canine teeth have been replaced by ceramiplast duplicates, each containing a small toxin reservoir. If she bites someone (requiring that she grapple with her target) the toxin is injected into the bloodstream. The toxin is artificial, an enhanced chemical reproduction of Lofwyr's own poisonous bite. Ingra's teeth have enough toxin for five bites. This is a lastditch weapon, and she won't use it unless she has to.

Ingra's Bite: Damage 5D2, Speed instantaneous, no side effects other than an intensely powerful burning sensation at the bite wound.

clouds are generating lightning, hail, and ice, and there have been radar hints of cyclonic activity approaching from the sea. Flying anything smaller than an airliner is out of the question.

Flight 1313 is late, delayed by the rain and heavy weather. The PCs have to wait in the airport lounge, along with the others waiting for their aircraft to arrive.

Airport security is tight. No one was allowed to enter with any weapon heavier that a knife; even pistols were checked at the door. Most people don't even bring heavy guns there; checking them is a hassle. In addition, heavily armed guards are positioned in bulletproof glass hardpoints, ready to sweep the terminal building with fire in the event of a fight. So the characters are left without their heavy armament, with nothing to do but wait and watch.

There are plenty of people to watch. Perhaps 50 souls lounge about, some sleeping, some immersed in their simsense plays, some reading (!), some watching the vidscreen, plus a gaggle of three-pieces (street-slang for businessmen and corporates) huddled around the coffee machine, talking insider trading in low voices, a trio of hardcases in armored dusters sitting like statues with only their eyes moving, a pair of young children running around getting in everyone's way while their harried mother keeps calling them back to her side. Any of them might be trouble for the pickup; with so many pros in town, even the children might be trained assassins.

Of course, the people most likely to attract the PCs' attention as possible killers are the three armored stoneyfaces—they look like professional murderers, and they act like it. They shouldn't be armed, but everyone knows that the corps have weapons and gear that can't be detected on normal scans and who knows what cybernetics they could have.

Nobody bothers the adventurers as they wait. The hardcases watch them and everybody else. The children run past, shrieking in unbearably high-pitched voices, eliciting groans from the waiting people trying to sleep. The three-pieces swill strong coffee, listening intently to a lecture from the single fem exec in their midst.

Finally, at 0713, the computer-generated perfect contralto intercom voice announces the arrival of Flight 1313. The kids run to their mother, shrieking, "Daddy's plane is here!" The corporates pay it no mind; several people shift in readiness, including the three gunsels, moving for the first time.

The boarding tube is extended to the supersonic delta-wing plane, and the passengers start to stagger into the reception area. Apparently they had a rough flight; some of them look green around the edges. The characters move to wait for Ingra Swolderssen, accompanied by the other waiting people. Ominously, the gunsels station themselves by the doors to the reception area, cutting off the exits.

The characters wait once again as the passengers are checked in by customs and processed. They can't tell which one is Ingra; they have no descriptions or photo ID, after all. And there are plenty of women among the passengers, several of whom might be their pickup. Eventually, a matronly woman and a pretty blonde pause by the runners. The older woman hisses to the nearest character, "Hsst! Here she is. We've gotten clear-take her and get going!" She passes the blonde's arm to the character and tells her, "Go with these people, Ingra. They'll take you the rest of the way." If the characters hesitate, the older woman growls at them to leave, now!

TAKING CARE OF BUSINESS

As the characters and their charge exit the reception area, the three armored men follow, moving silently, deliberately trailing the group. They continue to follow as the PCs move across the lounge. As the PCs pass by the coffee machine, they are suddenly attacked—not by the three obvious killers, but by the threepieces! All four of the suits leap into action, one of them sprouting a shortsword-length spur from his palm, another using retractable blades in the toes of his shoes, and the woman flashing hand razors.

They go for the girl, attacking any characters in the way. But before they grab her, the three armor-coated hardcases move into action, assisting the PCs! The three-piece attackers get two rounds of combat to attack the PCs before the gunsels come to the rescue.

The three-pieces use the Company Man archetype (*Shadowrun* page 164), while the gunsels use the Street Samurai archetype (page 46). The shoe blades and hand razors have a damage code of (Strength/2)L2, while the arm spur has a damage code of (Strength)M2, like a sword. The three-pieces are wearing armor clothing, while the gunsels are wearing lined coats.

The PCs can use the gunsels' interdiction as a diversion to mask their getaway; in fact, one of the gunsels yells advice to that effect. If the PCs stick around and wait for the airport guards to react with stun rounds and tasers, they'll be delayed for several precious hours while airport security tries to find out just what's going on.

Once clear of the airport, the characters have a chance to examine their charge. Some women acquire beauty, while others borrow it through cosmetics. Ingra was born beautiful and has been getting better every day. She is a perfect blonde, perhaps 18 years old. Blue-eyed, red-lipped, rosy-cheeked, tall and voluptuous, Ingra seems made to carbonate male hormones and inspire women to jealousy. She also inspires sympathy. Only a man with a heart of stone (or plastic) could stand by and not feel some compassion as she weeps. frightened, friendless and lost. She clings to the first person to comfort her, tears gradually waning to an occasional sniffle. In the meantime, she obeys orders with alacrity, understanding that danger is all around.

Ingra seems utterly incapable of defending herself—if she's in danger, she screams and cringes. She knows what guns are, but wants nothing to do with them, and will not even strike someone in anger.

If asked, Ingra will freely tell of her life (her English is good but is stilted by her Swedish accent). She grew up on a small farm in Sweden, went to school in a nearby small town, was engaged but broke it off when her beau mutated into a troll, and has never been in a big city until now. Men contacted her family, promising an incredible amount of money if she came on this trip. It would be dangerous, they warned, but she would be protected, and the service she was to perform would be perfectly safe and nominal—she'd be winging her way back home within 48 hours.

ROAD TRIP

With the weather turning the heavens into a flier's purgatory, the PCs are left with surface transport as the only



way to get Ingra to Portland. The PCs may have already procured transport (a Rigger character is in his element right now). Sneaky PCs might suggest ocean transport, getting to Portland via Astoria and the Columbia River, but the same weather conditions that rack the atmosphere have raised six-meter seas; nothing is sailing from Seattle today! And only a submarine could cruise beneath the turbulent surface; unless the PCs have chartered a sub, they're stuck with the interstate south.

The trip through the lower end of Seattle is calm, the streets cleared of traffic by the force of the storm. This is a boon, as it allows the PCs to slip heavily armed vehicles out of the city without being rousted by corp-cops or the municipality's finest—they're normally somewhat wary of vehicles boasting autocannons and missile launchers.

The journey down I-5 is equally dullthe monotony of the lonely road is broken only by sudden gusts of wind that rend the veils of heavy rain and threaten to force vehicles to veer from their path. The runners (other than the drivers) can occupy themselves with their own amusements, which can range from simsense entertainment to sleep to trying to put moves on Ingra. If any enterprising male PCs try to befriend her, she will respond with open cheerfulness. If male PCs try to seduce her, she responds with innocence and sincerity. Indeed, she fixes on the suitor with the highest Charisma and acts totally smitten. This may be risky, however, since Lofwyr ordered that she was not to be "harmed, molested or violated in any way."

Of course, the adventurers can't just rest and take it easy—there are enough mysterious incidents to keep them properly paranoid. For one thing, the heavy rain makes traction uncertain and maneuvering treacherous. As noted on page 72 of *Shadowrun*, rain makes normal roads Restricted terrain and turns country roads into Tight terrain. In addition, it lowers visual sighting range to about 50 meters.

Raiden Sedan: As the characters' vehicles wind their way through some curves scarcely 20 kilometers out of Seattle, going through Salish Shidhe territory, they spot a pair of tail-lights ahead in the rain. They have no problem passing a lone Raiden sedan (the Japanese equivalent of the Ford Americar). They can't see who's inside since the car boasts tinted windows. (The car actually holds four Japanese businessmen headed to Portland.) A few kilometers further on, the road straightens out, running between forests of impressive conifers. After 10 minutes of cruising on the straightaways, a set of headlights is seen behind them, closing fast. Radar detectors beep their warnings-the characters are being probed by a strong signal. Unless the characters decide to blast the approaching vehicle, a Raiden whips by at insane speed, passing the adventurers' convoy with a spray of water.

This incident is repeated several times on the road to Portland. The Japanese in the Raiden have a sophisticated autopilot driving the car-it pushes the car to its operational limits on flat straightaways, but slows to cautious speed on the curves. The end result is that the PCs keep passing the car on curvy road sections, and the car blows their doors off when the road levels to straight tracks. If the PCs want to outrace the sedan and keep it from passing them, treat the terrain as Restricted (meaning that the maximum safe speed is Cruising/Handling) and roll the Opposed Success test for opening distance, according to the rules on page 72 of Shadowrun. The car's autopilot has a skill of 6.

Harley Scorpions: A third of the way to Portland, a quartet of rain-slickered men riding Harley Scorpions trail the adventurers' convoy at about 75 meters range, sticking behind them as they navigate a series of blind curves. The bikers trail the heavier vehicles for about 10 kilometers until they hit another straight section of road. Once the curves cease, the bikers punch it and roar loudly past the PCs' vehicles to vanish in the rain ahead. If the PCs attack, the bikers are treated as Street Samurai, wearing lined coats. Each has two AK-94s fixed forward on his cycle.

Mysterious Vehicle: After the bikers pass the characters, another vehicle shows up behind the convoy and paces it at a distance of 100 meters. It doesn't speed up to pass or drop back to turn off—it just matches the runners' moves and lurks out of visual range. (This is only a tractor-trailer rig on the way to Portland. The driver is following the PCs' tail-lights, watching them to discover curves in the road. He's in no hurry and has no desire to out-distance his pathfinders.)

RIDERS ON THE STORM

The PCs are two-thirds of the way to Portland when their mystery follower (the rig) is passed by several vehicles, moving fast. The mystery follower drops back, and his lights vanish as a trio of bikes flash past in pursuit of a low, sleek red car. The bikes are Yamaha Rapiers, manned by heavily armored bikers firing Uzi IIIs as they guide their fleet motors (treat them as Street Samurai with Motorcycle 6). The car is a Westwind 2000, driven by someone less skilled than the cyclists.

The cyclists seem to have no compunction about shooting wildly. They fire continually at the Westwind 2000, hitting it several times (but not critically) as it slashes through the rain, outdistancing the PCs' vehicles in the other lane. At the same time, one or two of the adventurers' vehicles sustain Uzi hits; resolve the damage as per vehicle damage rules. The bikers pull up abreast of the adventurers' convoy by the time the PCs can react, presenting targets at a range of 5-10 meters.

No sooner have the bikers been splattered all over the rain-soaked road (is there any doubt?) than the Westwind 2000, now about 100 meters ahead of the PCs, blows a tire weakened by too many bullets. The vehicle spins across the pavement into the ditch that divides the highway. The PCs have to slow drastically to avoid the debris left by the crashing Westwind (perform a crash check; failure indicates that the PCs' vehicle has crashed as well).

The truck that was following the PCs stopped several hundred meters back to wait out the vehicular combat.

Inside the PCs' vehicle, Ingra cries, "That poor man! He must be hurt. We've got to stop and help him." If the characters are reluctant to succumb to Ingra's charms and grant her wishes, and are too hard-hearted to offer succor to an injured man, remind them that the fellow was driving a Westwind 2000, an obscenely expensive vehicle, which hints that he may be a man of means.

Once the PCs have come to a stop, they see someone stagger out of the driver's side door of the 2000, proof that its touted shock couch and air bag are effective. The driver totters over to the roadside and sits down, his head in his hands, seemingly oblivious of the rain.

The man is lightly injured-a few scratches that bleed messily. He's still stunned from the wreck. His Westwind 2000 is undrivable; it needs a replacement rear wheel. He accepts the characters' evaluation of his car's condition without comment. "I suppose I should have expected trouble," he tells them, "but I hoped I could outrun it. Have you a spare seat? I can make it worth your while to get me to Portland-I have extremely important business." His subdued but expensive (and now wet) clothing reinforces his appearance of wealth; his only weapon is an Ares Viper in a shoulder holster.

If the runners don't take him along with them, Ingra chides them and accuses them of being thugs, street scum and worse. Then she lapses in sullen silence for the rest of the trip.

If the runners do take him along, he introduces himself as Geraldo Vincent. He does not mention what his business is or what he has to do in Portland. Geraldo is, surprisingly, an Elf, although he displays none of the naturalist affectations of the rural Elves. He's handsome, with a dashing Spanish accent, and a natural flirt, speculatively eyeing every female present. When he spots Ingra, he makes a beeline for her.

As the trip progresses, Geraldo charms the young Swede, persuading her to tell him of her life back home and thrilling her with stories of his travels. He's lived an interesting, globe-trotting life—or at least he says he has, and his stories seem authentic. The end result, however, is to cut out any of the PCs formerly vying for Ingra's attentions.

Use the Company Man archetype for Geraldo, but delete the skillwires and add +3 to his Charisma.

ATTACK

The rain slacks off as the adventurers approach Portland and the border. Suddenly, a pair of modified Americars charge the PCs' convoy from around a bend, going the wrong way on the divided highway! Both cars are modified to pack an assault cannon under the hood, as well as carrying three armed passengers. Use the Company Man archetype, but the drivers have Gunner 4, as well. The passengers are armed with AK-98s. Their tactics are simpleclose with the PCs' convoy, guns blazing, and destroy any vehicles except the one containing Ingra and Geraldo. The attackers get one pass before their speeds move them past the adventurers. The Americars slow and turn to follow, setting up a running gun battlethey are most vulnerable while they are turning, because they have to slow to five meters per turn to turn around.

The running gun battle stops as soon as the Americars have destroyed or incapacitated the outrider vehicles, leaving the one carrying Ingra to proceed to Portland. They break off and turn back north, soon vanishing from sight.

During the attack, Geraldo administers a nerve hold that stuns Ingra and feeds her a poison capsule hidden in his sleeve cuff. Geraldo is actually the enemy agent sent to deal with Lofwyr's package (Ingra). The small capsule will release a subtle and powerful neurotoxin into her system when swallowed. The poison won't harm her, but it'll stay in her body for a week and is almost instantly fatal to dracoforms when ingested (15D5 damage).

A JOB WELL DONE

The customs post at the border to Tir Tairngire admits the PCs without question—they've been cleared by Lofwyr. An escort vehicle (a patrol car) is assigned, and the adventurers are led to a restaurant. Inside, in a private conference room, they meet with their contact, the same short, stocky man who contacted them at the beginning of the caper. Ingra is led off by a trio of hard-looking women, and that's the last the PCs see of her.

The stocky mantells the characters to be seated; there will be a short wait. After a few minutes, he stirs and activates a wall screen. Lofwyr's visage peers out of it. The dragon clears his throat, a sound like a volcano warming up for the main event.

"You succeeded in delivering my package, although not without some difficulty," he rumbles. "Payment, as promised, is 2500 nuyen apiece. My agent has cash, if you don't wish to have the transaction recorded via cred account." If Geraldo was successful in his attempt to plant poison on Ingra, or if any of the PCs had sexual relations with her, he adds, "Less 500 nuyen



apiece for not delivering her completely intact." He signs off, and the man pays the adventurers. They are to leave Portland immediately, unless they need medical assistance.

WHAT REALLY HAPPENED

Lofwyr knew there was a plot against his life, but he didn't know what quarter it would come from. Furthermore, he knew that one of his aides was a leak, an information conduit to his enemies, but he didn't know which one. So he cooked up separate plots and gambits, letting each aide in on a different plot. Other mercenary groups, similar to the PCs, have spent the day involved in somewhat similar situations. The only adventure which attracted deadly attention was this one, revealing the guilty aideto Lofwyr. The runnerswere only pawns in a deadlier game. But they've been paid for their troubles and may expect more business from Lofwyr in the future. Ω



TRAVELLER News Service

Phoru/Old Expanses

Date: 003-1122

¶After several weeks of confused and often conflicting reports, it appears that yesterday's resounding defeat of two Solomani CruRons in this system is simply the last in a string of major setbacks for the Confederation's fortunes in this subsector.

¶A sizable attacking force apparently jumped in-system on 001-1122, overwhelming Solomani SDB defenses near the gas giant closest to the mainworld.

¶The two Solomani CruRons on close orbital station immediately sortied in response. However, before the planetside escorts (under repair and refit at the time) could boost into orbit to fill the defensive gap left by the CruRons, approximately a dozen Imperial SDBs emerged from the equatorial seas just south of this planet's capitol.

¶Precision fire from these orbiting defense boats either disabled the planetbound Solomani escorts or compelled their crews to abandon the hulls in drydock.

¶The Solomani CruRons continued toward contact with the hostile elements and engaged a comparable force of Imperial vessels. Minutes into this battle, a flight of outdated Imperial SDBs and interceptors emerged from the gas giant, vectoring into the rear of the Solomani CruRons.

Two damaged 45,000-ton Solomani cruisers eventually surrendered to the attackers. The other Solomani ships were destroyed.

Although the population of Phoru largely assumes the attacking force was Margaret's, TNS reporters located on commercial vessels have evidence to the contrary. Throughout the battle, fragmentary transponder code emissions were detected from several ships of the attacking force. The coding of two of these vessels would suggest that they are elements last known to be attached to the 22nd Imperial Fleet. The 22nd Fleet has been listed as missing since 073-1121, although several partial sightings have been reported since then.

R'tinh Kills/Corridor

¶Ziru Sirkaa authorities here refused to provide a new transponder for the independent seeker KeLlananae Tourz Agud, known previously as Jewel of Corridor, on the grounds that such a change would imply an act of sedition.

¶An official of the Makhidkarun bureau stated, "It is the official policy of the Ziru Sirkaa that astrographic names used by occupying forces may not be substituted for legitimate astrographic names officially accepted by the AAB and naval forces. In this case, the accepted equivalent in the Logaksu dialect is *Raughantz*. The Imperial designation *Corridor* is also acceptable, though the Vilani-preferred name for the sector is Amshagi."

¶The official admitted that occupying Vargr forces have been applying the name Llananae Tourz (translated as "Devoured Sector") to the sector since 1118.

The KeLlananae Tourz Agud's owner, Gordon Irakakigka, told reporters, "From now on, my ship will be known as the Bureaucrat's Nightmare."

Lashkagur/Delphi

¶The 2000-ton, jump-3 Tukera Lines merchantman *Oberon* began its journey today to the Hiver Federation, marking the formal commencement of Margaret's recent trade agreement with the Hiver Federation.

¶The trade agreement, said to represent over 100 trillion credits of new revenue for Margaret's Domain, was finalized on 187-1121. ¶Local economic forecasters responded to the Oberon's departure with optimism.

¶"The speed with which they (Margaret and Tukera Lines) are expediting this trade agreement is a marvelous sign," said Tramina Sorghetti of Hardrashad, ULIC (a subsidiary of Sternmetal Horizons). "When megacorporations and factions move this quickly to put a plan in motion, you can rest assured that they're certain of the benefits it offers."

¶The local delegation of the Nullian League today announced that it had dispatched a diplomatic team with "plenipotentiary powers" to Anaxias (Delphi Sector) with the express purpose of requesting Margaret to reconsider the agreement with the Hivers.

¶When asked what consequences might follow a rejection of the petition, league spokesperson Jubar No-Dosaka admitted that such an outcome could "compel the league's leadership to construe this as the first step in a major trade war."

Hasdrubal/Solomani Rim

¶Joshua Dahvin, outspoken leader of the Solomani Moderate faction, was nearly killed in a grav-vehicle accident today. According to reports by Dahvin's staff and local officials, Dahvin's personal speeder suffered a field-bias malfunction during an NOE approach to a landing zone.

The pilot, Mats Skulpfeffer, was able to jettison the vehicle's fuel seconds before the craft plowed into an open field. Skulpfeffer, the only individual to die in the crash, is credited with saving the lives of all aboard.

Dahvin—whose liberal policies regarding pan-sophont rights and decentralization of the Confederation have earned him many enemies in the Secretariat—was vacationing on the Culperna Sea on Hasdrubal (2939, Kukulcan/Solomani Rim) when the incident occurred.

¶While there is no official mention of foul play, TNS informants have reported that authorities have initiated inquiries in the underworld. The nature of these inquiries strongly suggests that investigators suspect the crash was the product of a conspiracy to murder Dahvin.

¶Shortly after the crash, Dahvin named two of his closest associates, Sean von Thuringer and Sari Collins, as his personal policy analysts—a position which affirms them as Dahvin's successors, in the event of his demise or retirement.

Daramm/Ley

¶Mardal Soreksen, senior administrator of the Empress Jacqueline Shipyards on Daramm, has announced that his bays are now fully and exclusively—dedicated to the production of the new "modular carrier" jump hulls which have gained popularity over the past two years.

"This radical shift in construction—and marketing—policy suggests that the modular carrier school of starship design may soon challenge standard architectures for supremacy of the starlanes.

54 Challenge 53

Date: 027-1122

Date: 043-1122

Date: 051-1122

Date: 003-1122

¶One field-grade deserter expressed the feelings of many: "What's the point of going home if you're just going to get sent out to fight again? Everybody knows this was the last big battle. Nobody has the assets left to spend on this kind of idiocy anymore, not even Lucan. The fact of the matter is that the Rebellion is over-because no one has the strength left to fight it."

The Empress Jacqueline shipyards—a high-quality independent military contractor boasting significant investment by GsBAG—is one of the half-dozen or so starship production facilities that has acquired a reputation for anticipating new trends in warship manufacture.

The new modular carrier design is based on the familiar battle-rider principle, although it is intended for commercial utilization. The modular carrier is architectured to carry a completely heterogeneous mix of both starships and spaceships, with a total jump-2

carrying capacity in excess of 5000 additional displacement tons.

Although each carrier represents a major financial and industrial investment, almost all shipbuilding analysts agree it is easier to build and service one large jump drive than a dozen or so smaller ones on different vessels.

This perspective has gained substantial support in the megacorporate and military communities, particularly as the Rebellion's cost in starport construction facilities has steadily reduced the number of new jump-capable hulls that can be laid down in a year.

Soreksen declined to comment on rumors that several megacorporations have begun to discuss creating standards for ship construction that would emphasize dependence upon modular carriers.

Soyuz/Diaspora

Date: 067-1122

The TAS has issued a traveller's advisory warning regarding the widespread outbreak of rabies throughout the Diaspora sector. Prease a disease once common to many mammals of Terran origin (including humans) was thought to have been eradicated on all noninterdicted worlds for the past two centuries. However, separate accounts on 14 worlds throughout the Diaspora sector indicate that the disease is not only still extant but is growing in prevalence among a variety of vermin and pets.

¶Experts suggest that the disease may have been reintroduced from interdicted worlds visited illegally during the Rebellion.

Prevention of the second se neogeneticists warn that given the intensive hybridization on many worlds since the early days of the Second Imperium, the disease could have mutated along with its hosts.

Furthermore, hybrids of Terran and non-Terran species (while admittedly rare), may be capable of carrying the disease. If so, they may produce a mutant strain that can infect the non-Terran root-stock species from which they were hybridized.

Animals suspected of carrying the disease should be tested (a blood sample is sufficient). If testing is impossible, suspect animals should be euthanized immediately.

The symptoms of rabies are identical in humans and lower animals. After a two- to five-week incubation period, infected individuals will experience fever, malaise and a sore throat. After approximately 10 days, these symptoms will become more severe, accompanied by excessive salivation, perspiration, dehydration and severe pain.

Vaccination in the first phase of the disease ensures full recovery. Vaccination in the later stages produces an 80% survival rate. Infections which are not treated with vaccinations are fatal.

I Local SuSAG subsidiaries are attempting to mass-produce the vaccine, but reduced transportation capabilities hamper distribution.

Anaxias/Delphi

After a conspicuous two-day absence from her open court, Margaret announced today that the "mystery fleet" responsible for defeating several major Solomani thrusts in the Old Expanses Sector has been identified.

It is the 22nd Imperial Fleet (formerly stationed at Depot/Diaspora), most of the 93rd Imperial Fleet, and elements of the 1092nd and 1101st reserve fleets, under the command of Admiral Devon McTavish (who is operating under the authority of IRIS).

Following her unscheduled announcement, Margaret officially presented IRIS's high regent—Garran Trainor-Hughes—to her court and ministers. Rumors suggest that Trainor-Hughes arrived in-system only three days ago and has been in closed-session meetings with the domain leadership since then.

Sources close to Margaret claim that she and Trainor-Hughes were closely associated during her early years at Strephon's court. ¶Other intimates of the throne indicate that the high regent's arrival was not welcomed by various high-ranking Vermene officers, who

stated that IRIS had no authority under which to command fleet assets. In response, Trainor-Hughes is said to have invoked the regency's first mandate, which states that in the event of an Imperial interregnum, IRIS is empowered to "take any actions necessary to the fulfillment of its custodial responsibilities as regent pro tem, until such time as a legal heir is located and confirmed." He dismissed assertions that this aspect of the regency's first mandate was a ceremonial formality.

¶The Vermene, the in-house intelligence organization of Tukera Lines, has served Margaret at the behest of her husband, Tukera owner Blaine Tukera. Sources say Margaret has little esteem for the Vermene's methods and personnel, but she has evinced a grudging respect for IRIS over the years, calling it "the only intelligence organization that has a conscience, as well."

¶During a brief statement before Margaret's court, Trainor-Hughes asserted that the recent actions of the regency's modest naval assets are not to be construed as an indication that IRIS has declared for Margaret; rather, they are simply evidence of the regency's ongoing efforts to defend what is left of the Imperium against further aggression.

ILucan's Extermination Fleet completed its evacuation of Phaln late last night, and reports indicate that the last elements have already jumped out-system, bound for Core. Although Lucan's Extermination Campaign has certainly dealt a severe, perhaps mortal, blow to

After the fighting for Phaln ended on 352-1121, Lucan's offensive bogged down, hampered by insufficient resupply and refit capacities. ¶Attempts to establish footholds in the Ushuuri system were disrupted by intermittent raids and sabotage, further undercutting the

Although official spokesmen for his forces claimed that their withdrawal was for purposes of "strategic regrouping," most military analysts agree that Lucan's position in Gushemege was rapidly becoming untenable and represented an enormous drain on Core's badly

Strephon's Imperium, it did not achieve its stated objective-the capture or elimination of the reputed Strephon himself.

Phaln/Gushemege

offensive's dying momentum.

attrited bulk transport assets.

Date: 083-1122

Date: 078-1122

Wired Society Information Technology in 2300 AD By Andy Slack hich sounds more exciting: You walk out into the parking lot, hop into your four-



hich sounds more exciting: You walk out into the parking lot, hop into your fourwheel-drive range truck, put it in gear and steer out onto the highway? Or: Your sleek hovercraft hears you whistle and buzzes to a stop at your side, asks your destination as you climb aboard, then handles all the routine driving and navigation chores?

Technology updated to AD 2300 standards can lend your game a more futuristic flavor and is not as unbalancing as you might think. After all, an "intelligent" hovercraft really gives



PCs no more of an edge than an NPC driver would.

The full impact of developments in information technology is only felt on Core worlds and is naturally most evident in larger cities. Frontier worlds, except for the most developed urban areas, don't have the communications and power networks to support this kind of technology, nor the skilled human resources needed to install and maintain it. However, any military or research teams will be likely to have a higher level of technology, and items issued to them are designed to work in wilderness areas.

VEHICLE COMPUTERS In AD 2300, onboard vehicle computers are common-

place and are roughly as intelligent as a dog. They can respond to verbal commands, break into the vehicle intercom or radio circuits to speak to the crew, and bring the vehicle to the dismounted crew if called by radio or a loud shout.

Although an onboard vehicle system is referred to as "the computer," it is in fact a group of a halfdozen or so microcomputers each tied in to separate sensor/effector clusters and running different programs. The various computers are tied together by a small onboard communications network, usually using wires or optical fibers, and one of the nodes is tasked with running the network and overseeing the work of the other nodes. In military vehicles, a backup node, able to take over this directoral function if the master node is damaged, is also included. The typical vehicle computer is programmed with the performance parameters for its vehicle and will override the operator if he tries to do anything dangerous. Autopilots: Autopilots have a socket similar to a neural jack where reference chips can be inserted. Any autopilot can take a map chip; civilian models normally take a reference chip containing data on local traffic regulations, and military ones are fitted with a chipped copy of the current tactical manual (for the crew's reference). Autopilot programs can take the vehicle to a specified point, either by road or cross-country, then halt the vehicle, orbit the point or start a search pattern. The autopilot can also intercept, pass off or take station on a specified point or object. Military versions can drive evasively; this function is often set to activate if the driver releases the controls (referred to as a "dead-man switch").

Military autopilot programs share navigation and movement data via short-range radio or laser communications links. This enables vehicle platoons to coordinate their activities. Groups of vehicles can be programmed to move together in travel mode or "bounding" overwatch mode. In travel mode, they simply move in column, following the lead vehicle at a safe distance. In bounding overwatch mode, the vehicles move individually from cover to cover in short bounds, covered by fire from their stationary fellows.

Communicators: All vehicles have long-range communicators. The police on Core worlds can remotely activate these to pass on traffic information or safety warnings, and can locate any vehicle at any time by its transponder emissions. In Core world cities, police can take control of any vehicle at any time by a remote radio link, and routinely do so in traffic jams or emergencies. As criminals routinely damage or disconnect the communicators on stolen vehicles, police imagers are set up at key intersections and linked to computers which scan the highway for specified vehicles, identifying them by their license plates. Random spot checks are carried out from time to time to make sure that vehicle license plates, communicator responses and positions all sync up.

Weapons Control: The main difference between civil and military vehicle computers is that military ones have weapons control software. These programs provide automatic adjustments for range, target type and weather conditions. The system automatically identifies moving objects, trains the weapons, and alerts the gunner, who specifies the targets as friend or foe. Friends are ignored, and the gunner can specify the response to foes: observe, observe and record, engage now, engage after current target engaged, or engage when in range. The computer will provide a default response based on the tactical doctrines in its database, but can be overridden. The gunner can also select autotarget mode, in which the system will engage any target in range not previously specified as friendly, with larger and closer targets having priority. One of the crew's necessary daily tasks is to specify which vehicles, buildings, etc. are friendly for the day or the mission.

Vehicles in a platoon share target and tactical data over communications links to minimize the chance of engaging friends by mistake or having several friendly vehicles engage the same target. However, this capability is not so commonly used or as useful as might be imagined, as enemy antiradiation missiles will home on any radio transmissions during combat.

MILITARY HUDS

Heads-up displays are standard in vehicles and pilot or combat helmets. They can be linked to vehicle or backpack computers, satellite downlink receivers, etc., which can override a HUD's local processing power or simply download fresh data into the HUD. A HUD projects 3D digital maps, gunsight reticules and sensor readouts onto the helmet visor or vehicle windscreen, overlaying these on the real scene. Normally the aiming graticule projected on the visor gives a +2 bonus to hit, but especially complex and expensive versions might give a higher bonus or even increase the wearer's Initiative level.

Occasionally troops will mount mini-imagers on their gun barrels with fiber-optic links to their HUDs, where video picture-in-picture software

allows them to see and shoot around corners without exposing their heads. A small area of the HUD display shows the view from the weapon's muzzle, with



corrected aiming graticules overlaid on the scene.

Recent experimental work with subdermacomps has introduced what some have called the "eyes-up display." By inducing impulses in the optic nerves of the user, military subdermacomps can overlay their information directly on the user's vision. This technology is not yet available for general use. Although most subdermacomps can display text or simple graphics in the user's eyes, complex color graphics and map overlays cannot yet be reliably induced, so HUDs are used where these are needed. Due to its expense, the eyes-up display seems likely to remain limited to undercover operatives in covert surgical strike teams.

INDUSTRY

Robots and computers perform most physical and administrative work. Orders, invoices and payments are dealt with by electronic fund transfer and are rarely seen on paper. Salespeople use remote computer terminals linked into the corporate computer net, similar to those which have been in use by soldiers and scientists for many years. Many orbital factories are remote-controlled over telecommunications links to save on life-support costs.

The few employees in a typical corporation work three- or fourday weeks, and a second set of staff uses the machines for other purposes on the first set's "weekends." To cope with the long weekends, most workers have second jobs or complex hobbies. The machines work around the clock, seven days a week.

Dedicated creative staff are still in short supply and frequently work 60hour weeks. Some people work from home via the communications net, using a remote work station in their study. This is not as common as might be expected, for two reasons: Going to work fulfills an important psychological need for social contact with other people. Also, in a conversation between people, much information is conveyed by body language, facial expressions and gestures, which are harder to make out over a videophone or via a computer bulletin board.

To minimize the capital tied up in stock and warehousing, all factories use "just-in-time" production, keeping less than 12 hours' stock of component parts. Products are built just in time to meet orders; parts are ordered just in time to make products.

Often, a corporation will be spread out over the globe, with its manufacturing plants wherever they are cheapest to operate, its offices wherever staff and accommodation are cheapest, and so on. Most supervision is done electronically over the videophone. Toubleshooters—roving jacks-of-all-trades—solve unforeseen problems quickly.

MEDICINE

Patients are prediagnosed at home by medical computers over the communications net to minimize the workload on human doctors. If the condition is serious enough to warrant a doctor's attention, he will do his diagnosis over the net. Even then, the patient may be treated by an automed. Home or hospital computers monitor chronically or critically ill patients, and automeds may be on standby to administer drugs.

This arrangement is surprisingly common on Frontier planets due to the limited numbers of medical staff available and the large areas each has to cover. Indeed, like the old-time Australian outback, many Frontier planets have flying doctors.

HOME TECHNOLOGY

On Core worlds and in larger Frontier cities, wall-sized, two-way video screens linked to the global communications net are found in

almost every room in a house, and can be used as "windows" on other rooms with screens, as videophones, or as televisions. Split screens can be used for videophone conference calls, with up to 30 people involved from widely separated places.

Many shopping malls and public buildings have public terminals from which information databases can be interrogated by passersby.

The home computer is programmed with the owner's tastes in video, and will automatically record or suggest he watch anything of interest broadcast on any of the hundreds of TV channels. A wall screen can zoom in on particular areas or points in a program, freeze the action, fast forward and rewind, or show windowed inserts of programs on another channel. An interactive channel is used for teaching. Some houses have domed circular rooms whose entire inside surface can be made into a screen. Some viewers have their home computers programmed to enhance the emotional impact of video by adjusting the home heating, making suitable sound effects, and so on. Others rely on recreational drugs to enhance their viewing.

The communications net includes a library of films and old programs which can be viewed on request, as well as back issues of journals, legal documents and scientific papers. It can search these files on request for any specific subject, providing a list with cross-references and a printout of the results if required.

Computer animation and edited video are indistinguishable from film of actual events, and many officials seen on the videophone are just PR graphics. Thus, in most countries, film of a crime is not acceptable as evidence in court, unless taken with specialized, tamperproof equipment.

The home computer has limited intelligence, about equal to a dog's, and will respond to verbal commands or keyboard input. It controls the lights, heating, outside doors, and TV of a home. The computer will let in the owner, or specified friends and relatives if the owner is out, so keys, as such, are rarely seen. The police can always gain entry to a home upon presenting a warrant to the external cameras. Should any criminal break into the house, the computer will use the wall videophone screens to record the intruder and his activities for the reference of the law enforcement officers, and will attempt to inform the authorities of the break-in.

FINANCE

The widely used smart cards (see "In the Cards" in **Challenge** 29) are gradually being replaced in the Core by devices in homes and shops which recognize a person by his hand geometry and a keyed identity number. Most shopping and personal financial transactions are done from home via the communications net, with shops delivering the goods requested. Home computers do most routine shopping automatically whenever they deduce that stocks of everyday items are running low.

PERSONAL COMMUNICATORS

Most people carry a small communicator linked to the global communications net and can be reached by phone anywhere except in remote wilderness areas. The communications net can locate people by name, so phone numbers are no longer used. It also provides conference calls and facilities for recording messages. The user can instruct the net to ignore, record or give priority to calls from specific people at specific times of day.

Portable communicators continuously transmit their owner's national identity number, even when switched off; the police can learn the rough location of any phone at any time. Intelligent listening systems monitor all conversations, and if specified people, places or subjects are mentioned, the systems will record the conversation and alert the police. Police can also activate any phone remotely (to eavesdrop on rooms or conversations) or break into any conversation at any time. As a precaution against criminals

who don't carry communicators, police imagers are set up in key public places and linked to computers which can scan those places for specific persons and alert police to their presence.

USING INFORMATION TECHNOLOGY IN GAMING SITUATIONS

The machines described above can provide modifiers on task rolls. They can assist the PCs by performing simple tasks, and may provide information the PCs would not otherwise have access to (they will reveal this information only if asked, and then only in a straightforward and nonanalytical way).

Computers are very good at doing the right thing in a predictable, routine situation. They are not good at dealing with the unknown and unpredictable. For instance, like a PC using an Aircraft Pilot skill chip in his neural jack, an aircraft computer would be able to take off, land and fly from A to B, but it would not last long in a dogfight without help from a skilled human pilot.

Most computers will not have very high skill levels—they are generally only skill level 0 or 1. At the referee's option, they may be able to learn from experience. If so, they will only be able to improve skills directly relevant to the purpose they were built for. An onboard computer for a hover APC, for example, might be able to improve Hover Vehicle and Heavy Weapons skills, but should not be able to learn Tactics or Medical.

Information Gathering skill will be vital to PCs working in the Core. The communications and computer webs there provide Core PCs with instant access to a great deal of information—so much so that they are likely to be swamped by it. Successful use of Information Gathering skill—which in this context is used to phrase requests for information precisely so that they get the data they need and no more—will keep PCs from being swamped. Computer skill can also be used in this fashion. As an oversimplified example, if the PCs need to find out about a Mr. Smith in the course of their work, asking the computer at the public library for data on Mr. Smith could result in a pile of printout nine yards thick. A character with Information Gathering skill would ask for Mr. A. G. Smith of a specific address or birthdate, reducing the amount of data to be sifted.

Tracking: This technology was first introduced for laudable purposes. Continuous transmission of identity numbers by personal and vehicle computers, for instance, was intended to assist transport planners to provide better service by finding out people's habitual movements—this naturally told the planners where roads were needed, which trains needed how many cars, and so on. But it wasn't long before the police realized how valuable the information could be.

The major impact of this technology on PCs is in the ability of Core police to track them and prove their involvement in various capers. This is where the darker side of information technology appears, and it fits very well with the downbeat, "cyberpunk" view of Earth in AD 2300. Anywhere the PCs go, the police are monitoring them by transmissions from their personal or vehicle communicators. Thus, the police know where the PCs are, when they are there, probably who they are with, and what is being said (if they have a mind to know). Whenever the PCs break into a building, its computer will record their crimes on imager chips and alert the police. Whenever they make phone calls to each other during a scenario, intelligent monitoring systems can listen to the call, check for key words or names, and alert the police about what they're up to. In short, Big Brother is watching.

This won't make crime in the Core impossible for the PCs, but it will make them sweat for their ill-gotten gains. Streetwise skill as learned and practiced in Core cities includes knowledge of how to make your movements and activities look like part of the normal pattern to the watching computers, which are programmed to alert the police if a citizen's movement patterns become eccentric or

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even too regular. Electronics, Disguise, Computer and Security Systems become skills equally as valuable as Sidearm or Melee, as PCs must perform difficult tasks using these skills and their indenuity to evade detection. For example, PCs might avoid the police monitoring their movements by carefully removing their vehicle's communicator and connecting it to an electronic rig which feeds it false information, making it seem that their car is at home in the garage. Then all the PCs have to worry about is the police imagers spotting their license plate 50 miles from that garage and raising the alarm.

DATA STORAGE

	Storage
Item to be Stored	Required
Letter, one page	5 KB
Photograph	100 KB
Book, 200 pages	1 MB
Hi-fi music, one hour	100 MB
Video, one hour	10 GB
	Storage
Storage Medium	Available
Portacomp chip	200 MB
Imager cartridge	3 GB
Home/vehicle computer	100 GB
Home/vehicle computer Office computer	100 GB 1000 TB

KB: Kilobyte

MB: Megabytes (millions of bytes).

GB: Gigabytes (billions of bytes).

TB: Terabytes (thousands of billions of bytes). Ω

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OUT TIME DAYS is a highly interactive role-playing Play-By-Mail game with turns processed weekly. It has received excellent reviews,



notably from Flagship and Paper Mayhem. Turn cost is \$5.00. The game is open ended and 99% computer moderated. The rulebook may be obtained for \$5.00 (refundable with startup). A special startup is available that gives you the rulebook, the startup turn, and five turns for only \$15.00.

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Space Combat a game of pure tactical combat... in a rather unique environment

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taking over their alien. Each turn comes with a special full-page graphic printout of your ending position to aid you in planning

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Space Combat was designed to be easy to learn, but difficult to master. Every game starts with ten players, and as each is climinated, the chances of the game ending will increase Turnsheets are custom made on a laser printer to aid you in filling out your next turn. The games run about 12-18 turns. Cost is \$3.50 per turn. A rule-

book (required before you can join) is \$1.00 (free if you mention this ad!).

Twin Engine Gaming; Dept 209; 3254 Maple Leaf Ct.; San Jose, CA 95121



Can you unmask the murderer in this solitaire real-time logic puzzle?

By John A. Theisen

Patrolling the Organian Neutral Zone can be nervewracking, to say the least. Especially since your starship is a lightly armed *Derf*-class survey vessel. It has been at least three months since you allowed yourself even a day of rest and recreation leave. And lately, Captain Smith has been reminding you that "even devoted first officers" have to get away from the rigors of duty now and again. So when an interesting invitation comes over subspace radio from an old academy friend on Space Station K-2, you can't resist.

Reference Stardate: 2/2710.31

From: Commander Tom Rodman, stationmaster, Federation Space Station K-2, Klingon Sector

To: Lieutenant Commander Jacqueline Jackman, executive officer, USS Grand Coulee Dam, Military Operations Command, Star Fleet

RE: A formal invitation to the K-2 stationmaster's Halloween masquerade and murder mystery

The boys and girls and I are bored, bored, bored. So, to celebrate Halloween, we are cooking up a combination masquerade and live murder mystery. I know, Halloween is maybe the most human of holidays—except a few of my crew aren't human (one Tellarite, two Vulcans, one Edoan and one Caitian). Some of the others have never even been on Terra, let alone experienced this peculiarly Terran holiday. But they're willing to give it a shot, and you're invited to join us. (Your CO has agreed to be rid of you for at least a few hours; he probably needs the break as much as you do!)

All you need to do is dress up in some costume reminiscent of a character from Terran history, real or mythical (let me know who). I'll explain everything else when you get here.

K-2 is less than four hours away at cruising speed, and your own Captain Smith is in on the scheme. You quickly agree to accept 12 hours' leave for what promises to be a highly diverting night of entertainment and festivity. After signaling a response and making other rapid preparations, you beam down to begin a most unusual port excursion.

Your Cleopatra costume from ship's stores fits perfectly, and the decoratively attired crew lounge on K-2 has become a pleasing riot of historically costumed figures, music, food, drink and fun. Stationmaster Rodman, dressed as Elvis Presley, looks much as you fondly remember. Members of the station's 21-person crew haphazardly pop in and out of the lounge, carrying food, party favors or other paraphernalia appropriate for celebrating the occasion. Everyone is having a good time, and even Grusphnag, the Tellarite transporter officer, promises to pop in a little later and blow a few notes through her neosaxophone.

Now the masquerade portion of the event has drawing to a close, and everyone gathers around so the commander can explain the rules for the murder mystery. Almost everyone. Someone is missing. "Where is Ist'Nari?" the question arises.

Muttered comments are passed around; no one has seen her for "some time now." One person thinks she returned to the galley for more Altairian paté, while another thinks she retired early with a headache. After a quick intrastation call on the intercom results in no response, Stationmaster Rodman immediately orders an internal sensor scan and visual search of the station.

Officer M'Toaw is the first to detect Ist'Nari, and Officer Quantell the first to find her—in an air lock. Security Officer Lavalle Ist'Nari (dressed as Queen Nefertiti) is dead, and the crew of Space Station K-2 has a real murder mystery on its hands.

UNMASKING THE MURDERER

Rodman asks you, as a "disinterested Star Fleet officer," to coordinate the investigation. You explain that your skill branch was helm, not security, but he is persuasive, and you consent.

The station has a stress/accuracy analyzer, you're told. "It's an old, somewhat obsolete model, but it was working the last time anyone tried it. If we can find it."

The next few minutes are hectic. A message is sent to the USS *Grand Coulee Dam*, requesting that it return ASAP. Its ETA



is four hours from now. The sending of the message is followed by an intensive sensor scan of the space station, which verifies that the only persons aboard Space Station K-2 are those who are supposed to be there: 20 crew, one guest (you), and one body (deceased).

The stress/accuracy detector is located, dusted off and set up in a briefing room. It is tested, and appears to be operating with about 98.4% reliability, probably enough to ensure that all "true" statements made are essentially factual, and all "false" statements are not. At least two members of the crew are present at all times in the briefing room; for the time being, everyone realizes that everyone else is a suspect.

In turn, every member of the space station's crew (including Commander Rodman) undergoes hasty testimonials, each making three statements while connected to the device. Just as the last person finishes her third, and final, statement, the detector shorts out (and it was the only one on the station). Nevertheless, before it ceased to function, the detector reported that every statement made by every crewmember so far was true: "Subject relaying accurate account—physiological changes within normal parameters." You realize, however, that the person making each statement may believe his statement to be accurate, while he may be in error and not realize it. Such an honest error would still appear to be truthful. This is all you have to go on for the moment.

STATEMENTS FROM THE CREW

Your objective is to evaluate all the statements made by everyone on board and determine who might have committed the crime and, if possible, why. No one said life in Star Fleet would be simple. Note that this is a real-time adventure. Start keeping track of elapsed time as soon as you begin reading the statements from the crew. *Time begins now.*

Computer Technician Adams (Male Human)

1. I remember seeing Officer M'roaw, Technician O'Hanraghan (who came down from the bridge for a couple minutes), Technician Neckols (who excused himself early), Doctor Sepit, and Officer Lemocks in the lounge around the time of Ist'Nari's death.

2. Ist'Nari was in a snappish mood this evening.

3. I was not directly or indirectly involved in killing Ist'Nari.

Deflector Technician Bartoc (Male Human)

1. I remember seeing Technician Unagol (carrying service trays) and First Officer Douglas (who excused himself early) in the lounge around the time of Ist'Nari's death.

2. I was intoxicated on duty on one occasion; Ist'Nari filed a reprimand which went into my record, and I never forgave her.

3. First Officer Douglas was having a relationship with Kell, which Kell didn't want Lemocks (Kell's immediate superior) to know about.

Life Support Technician Cananelli (Male Human)

1. I remember seeing Officer Quantell and Technician Adams in the lounge and Technician Pew in the adjacent galley. I called Technician T'wing in her cabin to join us (but she politely declined) all around the time of Ist'Nari's death.

2. I was in a heated 3-D chess game with Commander Rodman in the lounge for most of the evening (which I eventually won), when he wasn't escorting the visiting Commander Jackman.

3. Fogerty and Ist'Nari were best friends; they were roommates at Star Fleet Academy, and Fogerty saved Ist'Nari's life once.

Assistant Stationmaster Douglas (Male Human)

1. I knew about Ist'Nari putting in a request for a transfer from Space Station K-2, but I postponed telling Commander Rodman so as not to spoil his party plans for the evening.

2. The last time I saw Ist'Nari alive was after she and Neckols served on bridge duty together, about four hours ago.

3. I was not directly or indirectly involved in killing Ist'Nari.

Security Officer Erixx (Male Edoan)

1. Ist'Nari was a competent security officer and seemed popular with most of the crew.

2. The last time I saw Ist'Nari alive was earlier this evening, as she was headed for the galley.

3. I only found out about my upcoming promotion a few days ago.

Electronics Officer Fogerty (Female Human)

1. I remember seeing Technician Neckols (who excused himself early), Technician Cananelli (playing 3-D chess), Technician Jagurund, and Officer Erixx in the lounge, and I called Officer Grusphnag in her cabin to see if she was ready to perform yet, all around the time of Ist'Nari's death.

2. I spent almost the entire evening shuttling service trays back and forth between the galley and lounge with Technician Unagol.

3. I did go belowdecks on one occasion around Ist'Nari's time of death. In the corridor I briefly heard a woman's loud voice, almost on the verge of screaming. I couldn't make out anything that was said, but it could have been Ist'Nari. Under other circumstances, I might have investigated, but I was weighted down with an armload of stuff for the lounge party and was in a real hurry.

Transporter Officer Grusphnag (Female Tellarite)

1. Where there are small crews and extended tours of duty, particularly when humans are involved, "close" relationships often develop. I would not be surprised if Ist'Nari's death was the result of a "crime of passion."

2. The last time I saw Ist'Nari alive was in a turbolift; she was angry and muttered something about "getting this over with, once and for all."

3. I was in my cabin tuning my neosaxophone around the time of Ist'Nari's death.

Sensor Technician Hardane (Female Human)

1. Ist'Nariwas a little envious of a promotion that Officer Erixx was due to receive and felt that she was being passed over.

2. Ist'Nari was in a good mood this morning.

3. I had bridge duty with Technician O'Hanraghan (except for a few minutes when he left to get food) around the time of Ist'Nari's death.

Communications Technician Jagurund (Female Human)

1. Ist'Nari had a request in for a transfer; I transmitted the subspace message myself.

2. I didn't like Ist'Nari very much because she was always showing off with her credits; it wasn't that she was being mean-spirited—she was just insensitive.

3. I was not directly or indirectly involved in killing Ist'Nari.

Engineering Technician Kell (Female Human)

1. I remember seeing Officer Lemocks as I left the lounge, before the time of Ist'Nari's death.

2. Ist'Nari once gave me an extravagant gift for my birthday; I didn't really feel I should accept it because I couldn't reciprocate, but she insisted. I was really touched.

3. I was with First Officer Douglas, in his cabin, around the time of Ist'Nari's death.

Engineering Officer Lemocks (Female Human)

1. I remember seeing First Officer Douglas (who excused himself early), Technician Kell (who also excused herself early, but left separately) and Technician Bartoc in the lounge around the time of Ist'Nari's death.

2. Ist'Nari stole Neckols away from me, and her "generous" offer of an expensive gift didn't help; I threw it back in her face.

3. Even though she knew I didn't like her, I remember Ist'Nari asked me to reserve the Eve masquerade costume for her; for spite, I secretly suggested to Quantell that she wear it instead. Station's stores could have fabricated two outfits, but everyone was determined to have their own unique costume.

Sensor Officer M'roaw (Male Caitian)

1. I remember seeing First Officer Douglas (who excused himself early) and Technician Jagurund in the lounge around the time of Ist'Nari's death.

2. It was common knowledge that Ist'Nari was having a relationship with Technician Neckols.

3. I used standard sensor search procedures, scanning level by level, to locate lst'Nari's body.

Sensor Technician Neckols (Male Human)

1. I had a relationship with Ist'Nari, but it was over.

2. I once overheard an argument between Ist'Nari and Technician O'Hanraghan over some minor security violation involving the station's engineering equipment.

3. I remember that Ist'Nari caught Bartoc while he was intoxicated on duty and filed a formal reprimand against him.

Engineering Technician O'Hanraghan (Male Human)

1. I think Ist'Nari's family must be wealthy because she frequently wore very stylish, expensive clothes off-duty—much more expensive than she could afford on her Star Fleet salary.

2. Officer Lemocks had a relationship going with Technician Neckols, until Ist'Nari stepped in.

3. I had bridge duty with Technician Hardane around the time of Ist'Nari's death, except for a few minutes when I stopped by the lounge.

Electronics Technician Pew (Female Human)

1. Although I was busy and many crewmembers were going through quite rapidly, I remember seeing Technician Unagol (shuttling trays), Officer M'roaw, Technician Jagurund, and Officer Erixx in the galley around the time of Ist'Nari's death. I also saw Officer Fogerty shuttling trays before and after the time of Ist'Nari's death.

2. The last time I saw Ist'Nari alive was when she came into the galley, stomped around for a minute or two, grabbed a few snacks, then left.

3. I was working on some electronic gear (which had burned out) in the galley around the time of Ist'Nari's death.

Communications Officer Quantell (Female Human)

1. I remember seeing Doctor Sepit, Officer M'roaw, and Technician T'wing (who excused herself early) in the lounge, and Technician Pew in the galley, around the time of Ist'Nari's death.

2. This afternoon, I got the Eve masquerade costume that I guess Ist'Nari planned to wear this evening; when she saw me with it on, she looked as if she'd been slapped.

3. I just happened to be closest to the site of Ist'Nari's body at the time it was detected by Officer M'roaw.

Stationmaster Rodman (Male Human)

1. Ist'Nari was a good officer and will be sorely missed; however, she was not what I would have called a close friend.

2. I staggered the duty roster so only two officers would have to be on one-hour bridge shifts during the evening of the masquerade.

3. My time was divided between playing 3-D chess with Cananelli and escorting the visiting Commander Jackman.

Medical Officer Sepit (Male Vulcan)

1. Ist'Nari rarely disclosed her personal feelings; it seems she kept mostly to herself.

2. Ist'Nari did not report to me this evening with any complaints of feeling ill.

3. In my expert medical opinion, Ist'Nari was killed in a struggle approximately two hours ago. After a brief forensic examination and several tricorder readings, it appears that she met someone in the corridor of a quarters deck, an argument broke out, and she was assaulted (hand-to-hand combat, as apparently no weapon was used). Her body was then physically dragged or carried down a level, and she was

stuffed into an air lock. It is not clear whether she was already dead, or just unconscious, when she was moved. The entire



IDW LIRDARY

sequence of events must have taken 10-15 minutes.

Communications Technician Twing (Female Vulcan)

1. Before leaving the lounge myself, I remember seeing Officer Quantell, Doctor Sepit, First Officer Douglas, Technician O'Hanraghan (entering the lounge just as I was leaving), and Technician Unagol (transporting trays).

2. I understood Ist'Nari was retiring early for the evening with a headache.

3. I was in my cabin meditating around the time of Ist'Nari's death.

Electronics Technician Unagol (Male Human)

1. Ist'Nari ended a relationship with me, only to have one with Technician Neckols; too bad, because Ist'Nari was just too good for him.

2. I spent almost the entire evening shuttling service trays back and forth between the galley and lounge.

3. I was not directly or indirectly involved in killing Ist'Nari.

Do not turn the page until you believe you have solved the murder. Then, note the elapsed time since beginning the case and read Crew Alibis below.



CREW ALIBIS

Time ends now. When a capital crime occurs, the guilty party is determined most often through establishing at least two of three factors: motive, opportunity and method. After evaluating the statements made by the crew, the following alibis can be pieced together. Based on these conclusions, only one person could have had both sufficient motive and opportunity to commit the crime:

Computer Technician Adams: Adams denies killing Ist'Nari, claiming he was in the lounge around the time of death. Cananelli saw Adams in the lounge around the time of death—solid alibi.

Deflector Technician Bartoc: Bartoc claims he was in the lounge around the time of death. Lemocks saw Bartoc in the lounge around the time of death—solid alibi.

Life Support Technician Cananelli: Cananelli claims he was in the lounge around the time of death. Fogerty saw Cananelli in the lounge around the time of death—solid alibi.

Assistant Stationmaster Douglas: Douglas denies killing Ist'Nari; T'wing saw Douglas in the lounge before the time of death. Bartoc, Lemocks, and M'roaw saw Douglas leave the lounge before the time of death. Kell saw Douglas in his cabin around the time of death; Bartoc says Douglas and Kell were having a relationship—solid alibi.

Security Officer Erixx: Fogerty saw Erixx in the lounge around the time of death. Pew saw Erixx briefly in the galley around the time of death—solid alibi.

Electronics Officer Fogerty: Fogerty claims she was shuttling trays between the galley and the lounge most of the evening. Pew saw Fogerty in the galley before and after the time of death. Cananelli says Fogerty was Ist'Nari's best friend and once saved

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her life-solid alibi.

Transporter Officer Grusphnag: Grusphnag claims shewasinhercabin at the time of death. Fogerty called her in her cabin around the time of death solid alibi.

Sensor Technician Hardane: Hardane claims she was on the bridge at the time of death, O'Hanraghan saw her on the bridge around the time of death—solid alibi.

Communications Technician Jagurund: Jagurund denies killing Ist'Nari. Fogerty and M'roaw saw Jagurund in the lounge around the time of death. Pew saw Jagurund briefly in the galley around the time of death solid alibi. **Engineering Technician Kell:** Kell claims she was in Douglas' cabin around the time of death. Lemocks saw Kell leave the lounge before the time of death. Bartoc says Douglas and Kell were having a relationship—solid alibi.

Engineering Officer Lemocks: Lemocks claims she was in the lounge around the time of death. Kell saw Lemocks in the lounge before the time of death. Adams saw Lemocks in the lounge around the time of death—solid alibi.

Sensor Officer M'roaw: M'roaw claims he was in the lounge around the time of death. Adams and Quantell saw M'roaw in the lounge around the time of death. Pew saw M'roaw briefly in the galley around the time of death—solid alibi.

Sensor Technician Neckols: Adams and Fogerty saw Neckols leave the lounge before the time of death—no alibi.

Engineering Technician O'Hanraghan: O'Hanraghan claims he was on the bridge (or possibly in the lounge) around the time of death. T'wing saw O'Hanraghan entering the bridge before the time of death. Adams briefly saw O'Hanraghan in the lounge around the time of death. Hardane saw O'Hanraghan leave the bridge for a few minutes around the time of death—solid alibi.

Electronics Technician Pew: Pew claims she was in the galley around the time of death. Cananelli and Quantell saw Pew in the galley around the time of death—solid alibi.

Communications Officer Quantell: Quantell claims she was in the lounge around the time of death. Twing saw Quantell in the lounge before the time of death. Cananelli saw Quantell in the lounge around the time of death—solid alibi.

Stationmaster Rodman: Rodman claims he was playing 3-D chess with Cananelli when not on escort duty. You can vouch for Rodman, having spent most of the evening around him. Cananelli was intermittently playing 3-D chess with Rodman in the lounge around the time of death—solid alibi.

Medical Officer Sepit: Twing saw Sepit in the lounge before the time of death. Adams and Quantell saw Sepit in the lounge around the time of death—solid alibi.

Communications Technician T'wing: Twing claims she was in the lounge before the time of death and in her cabin around the time of death. Quantell saw T'wing leave the lounge before the time of death. Cananelli called T'wing in her cabin around the time of death—solid alibi.

Electronics Technician Unagol: Unagol denies killing Ist'Nari, claiming he was shuttling service trays between the galley and the lounge during most of the evening. Fogerty saw Unagol shuttling service trays between the galley and the lounge during most of the evening. T'wing saw Unagol in the lounge before the time of death. Bartoc saw Unagol in the lounge around the time of death. Pew saw Unagol briefly in the galley around the time of death—solid alibi.

AND THE MURDERER IS ...

Sensor Technician Neckols, committing the crime in the manner Doctor Sepit theorized.

EVALUATING SUCCESS

Award your character 10 points in Security Procedures (or a related skill) if you won, or five points if you lost. If you identified the murderer, determine your success based on the following:

Less than One Hour: Holmes himself would have been proud! One to Two Hours: Very good—for a nonsecurity officer. Two to Four Hours: Thorough, no matter how long it takes, eh? Over Four Hours: Try the academy's refresher course! Ω

GDW LIBRARY





Armor Penetration and Damage

By Craig Sheeley

A A etra arm

common problem that plagues game combat systems (including *Cyberpunk 2.0.2.0.*, **Twilight: 2000** and *GURPS*) is that weapon damage is equated with penetration. In order to realistically include the effects of armor, weapon damages have to be inflated.

In the *Cyberpunk* of old, a single rifle bullet could vaporize an unarmored man. In *2.0.2.0.*, a single 7.62mm NATO round (the bullet used by many hunting rifles and almost every medium NATO-standard machinegun in the world) has a 60% chance of instantly killing an unarmored man, and the lighter 5.56mm NATO round (used in the M16) has a 50% chance of instantly killing an unarmored man. Against armored targets, the bullets have realistic effects in the new system, but unarmored targets are sure to die.

The problem lies with the fact that living tissue doesn't react to projectile damage the way inanimate objects do! Tissue is at once easier to damage but more resistant to bullet damage effects. An armor-piercing shell that will go through an engine block is likely to do as much damage to a man as a good-sized pistol slug sometimes less, if the pistol slug mushrooms in the target.

Walter Jon Williams, author of the cyberpunk genre novel *Hard-wired*, came up with a partial solution in his *Cyberpunk* supplement covering the world of his novel—instead of subtracting damage for penetration purposes, why not assign each weapon a penetration value separate from its damage value? Armor would be rated for its armor value, and penetration would be matched against armor to see if any damage got through to the target.

In this 2.0.2.0. variant, that system of dealing with armor penetration is refined and streamlined for use with all weapons.

STOPPING POWER CONVERSIONS

In 2.0.2.0., each armor type is rated for its stopping power). The heavier the armor, the larger the rating. To convert the SP to an armor rating:

Rating	Equivalent
A=0-5 SP	Leather armor
B=6-10 SP	Kevlar vest
C=11-15 SP	Steel helmet
D=16-25 SP	Heavy armor
E=26-35 SP	Combat armor, light Striker armor
F=36-50 SP	Medium Striker armor
G=51=75 SP	Heavy Striker armor, light Mek armor
H=76-100+ SP	Mek armor

Some of the armor equivalents are expressed in *Mekton II* terms (Striker and Mek armors). These represent armor protections applied to vehicles and military armor (power suits, giant Mektons, tanks, etc.). As noted in *Roadstriker II*, Mek armor translates to 25 SP per kill.

To convert *Cyberpunk 2.0.2.0.* armor to an armor rating, simply add up the SP of the armor and compare it to the chart. Count the heaviest SP on each location plus one-half the other SP on the location for the total SP. For instance, a Kevlar T-shirt/armor jacket combo—SP 14+(10+2)—has 19 SP for an armor rating of D.

WEAPON PENETRATION PROCEDURE

Each weapon has a penetration value assigned to it. Generally speaking, if a weapon's penetration is equal to or greater than the armor rating of the target hit, the weapon's damage goes through to the target's body (or vehicle structural damage points). Of course, the body type modifier (*Cyberpunk 2.0.2.0.*, page 93) is subtracted from any damage that gets through.

Not all attacks have the same effects against armor, and each attack type has its own specific attack on armor.

Blunt Weapon Attacks: Blunt weapons are those with a listed penetration of 0. This category includes clubs, fists, feet, baseball bats and anything else that does its damage by crushing. Ablunt weapon does fulldamage to unarmored targets, half damage to targets in armor ratings A and B, and one point of damage per six points of maximum damage (rounded down) to targets in armor rating C.

For instance, a Martial Arts-4 attacker does basic kick damage of 1D6+6 (+4 for skill, +2 for Average body type). He would do full damage to an unarmored target, half damage (rounded down) to a target in armor rating A or B, and two points (maximum damage 12+6) to a target in armor rating C. He would be well advised to hit parts of his opponents that aren't covered in armor. Armor ratings two or more levels above the weapon's penetration ignore the hit.

Bluit penetration improves with greater body type—the stronger you are, the more likely your opponent is to feel it through all that padding. Increase the penetration by one level per body type level stronger than Average. Thus, a Strong body type makes a penetration 0 into a penetration A, doing full damage to armor rating A, half damage to B and C, and one point per six points of maximum damage to armor rating D. A Very Strong body type makes penetration 0 into penetration B, doing full damage to B or less, half damage C and D, and one point per six points of maximum damage to E. A Superhuman body type would have a penetration C, doing full damage to C or less, half damage to D and E, and one point per six points of maximum damage to armor rating F! When that supercyborg hits you, you feel it....

Powered blunt weapons like the SPM-1 Battleglove do not have their damage or penetration increased by the user's body type.

Edged Weapon Attacks: Edged weapons have penetration B. An edged weapon (sword, knife, wolvers, rippers, icepick) is any weapon that cuts or impales. Edged weapons carve through Kevlar and leather armor with ease. They do full damage to targets in no armor (naturally) or in armor ratings A or B. Targets in armor rating C take half damage from edged weapons since the weapons can thrust or chop through some of the armor's protection. Armor ratings two or more levels above the weapon's penetration ignore the hit.

Like blunt weapons, an edged weapon's penetration is improved by strength. Each body type above Average increases the edged weapon's penetration by one level. A Strong man with a knife does 1D6+4 damage with a penetration of C—a target in armor rating D takes half that damage, rounded down. Think about that Superhuman body type 15+ cyborg with wolvers: 3D6+8 damage with a penetration of E! This man rips cars in half....

Very low-mass weapons like Slice 'N' Dice do not have their damage or penetration increased by the user's body type.

Projectile Weapon Attacks: Projectile weapons have varied penetration. A projectile does normal damage to targets in armor ratings equal to or less than the penetration. Targets in armor ratings one level greater than the projectile's penetration take one point of damage per six points of maximum damage, rounded down. For instance, a man in Kevlar armor (B) would only take two points of damage from a 9mm pistol (damage 2D+1, penetration A). But a 5.56mm rifle (penetration C) will blow right through the armor to do regular damage. Armor ratings two or more levels above projectile penetration ignore the hit.

Armor-piercing projectiles increase penetration one level, but do only half-damage (rounded down) upon going through the armor. A 5.56mm armor-piercing round has a penetration of D and does 3D6+2 to the

target. An armorpiercing round striking an armor rating one level greater than the round's penetration still does one point of damage to the target per six points of maximum damage r



maximum damage, rounded down.

As usual, any attack penetrating the armor causes it to lose one SP. In this variant, any attack with an equal or greater penetration than the armor rating causes the armor to lose one SP. Given time, this SP loss can lower the armor rating!

Antiarmor: Antiarmor rounds are a special type of projectile, using a shaped-charge warhead to burn through armor. They are usually used against vehicles and heavy installations, although they can be used against human targets if desired. Any antiarmor round that penetrates the target's armor (equal or greater penetration than armor rating) lowers the armor rating by one level in an area the size of a man's head. This weakened area can be targeted at a -4 (the same as a shot at a specific body area).

Explosions: Explosions and other area-effect weapons hit normally and have the listed penetration values.

Flamethrowers: These spew napalm all over the target, and the stuff seeps through all armor except sealed suits. (Double-cost Metalgear[™] for a sealed suit, and every location must be so armored. Powered armor Roadstrikers work well, too. Vehicles are, of course, usually sealable). The napalm burns for 2D6 turns after it hits, ignoring all armor except sealed armor after the turn on which the target is hit.

Roadstriker Flamers: These are higher-temperature versions that have hefty armor penetration as well as normal flamer effects.

Lasers: These do hideous tissue damage but have lousy penetration. Lasers start at penetration 0 at 1D6 damage, plus one penetration level per additional D6 (a laser at 5D6 damage has penetration D).

Microwavers: These ignore all armor ratings below E! And targets wearing metal armor or Metalgear[™] are going to be warm....

HAND WEAPONS

	AA TULFT	UND CITE
Weapon	Pen	Damage
Hand or foot	0	Variable
Club	0	1D6+body mod.
Knife	В	1D6+body mod.
Sword	В	2D6+2+body mod.
Axe	В	2D6+3+body mod.
Nunchaku/tonfa	0	2D6+body mod.
Naginata	С	3D6+body mod.
Shuriken	В	(1D6+body mod.)÷3
Switchblade	В	(1D6+body Mod)+2
Brass knuckles	А	1D6+2+body mod.
Sledgehammer	0	4D6+body mod.
Chainsaw	В	4D6
Kendachi monoknife	С	2D6+body mod.
Kendachi monokatana	С	4D6+body mod.
Kendachi mononaginata	D	4D6+3+body mod.
SPM-1 battleglove	D	3D6+1D6+3
Scratchers	В	1D6+body mod.
Vampire fangs	В	1D6+3
Rippers	В	2D6+body mod.
Wolvers	В	3D6+body mod.
Big knucks	0	1D6+2+body mod.
Slice 'N' Dice	В	2D6
Cybersnake*		1D6
Buzzhand	С	2D6+2
Hammerhand	0	1D10+body mod.
*The automatic has no	real panet	rotion of all Howayar its

*The cybersnake has no real penetration at all! However, its method of operation usually bypasses armor.

PISTOLS

Weapon	Pen	Damage
BudgetArms C-13	А	1D6
Dai Lung Cybermag 15	А	1D6+1
Federated Arms X-22	Α	1D6+1
Militech Arms Avenger	А	2D6+1
Dai Lung Streetmaster	В	2D6+3
Federated Arms X-9mm	Α	2D6+1
Colt .38 Detective	Α	1D6+2
C.O.P357 Derringer	А	2D6+3
BudgetArms Auto 3	В	3D6
Sternmeyer Type 35	В	3D6
S&W Combat Magnum	В	2D6+3
Colt .45 "Peacemaker"	В	2D6+2
Armalite 44	В	3D6+3
Colt AMT Model 2000	В	3D6+3
Llama Commanche	В	3D6+3

SUBMACHINEGUNS

Weapon	Pen	Damage
Uzi Miniauto 9	A	2D6+1
H&K MP-2013	В	2D6+3
Federated Arms Tech Assault II	А	1D6+1
Vz61 Skorpion	А	1D6
Arasaka Minami 10	В	2D6+3
H&K MPK-9	А	2D6+3
H&K MP5 and MP5K	А	2D6+1
Uzi	А	2D6+1
Sternmeyer SMG 21	В	3D6
H&K MPK-11	В	3D6+3
Ingram MAC 14	В	3D6+3
Ingram MAC 10	В	2D6+2
Thompson "Tommy-Gun"	В	2D6+2
Bushmaster	С	4D6

RIFLES

Weapon	Pen	Damage			
Militech Ronin assault rifle	С	4D6			
AKR-20 medium assault rifle	С	4D6			
M16, M16A2	С	4D6			
Steyr, AUG	С	4D6			
AK-47, AKM, AKMS	С	4D6+1			
Winchester M-70	D	4D6+2			
FN-RAL heavy assault rifle	D	4D6+3			
Kalishnikov A-80 heavy rifle	D	4D6+3			
FN-FAL	D	4D6+3			

SHOTGUNS

Weapon	Pen	Damage
Arasaka Rapid Assault 12	A	4D6
Sternmeyer Stakeout 10	А	4D6+2
H&K CAWS	А	4D6

EXOTIC WEAPONS

Weapon	Pen	Damage		
Techtronica 15 Microwaver	D	1D6		
Militech Elect. lasercannon	Var.	Var.		
Avante P-1135 needlegun	В	Var.		
Enertex AKM Power Squirt	Special	Var.		
Nelspot "Wombat"	Special	Var.		
Militech electronics taser	В	Stun		
EagleTech "Tomcat" C-Bow	D	3D6		
EagleTech "Stryker" X-Bow	С	2D6+2		
Micromissile (cyberweapon)	D	3D6		

HEAVY WEAPONS

Weapon	Pen	Damage
Barrett-Arasaka light 20mm*	E	4D10 armor-piercing
Skorpion 16 missile launcher	G	7D10 antiarmor
Militech Arms RPG-A	G	6D10 antiarmor
C-6 plastic explosive	Е	8D10 per kg
K-A F-253 flamethrower	Special	2D10
Barrett Model 90 (.50 cal)	E	5D10
Hughes rocket cannon	F	3D10
Fragmentation grenade	В	3D6
Incendiary grenade	С	4D6
Antiarmor grenade	F	3D10 antiarmor
LAW	G	6D10 antiarmor
M60 light machinegun	D	4D6+3
RPK squad machinegun	С	4D6+1
M-216 minigun (5.56mm)	С	4D6
M-134 minigun (7.62mm)	D	4D6+3
M-2F .50 cal machinegun	Е	5D10
20mm machinecannon	F	6D10
Hughes M230B-2 (30mm)	G	7D10
TOW/Hellfire/HOT missile	F	12D10
*The Devrett Areaelye light (00	ad is outomatically armar

*The Barrett-Arasaka light 20mm round is automatically armorpiercing, doing normal damage to armor rating E and less and doing half-damage to armor rating F.

ROADSTRIKER WEAPONS

Weapon	Pen	Damage
Plasma gun	G	7D10 antiarmor
Missile	G	7D10 antiarmor
Rocket	F	5D10 antiarmor
75mm rifle*	G	5D10 antiarmor
Energy gun	E	3D10
Energy saber	Е	3D10
2H energy saber	F	5D10
Melee weapon	Е	2D10
2H melee weapon	F	4D10
20mm autocannon	F	6D10
Flamer	D+special	2D10

*Like the Barrett-Arasaka light 20mm, the 75mm is automatically armor-piercing, doing normal damage to armor rating G or less and half-damage to armor rating H.

USING HEAVY WEAPONS

Cyberpunk 2.0.2.0. ignores the problems of using heavy weapons that have any amount of recoil.

There is no penalty, for instance, for using a light 20mm hypervelocity gun even though the recoil would be capable of injuring the firer.

Because of this, it must be assumed that the light 20mm fires an extremely subcaliber round (perhaps 5mm) and uses most of its weight for recoil absorption.

Furthermore, the light 20mm gun is not capable of using any other round except its hypervelocity penetrator, while regular 20mm guns can use the normal high-explosive or armor-piercing rounds.

Other heavy weapons do have penalties which are attached to their use:

Machineguns: When using a machinegun, there is an additional -2 Weapon Accuracy if the firer moves in the same turn that he fires, and the firer is limited to half MA when moving and firing the machinegun.

Persons with Weapon Mounts or CyberWeapon Mounts and Links are exempt from these penalties.

Barrett Model 90: This cannot be used in motion and can only be fired when the gun is rested on something sturdy (it's a bipodmount gun).

Persons with Weapon Mounts or CyberWeapon Mounts and Links are exempt from these penalties.

TOW/HOT/Skorpion 16 Missile Launchers: These cannot be in motion when fired. TOW and HOT missile firers must remain stationary near the launcher while the missile is in flight, guiding the missile.

Hellfire Missiles: A Hellfire missile tracks a target illuminated by a laser----if there is no one "painting" the target with a laser at any time, the missile fails and crashes.

Miniguns, M-2F Machinegun, Machinecannons: These weapons must be vehicle or tripod-mounted. The M-216 and the M-2F can be tripod mounted; all the others require massive vehicle mounts.

Roadstriker Weapons: These weapons are restricted to use by roadstrikers and light AFVs.

NEW EQUIPMENT

Laser Scope, \$100: The classic targeting laser, this puts a dot of laser light on the target where the gun is aimed. A laser scope adds +4 to hit at short range. This can be added to a smartgun or cyberweapon.

Weapon Scope, \$50+: Scopes range from simple optical scopes to light-amplifying and computer-enhanced versions.

All scopes divide the effective range to hit by their power

number-a 10x scope reduces a 1000m range to 100m for purposes of hitting the target only.



Damage is still reduced by the full range.

25km 20,000

A 4x scope costs \$50; a 10x scope costs \$150; and a 20x scope costs \$250.

Pistols can mount a 4× scope but nothing larger.

Light-amplifying scopes cost twice as much as a regular scope. A computer-enhanced scope costs 10 times as much as a regular scope, weighs 1 kilogram, and adds +2 to hit.

Smart and cyberweapons can be fitted with scopes.

Weapons Mount, \$250: A weapons mount is an external mount that distributes weapon weight more evenly and dampens recoil. With a weapons mount, a single heavy weapon (like a machinegun or heavy rifle) can be carried and fired with greater ease.

Painting Laser, \$50: This is a small (about the size of a pack of cigarettes) laser range finder that can also be used to "paint" a target for Hellfire missiles.

Using the range finder gives a +1 to hit when shooting at targets at Long or Extreme range (you know exactly how far away the target is).

A painting laser can be attached to a weapon or used while in the hand.

14/00000	Time	WA	Con.	Avl.	#Shots	ROF	Bal	Range	Cos
Weapon Barrett model 90 (.50 cal)	Type HVV	+2	N	<u>Ай.</u> Р	#3/10/S	101	VR	1km	1000
Hughes rocket cannon	HVY	0	N	P	3	1	VR	300m	750
Antiarmor grenade	HVY	ŏ	Р	P	1	1	VR	Throw	50
LAW	HVY	-1	L	P	1	1	VR	100m	500
M60 light machinegun	HVY	0	Ν	Ρ	100	10	ST	500m	1500
RPK squad machinegun	HVY	-1	Ν	Р	40-75	5	VR	400m	1000
M-216 minigun	HVY	0	N	R	1000	150	ST	400m	3500
M-134 minigun	HVY	0	Ν	R	2-4000	320	VR	500m	5000
M-2F machinegun	HVY	+1	Ν	R	100	5	VR	600m	2000
20mm machinecannon	HVY	0	Ν	R	2-3000	30	VR	600m	7500
Hughes M230B-2	HVY	0	Ν	R	1200	30	VR	1km	10,000
TOW/Hellfire/HOT missile	HVY	0	N	R	1	1	ST	4km	5000

0 Ν

HVY

Sidewinder missile

NEW WEAPONS

Weapon	Type	WA	Con.	Avl.	#Shots	ROF	Rel.	Range	Cost
^o lasma gun	HVY	-1	N	R	5	1	ST	300m	30,000
Missile rack	HVY	0	Ν	R	4	1	ST	200m	10,000
Rocket pod	HVY	-2	N	R	15	5	ST	150m	10,000
75mm rifle	HVY	0	N	R	10	1/2*	VR	250m	10,000
Energy gun	HVY	+2	Ν	R	10	1	VR	250m	15,000
2H energy saber	HVY	+1	N	R	"20"	"1"	ST	4m	5000
Melee weapon	HVY	-1	N	R			VR	4m	2000
2H melee weapon	HVY	-1	Ν	R			VR	4m	5000
20mm autocannon	HVY	0	Ν	R	60	8	VR	500m	10,000
Flamer	HVY	+1	N	R	10	1	ST	100m	10,000

R

1

1

ST

LAW	4m
Hughes M230B-2	Зm
Sidewinder	12m
20mm machinecannon	2m
TOW/HOT/ Hellfire mis	sile 6m
LAWs, Hellfire and S	Sidewinde
missiles are not reload	able—cos
is per round. TOW and H	OTmissile
is per round. TOW and H launchers can be reloa	
	ded—cos
launchers can be reloa	ded—cos ne missile
launchers can be reloa is for the launcher and o	ded—cos ne missile
launchers can be reloa is for the launcher and o AMMUNITION	ded—cos ne missile C OSTS
launchers can be reloa is for the launcher and o AMMUNITION 100 rounds .50 cal	ded—cos ne missile COSTS \$200 \$25
launchers can be reloa is for the launcher and o AMMUNITION (100 rounds .50 cal Light 20mm round	ded—cos ne missile C OSTS \$200 \$25
launchers can be reloa is for the launcher and o AMMUNITION 100 rounds .50 cal Light 20mm round TOW/HOT missile reloa	ded—cos ne missile COSTS \$200 \$25 id \$1500

Missile	6m
20mm autocannon	2m
Rocket	4m
Flamer	4m
7Emm round	\$500
75mm round	\$500
75mm round	
Flamer reload (10)	\$150
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By Dan Schmidt and Rich Ostorero



TOG often breaks stalemates through the use of ruses. One particularly dastardly ploy was "leaking" intelligence that a key TOG HQ 300 kilometers from the lines was denuded of troops after a counteroffensive.

Although the bait was attractive, massive pressure on outnumbered RL units created a strategic situation that ruled out a mass raid by ground units. Likewise, significant Interceptor and fleet assets were unavailable for the mission. Still, the destruction of the HQ would create just enough breathing space for the hard-pressed Renegades to retrench and regroup for the next onslaught. In the end, the RL succumbed to temptation and sent a single heavy grav tank-a one of a kind experimental testbed loaded with new electronics-to make a stab at the defenses. If the TOG left the CP naked, Tyrannisaur would be enough to flatten it with its main battery of four 150mm Gauss cannons; if the CP was more heavily guarded, it was better to lose one vehicle than a platoon or Century on a mass raid.

Crewed by a motley collection of veteran tankers who had survived the destruction of their tanks and APCs, the 'Saur leaped into action. Luck was with the raiders-just as it came into range of the TOG CP unnoticed, the 'Saur's enhanced sensors picked up the two centuries of grav armor hidden away to ambush any incautious Renegades venturing near this CP. The 'Saur had enough warning of the impending ambush to turn three Horatius tanks to rubble in three volleys and flee for home. The TOG centurionin-charge, amazed with the combat performance of this raider, ordered his tanks to pursue and capture the 'Saur.

The daring raid thus degenerated into a chase, with the TOG hounds pursuing the Renegade hare. TOG forces were pulled from other sectors to drag down this powerful foe. By changing directions after killing any vehicle incautious enough to close to 3000 meters, the 'Saur eluded the early pursuit and radioed for help. The Renegade commander, expecting the worst of the mission, was stunned by the performance of the 'Saur and ordered his last reservetwo ground-attack Strikefighters and an ad hoc "scratch force" to rescue the raider.

Not 50 kilometers from safety, the raider's grav drive quit and the tank grounded. While the crew worked frantically to repair the recalcitrant drive, friend and foe arrived



he following scenario combines ground and Interceptor action. You must have Centurion to play this scenario; ground units may be substituted for the Interceptors if you don't own Interceptor.

If you have Interceptor, lay out the space map sheets for atmospheric maneuvering per page 39 of the Centurion Rulebook.

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RENEGADE OB

Task Group Tyrannisaur

One Tyrannisaur heavy grav tank in Hex 1401 of map 2. The vehicle is grounded and incapable of movement at the start of the scenario. The 'Saur starts the scenario with any facing of the Renegade player's choice.

Elements of the 4743rd RL Fighter Wing

Two Strikefighter heavy ground attack fighters in hex 2100 (ground level, eight hexes away from the ground map hex) of the space map at any allowed speed or facing. Each fighter may carry one Strikefighter laser pod on a hardpoint if desired. Any combination of HELL, GLAD, HAFE, Smoke or AMA bombs can be carried on the hardpoints.

If playing without Interceptors, substitute the following Century for the Interceptor pair:

Third Century, First Cohort, 4775th Renegade Legion

First Platoon: Three Wolverine light grav tanks.

Second Platoon: Three Viper light grav APCs.

Third Platoon: Three Viper light grav APCs.

Nine infantry squads with TVLGs.

Three Renegade infantry squads are "tankriders" (Centurion Rulebook page 26).

The Third Century enters the map on the first turn in NF or TTF mode at any speed less than or equal to the clear terrain speed limit.

Scratch Force Lucinius, 4775th Renegade Legion

First Platoon: Three Deliver heavy grav tanks.

Three infantry squads with TVLGs. Support: None.

Deploy the Scratch Force in any hex within six hexes of the 'Saur. Vehicles may deploy in craters (expend one digging charge per vehicle). Infantry may deploy hidden (see *Centurion Rulebook* page 39). Vehicles may not deploy hidden (there wasn't enough time to hide the vehicles).

Leadership Value: 2

TOG OB

Elements of Second Century, Fourth Cohort, 9995th Strike Legion

First Platoon: Three Trajan heavy grav tanks.

Second Platoon: Three Trajan heavy grav tanks.

Four infantry squads with TVLGs. Two infantry squads with light mortars. Support: None.

Elements of Fifth Century, Fourth Co-

hort, 9995th Strike Legion

First Platoon: Three Aeneas light grav tanks.

Second Platoon: Three Aeneas light grav tanks.

Support: None.

Both TOG units enter the north edge of map 3 on the first turn in NF or TTF mode at any speed less than or equal to the clear terrain speed limit.

Leadership Value: 2.

SPECIAL RULES

A number of special rules are needed in this scenario.

• The 'Saur performed well in the raid because it was fitted with special fire-control electronics and software that synchronized the fire of the fore 150mm guns. In game terms, treat the fire of the 'Saur's 150mm Gauss guns as fire from an elite unit (*Centurion Rulebook* page 37). All other fire from the 'Saur is resolved normally.

• If any Fire Control box is hit, the 'Saur loses the benefit of Special Rule 1. All weapons now revert to normal fire control and are modified by the Fire Control hit per the normal rules.

 The Tyrannisaur starts the scenario with no bottom armor and one point of damage to all bottom systems from grounding at speed.

• The Tyrannisaur crew is jury-rigging the grav drive for the trip home as it believes no recovery help is forthcoming. (A TOG raid destroyed many of the recovery vehicles.) The Renegade player rolls 1D10 at the start of each turn. If he rolls less than the turn number, the grav drive has been successfully jury-rigged. The 'Saur may then move on the next turn. The Renegade player need not inform the TOG player that the drive is fixed. If the Renegade player ever rolls a 0, the drive is not reparable. The crew may then rig the tank to self-destruct in one turn. The 'Saur may not fire while the tank is being rigged to detonate. On a roll of 1-9, the tank blows up with the crew still inside, killing all members. The 'Saur may not be rigged for detonation if a Vehicle Destroyed box is hit.

 All ground vehicle crew and infantry are Regulars; all pilots are Piloting 5, Gunnery 4.

• Centurion Gauss cannons are not usually seen on interceptors because the cannon's low velocity makes its shells slower than an Interceptor missile. Obviously, this makes Gauss cannons useless in Interceptor combat. However, for specialized fighters like the ground-attack Strikefighter, huge Gauss cannons are commonplace.

The GAU-150 differs slightly from its groundbound cousins. In ground combat, rates of fire are low, and ammo consumption for nonrocket weapons is ignored. How-



ever, the ground-attack role requires a high rate of fire. Ammo consumption cannot be ignored. Since these big guns fire very large shells, much of the weapon weight is ammo supply. The GAU-150 has enough ammo to strafe a corridor up to 30 hexes—three passes of 10 hexes or two passes of 15 hexes. The Renegade player must record the ammo type (APDS or HEAT) carried by each Interceptor before play.

• The Strikefighter may carry its own laser painting pod for use in dive-bombing attacks with GLAD bombs. Use the 16-20 table to resolve all laser-painting attempts from a Strikefighter, subtracting 4 and adding the pilot's Gunnery skill to the attempt. The pod contains both a painting laser and datalink gear. Strikefighter paints are treated exactly like those of any other Centurion unit. The pod occupies one hardpoint. Laser pods are destroyed first by any Weapon Shorts or Weapon Destroyed result. No other Centurion units may fire at targets painted by a Strikefighter laser pod.

GAME LENGTH

15 turns, or until the 'Saur is destroyed or leaves the south edge of map 2.

OBJECTIVE

The Renegade objective is to get the Tyrannisaur off the south edge of the board, which will give Renegade scientists a chance to read and evaluate the performance of the 'Saur from the data contained in the tank's battle recorder. Failing that, the Renegade objective changes: Destroy the 'Saur, and rescue the crew for debriefing. (The crew is considered rescued if it occupies the same hex as a grounded Renegade vehicle.) If the TOG can prevent the 'Saur from escaping or self-destructing, its scientists will be able to analyze the fire-control system.

VICTORY CONDITIONS

Use the standard *Centurion* victory conditions with the following scenario addenda:

• 'Saur leaves map under own power: 75 points to Renegade player.

 'Saur destroyed (Vehicle Destroyed box hit) by weapon fire: 75 points to TOG if 'Saur is immobile, 25 points if 'Saur is mobile.

• 'Saur crew rescued by Renegades or killed by TOG or self-destructs: 15 points per crewmember rescued or killed.

• 'Saur self-destructs or ammo explodes: 0 points.

STRIKEFIGHTER

Type: Heavy attack fighter Cost: 1,979,140 Mass: 239 Engines: Center Engine: 900 Right Engine: 800 Left Engine: 800 Thrust: 4 No High-Thrust Option Streamlining: Yes Antigrav: No

Shields	Armor
Bow: 90	Bow: 100
Right: 90	Right: 100
Left: 90	Left: 100
Stern: 90	Stern: 100

Weapons Location Туре 150mm Gauss Gun Bow 150mm Gauss Gun Bow **Right wing** Hardpoint Left wing Hardpoint Bow Hardpoint Hardpoint Bow **Right wing** Hardpoint Hardpoint Left wing

TYRANNISAUR

Type: Heavy grav tank Cost: 2,443,520 Mass: 469 Engine: 2200 Thrust: 3 Scenario Points: 25 Infantry Squad: No Digging Cannon: Yes

Shields	Armor	
Front: 90	Front: 100	
Right: 80	Right: 100	
Left: 80	Left: 100	
Stern: 80	Stern: 100	
Bottom: 70	Bottom: 100	

Weapons					
Туре	Location	Damage	Range		
150mm	Turret	T	15		
Gauss Gur	า				
 150mm	Turret	Т	15		
Gauss Gur	า				
150mm	Turret	Т	15		
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Reviews by Craig Sheeley.

Chrome

R. Talsorian Games. \$10.00. Written By: The entire R. Talsorian Games staff, plus contributors.

96-page equipment sourcebook for Cyberpunk 2.0.2.0.

Chrome is the single most useful supplement R. Talsorian has published, eclipsing Solo of Fortune. It is a book of gadgets and gizmos, ranging from new cyberware to security and communications to vehicles, weapons, housing, software and commercial organizations and personal services. The entries are generally well thought-out and provide enough information for game use; many of the gadgets are illustrated.

The new gear is divided into nine sections: Electronics and Miscellaneous, Vehicles, Cyberware, Weapons, Fashion, Executive Services, Chipware, Housing, and Software.

I can't praise this product highly enough. Sure, Chrome could have been made into a better book by increasing the physical quality (and the price), but that wasn't necessary. Chrome is crammed with useful and intriguing equipment usable in any cyberpunk game. Every kind of Cyberpunk 2.0.2.0. character will find something useful.

Annoved at those clumsy cellular decks that always seem to get in the way of the action, Netrunners? Buy a cybermodem helmet or utility suit and the flip switch, and you can run right alongside the other characters without leaving the net! Frustrated by the lack of expensive executive equipment, Corporates? Try the carfax, the portable paper shredder (an executive must) and the advanced communications suitcase on for size. The cybercam EX-1 cyberinterface camera is now available for that Media on the go, and Rockers will drool over the new digital recording studio, a steal at a mere 12,000 Euro. There are also tools for Techs and Medtechs-and all this only in the Electronics and Miscellaneous chapter.

The rest of the book is as good as the first chapter. The only rules goof-up concerns the damage done by the Malorian Arms subflechette gun. The caliber listed is 10mm, but the weapon's description lists armorpiercing effects that definitely aren't covered by 10mm pistol rounds. Some guesstimation is required to figure out what kind of damage the gun really does.

R. Talsorian Games has a winner with Chrome. I highly recommend it for anyone running a cyberpunk genre game.

GDW LIBRARY

Cyberpunk Data Screen 2.0.2.0.

R. Talsorian Games. \$9.95. Scenario Design: Chris W. Young. Three-panel cardboard gamemaster's screen, 32-page scenario booklet.

Accessory for Cyberpunk 2.0.2.0. Any game that has tables needs a referee's screen, usually as an accessory to help run combat sequences. Cyberpunk 2.0.2.0. is no exception since it features a staggering amount of weaponry with different statistics (not as many weapons as, say, Twilight: 2000, but close), with tables and charts scattered through the rulebook.

This referee's screen does a good job of bringing together these tables and statistics on its three panels. The central panel is devoted to weapons stats, armor ratings, combat modifiers and to hit numbers. The righthand panel lists all the requisite stats for netrunning, showing the programs and netrun combat formulas. The lefthand panel is a patchwork of odd tables, including the grenade miss table, microwave effects, drugs and poison, the difficulty modifiers table, a new and useful opponent rating table, and a new and not so useful task/ attack to hit number table. As usual, the outer panels of the screen (the ones turned toward the players) feature one panel devoted to weapon stats for the players and two "wasted" panels with artwork and sales blurb (the two faces exposed in the store).

The 32-page adventure book contains "When the Chips Are Down" and one page of errata. The scenario is well-supported, including a complete set of illustrated, pre-generated characters. And the characters have some actual history, including a mutual acquaintance, freeing the gamemaster from the task of introducing them to each other.

The adventure is satisfactory and challenging to both combat-oriented and mystery-oriented players. Wise and careful players can actually make it through the scenario without serious injury, a pleasant twist on the violence-happy cyberpunk genre.

FLAWS

Of course, no one is perfect, and this product has flaws.

The new task/attack to hit number table is completely unnecessary and very hard to follow—it has the look of someone's pet table that was thrown in for no good reason. The same amount of space could have been used for the fumble tables, often-used charts that are not on the screen.

The adventure is less than useful for continuing campaigns—it's specifically tailored for use with the pregenerated characters and needs considerable alteration for use with any other characters.

The "Erratta" (sic) section deserves mention on its own. Not content with misspelling errata to begin with, the editor proceeds to sprinkle incorrect corrections among the real corrections. For instance, the stats for the bionic olfactory boost (mentioned but never included in the game) and corrections for other bionic stats are correct, but the formula for carrying capacity incorrectly "corrects" the previously given (and more logical) carrying capacity formula. The original formula says a character may lift and carry five kilograms times his Body stat (ranging from 2 to 10). The "erratta" shifts this to 50 kilograms times the Body stat. This makes the average Body 5 Joe a weight-lifter, capable of routinely hauling 250 kilos. In another example, the section on fumbles features rules for weapon jams, as follows:

Automatic weapons have the highest chance of fumbling, and will automatically jam based on the reliability of the weapon. When a natural 1 is rolled while using an automatic weapon, ignore the Fumble Table on pg. 33, and roll a value on 1D10 for the weapon (expressed as a positive number). For example, a gun with Standard Reliability would jam on a 5 or lower on 1D10. The Reliability Table should read:

Weapon	Jams on:
Very Reliable	8 or lower
Standard	5 or lower
Unreliable	3 or lower

Huh? This "correct" table says that the more reliable an autoweapon is, the more likely it is to jam. That must come as a shock to Heckler & Koch and Uzi Galil. Forget those high-priced dependable guns, solos! Go for the poor-quality street specials and avoid those nasty jams.

EVALUATION

This referee's screen is as good as most of the screens on the market, and with the addition of the adventure, it's worth the \$10. Having all the combat tables in one place is certainly useful to the task of running *Cyberpunk 2.0.2.0.*, and every *Cyberpunk 2.0.2.0.* booster will welcome the errata. The scenario is playable and interesting, and provides some good (and reusable) information on NASA and Melbourne, Australia.

Despite the mistakes on the "erratta" and other problems, the *Cyberpunk Data Screen* 2.0.2.0. is worth buying if you run the game. Ω



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