

No.32

CHALLENGE

GDW's Magazine of Adventure Gaming

For Traveller—

Swift Water

by John M. Ford

For 2300—

Cayuga-Class Close Escort

by Clare W. Hess

For Twilight: 2000—

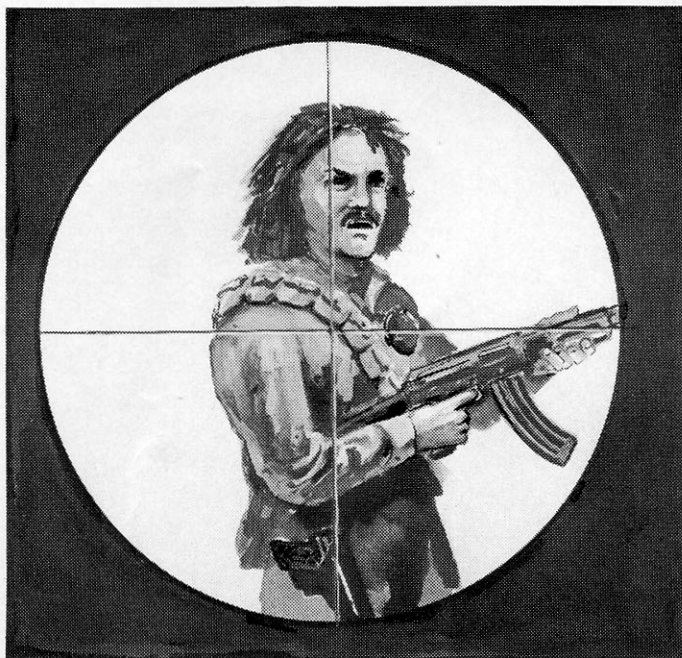
Equipment for Armor Crews

by Fred Kiesche III



Incorporating the Journal of the Traveller's Aid Society

Delta Force Companion



Right on Target!

The *Delta Force Companion* includes a rulebook section, a Warbook section and a scenarios section. The rulebook section adds new rules for new skills and activities for your *Delta Force* team, including Character Advancement, Strategic Operations, Espionage, Using Vehicles and more. The Warbook section adds information on countries afflicted with terrorism (or actively supporting it), an update on terrorist agencies and individuals and, of course, numerous listings for new weapons, equipment and vehicles (including Heavy Weapons). Finally, the scenarios section provides three short missions to help your *Delta Force* team hone its skills.

Coming Soon...

VICEROYS

Explore, Exploit and Conquer the New World!



Up to seven players compete to explore and carve out empires from the new lands – but that's only half the fun. Opportunities abound for treachery, piracy, threats, alliances, bribery, trading, double-dealing and warfare.

Game Features:

- Any number, up to seven, may play.
- Plenty of action, card playing, backstabbing, etc.
 - Solitaire scenario included.
 - Colorful period map.
 - Numerous paths to victory.
- Three full scenarios (Basic, Christopher Columbus, and The Spanish World).

CHALLENGE

GDW's Magazine of Adventure Gaming

Managing Editor
Loren K. Wiseman

Associate Editor
Timothy B. Brown

Spiritual Advisor
Marc W. Miller

Art Director
Barbie Pratt

Graphic Design
and Production
Jim Kuntz
Rob Reed

Text Manager
Michelle Sturgeon

Publisher
GDW

Artists in this issue: Janet Auliso,
cover; Steve Venters; Tim Bradstreet;
Robert Jamison; Tom Peters; Rob
Caswell.

Challenge, GDW's magazine of adventure
gaming, is published quarterly and includes
the *Journal of the Travellers' Aid Society*.

Journal of the Travellers' Aid Society is
GDW's registered trademark for its gaming
magazine devoted to *Traveller*.

Traveller is GDW's registered trademark for
its role-playing game of science-fiction adventure
set in the far future.

Twilight: 2000 is GDW's trademark for its
role-playing game of survival in a devastated
world.

Traveller: 2300 is GDW's trademark for its
science-fiction role-playing game set in the
24th century.

Star Wars: The Roleplaying Game™ is a
trademark of West End Games. *Star Wars* is
a registered trademark of Lucasfilm Ltd.

Challenge is copyright©1988 GDW. Printed
in the U.S.A. All rights reserved. ISSN:
0894-5535. All editorial and general mail
should be sent to *Challenge*, P.O. Box 1646,
Bloomington, IL 61702-1646.

The issue price is \$3.25. One-year
subscriptions are \$13 in the U.S. and Canada.
Foreign subscriptions (outside the U.S. and
Canada, but not to APO or FPO addresses) by
surface mail are \$20 per year (\$40 for two
years). Foreign subscriptions air mail are \$35
per year (\$70 for two years). Please make all
payments in U.S. funds drawn on a U.S.
bank.

Submissions: We welcome articles and il-
lustrations for *Challenge*. Please inquire
before submitting manuscripts, enclosing a
stamped, self-addressed envelope; we will
send manuscript guideline and format sheets.
Foreign inquiries (except APO/FPO) please in-
clude an International Reply Coupon.

Traveller Articles

Traveller News Service.....	17
A World on its Own, by <i>Timothy B. Brown</i>	18
Swift Water: An Amber Zone, by <i>John M. Ford</i>	27
Tlea: A Casual Encounter, by <i>Rob Caswell and Tom Peters</i>	30

2300 Articles

<i>Cayuga-Class Close Escort</i> , by <i>Clare W. Hess</i>	32
<i>The Xiang: Chapter 19</i> , by <i>Deb Zeigler</i>	44
<i>Papers & Passports</i> , by <i>Kevin Stein</i>	50

Twilight: 2000 Articles

<i>Equipment for Armor Crews</i> by <i>Fred Kiesche III, with Loren K. Wiseman</i>	3
<i>Native Canadian Ranger Regiment</i> , by <i>Adam Geibel</i>	8
<i>Small Patrol Craft</i> , by <i>Jeffrey Groteboer</i>	9

Air Superiority Articles

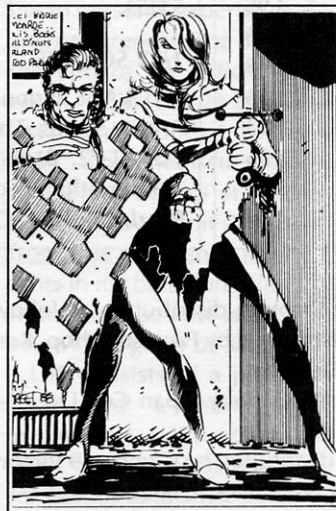
<i>AS Origins Tourney Results</i> , by <i>J.D. Webster</i>	12
--	----

Star Wars Articles

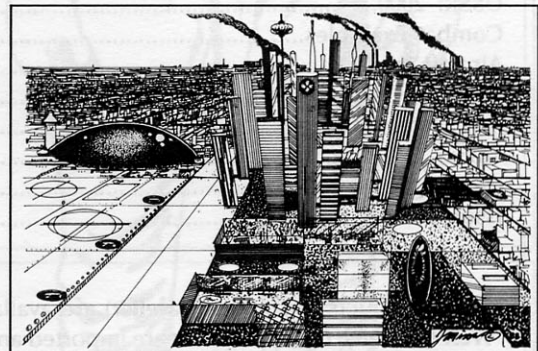
<i>Alone Against the Empire</i> , by <i>Lester W. Smith</i>	57
---	----

Features

<i>From The Management</i>	2
<i>Just Detected</i>	2
<i>E & C</i>	29
<i>Reviews</i>	53
<i>Challenge Classifieds</i>	64



Page 20



Page 18



Page 28

MEMO

By:
Loren K.
Wiseman

From the Management

Tim Brown has written the last couple of "From the Management" pieces, and I thought it was time I put in an appearance to let you know I'm still alive and kicking. I'm very proud of what we've accomplished with *Challenge* lately. We've been on schedule for almost two years, and it looks like we'll be able to stay that way. We've expanded twice—once in dimensions, and once in number of pages. We've increased our coverage of games from the basic two (*Traveller* and *Twilight: 2000*). Our overall appearance has improved greatly and will continue to do so (resting on laurels is dangerous...they tend to crumple out from under you).

FOOT-IN-MOUTH DEPARTMENT

All this said, I must own up to a mistake in my part of "Combat Examples" in the last issue: As near as I can figure, I managed to mix one paragraph with the one directly below it. The corrected passage appears in this issue's *E&C* column. I apologize to anyone who was confused by my blundering.

—Loren K. Wiseman

Issue 31 feedback was as follows:

Hazardous Cargoes.....	4.13
Twisting Tech Levels, a <i>Traveller</i> Variant.....	3.74
Traveller News Service.....	4.35
Wrong Way Valve, An Amber Zone.....	4.00
MegaTraveller Designers' Notes.....	4.09
Sung.....	3.78
Spacesuits.....	3.96
Earth: 2300.....	3.86
USSR: 2000.....	3.95
Combat Examples.....	4.06
Aircraft for CD.....	3.45
From the Management.....	3.56
Just Detected.....	3.23
E&C.....	3.56
Challenge Classifieds.....	3.87
Issue 31 as a whole.....	4.34

JUST DETECTED

CONVENTIONS

DRAGON QUEST

April 8-10, Laramie, WY. A science-fiction convention to be held on the University of Wyoming campus. Dragon Quest will include a gaming tournament, a filksing, computer demonstrations, a hucksters' room, a writers' workshop, and other events. For more information, those interested can write Dragon Quest VI, Knights of Enchantment, PO Box 3625, Laramie, WY 82071.

TRI-STATE CON 1988

April 15-17, Cincinnati, OH. Cincinnati Adventure Gamers will be hosting Tri-State Con 1988 on April 15-17 at Cincinnati Technical College. Tri-State Con 1988 will feature a selection of authorized and/or sponsored tournaments, including tournaments for *Battletech*, *Ace of Aces*, *Lost Worlds*, *Champions*, *RPGA/AD&D*, and *RPGA/Mechwarrior*. Miniatures painting and costume contests are also planned for the convention this year. For more information, those interested in the convention can send an SASE to Tri-State Con 1988, PO Box 462, Cincinnati, OH 45201-0462.

MINIATURES

15MM SCIENCE FICTION

The Reiter (a mail-order hobby shop dealing in books, games, magazines, and miniatures) has acquired a limited supply of out-of-production 15mm science-fiction miniatures. For a list, write The Reiter, 3440 S. Monterey, New Berlin, WI 53151.

1/72 SOVIETS

TCI/ACE announce the 1988 releases in their 1/72-scale Soviet Armor Series. The miniatures series includes models of the T-55, T-72, BMP-1U, BRDM-2, ZSU-23-4M, and MTLB APC, among others. For a complete listing, write TCI/ACE, 4732 E. Pearl, Boulder, CO 80301.

GDW products (including *Traveller*) are available through distributors as follows:

West Germany: GDW products are imported and distributed by Fantastic Shop, Konkordiastr. 61, Postfach: 3026, 4000 Dusseldorf 1, West Germany. Some titles are translated into German.

Japan: GDW products are printed and distributed by Hobby Japan Co., Ltd, 26-5, 5-chome, Sendagaya, Shibuya-ku, Tokyo, Japan. Titles published are translated into Japanese.

United Kingdom: GDW products are imported and distributed by Games, 89 Victoria St, Liverpool, L1 6DG, UK; and by Matthew Harvey & Co. Ltd., PO Box 38, Bath Street, Walsall, WS1 3BY, England.

Italy: GDW products are imported and distributed by Pacific Enterprises Italia, via R. di Lauria 15, 20149 Milano, Italy.

Sweden: GDW products are imported and distributed by Hobbyhuset, Box 2003, S-750 02, Uppsala, Sweden and by Target Games, Frihamnen S-100 56, Stockholm, Sweden.

New Zealand: GDW products are imported and distributed by Blackwood Gayle, PO Box 28358, Auckland, New Zealand.

Australia: GDW products are imported and distributed by Jedko Games, 134 Cochranes Rd., Moorabbin, Vic, 3198, Australia.

Equipment for Armor Crews

Twilight: 2000 has fascinated me since it was first published. First, I've always enjoyed GDW's role-playing games. Second, the subject of modern warfare has always especially interested me. Finally, as a tanker myself, I was fascinated by the opportunity to fight a modern battle without taking the chance of actually getting killed.

In this article, I hope to expand upon some of the equipment used by armor crews (or tankers, as we are sometimes called) in the years after 1998. To do this, I will draw heavily on present-day equipment, since things probably won't change that much in 15 years.

CLOTHING

The basic clothing for an armor crewmember is the same as that for other personnel—the BDU (Battle Dress Uniform). A typical outfit includes a pair of trousers (with four mid-sized pockets, two large "cargo" expandable pockets on the thighs, and straps to tighten the trousers around the wearer's ankles), a shirt (with four pockets), combat boots, black gloves (with removable wool inserts for cold weather), and a field jacket (with four pockets and a hood which can be fitted with a liner for cold weather). Add to this a cap, beret, or helmet (depending on what unit you are in, what your current duties are, and where you are), and various foul weather gear like a parka, poncho, mittens, and so on...a full listing is given at the end of this article. This stuff so far is pretty much standard for everybody. Armor crews also have coveralls and gloves made of Nomex antiblast cloth. The coveralls are designed to reduce crew casualties from internal fire by protecting the crewmembers from the initial blast before the internal fire-suppression system kicks in. These coveralls come in either olive drab or woodland camouflage, depending on when they were issued. Everybody gets an ALICE pack (this is an acronym for All-Purpose Light Individual Carrying Equipment) which is designed to fasten to the LBE suspenders and a couple of duffle bags to store their clothing in. When you are not wearing the foul weather clothing, it is supposed to be in the bags which are strapped to the outside of the tank

along with the ALICE pack and the other gear. There isn't room for this stuff inside the tank, and it's easier to get to on the outside anyway. The bags are supposed to be waterproof—they aren't always. The sleeping mat especially tends to soak up water like a sponge (it is, after all, made of a hard sponge-like foam) and is almost impossible to wring out. This makes for a rather wet night's sleep unless you've had the foresight to wrap the mat in something waterproof or stow it someplace else.

LBE

Load-bearing equipment (LBE) includes the various straps, belts, pouches, bags, and the like that soldiers use to carry their equipment and supplies in. There is a tremendous gulf between what you are supposed to carry and what you actually end up carrying. In a combat situation, this will get worse. Soldiers may all be issued the same equipment when they start out, but they will modify their gear according to personal experience and preferences. The list at the end of the article is taken from FC 23-200-1, "M1 Tank Combat Load Plan," a booklet issued by the Armor School at Fort Knox. My own unit differs from this plan, and other units in my battalion differ from mine, so take what I say with a grain of salt.

LBE consists of a pistol belt and a pair of suspenders with attachment clips and fasteners for various items. The belts fasten around the waist and are widely adjustable. The suspenders are Y-shaped (more or less). The base of the Y fastens to the belt at the small of the back and the two branch-

es of the Y pass over the shoulders and fasten to the belt in front. Tank crews may or may not use the suspenders—in my unit we do not, but other units do. In the near future, some units may use the CVC Survival Vest (see below).

On the pistol belt I wear, (going from right to left around the waist, starting at the clasp/buckle) you would find:



NOMEX COVERALLS

- A pouch containing a first aid dressing, clipped to the belt. This dressing is a thick gauze pad designed to be tied around a limb or head wound with its attached tails. These days, it is usually olive drab in color and is designed to unfold accordion-style before being applied to the wound. It is not premedicated, but it is sterile.

- An M16 ammo pouch, clipped to the belt. This is supposed to contain three 30-round (10-shot, in game terms) M16 magazines. It is often used for other items as well. The pouch usually has straps on the sides to hold hand grenades (two per pouch).

- A canteen cover containing a plastic canteen and an aluminum canteen cup (which slips over the bottom of the canteen, and holds 2 cups of liquid). The canteen cover has two flaps that snap over the top of the canteen and hold it in place. The canteen cover clips to the belt. There is a small pocket on the canteen cover to hold a bottle of water purification tablets, but sometimes these are stored in a pants or shirt pocket instead.

- A poncho, fastened to the belt with blousing rubbers or velcro straps (these aren't standard issue yet, but they are so darned useful that I suspect they'll be standard issue in a few years....The only disadvantage they have is that they make noise when you peel them open). This is directly in the back of the belt.

- Another canteen and canteen cover, sometimes with another cup (the extra canteen isn't official, but they're easy enough for individuals to get ahold of, and most people carry them anyway).

- A bayonet sheath, clipped to the belt. Sometimes individuals will substitute another knife (more mentioned about these later).

- Another ammo pouch.

If the suspenders are used, the first aid dressing pouch is fastened to one suspender, and a lensatic compass case is then attached to the other. The suspender straps are located most of the extra gear goes for easy carrying because they are handy to get at, and they also have several attachment clips. (They cover most of the pockets of the jacket, making it uncomfortable to put things in these pockets, and making the pockets hard to get to in any case.) Some people put knife sheaths, flashlights, extra grenades, and also all sorts of nonstandard items on the suspenders. I, personally, don't choose to make use of the suspenders, so I keep the compass in an ammo pouch.

Personal equipment in the ammo pouches varies. I carry a survival blanket, a small first aid kit, a change of socks, a finger saw (this is a wire saw which has two loops at each end for your fingers—contrary to how the name might sound, it is not a saw for cutting off fingers), and (as is mentioned in the discussion above) the lensatic compass. Other individuals who I know of choose to carry cigarettes, candy, small field manuals, and just about anything else that will fit in the pouch. From the tanker's viewpoint, there doesn't seem to be much sense in the thought of using both pouches for magazines. We will probably never need to shoot our M16s, and the pouches are too handy to just go unused. I suspect that infantry may feel differently, and the situation of *Twilight: 2000* would probably change my mind too (assuming that my tank was still working, and I was still in it).

WEAPONS

Depending on the vehicle that they are manning, armor crews are issued a set of personal weapons. M48 and M60 crewmen nowadays are issued the .45 automatic pistol (one per crewmember) and two M3 submachineguns per vehicle. Some M60s have 9mm submachineguns instead of M3s. M1 crews are supposed to get M231 firing port weapons (like those used in the M2 Bradley IFV) in place of the M3s. By 2000, we can assume that the 9mm service pistol will have replaced the .45 automatic and that M231s will be fairly universal issue. There



BDU

are also the tank's machineguns, one commander's M2HB, and two M240 machineguns (equivalent to the MAG): one for the loader, one for the gunner.

The pistol goes in a shoulder holster, and the extra pistol magazines are supposed to go into a convenient pocket.

Other weapons in the M1's basic load (what every tank is supposed to have) include:

- 8 Fragmentation grenades
- 3 Thermite grenades
- 4 M16A1 "Bouncing Frag" mines (listed in the game as *Mine, Antipersonnel*)
- 2 M21 AT mines (listed in the game as *Mine, Antitank*)
- 2 M18A1 Claymore mines, in bags with carrying straps
- 210 rounds (70 shots) of 5.56mmN
- 114 rounds (38 shots) of 9mmP

ODDS AND ENDS

Personal items vary greatly. Most people carry watches. Everyone is issued a pair of ID tags (called dogtags universally). Most have pocketknives (the various models of Swiss army knives are popular, but just about any kind of folding knife can be found), handkerchiefs, wallets, nail trimmers, and so on. A big favorite are large non-issue bayonets or fighting/survival knives of all shapes and sizes. A lot of people carry pocket flashlights (penlights) to supplement the crook-neck issue flashlight. Some people carry a handful of cyalume lightsticks.

Depending on rank, position, duties, and personal preferences, people carry pens, pencils, grease pencils, maps and map cases, notebooks, protractors, various manuals, cards, lists, and so on.

Some people have been issued (or have managed to obtain) larger (five-quart capacity) folding canteens, which they carry on a strap or in their packs. This is more common in infantry units than in armor.

Little folding stoves and the fuel tablets for them are popular (for heating shaving water or to cook meals). Binoculars (military issue or privately purchased), shaving and toilet kits, plastic bottles for various uses, lighters, matches, fire starters of various sorts, hot packs, cold packs, junk food, civilian camping gear, playing cards and dice for recreation...there are a myriad things possible. If it can be shoved into a pocket, then some soldier, somewhere, has probably got it.

NBC PROTECTIVE GEAR

On the modern battlefield, the soldier faces the possibility of attack by chemical and biological agents as well as tactical and strategic nuclear weapons. In military jargon, these are sometimes labeled "NBC" for Nuclear/Biological/Chemical. Sometimes they are called "CBR" for Chemical/Bacteriological/Radioactive. Armor crews have a small advantage over other soldiers due to the vehicles they use. Tanks provide a certain amount of protection against the effects of nuclear blasts. The tank's sealed environment provides better protection against radiation effects than the individual protective suits. The mobility of the tank means you can quickly leave a contaminated area.

Individual protection against chemical and biological agents is provided through the use of the MOPP suit (Mission Oriented Protective Posture) and the M30 protective mask. (This is called the "chemical protective suit" in the game.)

The MOPP suit used by vehicle crewmembers is identical to that used by other personnel. It is either olive drab (for older models) or woodland camouflage (for newer models) and has a thick, charcoal-impregnated foam lining that gives several hours protection against chemical and biological agents. It will also keep radioactive particles off the wearer (and out of the lungs, more importantly), but it provides no real protection from radiation.

The M30 protective mask is now being phased in as a replacement for the older M25A1 masks used by vehicle crewmembers. The M30 has a large plastic faceplate (to allow for good peripheral vision) which is flexible enough to allow use of the sights in a tank as well. Filters are built-in and are easier to change than those on the older models. There is a connector that allows the wearer to hook into a vehicle's "gas particulate" filter system. This is a tremendous plus in that it extends the life of a filter and obviates the need to change them as often (all filters degrade or lose effectiveness with use). On some vehicles, cool, filtered air can be pumped through the suit, which helps cut down on crew fatigue (MOPP suits are *hot* and extremely uncomfortable to work in. As a side note, the M1 and M1A1 tanks have what is called a "complete NBC suite," an overpressure system which allows their crews to remove their MOPP suits if they wish) The M30 mask has an amplifier system to allow better conversation between individuals, and it can also be hooked into a vehicle's intercom/radio system.

Finally, the M30 has a feature the older M25A1 did not: a fixture that allows the wearer to drink from a canteen without removing the mask. With the old mask you had to hold your breath, break the seal on your mask, take a quick sip, decontaminate the skin of your face and the inside of the mask, and finally clear and seal the mask again. The M17A1 mask also has this feature.

THE CVC

The CVC (Combat Vehicle Crewman) helmet is used to protect armor crewmembers and allow them to communicate. The CVC helmet is made of hardened plastic and somewhat resembles the protective helmets used by the helicopter crewmembers. By 2000, CVCs will be lined with kevlar and will be the equivalent of the kevlar helmet in the game in terms of armor protection.

The protection provided by a CVC takes several forms. Riding in a tank can be bumpy, and the helmet keeps you from bashing your brains out on the inside of the vehicle. Second, it can be very noisy inside a tank, with the engine, turret traversing machinery, and the main gun. The CVC helmet buffers this noise and keeps you from going deaf.

Along with the helmet comes a pair of special protective glasses to protect the wearer's eyes from laser light.

CVC SURVIVAL VEST

A piece of equipment now being considered for standard issue is the CVC Survival Vest. Referees may wish to implement this gear into their games.

It grew out of a desire to allow armor crews to carry out dismounted operations (actions outside the tank) with as much gear as infantry soldiers, without severely restricting their ability to enter and exit a vehicle quickly. The problem with pistol belts

and the other LBE gear is that all the loose pouches and the like are fairly bulky, and hatches are relatively small. If you have to abandon a vehicle in a hurry, you don't want anything to slow you down.

The design of the vest was taken from a similar piece of equipment in use by the Israelis. It is intended to be worn over the BDU shirt and field jacket, and under the MOPP suit. It contains pockets for the following equipment: a lensatic compass, two smoke grenades, two field dressings, a small first aid packet, a knife, an MRE, a water container, a flashlight, two pistol magazines, and a holster. Wearers of the vest often choose to add pockets and modify their vests to suit their individual tastes.

INVENTORY

Most of the items below are unimportant to the game. Players have always enjoyed listing their character's possessions, and this article is intended to help with that sort of thing. However, I must caution players and referees not to spend too much time with minor items of equipment which will slow the game down. Most soldiers will have long since discarded "nonessentials," and circumstances may have caused other items to have been lost, stolen, or destroyed, so referees should feel free to delete anything from this list. Individual crewmembers carry slightly different gear according to their individual duties.

WORN (OR KEPT HANDY)

Qty	Item
2	Ammo Pouch, M16 Magazines
1	Bayonet
1	Belt, Individual Equipment
1	Body Armor
2	Boots, Chemical
1	Canteen Cover
1	Canteen Cup
1	Canteen, Water, Plastic
2	Chemical Overgarment (MOPP)
1	Compass, Lensatic
1	Compass, Wrist
1	Cover, Helmet
1	First Aid Pouch w/Package
1	Flashlight
1	Goggles, Dust and Sun
1	Goggles, Laser Protective
1	Helmet, Kevlar
1	Shoulder Holster w/Lanyard
1	ID Card
1	ID Tags
1	Kit, Decon, (M258A1)
1	Mask Carrier
1	Mask, Protective (M25A1)
1	Suspenders, Individual, Equipment
1	Watch, Wrist
1	Wallet, Personal

CARRIED IN DUFFEL BAG

Qty	Item
2	Bag, Barracks
1	Bag, Waterproof Clothing
1	Coveralls, Summer

1	Coveralls, Winter
2	Fatigues, BDU, Set
2	Field Jacket
1	Hood, Extreme Cold Weather
1	Liner, Coat, Cold Weather
1	Liner, Trousers, Cold Weather
1	Liner, Parka
2	Mittens, Inserts, Cold Weather (pr)
1	Mittens, Shells, Cold Weather (pr)
1	Parka, Extreme Cold Weather
1	Pile Cap



MOPP IV

ALSO CARRIED IN DUFFEL BAG

Qty	Item
1	Scarf, Wool
2	Shirt, OG128
3	Socks, Wool (pr)
1	Suspenders, Trousers
1	Sweater, Cold Weather
2	Towels
2	Trousers, Cold Weather
4	Underwear, Drawers, Cotton
4	Underwear, Shirt, "T"
1	Underwear, Wool/Cotton Bottoms
1	Underwear, Wool/Cotton Tops

CARRIED IN TANKER'S ROLL

Qty	Item
1	Carrier, Sleeping Bag
1	Shelter Half, Tent
1	Sleeping Bag, Extreme Cold Weather
5	Tent Pins
3	Tent Poles
1	Tent Rope

CARRIED IN ALICE PACK

Qty	Item
1	Boots, Combat (pr)
1	Carrier, Intrenching Tool
1	Field Jacket
1	Fork, Field Mess
1	Gloves, Black, w/Inserts
1	Entrenching Tool
1	Knife, Field Mess
1	Mat, Sleeping
1	Overshoes, Boots (pr)
1	Pan, Mess Kit
1	Parka, Wet Weather
1	Poncho
1	Shaving Kit
1	Socks (pr)
1	Spoon, Field Mess
1	Towel
1	Trousers, Wet Weather
1	Underwear, Drawers, Cotton
1	Underwear, Shirt, "T"
1	Underwear, Wool/Cotton Bottoms
1	Underwear, Wool/Cotton Tops

—Frederick Paul Kiesche III, with Loren K. Wiseman

Editor's Note: After this article was written for Challenge, it was learned that the United States Army is currently in the process of revising its load-bearing equipment.

The U.S. Army's revision of the load-bearing equipment will have no noticeable effect on game play, since the revised gear will do the same things as it did before the revision was completed.

Approved For Use With **TRAVELLER®** **Undersea**

The Undersea Environment by J. Andrew Keith. New rule systems simulating the underwater environment: aquatic activities and hazards, the use of underwater gear and equipment, and special events and encounters to help construct underwater encounter tables. (GL-1984 48pp \$5.95)

The Drenslaar Quest by William H. Keith, Jr. On the watery world of Yarfahl, the adventurers join the race to salvage a valuable cargo from the *Drenslaar*, a sunken star freighter. Will they elude detection long enough to complete their task? Makes use of rules and information presented in *The Undersea Environment*. (GL-1985 64pp \$6.95)

Mountain

The Mountain Environment by J. Andrew Keith. Travel and survival in rugged terrain. New rule systems simulate mountaineering and other activities and hazards found on mountainous terrain. Explains the use of mountaineering equipment and includes a guide for the construction of specific mountain situations: special events, encounters, and adventures. (GL-1986 48pp \$5.95)

Ascent To Anekthor by J. Andrew Keith. Lady Sandra Lockhart was rich, famous . . . and bored. A thrill-seeker and daredevil, she was always on the lookout for new horizons to conquer. Now she has set her sights on the triple peaks of Anekthor where an old love and an old hatred await Lady Sandra's challenge. Makes use of rules and information presented in *The Mountain Environment*. (GL-1987 56pp \$5.95)

Desert

The Desert Environment by William H. Keith, Jr. Travel and survival in a desert climate. New rule systems simulate all aspects of desert survival, explains the use of desert equipment, and gives guidelines for setting up specific desert situations: special events, encounters, and adventures. (GL-1988 56pp \$6.95)

Duneraiders by William H. Keith, Jr. Riches, danger, and mystery lie within the arid wastes of Tash-rakaar, a desert world peopled by the savage and enigmatic Duneraiders. The adventurers soon learn that desert nomads and desert heat aren't the only enemies they face. Makes use of rules and information presented in *The Desert Environment*. (GL-1989 64pp \$6.95)

Adventure

A Pilot's Guide to the Drexilthar Subsector by J. Andrew Keith. From the navigational computer files of the Imperium comes a detailed explanation of a subsector on Reaver's Deep, in the Imperial frontiers. Presents background information on the Deep and on the Drexilthar subsector (setting for the adventures *The Drenslaar Quest* and *Duneraiders*). Each world in the subsector is explored to sufficient depths to be the setting for one or more adventures. (GL-2980 48pp \$5.95)

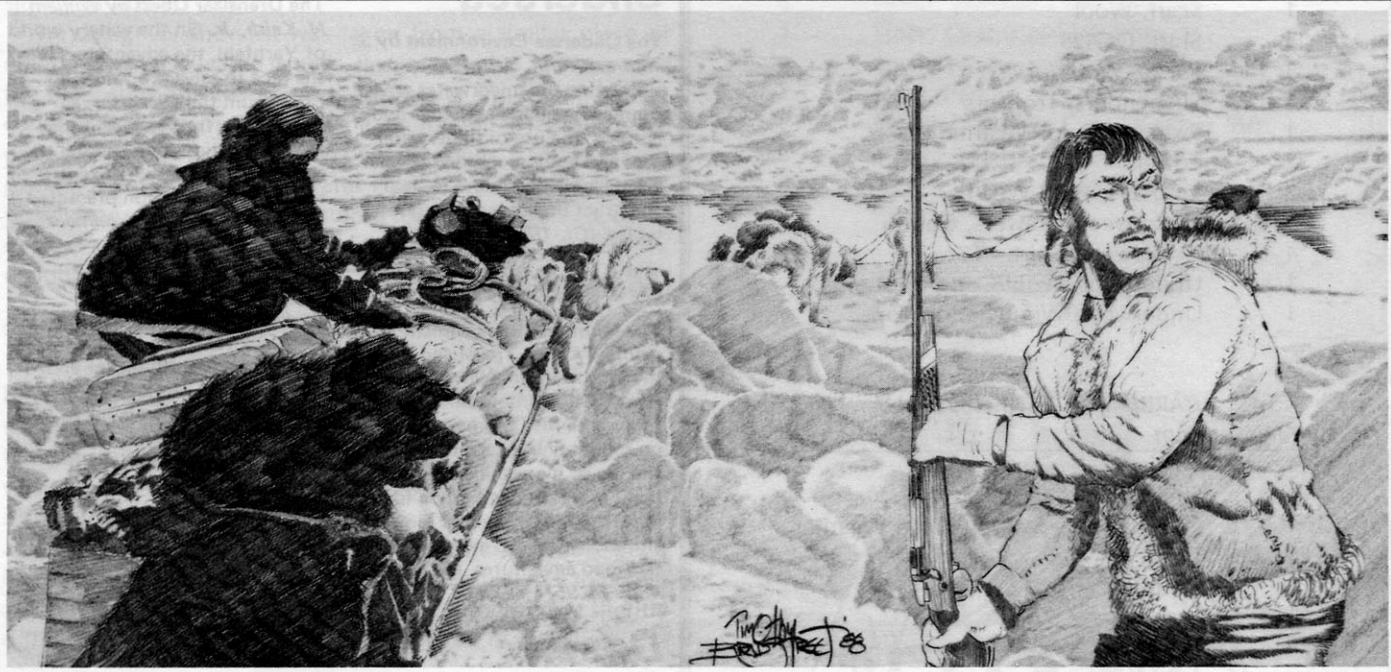
Wanted: Adventurers by John Marshal. From the want ads of a starport news service come 20 short adventure situations. Job opportunities abound for adventurers in this collection of scenarios which can lead a band of characters into anything from a luxury cruise to a mercenary expedition. (GL-1971 48pp \$5.95)

Startown Liberty by John Marshal. Startown . . . the rough and tumble district on any world where travellers can find anything from entertainment to the worst sorts of crime and corruption. Condemned by the majority of honest citizens, exploited by the criminal subculture, and visited by starship crews looking for entertainment, information, jobs, and almost everything else, this is "a wretched hive of scum and villainy" . . . this is Startown. (GL-1975 48pp \$5.95)

Lee's Guide to Interstellar Adventure: Volume 1 by Gregory P. Lee. The journals of the noted galactic wanderer Aramais P. Lee have now been converted into a referee's aid. *Lee's Guide* provides complete planetary specifications and detailed plot outlines for 10 worlds in which the situations taking place on the planet form the basis for a varied range of adventure opportunities, suitable for both small parties and large groups. (GL-1980 48pp \$5.95)

Available from Sleuth Publications, Ltd., 2814-19th Street, San Francisco CA 94110. Add \$2 per order for postage & handling.

Native Canadian Ranger Regiment



This regiment of Inuit and Indian native scouts is the Canadian Army's equivalent to the 1st and 2nd US Arctic Brigades. Originally formed by the Canadian Government in 1947 with an authorized strength of 1350, this unit's stated mission was to patrol Canada's northern frontier.

Organized in 34 units spread over 5100 kilometers, from Newfoundland to the Yukon, only four act as headquarters—one at regimental and three at battalion level. By July of 2000, units were spread in western Canada, Alaska and Siberia, most out of contact with higher headquarters and operating largely on their own.

The Native Rangers first entered combat in July of 1997, providing invaluable aid to the beleaguered US 47th ID. As the situation stabilized, the Rangers assumed more solitary missions. The Regimental HQ was attached to the X Corps in December of '97. As more units were shifted west, three *spetsnaz* groups were intercepted and eliminated in North-eastern Canada—thus it was decided to leave one battalion equivalent in the east.

Rarely operating in groups larger than a patrol, they conduct raids on Soviet rear area installations and units and act as liaison to anti-Soviet partisan units. They operate independent of any parent

organization and are frequently out of contact for months at a time. Supply has never been a problem—living off the land is so much of a second nature that Rangers would train NATO visitors in arctic survival.

The individual Native Ranger is a hardy man or woman, undaunted by Arctic cold and living as one with their harsh native land. Their CRM, RCN, HNT, and FSH skills are all base 40. One of them can tell direction and navigate without a map or compass even in a snowstorm. Most can repair a snowmobile barehanded in -40 degree weather, making it "run better on one cylinder than it did on two." They usually have a high school education and can speak English with as much fluency as their tribal dialect. Ranger groups are usually (but not always) of one single tribal affiliation (Cree, Inuit, etc.).

EQUIPMENT

The NCRR was not issued uniforms or government equipment like their American counterparts. The only item of prewar issue was one 7.62mm N SMLE bolt action rifle and 200 rounds of ammunition a year per man. They preferred the bolt action SMLE (as it has fewer parts to freeze solid in -65 degree F weather), but units now use whatever weapons and ammunition are available, including

captured Soviet weapons and civilian hunting rifles. Each group has at least one member who is proficient with the traditional weapons of their forebears, the harpoon and the bow.

Stealth, communications and mobility are more important than firepower for most missions. Originally issued one 50/500km radio, antenna, and generator set per platoon, the Rangers now make use of civilian radios and captured Soviet equipment. Gasoline for generators is scarce (as is material to make alcohol in the winter), and manually powered generators are preferred when they can be had. All radio traffic is in native dialect to foil enemy listeners.

Snowshoes and skis are supplemented with privately owned snowmobiles, horses, and (more often as gasoline supplies become more scarce) dog teams in the winter.

ORGANIZATION

Each platoon has a native officer, two NCOs, and two designated radio operators. The Regimental and Battalion headquarters have four officers and eight NCOs apiece. In 2000, headquarters units are as engaged as scout platoons. Three HQ units, including regiment, were attached to the US X Corps when attachments made a difference.

Continued on page 15

Small Patrol Craft

Most boats in Europe and in the United States will be civilian and will resemble the boat depicted in the Vistula River scenario (although they will differ in details). Of course, all manner of boats may be seen, including pleasure craft and sailboats. They will be in increasingly poor shape as time goes on, due to the elements, lack of proper maintenance, and (of course) the damage from military action.

Naval vessels may be encountered, but these will most often appear along coastlines and at river mouths. In Europe, torpedo boats and fast attack craft will be the most numerous type encountered: they were the most numerous before the war, their maneuverability and small size makes them difficult to destroy, and once their armament is expended they cease to be a major target and can be overlooked in large-scale battles.

Those vessels which remain will, for the most part, displace 100 tons and less. Larger ships will not be able to operate economically and will have suffered much damage at their berths at major seaports. Small boats are easier to convert over to alternative fuels (steam, in the case of the *Visla Krolowa*, alcohol, or sail).

Ships which continue to operate in the year 2000 will find fuel a problem. Most

marine engines burn diesel, so any type of distilled alcohol can usually be used in the smaller power plants, although it will require careful maintenance to prevent engine damage (50 to 75 percent of the diesel power level). Large marine power plants will not be able to achieve higher than 30 percent efficiency on alcohol. Gas turbine engines can also operate on methanol and ethanol—provided the necessary filters and spare parts are available—at about 60 percent of their previous power level.

PATROL CRAFT

The patrol craft presented here is used by the U.S. Navy for instruction of new personnel. It features two V-8 diesel engines, which propel one shaft each, and one diesel-electric generator. There are three inboard fuel tanks of 2400 liters (640 gallons) each. Massing 85 tons, it has a wooden hull, and a one-eighth inch steel superstructure. In addition to magnetic and gyro compasses, it carries an Omega Navigation set and an LN-66 navigation radar. It has no standard armament and is unarmored. It can attain up to 15 knots forward and six knots in full reverse (on diesel fuel—performance is about half this on alcohol). Throttle controls are in the pilothouse and on the main control console on the lower deck.

The main deck houses the forecastle,

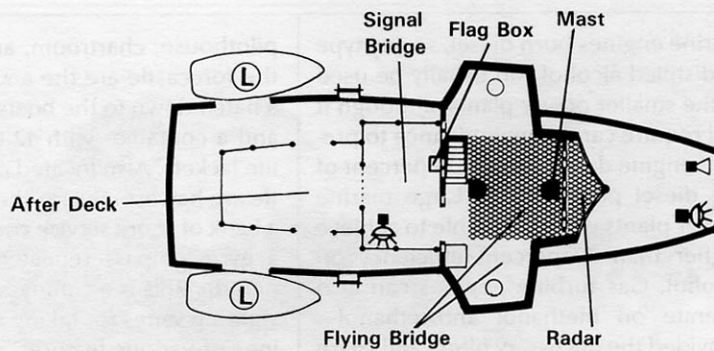
pilothouse, chartroom, and fantail. On the forecastle are the anchor windlass, a hatch down to the boatswain's locker, and a container with 12 CO₂ inflatable life jackets. Also located on the forecastle are hawespipes for the two anchors, a bank of shore service connections, and a gyro-compass repeater housed in a pelorus (this is a compass housing with sighting vanes for taking compass bearings of various features and objects).

Inside the pilothouse is the Engine Order Telegraph (EOT) used for sending engine orders to the main control console below. Beside the EOT is the Helm unit with the ship's wheel. A gyro-compass repeater and magnetic compass are located on the "dashboard." Starboard of the Helm is a radar repeater. Along the after bulkhead is the boat's master radio set and the navigation table. Just aft of the pilothouse is a ladder down to the Lower Deck. A hatch opens out onto the gangway port and starboard of the pilothouse.

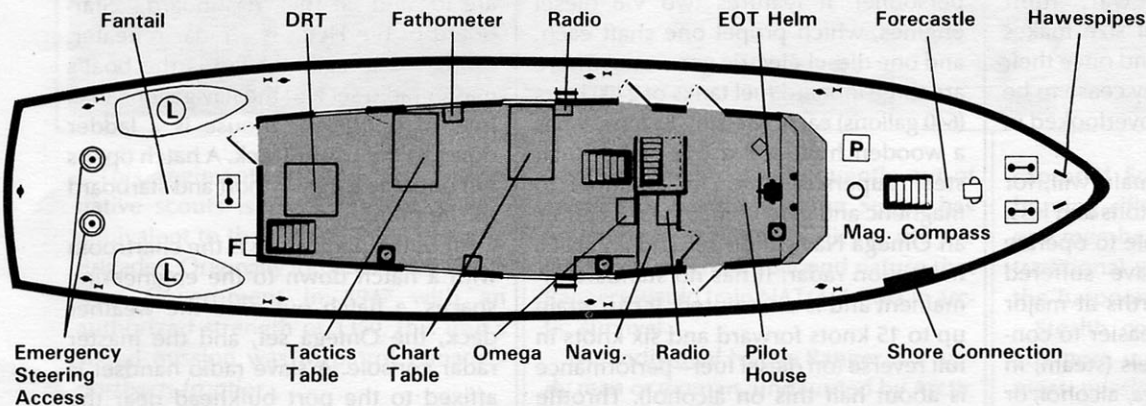
Aft of the pilothouse is the chartroom with a hatch down to the engineering spaces, a hatch out onto the weather deck, the Omega set, and the master radar console. A slave radio handset is affixed to the port bulkhead near the chart table. Aft of the chart table is the fathometer. The tactics table is used for training. The Dead Reckoning Tracer is



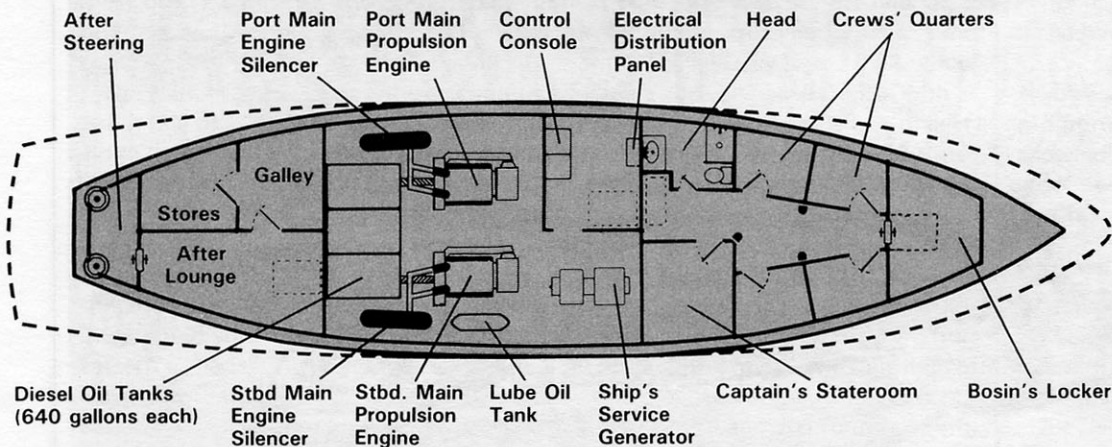
UPPER DECK



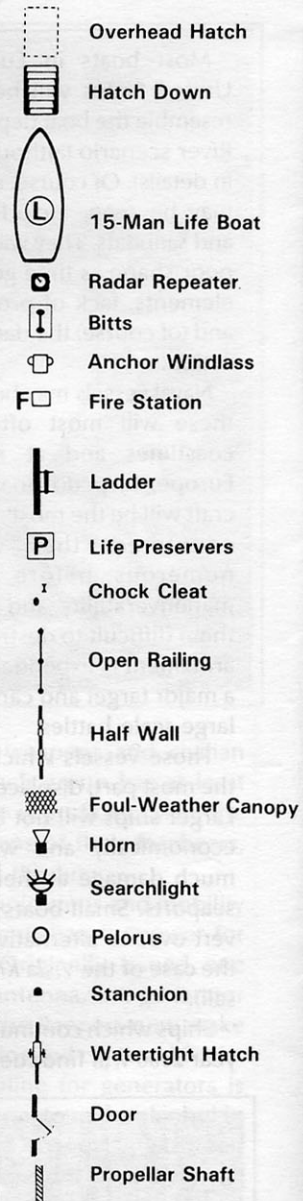
MAIN DECK



LOWER DECK



Key



Scale: 1 meter

the aftermost table in the chartroom and is located next to a hatch down to the after compartments of the Lower Deck.

On the fantail are the towing bitts, two 15-man inflatable life rafts, a fire station with a 50-foot firehose and associated equipment, and two access plates to the emergency steering controls.

Along the length of the Main Deck are chocks and cleats for tying alongside a pier or other boat. Two ladders up to the Upper Deck are located amidships on either side, aft of the hatches into the pilothouse.

Players being what they are,
they will want to customize any vessel they manage
to lay their hands on....

The upper level, containing the flying bridge, signal bridge, and after deck is used only for flying signal flags and in training conning officers and their crews. Two 15-man lifeboats are held along the after deck in solid containers. The flagbox contains all the flags necessary to pass visual signals.

The Lower, or Engineering Deck, contains the Boatswain's locker where the anchors and chains are stored. The crew's quarters sleep eight in four bunks. Aft of the quarters are the single head port and the captain's stateroom starboard.

Aft and separated by a watertight bulkhead are the main control room and ship's service generator, and the two main propulsion engines. Aft of these are the three diesel fuel oil tanks. Separated behind another watertight bulkhead are the galley, crew's mess, and a storage locker. The after-steering controls contain the mechanical controls which directly turn the craft's rudder. The rudder can be operated from there in case of damage to the steering cables from the bridge.

The flying bridge and fantail have provisions for a canopy cover which is normally removed in summer and provides only token resistance to cold in winter.

No accommodation has been made for mounting of a weapon, but one could be installed on any open deck, such as the after deck or fantail (any vehicle or tripod mounted weapon is suitable). The mounting of a weapon on the forecabin would preclude the use of the anchor windlass, however.

Of course, this patrol craft is only an example. Craft which have been constructed for combat will be faster, lower to the water, and better armed and armored than this, but this example should offer the referee involved in a riverine or coastal campaign a starting point from which to develop other types of naval craft. Players being what they are, they will want to customize any vessel they manage to lay their hands on by the addition of extra armor, additional weapon mounts, new machinery, and so on. Where the rules do not cover these modifications, the referee should use common sense (after all, you cannot make a rowboat into a tank!).

—Jeffrey Groteboer

Ride the Crest of the Wave!

...with officially approved
MegaTraveller™ products from
Digest Group Publications

- *Travellers' Digest Magazine*, \$3.95 ea. - 4-issue sub. \$14.00
- *The Early Adventures*, 48 pages, \$7.00
- *Grand Census*, 48 pages, \$7.00

And coming...

- *Grand Survey*, NEW MegaTraveller Edition - 2nd Quarter
- *101 Vehicles* - 2nd Quarter
- *101 Robots*, NEW MegaTraveller Edition - 2nd Quarter
- *Starship Operator's Manual*, Volume 1 - 3rd Quarter

Digest Group Publications

8979 Mandan Ct.
Boise, Idaho 83709
Phone: (208) 362-3094
(MC or VISA Accepted)

**ASK YOUR
DEALER ABOUT
OUR PRODUCTS**

By the Editors of
MegaTraveller™



AS Origins Tourney Results

As **Air Superiority** is the new kid on the block of air combat games, GDW and I felt fortunate to have been able to present a tournament at Origins in Baltimore. The game has been well received and, as the designer, I was excited, of course, by the enthusiasm I encountered for it among contestants and bystanders alike. To say the least, this first tournament (which I hope will be an annual affair) turned out to be a high-powered, gut-gripping affair with the players constantly on the edge of their seats. The fun had by all proved it a success.

TOURNAMENT DESIGN

The tournament consisted of two sessions, each a double elimination competition with the winners progressing into the next of six rounds. The intent of the contest was to declare one player the "Best of the Best" fighter pilot, meaning the one who had the best grasp of tactics, aircraft, and the rules. To accomplish this, the tournament was set up in the following manner:

A) From a list of 10 available aircraft (table A), the player had to choose six—one for each potential round—and then secretly list them in the order they would be used. Additionally, two of the six chosen had to be of non-U.S. use. No aircraft could be flown more than once per session.

B) Opponents were then randomly matched for one-on-one combat, with the caveat that no two players would battle each other more than once, and winners would constantly be pitted against other winners to flush the field quicker.

C) The tournament scenario was G-2, "Air Battles From Neutral Starts—One-On-One." All rules were in effect except fuel use, and victory was based on whoever scored the most points. Rounds one and four used the "at the pass" setup, and round three used the "abeam" setup. In the finals (round six), the players used their choice.

D) Fuel was handled with this simple rule. As each round was limited to 15 turns, players were allowed 10 turns of afterburner use minus one turn for every two points of value that their aircraft was rated over the opponent's.

This setup required the players to do

some thinking before play ever began. First, they had to realize that the scenario consisted of a close-in, high "G," slashing knife fight where radars and radar missiles would be of little use. The Tornado was a deliberate dud choice as it is a great interceptor but a lousy dogfighter. Mental flexibility was needed as they would have no idea of who they'd meet each round and what type of aircraft they would bring. Even the order of their list was important. To save their best for last might mean losing out early since no aircraft could be used more than once and the opponent might bring in his "best" first. Players could end up fighting each other with identical aircraft or different ones and might even fight an aircraft type more than once. Also, due to the nature of the scenario, "biggest and baddest" didn't necessarily mean the best. In fact, the highest rated aircraft in the tourney, the F-15C Eagle, did rather poorly.

There were 14 entrants in the Friday session and 12 in Saturday's. Byes were not given freely. Odd players were matched-up against myself (the designer) or one of my able playtesters and if the bye person lost, this did not count against him until the semi-finals. The participants in the tourney ran to all extremes of experience.

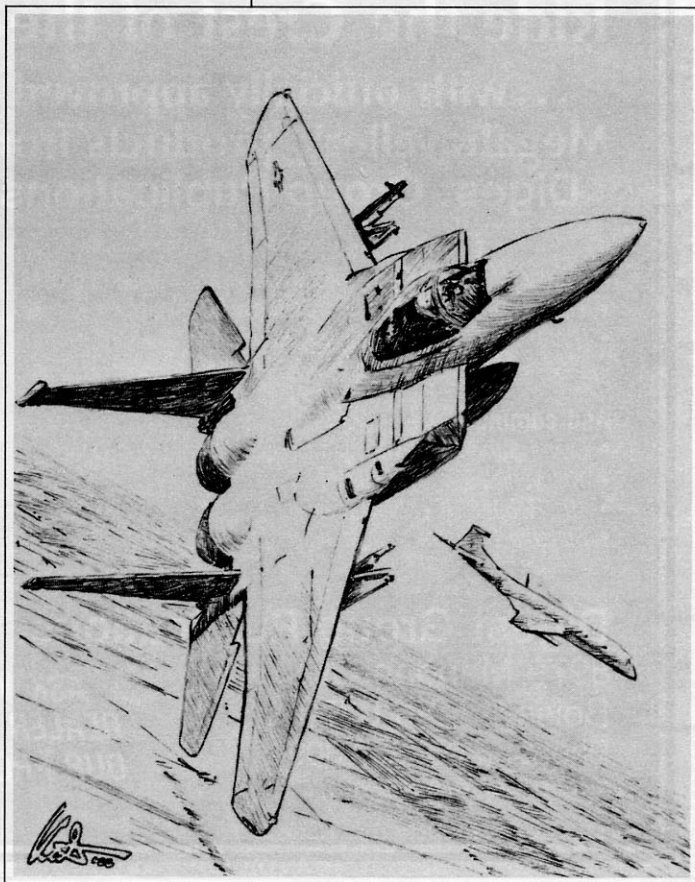
There were veteran playtesters, as well as brand new players who had only recently purchased the game. Surprisingly, some of the beginners did well, surviving their first rounds through skill or luck and boning up on the rules in between.

One even reached the semi-finals of Saturday's session having never played the game before except for some cursory instruction. By the end of tourney, I noted he had read the rules, learned most of them, and was quoting them to veteran players—an outstanding performance really.

TOURNAMENT ANALYSIS

One-on-one fighter combat in this contest meant a vicious, high-powered, twirling fight using guns, all angle short range missiles, ECM and decoys. Mercy was not required. Records kept from each round of the tourney and the results are interesting. Both sessions paralleled each other in the way they progressed.

The Tactics: Player tactics evolved dramatically during each round. Almost everybody committed fatal errors, lost at least once, but seldom committed the same mistakes twice. The early rounds saw players using wide sweeping horizontal turns and little fancy maneuvering. Shot opportunities happened frequently, and missiles were



fired as much as guns. Energy was often mismanaged with some players struggling around at near stalling speeds. The better contestants, of course, capitalized on these mistakes for quick wins. As the general skill level improved, use of the vertical and special maneuvers increased dramatically. This kept fights in tight where missiles were more difficult to use and guns fired only from tougher angles. During the first two rounds, the average game was decided by missile or cannon fire within four to seven game turns, usually by clean kills. By the semi-finals, games lasted all fifteen turns often with neither side scoring hits. The players had quickly learned how to avoid being the target of missile shots and how to defeat any taken with decoys and maneuvers. Doing this meant staying in tight and grappling with the opponent—a situation where the gun quickly became the predominate weapon. By the finals, some players were maneuvering strictly for gun shots, ignoring, in my opinion, some reasonable missile shots. If no hits were scored, games were adjudicated based on a combination of who held the advantage in terms of position and/or shots fired at the end.

The Weapons: Weapon performance was indicative of the nature of the fighting. In the tournament there were 48 one-on-one fights and one three-way cutthroat game for a total of 49 combats. Eighty-two missiles were expended, resulting in five damaging hits and 11 kills, for an average missile probability of hit for damage and kill for shot of only 20 percent and 13 percent. If 15 percent of these shots were discounted as launch failures (12 missiles), the probabilities go up to 23 percent and 16 percent. This seems very low by modern standards, but considering that most of the shots taken were against violently maneuvering targets aware of the incoming missile and employing every possible countermeasure, it is reasonable. Cannons were fired 123 times, resulting in 27 damaging hits and 21 kills for a probability of hit for damage and kill of 39 percent and 17 percent, which is better, but not by much. Cannons were used more often but their lethality was less, and the fact that two-thirds of the shots missed gives evidence to the difficult angles and ranges encountered in the twisting and turning fights. One should note, however, that though missiles faced the tougher ECM/decoy environment, they were more effective when they hit, scoring two kills to a damaging hit while guns were split on damage and kills about 50/50. Table B lists weapons performance by type.

The Planes: Aircraft performance in the battles is also interesting and surprising. Knowing the nature of the tournament, I would have put my money on the F-18 or F-20 to be the top performer. In fact my list of six would have been as follows: MIG-29, F-16, Mirage-2000, F-20, F-15, F-18. I would've led with the powerful but no less agile MIG-29 hoping to catch people making early mistakes. This would be followed by three small nasty dogfighters to carve up the mid-game competition. I'd throw in an Eagle as my semi-final bird, hoping not to meet its like and assuming most other people would have played their best aircraft already. The Eagle has raw power like the MIG-29 but has much better weapons. I'm a missile man myself, and I like the idea of having eight shots on board. For the final championship fight, nothing would beat a Hornet. Its all angle guns and decoy resistant missiles are my reasons.

I was proven wrong in my assumptions however. Counting only dissimilar engagements in which aircraft did not fight their

own kind, my favorite birds did poorly. The Hornet lost eight of 15 encounters, being shot down in five of them. The Tiger-shark did worse, losing eight of 10 fights in which it was "flamed" seven times. Big fighters, predictably, did not fair well either. The F-14 won two of four, being shot down once, while the SU-27 lost four of six, being shot down twice. The huge, powerful Eagle was manhandled by smaller birds, losing seven of nine battles, four times by shoot-down. The Tornado, twice used, was twice abused; it had no place in this arena. The French Mirage which I feared would be hard put to live due to its small missile load, eked out a 5-4 win-loss record. It was flamed on three of its four losses, though. The surprise of the day was the underdog Phantom which won three of four fights being shot down but once. The undisputed *champion* of the tourney, however, was the F-16 Falcon, which went nearly undefeated, winning 12 of 13 fights—nine of these by killing its foe. No other fighter came close to this record. I find this interesting as the F-16 does not really outclass any of the others. Many of jets can equal its maneuverability, and several are more powerful. Its missile load and gun system are matched by its foes as well. It was killed only twice: once by another F-16, and once in a midair collision with a Flanker (a match it won on points). Its one dissimilar loss was to the F-20 Tiger-shark, which had the worst win-loss record of all.

CONCLUSIONS

Tables C, D, and E provide engagement and shot breakdowns by aircraft types. As to why the medium sized F-16 bested everything in sight, I can only guess. The tables indicate however, that it did a lot of shooting, and that must count in part. For that matter, the next highest kill ratio goes to the Hornet which, if you consider that four of its eight losses were dealt to it by Falcons, does not look so bad after all. Was it superior hardware that mattered? No, the underpowered Phantom twice won against powerful MIG-29s, and in perhaps the most memorable fight of the tourney, defeated an F-18 Hornet. That battle went akin to this:

Phantom passes Hornet head on in an unloaded dive. Hornet yanks around to Phantom's rear in a turn the Phantom could never match. Phantom watches Hornet dive in pursuit then zoom-climbs above Hornet's altitude, preventing the Hornet's missile shot. Phantom loses sight of Hornet but pitches back in a vertical climb, rolling to face Hornet. Hornet zooms up catching Phantom with a head-on cannon burst, causing light damage, and passes to rear of Phantom. Now spotted, Hornet loses initiative but pops into vertical climbing roll to face Phantom. Phantom, still vertically climbing, separates slightly and rolls to face Hornet. With evil grins, both players go for it. The aircraft roar in at each other head-on, guns blazing. At range one, both miss; bad luck for the Hornet! At range zero, both hit! The Phantom shudders, smoke pours out! It's crippled! The Hornet flashes past rolling out of control, flames belching out its tailpipes as the pilot ejects! To the cheers of the crowd that gathered to watch, both players shake hands, congratulating each other on the well-fought game. Was it luck on the Phantom's part? Somewhat, but then that player had fought the only way he could against the incredibly agile Hornet. Using the vertical to nullify the Hornet's turn ability and staying out of phase with it to prevent missile launches gave him time to bring his cannon to bear in a last ditch effort.

Luck saw him win the cannon exchange, but skill got him in position for that duel, and that had been his only chance.

I relate that battle to emphasize that it isn't hardware that counts—the player in his capacity as a pilot makes the difference. The F-18 could have used better tactics than to trade cannon fire. The Eagle, Tigershark, Hornet and others did poorly because players used them early before learning their lessons. Most of the time, the F-16s appeared in mid-tourney. Is the Eagle as bad as indicated? No, Saturday's champion used it to defeat a Mirage 2000 and a MIG-29 in the cutthroat game.

I'll let you, the reader, look at the evidence and decide. As for the tourney, it was great, and we're going to sponsor something similar at next Origins along with an **Air Strike** tournament. Keep fighting and learn those tactics!

POSTSCRIPT

I forgot to mention that on Sunday morning, Friday night's champion, Bruce Macintosh, met Saturday's champion, Stora Harris, in the final duel for the title. An offset start with both players initially unspotted and at supersonic speed on the deck (level 1) was used. Bruce chose the Falcon, Stora the Eagle. A three-minute time limit gave both players considerable challenge. The battle was short but exciting, with the Eagle starting at a slight disadvantage but forcing the Falcon to overshoot after a missed gun attack. The Eagle reversed and climbed but put the Falcon in his blind spot. Bruce positioned for and loosed off two Sidewinder missiles. Stora realized his mistake and broke down toward the missiles. One missed but the other hit, causing heavy damage. Bruce positioned and fired two more, both of which blasted Stora, giving Bruce the coveted title of this year's "Best of the Best" in **Air Superiority**.

Other honorable mentions are: Joshua Gottesman, second place Friday; Dave Fiorito, second place Saturday; Virgil Collins, the Phantom pilot against the Hornet. Also many thanks to those who assisted in the tourney all weekend.

TABLE A: AIRCRAFT CHOICES

Type	Load	Rating
1. F-15C Eagle	4× AIM-9L, 4× AIM-7F	61 pts.
2. F-14 Super Tomcat	4× AIM-9L, 4× AIM-7F	58 pts.
3. SU-27 Flanker*	6× AA-8B, 2× AA-10A	56 pts.
4. MIG-29 Fulcrum*	4× AA-8B, 2× AA-10A	54 pts.
5. F-16C Falcon	4× AIM-9L, 2× AIM-7F	52 pts.
6. F-4F + Phantom I.C.E.*	4× AIM-9L, 4× AIM-7F	49 pts.
7. F-18A Hornet	2× AIM-9M, 4× AIM-7F	48 pts.
8. F-20A Tigershark	4× AIM-9L, 2× AIM-7F	48 pts.
9. Mirage 2000*	2× Matra-550II, 2× Super Matra 530D	46 pts.
10. Tornado F-3*	2× AIM-9M, 4× Skyflash	45 pts.

* Considered non-U.S. use.

Notes from tournament statistics (see other tables):

1. F-16 had best kill achievement rate and the best survivability.
2. F-14 had next highest performance.
3. The FA-18, MIR 2000, SU-27, and MIG-29 had equal survivability, but the MIG-29 kill rate was significantly below all of the others.
4. F-20 was least survivable.
5. F-15 performance overall was dismal.

TABLE B: WEAPON PERFORMANCE BY TYPE

Weapon	Firings	Dmg Hits	Kill Hits	Avg. Pk*
Cannon Fire	123	27	21	28%
Skyflash RHM	0	0	0	0%
AA-10A Alamo RHM	0	0	0	0%
AIM-7F Sparrow RHM	2	0	1	50%
Supermatra 530D RHM	4	0	0	0%
Matra-550 Magic II IRM	10	0	1	10%
AA-8B Aphid IRM	24	0	2	8%
AIM-9M Sidewinder IRM	6	1	1	25%
AIM-9L Sidewinder IRM	36	4	6	22%

*Average Pk (probability of kill) determined by counting two damaging hits as a kill and dividing total number of kills by total shots.

TABLE C: WEAPON EMPLOYMENT BY AIRCRAFT TYPE

Aircraft Type	Missile Shot Result			Gun Shot Result			Success*	Rate
	Shots	Dmg	Kills	Shots	Dmg	Kills	Missile	Gun
F-16C	23	2	3	26	6	7	22%	50%
MIG-29	18	0	1	16	2	2	6%	25%
Mirage 2000	14	0	1	18	5	3	7%	44%
FA-18	10	1	1	16	4	5	20%	56%
SU-27	12	0	1	10	3	2	8%	50%
F-14D	6	0	2	11	2	0	33%	18%
F-4F+	6	0	0	6	2	0	0%	33%
F-15C	2	0	1	10	0	1	50%	10%
F-20A	3	0	0	9	4	2	0%	67%
Tornado F.3	0	0	0	0	0	0	0%	0%

*Attack Success Rate—the number of attacks resulting in damage or kill divided by the total number of shots.

TABLE D: ENGAGEMENT SUMMARIES BY AIRCRAFT TYPE

Aircraft Type	Dis. Fights	Win/ Kill	Win/ Other	Sim. Fights	Win/ Kill	Win/ Other	Dis. W-L	(Win Ratio)
F-16C	13	9	3	2	1	1	12-1	(92%)
FA-18	15	6	1	0	—	—	7-8	(47%)
MIG-29	13	2	4	1	1	0	6-7	(46%)
F-15C	9	2	0	1	0	1	2-7	(22%)
F-20A	10	1	1	1	1	0	2-8	(20%)
MIR 2000	9	4	1	0	—	—	5-4	(56%)
SU-27	6	2	0	1	1	0	2-4	(33%)
F-14D	4	2	0	1	0	1	2-2	(50%)
F-4F+	4	0	3	0	—	—	3-1	(75%)
Tornado	2	0	0	0	—	—	0-2	(0%)

TABLE E: OVERALL KILL RATIOS*

Aircraft Type	Fights	Kills Achieved	Losses by Kill	Kill Ratio
F-16C Falcon	13	9	1	9-1
FA-18 Hornet	15	6	5	1.2-1
Mirage 2000	9	4	3	1.3-1
SU-27 Flanker	6	2	2	1-1
F-14D Super Tomcat	4	2	1	2-1
MIG-29 Fulcrum	13	2	4	0.5-1
F-15C Eagle	9	2	4	0.5-1
F-20A Tigershark	10	2	7	0.3-1
F-4F+ Phantom Ice	4	0	1	0-1
Tornado F.3	2	0	1	0-1

*Based on dissimilar fights only. Damage results not utilized, only confirmed kills.

Note: F-16 is the top killer by far, but results are closer when compared for kills and losses.

TABLE F: AVERAGE KILLS/LOSSES PER FIGHT

F-16C	.69/.08
F-14D	.50/.25
F-4F+	0/.25
MIR 2000	.44/.33
FA-18	.40/.33
Tor. F.3	0/.50
SU-27	.33/.33
F-15C	.22/.44
MIG 29	.15/.31
F-20	.20/.70

—J.D. Webster

Continued from page 8

Each unit varies in strength, containing from 20 to 50 soldiers, and is labeled a "platoon." Platoons are further broken down into a variable number of patrols of anywhere from two to 20 individuals. The Rangers have picked up a number of local natives (who have enlisted for various reasons ranging all the way from expediency to revenge), and they have also gained a smaller number of Canadian, American, and even Soviet soldiers.

CONCLUSION

The purpose of this article is to "flesh out" any native arctic troops that could be encountered by the characters during the waging of a campaign (they might possibly be the first friendly troops that survivors of the Kalisz breakout will encounter following their long overland trek across Siberia to the Bering Sea).

The situations could also be used for "one-nighter" games, perhaps for a patrol catching, a foraging party, or a platoon which is defending a lonely, nearly forgotten oil rig while an engineer team tries to get it back in working order. The possibilities for a variety of situations and adventures are, I hope, endless.

—Adam Geibel

Challenge Writer's Department

Challenge is always growing and changing, and we like to keep our active subscribers abreast of what's coming up. If you would like to get more involved in *Challenge*, here are three items which may interest you.

New Writer's Guidelines

The editorial staff has created new writer's guidelines for *Challenge*. They contain everything a writer will need to know to give an article the best chance of making it into publication. There are also suggestions for submitting articles on computer disk, when possible. Even if you have our old guidelines, you should probably obtain a copy of the new set before submitting your next article to *Challenge*.

Since the magazine is growing in size and expanding its scope of coverage, we are, more than ever, looking for new writers. We would like to encourage all potential authors, regardless of experience, to break out their word processors or typewriters and get involved with the magazine. Provided a submission adheres as best it can to the new guidelines, it will be given equal consideration for publication in *Challenge*.

To obtain the new guidelines, please send a stamped, self-addressed envelope to *Challenge* Writer's Guidelines, c/o GDW, PO Box 1646, Bloomington, IL 61702-1646.

E & C

You may have noticed that we have started an irregular feature in the magazine known as E & C (for Errata and Corrigenda). It's the new home for pertinent clarifications of games we cover in the magazine. If there are any specific errata you would like to see, drop us a line to that effect.

Letters Column

Starting soon, we hope to begin bringing you a letters column. If you have comments on the magazine or on games in general, form them into a concise letter and send it in. All letters will be considered for publication, but all are subject to some limited editorial control. A bit of advice—don't become too wordy. We would like to fit as many letters in as possible without taking up too much of the magazine. If you have questions about an article or a game, or if you have comments which you feel you would like to share with the rest of *Challenge's* readership, the opportunity is in the making for you to express yourself. Send your letters to *Challenge* Letters Column, c/o GDW, PO Box 1646, Bloomington, IL 61702-1646.

STARDATE™

The Science Fiction Gaming Resource

featuring APPROVED

BATTLETECH®

ARTICLES AND INFORMATION

JAYNZ

SHIPS OF THE GALAXY

STAR SHIPS DESIGNED FOR FASA'S STAR TREK®
TACTICAL COMBAT SIMULATOR.

**OFF THE
SHELF**

OVERLOOKED MODERN WEAPONRY
WITH DETAILED SPECS FOR
GAME SYSTEMS & ILLUSTRATIONS
WHEN AVAILABLE.

**INVENTIVE
ORDNANCE**

SCIENCE FICTION HARDWARE
IN GAME FORMAT

**CLOSING
THE
GAP**

QUESTIONS
&
ANSWERS

reviews
and adventures
plus
articles and
data
for **SF** games

EVERY MONTH

**AVAILABLE AT HOBBY
STORES NEAR YOU!**

**Don't Wait - Subscribe
12 Issues \$30.00**

... RETURNING THE ADVENTURE TO GAMING

STARDATE™

PUBLISHED BY RELUCTANT PUBLISHING, INC.
7732 AUBURN RD., UTICA, MI 48087
TELEPHONE (313) 739-1599



TRAVELLER NEWS SERVICE

MUAN GWI/VEGA (0107-A456A86-F)**Date: 268-1117**

- ¶ Reports from Sol subsector indicate that heavy fighting continues on Terra, despite efforts by local governments to maintain order.
- ¶ Imperial troop units stationed in Europe and North America have been placed on war status.
- ¶ Travellers from the region report sizeable defections from Imperial troop units by racial Solomani declaring for the Confederation.
- ¶ Admiralty spokespersons refused to confirm or deny the reports.

REGINA/REGINA (0310-A788899-A)**Date: 271-1117**

- ¶ Archduke Norris has placed Imperial forces within the Domain of Deneb at condition 3—standby alert.
- ¶ Fleet reserves are being assembled and orientation training begins immediately.
- ¶ Trance Kelopt, a defense analyst retained by the Traveller News Service, recently evaluated the situation: "Norris' naval intelligence background makes him extremely sensitive to recent developments, and he naturally wants to take preventive measures.
- ¶ "Although the fleet reserve mobilization sites have not been announced, I still expect that there will be three major concentrations.
- ¶ "First, forces will muster at Regina (and I mean within, say, 10 parsecs of Regina) to protect the Archduke's capital and react to a possible Zhodani thrust.
- ¶ "Second, forces will assemble at Mora as a reaction force against Aslan movements.
- ¶ "The entire rimward flank of the Domain is vulnerable to Aslan *ihatei* fleets, and they are extremely difficult to stop once they get moving.
- ¶ "Third, there has to be a fleet mobilization concentrated around the Depot in Deneb sector.
- ¶ "Vargr raiders dart back and forth across the border even in the best of times, and at any sign of weakness, we can expect major Vargr raids.
- ¶ "The region which includes the Border Worlds and the Darrian Confederation is reasonably secure.
- ¶ "If Norris has to ignore any part of the Domain, that's probably the place to slight.
- ¶ "Finally, and not mentioned in the official releases, I believe that Norris will be forced to mobilize a central reaction fleet that can race from trouble spot to trouble spot putting out fires."

CAPITAL/CORE (0508-A586A98-F)**Date: 280-1117**

- ¶ The Ninth Sept of Capital, 400 kilometers northwest of the Imperial Palace, was swept by fire and looting today in the wake of continued rioting and civil disorder.
- ¶ Imperial enforcers, backed by marines and jump troops, have retaken the major communications facilities and government centers.
- ¶ Initial military affairs announcements and reactions implied that the Ninth Sept Rising was directly instigated by Dulinor and his followers.
- ¶ More recent reports make it clear that the insurgents were dissatisfied because government subsistence payments had been curtailed.

DLAN/ILELISH (1021-A8D1ADE-G)**Date: 288-1117**

- ¶ Dulinor is now travelling to the New Palace following the recent victory of the Loyal Fleet over Lucan's forces in Dagudashaag sector.
- ¶ "I leave the fleet in capable hands," Dulinor said as he addressed an assembly which included officers from every ship in the fleet.
- ¶ "My brother knows my every wish."
- ¶ The present location of the Loyal Fleet is unknown.

CAPITAL/CORE (0508-A586A98-F)**Date: 297-1117**

- ¶ The Vengeance Fleet has intercepted and destroyed the screening elements of Dulinor's so-called Loyal Fleet, forcing it to withdraw and paving the way for continued penetrations into rebel territory by Imperial forces.
- ¶ The Vengeance Fleet suffered only minor losses in the engagement.
- ¶ It will press its penetration toward Dlan after a period of refit at the Imperial Depot in Dagudashaag sector.

A World on its Own

This is an adventure for **MegaTraveller**. It will be necessary to have both it and Alien Module 1 *Aslan* in order to play.

TOO MANY WORLDS TO COUNT

Introduction

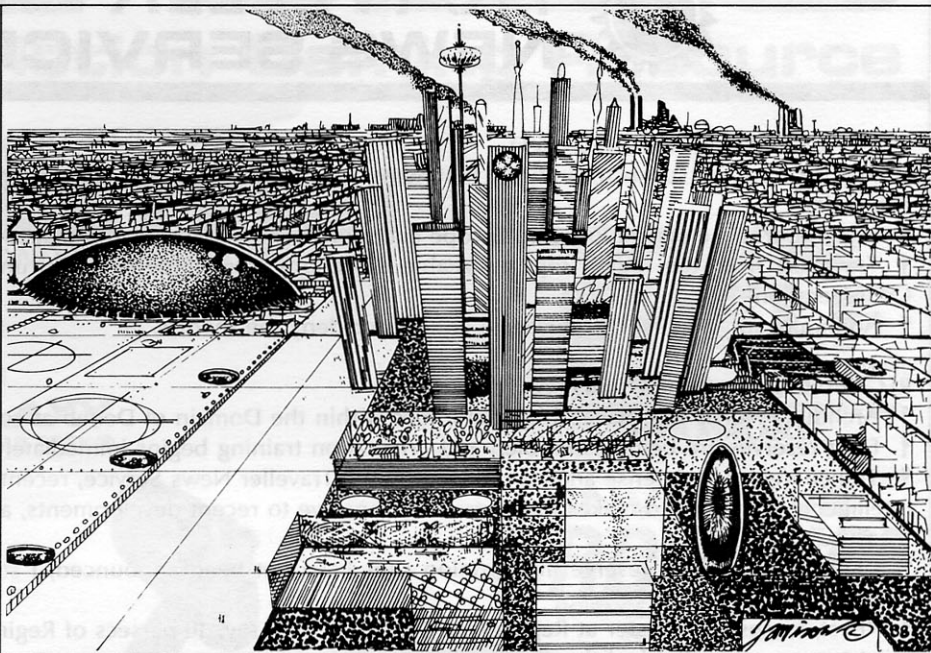
"Using the ancient calendars, the Emperor Strephon was rightfully defeated in the summer. By winter, the victorious Dulinor had returned home to announce his reign. But his promises of peace and prosperity in the center of a burgeoning empire didn't last, and the fleet was off to war by the next spring. The sons and daughters of the sector said their goodbyes on a hundred different worlds as the host assembled for its long journey to the core."

The sectors of the Imperium are large—large enough that entire worlds or groups of worlds can sometimes get lost in the shuffle. When the call went out to assemble the sector navy into a single fleet, more than one world refused to send their contingents. One such world was Khirar.

Khirar is a prosperous world in Ilelish sector. The government is a dictatorship by a powerful warlord who seized power for himself during a time of planetary upheaval two decades earlier. Reputedly as wise as he is fearless, the Warlord Rutall now enjoys the popular support of the majority of his two billion subjects. It is his economic leadership which has seen the entire world through the depressed times which followed the devastating war years.

Technologically, Khirar is in the mainstream of spacefaring worlds, but is certainly not a match for the advanced ships and weapons of the sector naval base in orbit around it. Technically, the naval base had been a separate entity in the system, subject only to Imperial decrees and not to planetary decisions. When word reached Khirar that Dulinor had assassinated Strephon, Rutall reasoned that dark times would lay ahead for his people. With a practiced sense of forethought he put his spies and infiltrators to work on the orbital naval base.

The naval base itself is an orbital facility designed to house a total of up to 300 individuals. The families of those personnel are almost universally settled on the



surface, so all 300 occupants are trained service people. Typically, there are three dozen or so ships operating out of the naval base, performing patrol and training missions in a radius of up to six parsecs.

By the time Dulinor's orders came to move the ships from the base, Rutall's campaign to infiltrate the base had taken effect. In a nearly bloodless coup, several senior naval officers were arrested and replaced by junior officers who had been turned to Rutall's point of view by promises of wealth and power. Only three vessels managed to escape the coup, leaving thirty ships of various sizes and capabilities. Rutall had successfully cut off himself and his world from the call-to-arms going on in the space around him, and had captured an impressive collection of warships to make his independence stick.

Characters

Once the players have been introduced to the scenario, they should be assigned characters. There are five player characters listed below with motivations, equipment, and notes on how to generate them using **MegaTraveller**. If more than five players are needed, either use the male *Aslan* as player characters or expand the humans listed as necessary.

Hatiiru Mana: You are a lieutenant

commander aboard the cruiser *Kunnip*, one of the ships taken over by Rutall. You are also of noble birth, a knight who has sworn allegiance to Dulinor and his cause. You were born on a farming settlement on an agricultural world near Dlan, where your family has a fief granted by Strephon through Dulinor himself for your father's services in the navy. While young, your character followed the family tradition, attended the Naval Academy, and began service with the sector navy. Your latest assignment has been as the navigational officer aboard the *Kunnip*, where you gained quite an admiration for your superior officer, Captain Dunard.

When the unexpected coup came off, you were caught completely off guard. From your temporary quarters at the orbital base, you heard the security alarm sound, and you headed out to see what the trouble was, armed with your laser sidearm. Before you could react, you watched the Captain die at the hands of Rutall's Guardsmen, feared enforcers of local law. Later you met up with Lieutenant Britcher, and the two of you opted for the better part of valor and sought safety hiding in the cargo bays.

After things quieted down, you managed to stow away on a shuttle heading for the planet's surface. Once there you managed to escape the naval ground facility unseen and disappear into the

city, Arkron, capital of Khirar. For the last few weeks you have been living in anonymity among the nameless in the shadow districts, giving up your rightful naval uniform for the dark cloak and work clothes of a common peasant. However, like all officers in the Ileish Fleet, it is considered a dishonor, even a disgrace, to be without one's uniform. You wear it proudly beneath the disguise you have adopted.

Your chief motivation is to gain control of the *Kunnip* and join up with Dulinor's fleet. The injustice of this coup is wearing on you, so action must be fast and immediate.

Mana's Equipment: You managed to escape with only your uniform and your laser carbine-13 (with all 200 shots remaining). On planet, you have also picked up a disguise and a blade.

Creating Lieutenant Commander Mana: Roll up the lieutenant commander as a Naval character. Generate his homeworld randomly (it is an agricultural world, if you care to fudge your results in that direction). If his originally rolled Social Standing is less than 10, raise it to 10. Also, insure that he becomes a lieutenant commander by the time he has gone four or five terms (fudge his position and promotion rolls if necessary). Finally, don't bother with mustering out benefits—the lieutenant commander is still in the service.

Angela Britcher: You were on your first duty assignment aboard the *Kunnip* as a weapons officer when the coup erupted. Only with the level headed help of Lieutenant Commander Mana were you able to escape capture by Rutall's men.

Your origins are actually in the Solomani Rim, where you were born on Karkhar, an agricultural planet near Dingir. Though Karkhar is under military rule, in the rural crater plains of the planet there is little animosity between Solomani and Vilani. You always considered life there good, but you had to leave home when business took a turn for the worse. A connection in the local government got you an admission into the Imperial Navy, and natural aptitude has seen you the rest of the way on your career.

Although you are not necessarily a disciple of Dulinor, the Navy is your home now. You will remain loyal to the Navy and to your only superior officer in this adventure, Lieutenant Commander Mana. Like your fellow officer, your disguise is worn over your naval uniform.

Britcher's Equipment: You were not so fortunate in the escape from the naval base, having retrieved no equipment. However, on Khirar you have managed to pick up a cutlass, with which you are quite adept.

Creating Lieutenant Britcher: Angela's homeworld, Karkhar, is a Starport B, Medium-sized, Dense atmosphere, Wet world with High Population, Moderate Law Level, and High Stellar technology. Create her character accordingly. Also, she has a great understanding of vehicle operation from her background as a mid-tech farmer, so give her an additional background skill point in each Wheeled and Grav Vehicle. Finally, she is skilled with a cutlass—make certain she has at least Skill Level 3 in Cutlass.

Stahn hut-Myeer: Rutall is not without enemies on Khirar. Far from it, as his support stems from his conquests, and conquered peoples rarely accept the yoke of servitude without resentment. The hill tribes of the southern continents are among those who have been caught up in the global warfare which rocks Khirar. They typically lag a Tech Level or two behind the rest of the planet, living a nomadic life following

animal herds for food, and sunshine for electrical power among the foothills.

You were a child when you last lived in the foothills with your people. It was when Rutall and his forces overran the area and burnt your temporary village that you were orphaned and nearly killed yourself. Deep inside, you know that soldiers killed your family, but you know Rutall killed them just as surely as if he had wielded the laser himself. It is your ultimate goal to take revenge upon the evil warlord.

You have grown up as a rogue and wanderer among the war-torn nations of Khirar. You have never known the luxury of the victorious nations—only the suffering of the defeated. As a saboteur and sometime soldier you have picked away at Rutall's empire, always one step ahead of his retribution. Currently you are laying low in Startown around Arkron after a particularly close call with the authorities.

Stahn's Equipment: Stahn has personal armor which is the equivalent of jack, and he carries a blade and an assault rifle (7mm). He is also temporarily "sitting on" a dozen hand grenade-9s. With his connections, Stahn can come up with other weapons and equipment as necessary in Startown.

Creating Stahn hut-Myeer: Roll him up as a Rogue according to world stats for Khirar. Fudge rolls if necessary to give him a good overall weapons skill.

Jason Thanoor: Another displaced civilian who has sworn vengeance against Rutall, Jason Thanoor was once an aristocrat here in Arkron itself. His family was known for its warrior heritage, and his father had fought alongside Rutall in the southern campaigns almost twenty years ago. However, when Rutall purged his officers after that campaign, he saw fit to wipe out the Thanoor family as well. His father already dead, Rutall's troops seized the Thanoor estate and killed his entire family, eliminating all but his youngest son. Jason's foresighted mother had smuggled him out of the city before the bitter end.

Raised and educated by a well-to-do family in Ruthkar (a city to the west of Arkron), Jason only learned of his heritage when he came of age on Khirar at age 15. Shocked and enraged, Jason thanked his Ruthkar family, but declined his mother's wish that he remain anonymous and live out his life under an assumed name. He dropped out of school, took up his weapons, and joined a rebellious faction of jungle dwellers on the edge of the world's largest sea. Here he learned the ways of the soldier and proclaimed his name once again as Jason Thanoor.

Thanoor and hut-Myeer met during a raid against a government fuel convoy three years ago. They have been close friends ever since, having undergone a ceremony which makes them, in modern Earth terms, the equivalent of blood brothers. They will not leave the other behind, no matter what the situation.

Thanoor's Equipment: Jason brandishes a dagger and a Gauss pistol, a prize he took in a previous raid. He wears no armor, in the tradition of the jungle fighters who taught him well. Jason is never without his climbing equipment.

Creating Jason Thanoor: Generate Jason as a Barbarian, careful to make certain that he has some Gun Combat skills. Since he dropped out of school, his Education should be no more than 6.

Airlaloiw: As a young female Aslan of the powerful Hyuktoi clan (a clan with holdings on sacred Kusyu itself), your possibilities seemed virtually limitless. But your true sense of

business led you to corporate management rather than marriage. And despite your clan's influence, you felt that your best chance for success lay outside the Hierate, in the Imperium itself. Could it be that your longtime fascination with humans influenced your decision? Besides, who could have foreseen the dangerous times which now grip the entire empire?

Your business was built around one large passenger/cargo vessel which you managed from star to star throughout the Imperium, at one time going as far as Capital for a lucrative cargo. The three male employees of your corporation are quite loyal; one of them is actually your younger cousin. (*Referee:* The player running Airlaloiw is also in charge of the three male Aslan non-player characters). All other crew positions were filled by temporary human personnel.

Unfortunately, your vessel was heavily damaged by a pirate attack several weeks ago. When you limped it into Dlan for repairs, the authorities commandeered it. Without a ship, you were out of business. Since then, you have managed to move away from Dlan, hoping to find a business opportunity elsewhere. Old acquaintances on Khirar couldn't help you, as everyone is feeling the crunch of the hard times brought on by the impending wars. It now seems that your only chance for a bright future is to flee the Imperium entirely, retreating back to the Hierate to go home.

With this in mind, it is probably in your best interest to find help in getting off-planet. Though you have no particular quarrel with Rutall, his coup and crackdown on off-world travel couldn't have come at a more inconvenient time.

Remember, Airlaloiw is an Aslan, not a human. To properly role-play her as one, both the referee and the player should obtain and read through a copy of Alien Module 1, *Aslan*.

Airlaloiw's Equipment: She has virtually nothing but money right now. Neither her nor her employees have any weapons or armor. They are presently travelling with little more than their clothing.

Creating Airlaloiw: Use Alien Module 1, *Aslan*, to create Airlaloiw and her three male employees.

Assembling the Adventurers

Once characters have been chosen, it is up to the referee to begin the adventure. Referring to the map of Arkron, the naval officers are in the Shadow districts, the rebels are in Startown, and the Aslan are in the Bazaar. Since the characters are not in contact and haven't really met one another, the first part of the adventure will deal with getting them all together.

Begin the scenario with the naval officers as the only "active" player characters. Administer their movements and actions until they "meet" the other characters. Once met by the naval officers, bring the appropriate players into the game and allow them to manipulate their characters normally.

Movement in Arkron: Each district of the city is described below. With each are three encounters which may occur.

The first time the naval characters move through Startown, the rebels will be alerted to their presence. As the referee, simply tell the rebel players, "Two unusual characters have entered the district and it would be in your interest to investigate." Let the players role-play their first encounter.

The same holds true for the Aslan characters, once any "active" characters move through the Bazaars district.

The characters may move to adjacent city districts, taking an

hour on foot to do so, or, if they find vehicle transportation, five minutes. When using vehicle transportation, there is a charge of Cr10 per person per sector, and since the naval characters have no money, they will have to move on foot. There are no encounters when using vehicle transport, which may be good or bad, depending on the situation.

Of course, it will help if both player and referee know a little bit about the entire planet first.

KHIRAR

All of the characters should be fairly familiar with the information in this section. Even the Aslan and the naval officers, though not natives, have lived on Khirar long enough to get this overview of its conditions.

History

Khirar is a habitable world, nearly the size and mass of Terra, but with far less surface water. The tiny seas are landlocked in a world continent characterized by wide desert regions and fierce, active volcanic mountain ranges.

The original colonists of Khirar were Vilani who arrived just prior to the Rule of Man. Solomani settlers followed, and basically got along well with the Vilani already there. The world enjoyed a period of prosperity until the ultimate fall of the Second Imperium and the beginning of the Long Night.

During the eighteen centuries prior to the reintroduction of Imperial rule, the populations of Khirar suffered terribly. Cut off from interstellar trade, local resources took on a far greater importance, and local wars broke out over their exploitation. Factionalization plunged the world into the depths of technology recession, until warlords and petty emperors ruled archaic armies among the ruins of once great cities. During that time, a code of military honor and a tradition of strong leadership took hold and has lasted through the rebirth of technology and prosperity.

A thousand years of Imperial protection and trade has brought Khirar back to the mainstream of interstellar society.



However, their warlike, bickering tendencies have limited their social growth, and planetary conflicts on their balkanized planet have been frequent. On occasion a single leader has emerged from these wars, but none have succeeded in creating a single world government for long. The latest such world ruler is the Warlord Rutall, who operates a shaky, but so far successful government from his seat in Arkron. The military leader who ended up on top after the last global conflict, Rutall is a fair administrator, excellent warrior, and enjoys the support of both his people and his armies. In the future Rutall may indeed be looked upon as a Charlemagne of Khirar's history.

People and Culture

The natives of Khirar are humans of Vilani and Solomani stock. Typically Khirarians are of average height and are tanned very dark by the heat of the local sun. Light clothing is usually appropriate, similar in style to middle eastern dress in many ways, to ward off the sun and protect from the dry sandstorms which are prone to erupt.

Wealthy corporate managers and government officials, usually the friends and relatives of Warlords, make up a small but secure upper tier of society. Their money and influence runs the planetary economy, and their houses dominate the very psyche of the lower classes.

An entire second tier of society is reserved solely for men. Warriors are accorded greater status than any other profession and are granted several rights which blatantly impinge upon the rights of other people. While there is no shame in not being a warrior, a male who does not lead the warrior's life is not eligible for the prestige necessary to, first, rule lands in the name of a warlord, and second, choose his wives as he pleases. This is not to say that only warriors sire new generations, but only the children of warriors enjoy the rights of the second tier of citizenship. Various challenges and accusations over marriage and infidelity often result in bloody retaliation in crimes of passion, most of which are not under the umbrella of the Warlord's peace.

The third tier of society includes virtually everyone else. Merchants and businesspeople, factory workers, farmers, etc., are all, roughly equal on the social ladder. Of course, the refugees and the armies of unemployed, destitute people are accorded no status at all, and, as in Arkron, are all but locked up into designated areas with no escape.

THE CITY OF ARKRON

Arkrone is the most important city and is also capital of Khirar. Rutall rules the planet from his palace, the grounds of which are nestled among the highrises of the business district.

The city is divided into districts for purposes of description and movement. Encounters for each district are given directly after its explanation and are determined by a one die roll. Every time an adventurer or group of adventurers moves through a district, an encounter is rolled using 1D6, and the result is immediately implemented. The referee has latitude in revisiting repeat encounters.

Starport

The landing pads of the starport dot the landscape just outside the city's limits. The sprawl extends to the north, south, and east. Westward lies the filthy industrial districts, the pollu-

tion of which is mercifully carried in the opposite direction. The area was previously residential, but it was flattened in favor of the vital starport facility by an earlier conqueror of the city.

Starport security is state sponsored, as are the customs and immigration departments. All three are notoriously corrupt, but Rutall's personal guardsmen are presently patrolling the starport, enforcing his rule since the coup against the Imperial naval base.

***R**utall rules the planet from his palace...
nestled among the highrises of the business district.*

Traffic has slowed considerably since the coup, as many sector-wide merchants are wary of possible future retribution against Khirar. For now, they feel Khirar is a little fish in a big pond, but its days of independence may be numbered.

Encounters in the Starport: Roll 1D6.

1-3 *Guardsmen*: A patrol of 1D6 guardsmen has an interest in the adventurers. They will follow the adventurers for one minute (10 combat rounds) before overtaking and questioning them, in which case the adventurers will be arrested and detained. Should the adventurers run, a firefight will ensue.

To lose pursuing guardsmen:
Difficult. Stealth, Dex, 6 sec.

Failure will subject the adventurers to fire, which they can return. Guardsmen are armed with Gauss rifles and wear mesh armor. Should an adventurer be captured, he or she will be taken to the palace for interrogation. For every 10 combat rounds in which the characters do not successfully lose the Guardsmen, another 1D6 of them will join the chase.

4 *Rumor*: A mechanic can be bribed for information.

To bribe the mechanic:
Routine (Simple if over Cr100 offered), Bribery, Int, 1 min.

If successful, the mechanic will give the name of Hiram Walker. He will say that Walker may have a means of getting items to and from the naval base through Rutall's screen of guards, but he will elaborate no further. Hiram Walker may be found in the Startown district, according to the mechanic.

5-6 *No encounter*.

Startown

To the uninitiated, Arkron's Startown appears to be a decrepit slum in the shadow of a great modern city. Its narrow streets are dirty and rumored to be dangerous, and its buildings are filthy, ramshackle creations, cobbled together out of random sheet metal and scavenged prefab components. But reality is such that its appearance belies its true comfort and utility. The truth of the matter is that Startown generally enjoys a superior Tech Level to that of the rest of Khirar, a fact carefully camouflaged from the warlord and his tax assessors.

Every manner of spacefarer can be found in the Startown district of Arkron, attracted to the wealth of a populace world

like moths to a flame. At any one time there are probably a dozen new ship crews wandering the streets, frequenting the local establishments, as much at home here as anywhere else in the sector. Mix them well with the regular travellers and you have the greatest pool of information and rumors on the entire planet.

Startown is ostensibly run by a corporate entity for the state. However, since Rutall's conquest of most of Khirar, Startown is sometimes patrolled by his regular police, who have stepped up activity in recent weeks.

Encounters in Startown: Roll 1D6.

1 Hiram Walker: Hiram is an employee of the starport, a shipping supervisor with considerable authority in the starport itself. He lives here in Startown with his family, enjoying the comforts of the higher Tech Level which he is used to. Originally, Hiram and his family are from off-world, where he previously held a more influential position in Core sector. However, after a spat with a superior, he was "banished," as he calls it, to Khirar. The job here is a good one, and he is paid well, but he is still bitter about being demoted and transferred over a petty disagreement with a pigheaded superior.

Hiram is a stocky, portly man who would look right at home in a Santa Claus suit if he were a bit older. He has never been in the service, so he has no weapons skills to speak of. His talents mainly lie in administration (he has Administration-3) and red tape (he has Bureaucracy-2).

It is common knowledge around the starport and Startown that Hiram Walker sometimes takes on odd jobs for extra income. He has three children and another on the way, and while he is not desperate for money, he is always eager to get an easier life for his family. For instance, he intends to purchase a housekeeping robot for his wife as soon as the next child arrives.

Hiram has access to shipments which move between the starport and the orbital naval base on a daily basis. If approached, he will be at first reluctant to perform an illegal act. However, he will come around and will assist the adventurers in stowing away for a ride up to the naval base. Doing so will appeal to him on two levels. First, he will want some sort of monetary reward (he says he will not work for less than Cr10,000). Second, it will give him a chance to stick it to the company which placed him here in the first place.

Details on what Hiram can do to smuggle people off-world are given in the section "367A-Spare Parts."

2-3 Police Patrol: The routine police patrols which move through Startown are generally regarded as friendly keepers of the peace. They have no specific orders to search for the adventurers and will probably ignore them if encountered.

To avoid police patrol:

Simple, Stealth, Int, Instant.

If the adventurers fail to avoid the police, or if they panic, a chase will ensue, administered exactly like the chase described for guardsmen under starport encounters, above. However, evading these police is a simple task. Police wear no armor and carry snub pistols with tranq rounds. Captured adventurers will be taken to police headquarters in Startown and, unless broken out, will be transferred to Rutall's palace in 20 hours.

4 Guardsmen: Treat just like a guardsmen encounter for the starport, above.

5 Rumor: A very common rumor available from about everyone is that an entire brigade of guardsmen have been sent up to the naval base for security. They all went up within the week, and this can easily be confirmed from various other sources who saw them moving through Startown. With that many men involved, there must be something nasty going on up in orbit.

6 Rumor: According to a barkeep, about the only way up to the naval base is stowing away on a supply vessel. Those go every day. There are no passenger ships going there, and the shuttles are all full of guardsmen and ex-imperial naval personnel. The barkeep knows of a man who might be able to help—Hiram Walker. For no less than Cr50, he will tell how to get in touch with Walker.

Stahn hut-Myeer and Jason Thanoor begin the adventure in the Startown district.

The Bazaars

Arkron is Khirar's doorway to the rest of the galaxy. The shrouded tradesmen of a dozen human races set up their wares in huge open bazaars not unlike those of a medieval courtyard. But the hardware and technology for sale set against the grav cars and 'scrapers of Arkron's financial district never let a person forget he is a part of a spacefaring society. Bejewelled Shudashian merchants fill their tables with weapons and their pockets with gold. Local traders spread their fabrics and crafts on the ground, hoping to catch the eyes of bargainhunting off-worlders. And all the while, the shadows play host to quieter businessmen who deal in the less savory merchandise of the underworld.

Encounters in the Bazaars: Roll 1D6.

1-2 Weapons Merchant: A particular merchant tent catches the eyes of the characters, as it is filled with reasonably priced weaponry. Virtually anything of Tech Level 12 or below can be purchased, with the exception of energy weapons, for the standard prices given in the rules. Remember that Khirar is a world in strife, so standard prices are a bargain here. The merchant has three large thugs for security and a writ notarized by a city office declaring his merchandise to be legitimate.

Purchases from this merchant will have to be registered with the city, and some form of identification will be necessary. This should not cause any problems, but might deter nervous players from buying here.

3-4 Black Marketeers: A friendly looking spacefarer will approach the characters, introducing himself as Johnas Kelp. He explains that his wares are special, worthy of more attention than those found on the tables of the bazaar. For no charge whatsoever, he will give the characters a private viewing of his wares, which he promises will be of particular interest.

Should the characters accept, they will be taken to the edge of the bazaar district, to a tiny shack guarded by two burly men with clubs. Inside, Kelp will have a complete selection of drugs and armor (armor was recently made illegal on Khirar) as listed in the *Imperial Encyclopedia*. The drugs will be for sale at 10 percent over their normal cost, the armor for double its normal cost. He has no battle dress.

While inside, roll 6 on 1D6 for a raid. Administer the raid as the police patrol encounter in Startown, above, but the

characters will have at least two turns of warning before any police get into the shack.

5-6 Police Patrol: Administer as a police patrol in Startown, described above.

Airlaloiw and her retinue begin the adventure in the Bazaars district.

The Shadow District

In more prosperous times, this section of Arkron was home to an expanding working class and was filled with new homes and apartment complexes enviable most anywhere in the Imperium. But the years of harder times have taken their toll. The marvels of modern living have either broken down or been stolen one by one as the refugees swarmed from the countryside. Today five or more families may share an apartment designed for one, and no one who lives in these wretched streets enjoys even the most basic dignities a prosperous world should provide. By day, the destitute scramble for their share of government assistance, which rarely goes far enough. By night, the streets are ruled by youth gangs who make war with one another over territories no one else would bother with. The Warlord's Police don't concern themselves with lawlessness within the district and are happy enough to keep it from spreading to the better parts of the city.

One thing is certain, however. A person who wishes to hide himself could find no better place in Arkron than the dank hole of the shadow district.

Encounters in the Shadow District: Roll 1D6.

1-4 Youth Gang: Moving through the Shadow district is very dangerous, either during the day or night. When the characters are doing so, they will be accosted by a gang of youths who will demand money. No doubt, these young thugs will have bitten off more than they can chew, but a fight will probably ensue nonetheless.

There are 3D6 youths in the gang, each of them armed with either a cudgel (1-3) or a dagger (4-6). They wear no armor to speak of. They will attempt to subdue the characters and rob them, but will flee after one third of their number has been rendered either dead or unconscious. There is no chance that police will show up to help the characters, but an unbridled use of weapons will draw some attention—if good weapons are used by the player characters during the battle, the next time there is a youth gang encounter they will be armed with either daggers (1-3) or revolvers (4-6).

5-6 Beggar: An old man sitting at a street corner will be begging for money. If passed by, he will shout, "Go on. Who needs you? I'll save my wisdom for the wise!"

The beggar will be happy to relate news of a planetary nature, most of which will be useless to the characters. If pressed for specific information, he will know nothing of how to get to orbit. He will know general information: that there are extra patrols in the starport and in Startown, and that guardsmen are moving up to the orbital naval base. He also knows about special agents of the warlord on the lookout for escaped unfriendly naval officers—they have even asked here for them.

Lieutenant Commander Hattiru Mana and Lieutenant Angela Britcher begin the adventure in the Shadow district.

Lower Residential District

Though the industrial section of Arkron is across town, most

of the workers there live in this district. They have commuter passenger service to and from work, cutting through the business district and above the starport. Though of lower income, the people here are infinitely better off than those in the shadow district, with most families living in cramped but adequate apartments. There is even a nice park in the district, constructed in three levels, one representing each the desert, plains, and shoreline environments found on Khirar.

Encounters in the Lower Residential District: Roll 1D6.

1-3 Tavern: The characters will notice an interesting tavern near the park in this district. Known as the Journey's End, it is frequented by an enthusiastic group of laborers and technicians, many of whom apparently work at the starport.

Unfortunately for the characters, the establishment is being staked out by an undercover officer of Rutall's guardsmen investigating a matter unrelated to the adventure. However, if he hears the characters asking around about starport operations or means of getting up to the naval base, he will turn his attention to them, and when they leave he will tail them to their next location.

To discover tail:

Routine, Streetwise, 5 min.

If discovered, the characters can deal with the agent in their own way. If not discovered, or if the agent escapes, the characters will have to adopt a disguise, or else they will be recognized immediately as wanted persons by every guardsmen patrol they encounter for the rest of the adventure.

4-5 Thief: While passing through the district, the characters will be marked by a thief. He will attempt to pick the pocket of one of the characters, determined at random. Roll 8+ on two dice for the thief to be successful, and remove one item of value from the marked character, determined at random. If the roll is 4 or less, however, the thief has blundered and will be discovered by the character in question. Rolls of 5, 6, and 7 mean the thief failed, was not discovered, and no further attempts will be made.

6 Police Patrol: Administer in the same manner as a police patrol in Startown, described above.

Middle Residential Districts

The homes of the business people and well-to-do families are not typical of other communities in the sector. The city government is such that this residential district is subdivided into smaller units, something like a commune. Each commune encompasses a few hundred families and their houses or apartments. These are clustered around a central park, sponsored by the commune, usually with shopping facilities. Schools, sanitation, and public transportation are provided at the commune level. There are no large streets, except for side and slide walks, since most personal transportation is done by grav vehicle.

Encounters in the Middle Residential District: There are no encounters in this district.

Upper Residential District

The families of warriors and upper level bureaucrats live on the estates of this district. Each estate usually has a few square kilometers of land and several buildings. Traditionally on Khirar

these buildings are a stable (now occupied by vehicles), a trache drying shed (now obsolete, but fashionable), plus a main building for the family and servants. Often captives from foreign campaigns were put to slavery in older times. This is no longer the case. When such captives are on the estates, they are generally corralled into their own tent cities.

The popular sport of the upper classes, especially among young warriors, is rotoc sparring. Rotocs are large flyers, with wingspans of over two meters. They are unintelligent, territorial creatures who navigate by natural sonar. When a rotoc enters another's territory, they engage in a violent dance which involves rams at high speeds and complicated maneuvering. Young warriors use small hang gliders launched from grav sleds to mimic invading rotocs. Though sparring is dangerous, the rotocs are considered sacred and are never killed or injured.

Encounters in the Upper Residential District: There is no die roll for encounters here. Any movement through the district will attract a police patrol, as outlined above.

Ending the City Maneuvering

Once the characters have been assembled and have met Hiram Walker, the city portion of the adventure will be at a close. Hiram Walker has the only practical means of getting to and from the orbital naval base. Should the players decide on some other course of action, it will have to be handled outside the context of this scenario.

367A-SPARE PARTS

Getting into the Starport

As a trusted and important employee, Walker moves freely in and out of sensitive areas of the starport. He has to pass two different checkpoints to get to his place of work, both with retina-scan identification and, recently added, several armed guardsmen. As a plan is devised to get the characters into the starport, it will emerge in conversation that they simply can't follow Walker to work one day and expect to go unnoticed.

Here are three separate methods of gaining entrance to the starport. Let the players argue it out among themselves, giving them clues from the below listed information about the starport and its operations to guide them. Of course, if they are particularly clever, they can apply their own plans, which may not be listed here.

Option 1—Hijacking: There are service and maintenance vehicles always moving into and out of the starport with crews, maintenance personnel, small cargos, etc. Most move through any one of many lightly guarded vehicle entrances. In theory, all vehicles must stop and obtain official clearance each time they enter the starport. However, due to the frequency of vehicle movements, these formalities are often ignored provided the occupants are all wearing starport work suits and are driving a licensed vehicle. Walker will know how lax the entrance regulations are for vehicles and will bring it up as a point of interest.

It would be easy to locate a starport-bound vehicle outside of the starport itself, running some sort of errand. The characters would have to seize the vehicle and incapacitate its rightful owners. Once seized, the characters could switch into starport work suits and attempt to drive into the starport.

Finding such a vehicle is automatic. It will have 1D6—2

(minimum of 2) starport workers on it. The vehicle will be a grav sled, about the size of a GCarrier.

To get through the starport vehicle entrance unquestioned:
Routine, Stealth, Int, 1 min.

Certain circumstances might change this task, such as the number of characters hiding on the vehicle making entrance and time of the operation (night is always best). Failure of the task will mean that the vehicle will be searched, and papers will be demanded. In such a situation, the characters will either flee from the starport or possibly run the gate into the starport to escape. The vehicle entrance will have an attendant armed with an auto pistol and two guards armed with auto rifles.

Option 2—The Service Ducts: Various ducts for air circulation and electronics housing move into and out of the starport. Walker has a good idea of their layout and may recommend them as a possible means of entrance.

The only problem with using the ducts to get into the starport is the possibility of getting lost. The various ducts make many turns and branches, and most are barely large enough for a person to fit through, much less get a good look around him.

To avoid getting lost in the ducts:
Difficult, Int, 30 min.

Failing the task will mean that the character (or characters—roll once per group moving through the ducts) will become lost, and it will take an additional 30 minutes to get out of the ducts. Once out, lost characters will not be where they expect to be and will have to sneak around the starport to get where they are going. In such a case, roll normally for starport encounters.

Option 3—Stowaway: Walker will point out that the shipment bound for the orbital naval base, 367A-Spare Parts, will originate at an assembly plant in the industrial spur. Security there will be practically nil, and the characters will easily be able to pack themselves away a couple of days in advance. Note that this additional time in packing crates will affect each character's performance once out of them.

The Trip Up

Once the characters successfully enter the starport, Walker will see that they are packed into a regular shipment moving on a shuttle flight to the orbital naval base. The shipment is marked 367A-Spare Parts and should attract little or no attention on the trip up.

Each character will be packed into a single high-impact plastic crate. The original contents will be disposed of by Walker. There is no procedure for checking such crates on their way to the orbital base, so there is no danger of discovery on board the shuttle itself.

However, the several-day journey packed away in these crates will affect the characters. Once out of the crates, they will each suffer 1D6 damage points, which will have to be healed normally. It is unlikely this will incapacitate any of the characters, but it will make them think twice before doing this sort of thing again.

RECOVERY OF THE KUNNIP

This section refers often to the rough layout of the orbital naval base and bridge area of the *Kunnip*. Since the characters are all fairly familiar with it (from descriptions offered by the two naval officers), copies should be made and distributed. Individual rooms and corridors are not shown on the map. As the referee you can assume these are similar to various other starship deck plans you can dig up for this adventure.

367A-Spare Parts is not an emergency shipment and as such will simply be offloaded from the shuttle and loaded onto a grav-pallet. The pallet will be moved to one side of the docking bay where it will sit until it is eventually moved to the maintenance storage areas. There will be plenty of time for the characters to unpack themselves unnoticed in the docking bay. Once out of packing, Lieutenant Commander Mana will see a glorious sight—the *Kunnip* is presently docked with the naval base.

Orbital Naval Base Khirar-1

Built by the Imperial Navy, the base is a state of the art maintenance/administrative/training facility. But now it is over-run by comparative primitives operating at two or more Tech Levels below the Imperial norm. With this being the case, the base is not being used at its peak efficiency. Imagine if you will, having soldiers from the first World War occupying a modern aircraft carrier. They wouldn't know how to work or to understand the detection devices or virtually any of the electronics. Rutall has some Imperial naval officers helping run the base, but things are far from perfect. Presently, the base is over-run with unsophisticated guardsmen using this ultra-modern facility as a barracks.

Since the Coup: In brief, Rutall's plan is to use the captured Imperial ships for personal gain. Of course, he expects eventual retribution, but not for some time. In the meantime, he has a high-tech pirate fleet with which he plans to plunder the surrounding systems. He feels that continued successful campaigns will secure his power base at home, and the only areas left to conquer are off-world.

Every ship is being packed with soldiers for raids against nearby planets. The *Kunnip* is currently being packed with soldiers and weapons, drawing off the naval base like a geostationary depot. When the ships are ready, the fleet will advance out of the system on a campaign of terror and plunder.

Movement on the Base: The base is presently overrun by soldiers. Every room and passageway is full of them, most awaiting assignment to one of the ships in the fleet. It will be impossible to move about the base without uniforms. The two naval officer characters will be able to use their own uniforms, provided they acquire special black armbands which signify loyalty to Rutall. Traitor naval officers are not uncommon on the base. The other player characters will have to come up with entire uniforms. An Aslan will no doubt draw attention, but fortunately there is an Aslan mercenary unit in Rutall's employ, and they are on the base. The circumstances under which appropriate attire is found will be up to the referee, but acquiring it shouldn't become a major stumbling block to the characters and their efforts.

As on the world's surface, movement on the orbital base is abstracted. There are actually two maps of the base. The first

is a general layout of the entire facility. The second is a larger view of the "final leg" of the journey through the base to the *Kunnip*. For purposes of this scenario, we are assuming that, with the proper disguise and stealth, the characters will be able to get to the final leg areas without incident. All of the action on board the base will happen in the seven areas defined in the final leg.

The Final Leg

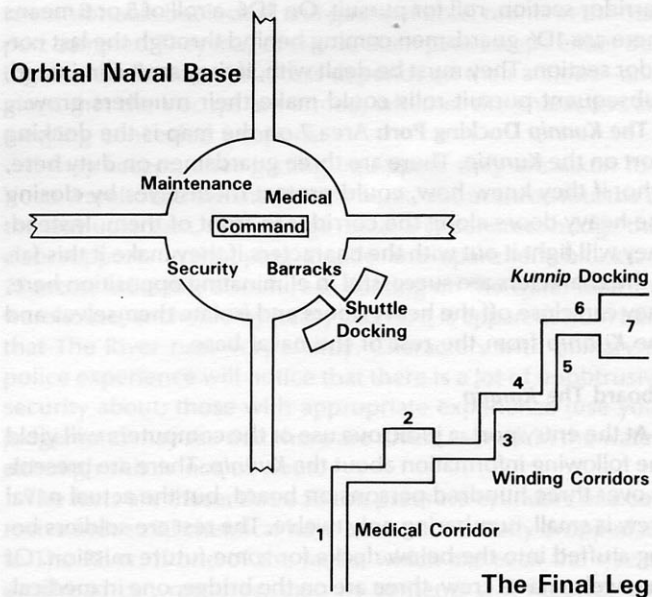
Those characters familiar with the layout of the base will be able to guide the entire group successfully to the medical corridor (corridor 1 on the map). Once there, however, administer this encounter.

Medical Corridor Encounter: While making their way along the main corridor of the medical section, the group will encounter two traitor naval officers approaching them. They will initially pass the characters, but will stop and turn about ten meters behind, one saying "Hey, Britcher. I didn't know you were with us!" Then his face will turn to a frown with realization, and he will fumble for his laser pistol sidearm.

The Firefight: The two traitor naval officers are ten meters behind the group down a corridor five meters wide. They are wearing no armor and have laser pistol-13s. In front of the characters are two guardsmen, who will join the firefight two combat rounds after it begins. They have jack armor and are armed with auto rifles.

The Alarm: Regardless of the outcome of the firefight, the traitor naval officer who recognized Britcher will make it to the corridor wall and pull a security alarm lever. (For dramatic emphasis, this could be a valiant effort after he is mortally wounded.) However, though the red emergency lights will come on and the alarm signal will sound, the security gas will not emerge from the ceiling and the security doors will not automatically close. Britcher and Mana will realize immediately that this is a mistake—the guardsmen must have screwed up the base's security systems. It is still possible to get through to the *Kunnip*, but the entire base is on the alert.

The Medical Lounge: The next area on the final leg is the medical lounge (area 2 on the map). Presently, the lounge is



being used to house seven soldiers, who are part of a recon team in a standard Arkron militia unit. The men here were carousing, playing cards, and drinking heavily when the alarm sounded. Now the characters must make their way through them.

To fast talk the soldiers:

Difficult, Persuasion, Int, 1 min.

If that fails, the characters will have to fight their way through the lounge. The soldiers are wearing no armor and will have autopistols (7mm). However, since they are unprepared and mostly drunk, give them a -2 die roll modifier to hit.

The Winding Corridors: The four sections of corridor numbered 3, 4, 5, and 6 on the map are referred to collectively as the winding corridors. When in the winding corridors, the characters have a chance of running into new problems and of being pursued. Administer the winding corridors one at a time—it takes six combat rounds to move through, assuming the characters are running.

New Problems: Upon entering each of the sections of the winding corridors, roll for an encounter.

Roll	Result
1-2	No Encounter
3-4	1D6 Guardsmen
5	1D6 Soldiers
6	1D6 Guardsmen and 1D6 Soldiers

Guardsmen on the naval base are wearing mesh armor and are armed with autorifles. Soldiers will have jack armor and brandish autopistols (7mm). Encounters will be midway through the corridor section, each section being about 80 meters long.

Cautious characters may wish to listen around corners, which should alert them to the presence of new encounters. Since guardsmen and soldiers are not particularly adept, they aren't trying to be particularly quiet—there is no roll to hear them; it is automatic.

Pursuit: Each time characters round a corner into a new corridor section, roll for pursuit. On 1D6, a roll of 5 or 6 means there are 1D6 guardsmen coming behind through the last corridor section. They must be dealt with, if they aren't eliminated, subsequent pursuit rolls could make their numbers grow.

The Kunnip Docking Port: Area 7 on the map is the docking port on the *Kunnip*. There are three guardsmen on duty here, who, if they knew how, could protect themselves by closing the heavy doors along the corridor in front of them. Instead, they will fight it out with the characters if they make it this far. If the characters are successful in eliminating opposition here, they can close off the heavy doors and isolate themselves and the *Kunnip* from the rest of the naval base.

Aboard The Kunnip

At the entry port, a judicious use of the computers will yield the following information about the *Kunnip*. There are presently over three hundred persons on board, but the actual naval crew is small, numbering only twelve. The rest are soldiers being stuffed into the below decks for some future mission. Of the twelve naval crew, three are on the bridge, one in medical,

and eight in engineering.

According to Mana and Britcher, taking the entire ship at this point will be a piece of cake. The corridors to the bridge should be clear, so three easy steps should secure the whole ship. First, someone needs to get to the bridge, take out the three traitor personnel there, and secure the bridge. Once this is done, the security system can be activated, flooding the engineering and medical decks with gas and neutralizing the people there. Finally, a single access hatch and corridor must be closed off and flooded with gas to secure the below decks. All of this can be done from the bridge.

To the Bridge: There will be no encounters on the way to the bridge. The three personnel there will be taken by surprise—their information says that the alarm situation on the naval base was a mistake and that the situation is under control. They are wearing no armor and have laser pistol-13 sidearms.

Once the bridge is secured, Mana and Britcher can detach from the naval base and maneuver away from it. They will also be able to engage the security system to take care of the other naval personnel and seal off the below decks. But there's a red light on the security screen—the security system to cut off the lower decks has failed. Someone will have to get there fast and operate it manually!

Get Below, Fast: There is one junction between the lower decks and ship operations—that is the corridor which must be sealed at both ends and flooded with gas. The security system failed, and only the first door toward the lower decks has closed, and it hasn't locked. The soldiers on the other side are frantically trying to get it open.

To lock the far door:

Routine, Computer, Electronics, 6 sec.

Every round this task is failed, roll 1D6. On a roll of 6 the soldiers manage to force the door open enough to fire through it. They can fire at any of the characters, but have an automatic -2 to hit. They cannot open the door enough to get through. Once the above task is successful, the soldiers are sealed in.

To close and lock the other door and flood the compartment with gas:

Routine, Computer, Electronics, 6 sec.

Once sealed off, there is no way for the soldiers to get into the ship's operations section. They are stuck until the characters decide to let them out.

So Long, Sucker

Once the ship is moving, there are no other ships ready to pursue it or to fire on it for that matter. Security on the station is pretty low, and confusion is pretty high. The *Kunnip* can be easily maneuvered to a position and jumped out of the system.

The soldiers will probably be sealed in the below decks. The subdued traitor naval officers can be locked up in the ship's brig. Turning all of these men and the ship itself over to Dulinor will certainly gain the characters a rich reward, be it cash, a knighthood, promotion, or what have you. Those fighting for the cause of Dulinor will not soon forget the daring escape from Khirar!

—Timothy B. Brown

Swift Water

Indeep (A-AF2527-9, second data group 512) is a low-atmosphere world; that is, it has a thin atmosphere that is breathable only at low altitudes. The principal settlement is the optimistically named Green Valley, a city built at the bottom of a rift valley nearly five kilometers deep. Indeep's main industry is ore extraction and processing. The authority onworld is the Valley Operating Company (Voco), which owns all mineral rights and manages ore extraction and processing. It also owns and manages Indeep Starport. All citizens of Indeep own profit shares in Voco, though each citizen has only one political vote regardless of number of shares held (at least, that's the theory). Voco directly employs about one-half the population, and another 30 percent earn their principal living providing it with goods and services.

Green Valley is 300 meters wide and five kilometers long. The city is built on both banks of the 100-meter-wide river (called simply The River); structures extend up to 30 levels up the nearly vertical canyon walls, and some of the dozen river bridges support further buildings. While there are some small patches of parkland and garden, and every private dwelling has at least a few flowerpots, the city is still mostly functional and industrial in appearance. The valley runs east to west, so sunlight reaches Green Valley for a few hours a day at midday, but the rest of the day is in twilight, and at night only a tiny sliver of stars is visible. Some of the wealthiest citizens have pressurized apartments high up the canyon walls; the sky view isn't much better, but the valley overlook is impressive. The thin air is quite clear due to extremely stringent air pollution laws.

Indeep Starport is located at the rim of the valley. The atmosphere here is unbearably thin. Shipments for the surface mining and industrial sites travel by train; connection with the city is by freight elevators plasma-bored through the rock, or by air/raft. Air traffic in the canyon is strictly controlled—if something fell, it would have two chances in three of hitting a building. The Starport also has the Community Recreation Center, a large clear-domed building available to all citizens. The Center has a swimming pool, a sports field, and the usual recreational facilities, but citizens usually visit just to look at the sky.

Because of the nature of the planetary surface, Indeep Port has no Startown. Voco runs the usual shopping and carousing facilities, but these are well maintained and not too rowdy. Most of the Company security police (the "Vocops") are employed keeping order at the Port.

In addition to the local population, there are a few (not more than a dozen) wildcat miners, who land and hide their ships, usually 100-ton seekers, at likely spots to dig around the planet, in violation of the Voco monopoly. The Company generally lets them alone, as it would cost more to search for and prosecute them than they take out in ores. Occasionally a wildcatter is dumb enough to land at the Port for fuel and service; the Vocops seize the cargo, give the trespasser a stern warning, and send him packing.

AMBERZONE

The players may have come to Indeep looking for trade goods, or the ship they are on (their own, or a passenger vessel) may be laying over for routine servicing and stores. At some time when they are

away from the ship, the players are approached by representatives of Voco for "a small security job." There has been an act of sabotage against the Company, possibly an inside job. Until the saboteurs can be identified, Voco needs people with no local interest to police the damage site.

Payment can be in cash or in goods and services. The company rep will begin by offering a small but reasonable amount (say, Cr1000 per person) for the policing job, to be doubled if there is actually violence. This amount can be negotiated up to Cr5000, doubled for combat. If the players own their ship, Voco will fuel it and perform annual maintenance. As an alternative to cash, the Company will provide trade goods worth 150 percent of the negotiated cash amount for the team. (In *Merchant Prince* terms, these are A-9 F1 Ni Cr5900 cargoes.) If the players do not own their ship, they will have to make arrangements with the owner for cargo space.

Police-type weapons (pistols, carbines, shotguns, gas grenades) and armor (flak jackets) can be provided if the players do not have their own. The team absolutely may not carry heavy artillery—fusion guns and battledress are right out. They will be given armbands identifying them as Vocop auxiliaries.

If the players accept, they will be immediately taken to Company offices for outfitting.

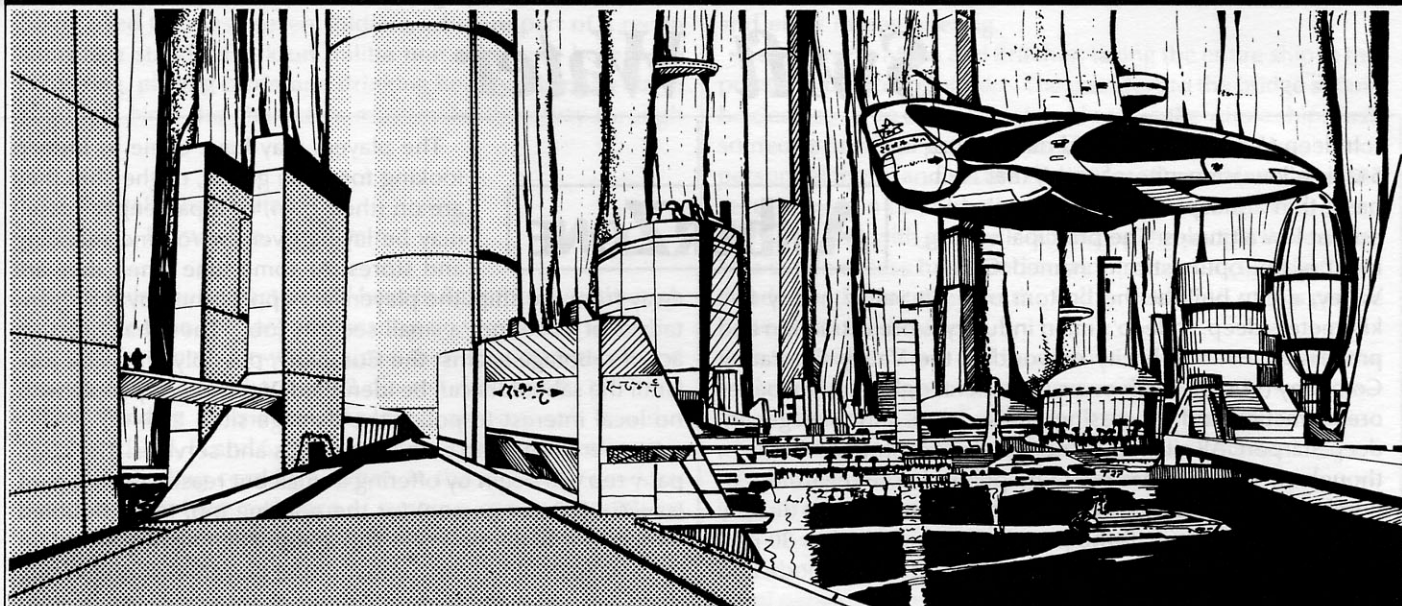
REFEREE'S INFORMATION

Most experienced travellers have learned that a job like this is full of surprises, mostly unpleasant. The Voco rep sounds a little too much in a hurry, and much too willing to raise the players' pay. The players should be skeptical.

If they refuse the offer which has been made, they will be denied permission to return to their ship, and they will be taken to comfortable but locked and guarded hotel rooms in the Starport complex. They may of course attempt to escape either during or after the move; success depends on their actions—and, given that the Vocops are armed, whether the characters are carrying concealed weapons.

If they accept, after getting equipped, they are taken to a Voco warehouse on The River's bank, about three-fourths of the way upstream, near a large metal-and-concrete bridge that also supports a shopping arcade and apartment blocks. A 15-meter inflatable structure is floating on the water near the warehouse, anchored by heavy cables; it is apparent from here that The River runs very swiftly. Characters with military or police experience will notice that there is a lot of unobtrusive security about; those with appropriate experience (use your judgement) may see that there are divers at work in the water, although this is not obvious.

The facts are these: three 50-ton pressure cylinders of a corrosive industrial chemical have been accidentally dropped into The River. If one of the tanks, which are each the size of a railroad car, ruptures, then its contents will vaporize and



bubble to the surface. Heavier than air, the gas cloud will be trapped in the canyon, making the city uninhabitable in twelve hours or less. Even if every resource were mobilized, it would take days to evacuate Green Valley to the surface, where there are no facilities anyway to handle half a million people. Therefore, the company has not told the population.

The recovery team is trying to determine how badly damaged the chemical tanks are and then get them safely to the surface. The water is bitterly cold, and the current very swift: a recovery operator describes it "like working in a solid blizzard." A plan to spray the cylinders with sealing compound failed because the water washed the sealant away before it could harden. The current plan is to surround the tanks with huge gastight bags before lifting them, but no one is confident that the bags can be handled or sealed properly.

If the players' characters have skills useful in the recovery, they should be allowed to help. Rules for this are given below.

If they don't go in the water, keep the suspense high with continuous encounter situations. Some examples:

- A Citizens' Committee demands to know why armed outsiders are in town; they push past the Voco spokesman and ask the players directly. (Since the players will have at best a partial idea of why they're there, this could get very interesting.) You might quietly point out that an explanation of "one of your policemen is a terrorist" is hardly going to quiet the crowd.

- One of the Voco divers panics while out of the water; he intends to leave the site, collect his family, and make for the surface. The team is ordered to keep him quiet. He's not violent—at least, not at first—and swears he won't tell anyone else what's going on. The company was (deliberately?) vague about what "keep him quiet" means.

- Some people sneak over the fence into the site. They're just kids playing detective, and the "equipment" they're carrying is all toys. This one is really nasty: use it only if you trust your players' judgement or really want to trigger a mob scene.

The general idea is to keep making it harder for the players to avoid the use of force while at the same time making the consequences of violence progressively more disastrous.

Players who volunteer to help the recovery team will be accepted if the character has appropriate skills—a high level of

Vacc Suit, for instance. The cold (zero degrees C) and the current (30-40 kph) make working in The River extremely difficult. Divers wear electrically heated suits, which only slow down the effects of chilling and must be tethered at all times. If a player joins the recovery team, use the following rules:

Once out of the water, lost Endurance is recovered at the same rate it was lost (4 pts/hr) but the character must spend at least two hours recovering or gain no points back. Characters must also sleep eight hours out of 24 or be considered Fatigued.

Voco has 10 divers who are working in two shifts of five. A shift descends, spends one hour working, and ascends (total 1.5 hours), then spends two hours resting while the other team works. Total per day: five shifts on, four two-hour rest periods, 8.5 hours sleep. Each diver puts in five man-hours of work per day, for a total of 50 for the team. The teams are working on one tank at a time.

Divers must periodically roll to avoid a mishap: once while descending and ascending, and every thirty minutes at work. The referee may require additional rolls for specific tasks, such as attempting to clear debris or move a cylinder. The basic roll is 11+. Skill DMs: each level of Vacc Suit or Zero-G Combat skill, +2. If the character has experience in underwater work, +4. If the character is Fatigued, all positive modifiers are halved. Regardless of modifiers, a mishap occurs on a roll of 2.

In UTP format:

To perform a special salvager task:

Difficult, Vacc Suit $\times 2$, Zero-G Cbt $\times 2$, 1 hr., Absolute (fateful).

Referee: If a mishap occurs, roll 2D. Add 2 if the character is Fatigued. On 6 or less, the last hour's work by the team has been wasted and does not add to the total; on 7 exactly, the last 1D hours are lost. On 8-10, the mishap endangers the character: a broken safety line, damaged suit air or heat systems, a shift of debris that traps the character underwater until it has cleared. Role-play the rescue; work stops until it is completed. On 11 or 12, the cylinder has been damaged.

Each cylinder can receive minor damage four times before beginning to leak. (If you prefer, roll 1D for each tank to deter-

The combat example for **Twilight: 2000** in the last issue contained a major error in describing how the damage to components is determined. Ignore the section on page 10 of the magazine beginning with

"Third, the damage points left over are multiplied by 10 to determine the percent damage ($315 \times 10 = 3150\%$)." and ending with "The armbrust has expended its energy, and no other component is hit." Substitute the following paragraph:

Third, the percent damage to the component is determined by rolling a 10-sided die and converting the result to a percentage by multiplying it by 10. The referee rolls a 6, indicating 60 percent damage done to the fuel. Fourth, the actual number of hits taken by the fuel are determined as follows: for every 10 percent damage taken, the component suffers hits equal to its damage multiplier (which is 10 for the fuel), so the fuel receives 60 points of damage. This is subtracted from the re-

e&c

maining damage to determine if the energy continues into the next component, which is the engine (since $315 - 60 = 255$, the engine receives 255 points of damage). The component

damage cycle is repeated until all energy from the hit has been expended or the other side of the vehicle is breached. For simplicity, we will assume that the engine absorbs the remaining energy.

—Loren K. Wiseman

In Issue 31, I mistakenly left one very important name from the credits for "Earth: 2300." Dave McCoy was instrumental in writing the piece, and his imagination helped make it as good as it was. My apologies to Dave—here is the belated credit you deserve.

—Timothy B. Brown

mine the damage number.) Should a leak start, each diver working on the tank has a chance to stop it by rolling 7+ (DM +1 each level of Engineering skill. (Routine, Engineering, Instant (fateful)). When a diver succeeds, the damage number becomes 1 and work continues. If all the divers fail, the leak can't be stopped, and the tank will rupture in 1D hours. Now's the time to try an emergency measure, like the plastic bag around the tank—or else to (as they say) get the hell out of Dodge.

Every full day the tanks are in the water, the damage number drops by one. If it drops to zero, a leak starts exactly as above. Do not tell the players the damage number, but tell them that they can hear the valves creaking and that the welds look weak.

Roll dice periodically for the NPC divers to keep the players nervous, but assume the time-lost mishaps are factored into the system. Have more dramatic accidents occur when useful.

While the players do not start out in charge of the salvage operation, it's in the nature of the game that they will be able to take authority if they want it. If they can impress Voco with their competence (this is more a matter of role-playing than skill rolls) they may be able to adjust the dive schedules or propose new ideas for salvaging the tanks, especially as time passes and the situation gets tenser. On the other hand, if the players' characters have a high rate of accidents, they may face considerable hostility from the other divers and be ordered out of the water. Note that at the current rate of work, it will take five more days to finish the job, and the tanks will almost certainly start leaking before then. The job can be as simple or elaborate as the players wish to make it.

If the players turned down the job offer and escaped, or backed out and made their way back to their ship, they will find that it has been fully fueled and is ready for takeoff: if the gas is released, certain Company officials plan to use it for a hasty getaway. It is being guarded by Vocops.

There are two sources of suspense here: first, the poison gas crisis itself—never let the players forget those three time bombs in the water, and make sure they understand that if the gas is released, there will be a mad scramble for the surface, for

protective equipment, and for a way off-planet.

To maintain the uncertainty, you should make sure the players understand the size of the potential disaster; there is a finite quantity of gas, and even if all three cylinders should rupture, people could survive in the upper floors of the tallest buildings, or in the luxury apartments on the canyon wall. Players should quite reasonably assume that the possibility of everyone being automatically doomed should the gas be released would not be allowed to happen, no matter how badly they handled the crisis. With a less extreme disaster, there's room for doubt. However, if things go wrong and the gas is released, the characters should find themselves in the middle of nearly total mayhem; a panicked mob is not calmed by being told that some will probably live through the disaster.

The second drive-spring of the story is the search for the truth about the accident. Was it really caused by saboteurs, and if so, are they still active? And was it intended to ruin the company or be a diversion from some other act? Did the agents know how dangerous the chemical was? Or were the saboteurs invented by negligent Voco officials to cover up for their mistake? And if there are no hidden saboteurs, then why did the Company need to hire the off-worlders—to make its story sound good, or to frame them as the responsible parties?

The referee must decide who's responsible and throw real and false clues at the players. A safety cable breaks, and a diver is swept away—did the wire shear on torn metal, or was it cut? A group of citizens wants to talk to the senior Voco official—do they suspect what's going on, or is it something else....If there's a confrontation, whose side do the players take?

A successful recovery does not have to end the adventure, for the detective work into the cause of the accident can continue. A failed recovery doesn't finish things either, as expeditions into the poisoned city to recover valuables or rescue survivors are possible. Should the players be framed or just wrongly blamed for the release of gas, they face a real task of hunting through the wreckage for evidence that will clear them.

—©1987 John M. Ford

Tlea

Casual Encounter:

Tlea' AureliyhOuhaoleawa'eliea

Tlea' AureliyhOuhaoleawa'eliea
Management-Manager 984988 3 terms.

UPP: 984988.

Apparent Age: 37 years (42 ftahea).

Actual Age: 37 years (42 ftahea).

Skills: Vacc Suit-0, Pistol (Khahite)-1, Computer-1, Grav Vehicle-0, Bribery-2, Tolerance-1, Admin-2, Trader-2, Broker-3, Streetwise-1, Steward-1.

Funds: N/A (Clan expense account).

Homeworld: New Rome/Glisten (Starport B, Large, Vacuum, Wet world, Moderate population, Moderate law, Avg. Stellar).

The Aslan, as a race, are known for their fierce prowess in battle, but they have proven equally competent in numerous other endeavors.

Tlea'AureliyhOuhaoleawa'eliea (or just called "Tlea" informally) is a female Aslan holding the position of purser/cocaptain on the free trader *Shidaka*, named after the semi-mythical Vilani hero of the Long Night. Operating under the Hlararei Trade Group (HTG) based on New Rome in the Glisten Subsector, the *Shidaka's* current duties take it through a portion of the rimward end of the Marches.

Tlea was born on New Rome, a world with a sizable (35 percent) Aslan population, into an ehko (family) under the Teiftekhaeifeah huiha (clan). Born prematurely, she was plagued with poor health in her early years, and experienced growth problems which kept her form relatively small. In her teenage years she devoted much of her free time to athletic pursuits in an attempt to strengthen her somewhat frail form.

The atmosphere of an interstellar trader's life has always predominated Tlea's environment, as her entire ehko has been devoted to working in the huiha's Hlararei Trade Group. During her Akhuaeuhrekhyeh (the Aslan rite of passage), she demonstrated exceptional abilities and was promptly given a position on one of HTG's trading ships. In her early years with HTG, she served as a steward/assistant purser, learning the ropes of being a merchant while aiding in the ship's function.

The onset of the Fifth Frontier War signaled hard times for both Tlea and the HTG. While engaged in some promising trade negotiations on Wardn/Lunion, Tlea was seriously wounded during a strike by Sword World terrorists. During the end of her five-month recuperative period, she received news that her older sister, cocommanding the HTG starship *Kter*, had been killed along with all hands as they were attacked by Sword World commerce raiders in the system of Datrillian/District 268. The loss, though emotionally trying for Tlea, served to accelerate her position in the HTG. Shortly after the war's end, she was given cocommand of the *Shidaka*, sharing the post with her cousin, KyuraoKhoilyoOuhadleawa'hrah (called "Kyura" informally).

As with many Imperial-born Aslan, Tlea has a tendency to exaggerate many Aslan traits in an attempt to maintain her racial identity. This is, however, a hollow attempt at best, since Vilani culture and standards have effectively shaped her on

Casual Encounter

a subconscious level. The resultant personality is an incomplete caricature of a stereotypical Aslan sprinkled with human idiosyncrasies. While Tlea may take offense more easily than a Hierate-born

Aslan, she gives little thought to such things as a human male serving as a doctor. It is also not uncommon to find Tlea, during her off-hours, indulging her fondness for human pop music—listening in particular to Veedback, one of her favorites.

Tlea's exaggerated Aslan behavior becomes noticeably lessened when she is not in the company of other Aslan. The Aslan love of storytelling, however, is wholeheartedly shared by Tlea, and she frequently entertains the crew and passengers for hours with her "slightly embellished" tales of the exploits of the *Shidaka*.

Tlea is also a packrat. The *Shidaka's* ship's locker is full of seemingly useless items which she has found discarded in starports through her many journeys. Though Kyura often chides her about cluttering up the ship with her "trash," many of the esoteric items have proven handy at solving unexpected problems.

THE HLARAREI TRADING GROUP

The HTG is a small, huiha-owned trading company operating out of New Rome/Glisten by carrying high-tech goods out of worlds in the Glisten vicinity and trading them for commodities on less developed worlds away from the industrialized hubs.

The *Shidaka*, a second-hand Type A Free Trader, is one of four ships owned and operated by the HTG. The cocommand structure of the ship's authority puts planetfall activities, trade operations, and the overall ship's itinerary under control of Tlea, while in-flight decisions are Kyura's realm. Tlea and Kyura have an uneasy relationship, finding their only bond to be blood and company responsibility. They tend to give each other a wide berth, not wanting to step on each other's toes.

Shidaka's standard trade route brings it from Glisten, crossing the Imperial borders to the small-cluster of worlds in the vicinity of Bowman/District 268. This brings the ship close to Sword World space—too close for Tlea's taste. Due to her experiences during the Fifth Frontier War, Tlea possesses little love for the Sword Worlders. When dealing with any, Tlea should be treated as if she had no Tolerance skill.

Other ships in the HTG fleet are two Type A2 Far Traders and one Type A. The Type A, *Achilles*, forges its trail into the Five Sisters subsector, while the A2s, *Velvet Enchantress* and *Fleet Majesty*, ply coreward toward Mora and Lunion.

EKIAI

The most recent addition to the *Shidaka's* crew is a small, six-legged creature the crew has named Ekiai ("Little Meddler"). Tlea found Ekiai in the cargo compartment during its last visit to Dallia Downport (Dallia/District 268). Not native to the planet, it has been adopted as mascot. Ekiai has proven to have an incredibly curious nature, seeming sentient in many respects.

Ekiai's nature has eluded Tlea. No one can pinpoint which world Ekiai is from. It seems to share characteristics from



©'88 Rob Caswell

many of the worlds in the Marches, but fits none specifically.

The crew of the *Shidaka* has not put Ekiai to any medical tests. The crew would be surprised to find that Ekiai is not an animal but is a pseudo-biological robot. Ekiai was built by Naasirka for industrial espionage. When found by Tlea, it was on an information-gathering mission, spying on the heavily-guarded SuSAG installation on Dallia. Ekiai's nature was discerned before it was able to escape the complex, and it was pursued by SuSAG agents to Dallia Downport, where it sought refuge in *Shidaka's* cargo hold. The agents traced Ekiai to the ship after it lifted from port.

Ekiai is a much-wanted item to Naasirka and SuSAG. SuSAG's goal is the interception of the information Ekiai is carrying, though the destruction of the robot would serve their ends as well. Naasirka agents are closing in on their chase to retrieve Ekiai. Though their interest is the retrieval of Ekiai's data, they also do not wish their advanced espionage hardware to fall into the hands of a competitor—or anyone else, for that matter. The *Shidaka* and its crew, ignorant of their position, lie in the crux of this megacorporate race against time.

USING TLEA IN A GAME

Tlea may be used during play as the starting point for a campaign, as a patron, or as an encounter. If used to start a campaign, Tlea may contact the players to fill several crew positions, as a number of her crew have decided to terminate their employment while the ship is at port. If pressured, she will divulge that the reason her crew decided to quit was that a bomb was found on the ship. Unbeknownst to her, it was the work of SuSAG agents. If the players still wish to fill the crew positions, they will travel with Tlea as the plot unfolds.

As a patron, she may contact the players about investigating just who did plant the bomb on the *Shidaka*. The players would then be challenged into unraveling the dual megacorporate plot before the situation comes to a head.

In an encounter, the players could meet Tlea with Ekiai clambering about her shoulders as he often does at a point when either or both of the megacorporations make their moves. The players would be drawn into the fray.

—Rob Caswell and Tom Peters

Cayuga—Class Close Escort

The *Cayuga*-class vessel is an American warship designed to provide close escort for convoys travelling short distances, and to perform short-ranged patrols. The vessel masses just over 3400 tons and measures roughly 60 meters in length. The *Cayuga*'s oddly configured hull consists of two main sections. The engineering module is a 30-meter-long box-shaped hull that measures 12 meters high and 12 meters wide. To the front of this is the ship's command module. This shovel blade-shaped structure measures 9 meters high at its tallest point, but only 6 meters high at each side. From port side to starboard side measures 21 meters.

The *Cayuga* is a short-range vessel, carrying only enough fuel to travel for a maximum of about two weeks. The vessel is equipped with a pair of MHD turbine power plants, one capable of producing 10 megawatts and the other capable of producing up to 15 megawatts. The 10-megawatt unit is the ship's main source of power, with the larger unit brought on-line almost exclusively during combat. The ship is propelled by a 10-megawatt stutterwarp drive which, at full power, can carry the ship at a warp efficiency of 2.5023. As with most interstellar vessels, the *Cayuga* has a range limited to 7.7 light-years, after which it must spend time within a gravity well to flush out its stutterwarp drive.

The ship is moderately armed and carries no defensive armor or shielding. Its long-range punch comes in the form of two missile bays, each carrying a pair of deadly Hyde Dynamics SIM-14 missiles. For close combat, the ship is equipped with eight Hyde Dynamics EA122 lasers mounted in pairs in four standard double turrets. Two of these turrets are mounted near the bow of the ship: one port and one starboard. The remaining two turrets are mounted atop gun towers near the center of the ship on the engineering module: one on top of the hull, the other mounted below. For extremely close work, the *Cayuga* carries a single "Big Clip" submunitions dispenser mounted on the starboard aft side of the command module hull.

The vessel is equipped with a modern array of sophisticated detection gear. With its powerful SN-508P active sensor

system, the *Cayuga* can detect objects at a range of well over seven million kilometers. Its GO/40 passive sensor array is capable of detecting a target's emissions at ranges exceeding six million kilometers.

The hull of the *Cayuga* is not streamlined, making the ship incapable of atmospheric landings. In order to transfer cargo or personnel, the ship must either dock with a station or another vessel, or it must be assisted by small auxiliary craft designed for shuttling cargo and personnel.

The *Cayuga* carries a crew of 32 and has only enough accommodations for this number. There are no provisions for providing the crew with artificial gravity living space, so extra living space has been provided to keep the crew comfortable over the relatively short missions.

CONSTRUCTION HISTORY

The *Cayuga* is based upon a design put together in 2223 by Leeman Corporation for a light duty patrol frigate. While the frigate design was never used, the design became the groundwork for the development of the new class of destroyer escort, later to be named the *Cayuga*.

The final design of the ship was submitted during a competition for the replacement of the six remaining *Hancock*-class destroyer escorts. These vessels were large, relatively slow, and not missile equipped. Rather than refitting the older vessels, they were scheduled to be sold for scrap or other uses, with only a couple retained for training purposes. The *Cayuga* won with a slim margin over its competitor the *Eagle*-class.

The first vessel of the class produced was the *Cayuga*, hull number DE-101, commissioned on December 30, 2287 at the American L-4 shipyard. Twelve additional vessels were scheduled to be produced between January of 2288 and August of 2302. Eight of the vessels were to be constructed at L-4 and the remaining five were to be built at the American Earth Orbital Shipyard. However, due to cost overruns, only ten additional warships were produced, with two cut from the production schedule at L-4.

Following trial runs of the *Cayuga*, it was found that due to an inherent design

flaw, the *Cayuga* was unable to power-up both of its power plants together for more than a few minutes at a time. After automatically shutting down one of the power plants, the system would not allow a restart for several minutes while the system reset itself. By the time this problem was discovered, the second vessel of the class had already been completed. All later vessels were altered to avoid this problem, and are referred to as *Cayuga/Bs*. The first two, known as *Cayuga/As*, were left unmodified due to the difficulty and cost of making the modification. The cost overruns involved making the design modifications for the vessels under construction led to dropping the final two vessels from production.

In April of 2298 it was decided that the *Cayugas* were in need of a more effective long range punch than they possessed at the time, particularly in light of the Kafer Wars. This led to the adoption of a couple of relatively small design changes, resulting in the new classification of *Cayuga/C*. The newest version of the *Cayuga*-class vessel sports expanded missile bays to accommodate a total of four additional missiles. To make room for these, the vessel's interior underwent a slight modification, giving up over half its cargo capacity to the new armament. Additionally, to improve damage control capabilities, crew accommodations were expanded to add room for an additional engineer, again at the cost of the remaining cargo storage space and a small amount of fuel. While these modifications served to slightly reduce the overall range of the vessel, it was considered to be well compensated for in light of the ship's increased combat capabilities. As with the initial design enhancements, only the vessels under construction at the time received these modifications. Beginning in 2299 with the vessel *Sioux*, the *Cayuga/C* began production at L-4 shipyards.

SERVICE HISTORY

The *Cayuga*-class vessels are too new to have much of a service record yet. Prior to the Kafer Wars which began along the French Arm in 2297, *Cayugas* were found primarily providing naval escort for transport convoys and per-

forming routine anti-piracy patrols. On occasion, *Cayugas* have been relegated to the task of delivering medical or other needed supplies in emergencies, and also to deliver its tiny complement of troops as a show of American nationalism and commitment to its colonies and allies.

Vessels

There are a total of 12 *Cayugas* in service out of the original 14 produced. Of these 14 ships, there are three versions, labeled "A" through "C." The following table identifies each of the vessels constructed, their hull numbers, their place of manufacture, version number, final cost, and disposition.

Hull Number	Name	Comm Date	Model	Manuf	Disp	No Ref
DE-101	<i>Cayuga</i>	12/30/2287	A	L-4	Active	
DE-102		2/24/2288	A		Active	*
DE-103	<i>Arapaho</i>	1/21/2290	B		Active	
DE-104	<i>Apache</i>	4/12/2291	B	L-4	D 2298	*
DE-105		3/19/2293	B		Active	*
DE-106	<i>Dakota</i>	—	B	L-4	(2301)	*
DE-107	<i>Pueblo</i>	1/4/2296	B	L-4	D 2299	
DE-108	<i>Erie</i>	6/29/2297	B		Active	*
DE-109	<i>Sioux</i>	4/5/2299	C	L-4	Active	
DE-110		8/7/2300	C		Active	*
DE-111		—	C	L-4	(2301)	
DE-112				(L-4)		*
DE-113				(L-4)		*

SPECIAL DISPOSITIONS

DE-104, *Apache*

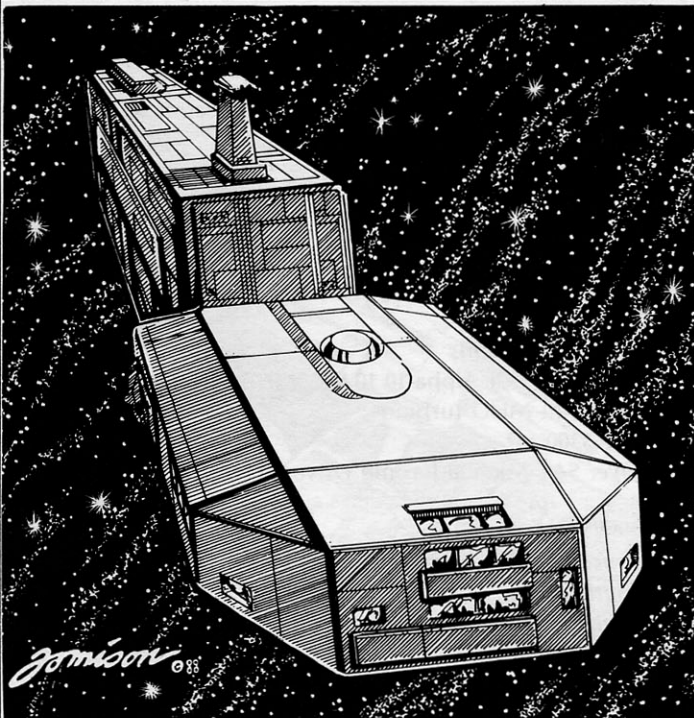
This vessel was destroyed during a confrontation between American colonial forces and Bavarian warships. The *Apache* was ordered to escort a convoy to a planet under blockade by Bavaria. The *Apache* was one of two escorts of a six cargo ship convoy. During combat, the *Apache* fired off her complement of SIM-14 missiles and was then badly damaged by enemy missile fire. Internal fires spread uncontrollably throughout the ship, and the order to abandon ship was given. A total of 22 of the crew of 32 survived the ordeal and were rescued at the scene by the *Apache's* sister ship, the *Cayuga*.

DE-106, *Dakota*

The *Dakota* is one of the three ships of the *Cayuga* class still under construction. Unlike the other two vessels which are *Cayuga/Cs*, the *Dakota* is an older *Cayuga/B* ship. Construction began in July of 2293. A series of construction problems plagued the project, delaying completion by over two years, and creating great cost overruns. The vessel is now scheduled for completion late in 2301, assuming that no further setbacks.

DE-107, *Pueblo*

This *Cayuga/B*-class destroyer escort was commissioned in February 2296. During a confrontation with Kafer warships in 2298, the *Cayuga* was destroyed. There were no known survivors from the encounter. The vessel's hulk was found to contain indications of a battle aboard the ship. The remains of only half of the ship's crew were found. It is believed that some personnel may have been captured by the aliens.



DE-108, *Erie*

This vessel is the last "B" model in the *Cayuga* production series, though not the last to be constructed. The *Erie* is slated to become the first vessel to be refit to "C" model standards. The vessel is unique in that it has a few variations made during construction.

An error in an equipment order was made while the vessel was being fitted with her laser armament. Instead of the standard Hyde Dynamics EA122 laser weapons, a few EA1000 lasers were shipped. Rather than waiting for the proper equipment, the vessel was constructed with a double turret equipped with a pair of the more powerful weapons. This turret was mounted on the topside gun tower. The operator of this turret has been nicknamed "The Sentinel" for the higher powered weapons and the apparent guardian-like position of the turret.

BASIC STATISTICS

Cayuga/A and B

Dimensions

Length: 60 m

Width: 21 m

Height: 12 m

Tonnage: 3328 metric tons

Armament

8 × Hyde Dynamics model EA122 laser weapons. Mounted in pairs among four turrets. Two near the bow, one port and one starboard. Two amidships, one top and one bottom.

4 × Hyde Dynamics SIM-14 Definite Kill Missiles. Located in two bays at the bow, port and starboard. Remote piloting stations are capable of controlling up to two missiles.

1 × Big Clip submunitions dispenser. Located amidships on the starboard side.

Electronics

GGM-212 Navigational Sensors.

GGM-2000 Deep System Scanners.

Geary-Opticorp model 40 passive detection array with full function backup system.

Simmons SN-508P "Long Arm" active search sensor.

Stealth Characteristics

Radial Area: 198 m²

Lateral Area: 930 m²

Radiation Emissions: 4.95 MSU

Emissions Control: Sharp MRE-10A

Engineering Systems

Power Plant: GE Alpha-10 10 MW MHD turbine, GE Alpha-15 15-megawatt MHD turbine

Fuel: 3300 m³

Drive: SAT Mk 100 Jerome Drive

Cayuga/C

Dimensions

Length: 60 m

Width: 21 m

Height: 12 m

Tonnage: 3395 metric tons

Armament

8 × Hyde Dynamics model EA122 laser weapons. Mounted in pairs among four turrets. Two located near the bow, one port and one starboard. Two located amidships, one top and one bottom.

8 × Hyde Dynamics SIM-14 Definite Kill Missiles. Located in two bays at the bow, port and starboard. Remote piloting stations are capable of controlling up to two missiles simultaneously.

1 × Big Clip submunitions dispenser. Located amidships on the starboard side.

Electronics

GGM-212 Navigational Sensors.

GGM-4000 Deep System Scanners.

Geary-Opticorp model 40 passive detection array with full function backup system.

Simmons SN-508P "Long Arm" active search sensor with full function backup system.

Stealth Characteristics

Radial Area: 198 m²

Lateral Area: 930 m²

Radiation Emissions: 4.95 MSU

Emissions Control: Sharp MRE-10A

Engineering Systems

Power Plant: GE Alpha-10 10 MW MHD turbine, GE Alpha-15 15-megawatt MHD turbine

Fuel: 3300 m³

Drive: SAT Mk 101B Jerome Drive

TECHNICAL NOTES

The following technical notes includes an explanation of technical information describing ships in the *Cayuga* class of vessels.

Hull Design

The hull of the *Cayuga*-class ship is composed of ten standard hull sections and two non-standard sections. There are three 12-meter diameter standard hull sections, three nine-meter sections, four six-meter sections, and two six-meter sections which are each five meters in length.

These sections are arranged with the three 12-meter sections adjoined end-to-end to form what is referred to as the engineering module. This contains the ship's power plants, drives, and fuel. To the front of this unit is the command module, which contains the bridge, TAC, sensor systems, missile bays, cargo storage, crew accommodations, etc. This module is comprised of three nine-meter sections end-to-end forming the core of the command module. Attached to either side of this unit is a combination of two six-meter segments attached end-to-end with one of the nonstandard sections at the bow.

The material used to construct the hull is a special low profile synthetic, GS-11X, developed several years ago by an American corporation. This material is lightweight, though not as light as more recently developed composites. It is not particularly effective at stopping energy weapon damage, but has a good wide-spectrum radiation absorption quality 100 percent greater than standard synthetic and composite materials and over 200 percent greater than metallics.

The ship's hull has an internal volume of 6695 cubic meters. The following table breaks down the interior space of the *Cayuga A/B*, and *C* models. The table lists each component and the volume used by it.

VOLUME UTILIZATION TABLE

Component	<i>Cayuga/A&B</i> Volume	<i>Cayuga/C</i> Volume
Sensors, Navigational	5	5
Deep System Scan	15	15
Primary Active	10	10
Redundant Active	10	10
Primary Passive	10	10
Redundant Passive	—	10
Missile Bays	56	112
Power Plants, 10 MW	100	100
15 MW	150	150
Interfacing	30	30
Stutterwarp Drive	29	29
Work Stations, Bridge	56 (7 WS)	56 (7 WS)
TAC	64 (8 WS)	64 (8 WS)
Troops	8 (1 WS)	8 (1 WS)
MedBay	8 (1 WS)	8 (1 WS)
Crew Accommodations	2400 (32)	2475 (33)
Life support	5	5
Hull masking	31	31
Fuel	3300	3300
Cargo	376	235
Total Volume	6695	6695

Crew

The *Cayuga*-class destroyer escort has a standard crew of 32 whose work is divided among 19 work stations with two more work stations un-manned. Seven are located on the Bridge, eight are located in the Tactical Action Center, four are

located in engineering, one is in the MedBay and the last is in the ship's TroopBay. The list of personnel requirements and work stations is shown in the table below. The name which appears to the left of a hyphen is the name of the work station, while the name to the right is the location of the work station.

STANDARD REQUIREMENTS

Personnel	Work Stations
Captain, First Officer	Con-Bridge
2 Navigators	Nav-Bridge
2 Helmsman	Helm-Bridge
2 Comm Operators	Comm/1-Bridge
Comm/2-Bridge	
2 Comm Operators	CompStat/1-Bridge
CompStat/2-Bridge	
2 Engineer	Engineering/A-Fwd Eng
1 Engineer	Engineering/B-Fwd Eng
2 Engineer	Engineering/A-Aft Eng
1 Engineer	Engineering/B-Aft Eng
1 Sensor Operator	Active-TAC
1 Sensor Operator	Passive-TAC
1 Gunner	Weapons/1-TAC
1 Gunner	Weapons/2-TAC
1 Gunner	Weapons/3-TAC
1 Gunner	Weapons/4-TAC
1 Remote Pilot	Remote Ops/1-TAC
1 Remote Pilot	Remote Ops/2-TAC
2 Medic	MedBay
6 Troops	TroopBay

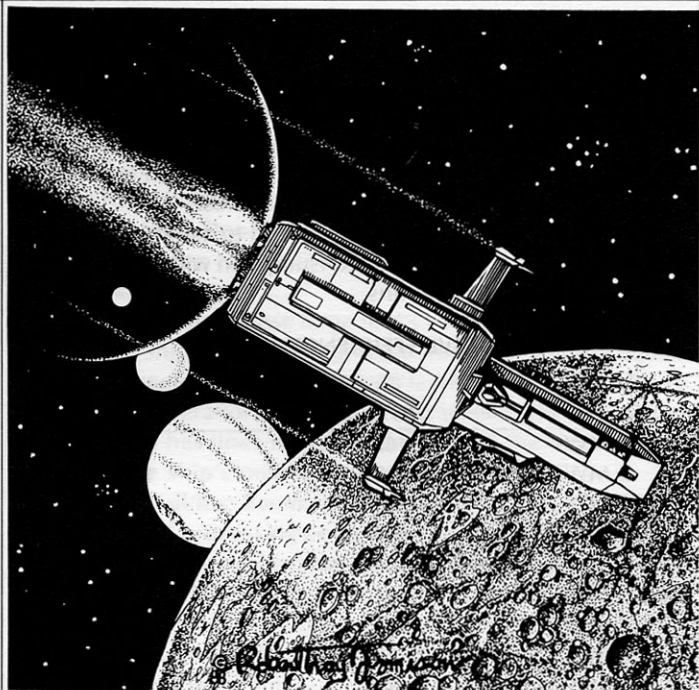
Note: *Cayuga*/C-class vessels are slightly different, adding an extra engineer to their personnel rosters to make up a complete damage control team.

On paper, accommodations for the ship's crew are spacious, allowing approximately 74 cubic meters of living space and extra work and recreation space per crew member. This is approximately three times the normal allocation for extra space. However, the reality of the situation is much different. As is typical with American service vessels, much of the so-called living space is taken up with supplementary equipment, service ducts, long term storage, and other unpublicized equipment. In practice, less than half of the allotted amount of living space is usable, giving the ship a cramped feeling. American crews have come to expect this from their nation's designs and often rise above it, using it as a source of shipboard camaraderie.

The lack of artificial gravity aboard the *Cayuga* is a major factor in limiting their operating endurance. Crew quality tends to degrade after spending long periods of time in zero-G, even with the large amount of accommodations provided. For this reason, crew rotation is standard practice aboard all *Cayugas*. The normal duty length averages about 30 days. Crews are normally rotated every 30 days between shipboard duty and shore duty or station duty.

Engineering

All models of the *Cayuga*-class ship possess the same basic power plant system. This system consists of a pair of MHD turbines: one providing 10 megawatts of power and the other pro-



viding 15 megawatts. Under normal conditions, the 10-megawatt power plant operates solo. Using this single unit, the ship can run all navigational and internal systems and maintain stutterwarp travel at full warp efficiency. When escorting cargo vessels, the ship must travel more slowly and more power can be allocated to sensor and weapons systems.

The ship's 15-megawatt power plant is normally kept off-line to conserve the ship's supply of fuel. When combat is imminent, the second MHD turbine is powered up to give the ship a total power output of 25 megawatts. This amount is enough to power the drives to maximum, power all eight laser weapons, power the ship's active sensor, and still have power remaining. With both power plants up, however, the ship consumes fuel at a much higher rate. Still, the ship carries enough to feed both continuously for over five days.

The early production versions of the *Cayuga*, the *Cayuga*/As, have an integral incompatibility problem between their two primary power channeling systems and their turbine control components. This incompatibility causes problems when both the 10-megawatt power plant and the 15-megawatt power plant are both brought on-line. While no damage will result from this, the system will automatically shut down one of the power plants, possibly for several minutes at a time until the system resets itself.

This doesn't occur immediately, so it is possible to bring both power plants on-line for a short period of time. For each turn that both power plants are on-line, roll one die. If the number rolled on the die is less than the number of turns that both power plants have been up, then one of the plants automatically shuts itself down for D10/2 turns, rounding fractions up.

A power plant can purposely be shut down for a full turn. When this is done, the shutdown number resets to zero. This means that both power plants can be run for a number of turns, one can then be shut down for one turn, and brought up again for a number of turns, and so on.

A common alternative to running at a full 25 megawatts is to run only the 15-megawatt power plant. This option allows the

ship to maintain full drive efficiency, power half its laser weapons, and still be able to use its active sensors, if necessary. Another advantage to this configuration is that the two engineers who operate the smaller power plant are then free to be assigned to damage control duty. This gives the ship one complete damage control team with one person left over to provide backup in case of battle casualties.

The following casualties are provided to assist in determining warp efficiencies and fuel consumption with various cargo loads and power allocations.

DRIVE EFFICIENCY CHART

Power to Drives	Total Cargo Tonnage	
	100 tons	1000 tons
1 MW	1.162	1.075
2 MW	1.463	1.353
3 MW	1.675	1.549
4 MW	1.844	1.704
5 MW	1.986	1.837
6 MW	2.111	1.951
7 MW	2.223	2.054
8 MW	2.322	2.147
9 MW	2.415	2.235
10 MW	2.502	2.314

Note: Cargo Tonnage is the total mass of cargo carried in holds plus missiles and any other slung or pylon mounted equipment.

FUEL CONSUMPTION TABLE

Time	Power Plant A (10 MW)	Power Plant B (15 MW)	Combined
Minute	.1	.1	.2
Hour	6	8.9	14.9
Day	142.9	214.3	357.2
Week	1000	1500	2500*

Note: Fuel consumption is in tons. The asterisked value indicates that the amount of fuel required is more than the ship carries.

STANDARD GAME DATA

Ship Annex Data

Cayuga/A&B

Warp Efficiency: 2.50 Power Plant: 10 MW MHD Turbine and 15 MW MHD Turbine Fuel: 2000 tons, sufficient for two weeks of operation Range: 7.7 Mass: 3328 tons Cargo Capacity: 376 m³ Comfort: 0 Total Life Support: 32 Price: Lv51,922

Cayuga/C

Warp Efficiency: 2.50 Power Plant: 10 MW MHD Turbine and 15 MW MHD Turbine Fuel: 2000 tons, sufficient for two weeks of operation Range: 7.7 Mass: 3395 tons Cargo Capacity: 235 m³ Comfort: 0 Total Life Support: 33 Price: Lv52,012

Record Sheets

See Attached Pages

Deck Plans

See Attached Pages

INTERNAL DESCRIPTIONS

1. Observation Lounge: This large room serves as a quiet room/lounge for the ship's crew. A large observation window is mounted in the forward bulkhead giving a wide view of space to the front of the ship. A similar skylight window is mounted in the ceiling. Both windows are equipped with combat panels which close over the outside of the windows and protect them from damage. The combat panels are automatically closed when the ship goes to combat alert or the room depressurizes for any reason. Also, the automated system can be manually overridden by a control panel near each window. Of course, on most vessels this area is of only marginal utility, filled with excess supplies, often spare missile parts.

2. Senior Officers' Quarters: The captain and the first officer each have a spacious room located near the observation lounge. These rooms are similar to other crew quarters except for the larger administrative work areas used by the senior officers and room for extra personal storage.

3. Crew Quarters: Each crewmember has a private room. Rooms vary slightly in size, with the larger rooms going to the more senior members of the crew. These quarters are described in more detail in the "Special Location" section.

4. Air Lock Number Two: This is the ship's primary air lock for major personnel transfer. Its location outside of sensitive areas of the ship makes it most desirable for this purpose. While it is next to the ship's TAC and sensor gear, these areas are inaccessible without proper authorization. The air lock itself has a normal pressurization rate of 30 seconds and a depressurization rate of 15 seconds. Special safety features built into the controls prevent the opening of any door without pressure equalization.

5. Space Suit Storage: This room is the entryway to an air lock. It contains racks normally holding six space suits ready for almost immediate use. Each rack is equipped with special connectors which automatically replenish a suit's power and air supply within a matter of about an hour. A cabinet located in each of these storage rooms normally contains a large set of zero-G repair tools, space suit repair equipment, and a first aid kit.

6. Sensor Equipment Room: This is the room containing the control equipment for the ship's combat sensors. Two large metal cabinets house the sensitive electronic gear. The forward cabinet contains the active sensor system while the aft cabinet contains the passive sensor system. Ninety percent of all sensor breakdowns are due to failure of some component located within these cabinets. Numerous small storage cabinets line the walls of the room, each of these containing spare replacement components. This room is locked, and it is only accessible to the ship captain, first officer, and chief engineering officer.

7. TAC: The Tactical Action Center is the heart of the ship's combat capability. See the "Special Locations" section for more information.

8. Bridge: The bridge is the nerve center of the ship. Flight, communications, navigation, and command operations are conducted from here. See the "Special Locations" section for more information.

9. Air Lock Number One: Accessible from the bridge, it provides access for VIPs and operations requiring monitoring

from the bridge or the observation lounge. This air lock is never used for crew transfers except in the case of upper ranking individuals. In all other cases, air lock number two on "A" deck is used. The one advantage that air lock one has is its quick atmospheric cycle time. The air lock pressurizes within five seconds and depressurizes in the same.

10. Space Suit Storage: This room serves as the passageway between the bridge and air lock one. Inside this room are seven space suit racks, one for each member of the bridge crew. The room does not contain the usual tool cabinet or medical kit, however, because the air lock is not normally used for activities requiring special tools and such.

11. Office: This is the primary workroom for the captain and the first officer. The room has two work areas with computer files, several cabinets containing data tapes, and so on. A small window is located in the forward bulkhead. In the aft bulkhead is a door leading into the conference room.

12. Lounge: This room is most commonly used by bridge personnel during breaks and by bridge personnel waiting to come on shift. The lounge is nicely furnished and is equipped with a small food processing machine for fixing light meals and snacks.

13. Conference Room: This room is used by the captain when briefing his senior officers or discussing tactics, situations, and so on. The room is equipped with a computer terminal for accessing data tapes and information stored in the primary computer network.

14. Secure Storage: These rooms are used to store equipment and personal gear which must be kept locked up. This includes most firearms, the ship's payroll, other valuables, and so on. Entry into any of these requires an electronic key possessed by only the captain and the ship's first officer.

15. Missile Bay: The ship's missile armament is stored within these two long rooms. Each room contains necessary launch equipment and storage space for up to two SIM-14 missiles. Special connectors automatically hook into the missiles and feed their fuel tanks off the ship's main supply. The only doors in this room are the launch doors located at the forward end of each bay. Maintenance access panels are located on the bay's inner wall. These panels are designed so that they can not be removed unless a pressure balance exists on both sides. While the bays are not normally pressurized, they are airtight and can be pressurized by use of an air tank fitted to a special connector near each access panel.

16. MedBay: The ship's medical facilities are located in this small room. This room is detailed in "Special Locations."

17. TroopBay: This is the administrative facility for the ship's troop complement. This room is detailed in "Special Locations."

18. Secondary Cargo Hold: This cargo hold is two decks high and has enough space within to hold up to 117 cubic meters of supplies and equipment. Entrance into the hold is through one of two hatches leading into the rest of the ship through decks "B" and "C." A large external cargo door is located at the aft end of the hold. The cargo doors themselves are mounted on horizontal tracks and meet in the center.

19. Maintenance Closet: The small room is a storage compartment for equipment used in routine shipboard maintenance tasks. This includes such items as light bulbs, repair tools, cleaning equipment, and so on.

20. Primary Cargo Hold: This large cargo storage compartment has enough space to hold up to 259 cubic meters of supplies and equipment. A pair of large doors are mounted in the floor. These doors roll back to provide a five-meter by six-meter opening for transferring cargo. The hold must be depressurized before the doors can be opened. Depressurization of the hold takes a full minute to complete. Pressurization takes the same amount of time. Door and pressurization controls are located halfway between the door in the forward bulkhead and the port bulkhead.

21. Fuel Tankage: These large tanks contain liquid hydrogen fuel for the ship's two MHD turbines. Total fuel tankage equals 3300 cubic meters, which is enough to keep the ship's primary power unit operational for up to two weeks. The ship's fuel tankage also has lines running into each of the missile bays, allowing the ship's missiles to fuel up from them.

22. Mess Hall/Rec Room: This dual purpose room contains the main food processing equipment and rooms to serve half of the ship's crew at one time. Like the observation lounge on "A" deck and the exercise room, this room has a large window equipped with combat panels. These panels work the same as those described for the Observation Lounge.

23. Exercise Room: This large room is identical in size to the Mess Hall/Rec Room and contains a full array of equipment for maintaining physical fitness in a zero-G environment. All of the equipment is designed to easily store away leaving the room completely empty. The room can then be used for sports activities such as zero-g racquetball, wrestling, and unarmed combat practice. A large window in the port wall gives the occupants a clear view of the stars outside. This window is equipped with a combat panel which protects it from damage during combat. This panel operates exactly like the ones located in the Observation Lounge.

24. Forward Engine Room: This two-level compartment houses the 10-megawatt MHD turbine power plant. This is the ship's primary power supply which runs continuously during operation of the ship. Covering the walls of the room are cooling pipes, power lines, and fuel lines. A hatch provides access between the upper and lower decks of this room. In here, the floor of "B" deck is nothing more than a grating and is not airtight. The upper engineering deck has a hatch which leads to engineering control.

25. Aft Engine Room: This room is much like the forward engine room except it is somewhat larger. Taking up the bulk of this room is the 15-megawatt MHD turbine power plant. This unit is the ship's secondary power unit, which is only brought up during combat, and only when necessary. It is otherwise shut down and is powered up on occasion to make sure it works properly. Doors in the port and starboard bulkheads lead from the aft engine room to the access tunnels which lead to the stutterwarp drives.

26. Engineering Control: Normally referred to as simply "Engineering," this room contains the control equipment for both of the ship's MHD turbine power plants. This room is detailed in the "Special Locations" section.

27. Drive Access Tunnel: There are two of these corridors leading from the aft engine room to the drive room. The tunnels are small, measuring only 1.5 meters wide and 1.5 meters tall. They are lined with control cables, electrical conduits, and cooling pipes.

28. Drive Room: This tall, narrow room houses the ship's stutterwarp drive system. The system contains a pair of units which take up most of the room except for a 1.5 meter clearance beneath them on "C" deck. There is also a three-meter-wide access way in between the drives, allowing for easy repair work.

29. Airlock Number Three: This airlock, located at the aft end of the ship, is used almost exclusively for engineering access when the ship is shut down for maintenance. Because of its close proximity to the drive room and relatively high radiation levels, this airlock is never used while the ship's drives are operating.

A: Active Sensor Unit: This is the ship's active sensor system. The unit is contained within an enclosed cabinet which is not locked. Components within are easily accessed. Replacement circuitry boards can easily be swapped for bad ones.

F: Fresher: The fresher is the space vessel's version of the bathroom. Each fresher is equipped with a special zero-G toilet, sonic cleansing system, and zero-G shower. Each fresher also has ample room for an individual's other personal gear. All freshers have a secondary function as an emergency life-support chamber. If a compartment loses pressure, a crewmember may duck into the airtight safety of one of these rooms. For this purpose, each fresher contains an individual air supply which can sustain a single occupant for up to 48 hours. Often, a crewmember will keep a space suit in his fresher for such emergencies.

L: Life-Support Unit: This device contains a large number of air purification and circulation equipment. An access door on the front of the unit allows easy access to the purification filters and chemical bottles. This door is always locked to prevent tampering with the life support unit. Access keys are possessed only by the captain, first officer, and chief engineering officer.

P: Passive Sensor unit: This is the ship's passive sensor system. It is contained within an unlocked cabinet and is modularized to allow for quick and easy repairs.

SPECIAL LOCATIONS

Bridge: The bridge is a large 12-meter-square room located at the bow of the ship. This is the nerve center of the ship. From here, all flight, navigation, and communications operations are controlled. The room is dimly lit to allow easy vision of the many readout displays in the room. Mounted in the forward bulkhead is a large viewing port. This serves no real purpose aside from providing the bridge crew with a picturesque view of nearby vessels, stations, and planets. During combat alert a large pair of doors covers the port to protect it from damage.

The bridge contains a total of seven work stations: Command, Helm, Navigation, two Communications Stations, and two Computer Stations. Most of these stations are manned around the clock. A common setup during routine flight time has either the helm, or navigation stations manned, the command station manned, and one or two communications stations manned at all times. The computer stations are only used as backups when a primary station is down due to maintenance or combat damage. All bridge work stations are automated and can be programmed to carry out certain instructions at specified times or in case of specific events. Often, these stations are set to alert the user whenever certain instrument readings go outside of specified ranges.

The following paragraphs in this article contain detailed descriptions of each of the work stations which are located on the bridge:

Helm: The Helm station is located at the right side of the flight operations panel at the front of the bridge. From here the helmsman can control all maneuvering operations of the ship, including both maneuvering thrusters and stutterwarp drive control. While this panel does not have control over the ship's two MHD turbine power plants, it does have instrument readouts indicating the operational status of each. This station also has full control over the ship's cargo bays, and is able to remotely pressurize or depressurize them and to control the operation of the access doors. However, for reasons of safety, the controls within the bays themselves have been designed with the capability to override the bridge controls.

Navigation: This station is located on the flight operations panel on the opposite side from the helm station. This panel has all necessary navigation control instruments and is used to program courses into the stutterwarp control system for long range travel. A partial set of stutterwarp drive controls are located here, but an override switch on the helm panel can cut out all input from the navigation station. The ship's navigational sensors and deep system scanners are also controlled from this section. Also, all combat sensor data received by the ship's passive and active sensor systems can be called up on the work station's monitors.

Comm Station: There are two of these stations located on the bridge. Each is identical in function. Both stations are equipped with full function multi-frequency transmission and reception equipment capable of operating on up to twelve frequencies simultaneously. In addition, monitoring equipment can be programmed to scan any combination of frequencies and can automatically discern between actual transmissions and static interference. Each station is also equipped with a tight beam communications link laser. This device can lock onto a laser receiver and transmit secure messages without the threat of being jammed. A special feature of the communications system is the ability to get a bearing on any transmission source. Utilizing the ship's computer system, both comm stations can obtain a bearing and can triangulate the position of the source to within .1 percent of the actual distance.

Command: This position is manned at all times by either the captain or the first officer. From this centrally located work station, the watch officer can monitor all functions of the bridge. This station is equipped with numerous displays which can tie into any readout on the bridge and can also show the status of any system monitored by the ship's computer.

Computer: There are two computer stations located at the large console on the starboard side of the bridge. These can be used to access the ship's information banks and monitoring systems. Additionally, each computer station can be programmed to emulate any work station on the bridge. This is done in case a work station is down for maintenance or from battle damage. The computer stations are normally unmanned, used only by trained personnel as an emulated work station. The computer station can also be setup as a direct access terminal to the ship's main computer system. In this mode, the station can control all programming, program access, and operation of the ship's central computer system. For security measures, only the captain and first officer know the access

code to put the station in this mode.

TAC: The Tactical Actions Center is the heart of the ship's combat muscle. The room is located on "A" deck in the aft section of the Command Module. The room contains control consoles for active and passive electronic detection systems, missile control stations, and weapons turret control stations. At all times the room is closed, and one of the ship's troops is posted outside the entrance. Access to the room is permitted to any of the sensor or weapons operators only during combat alert. At any other time, entry is allowed only if expressly permitted by the captain, first officer, or chief engineering officer.

The descriptions of the work stations found in the TAC are detailed in the following paragraphs:

Gunnery Stations: These four laser turret control stations are located side-by-side on the starboard bulkhead of the TAC. Each of these stations controls one of the ship's four twin mount laser turrets. The forward station controls the port turret, the next station controls the starboard turret, the third station controls the top turret, while the rear station controls the bottom turret. As each station is linked to separate target tracking arrays, each can individually lock onto their own targets giving the ship the capability of engaging up to four targets simultaneously.

Remote Pilot Station: There are two stations located at the forward end of the TAC on the port side. These are the ship's missile flight control stations. Each work station is contained within its own small cubicle, facing forward. An externally mounted communications laser provides the command link between the remote pilot stations and one of the ship's SIM-14 missiles. Each station also has full control over the ship's two missile bays and external missile refueling facilities. Each station is also linked directly to the ship's main computer system allowing sensor data received by missiles or drones to be tied into the ship's sensor and tracking systems.

Passive Sensor Operations Station: This station is located at a panel in the port side of the TAC, directly behind where the remote piloting stations are found. The passive sensor operations station serves as the control center for the ship's primary detection gear. Passive sensor data is linked directly into the ship's main computer and, thus, is readily available to all gunnery and remote pilot stations, as well as to the helm and navigation stations on the located bridge, for maneuvering information.

Active Sensor Operations Station: This station is located in the port aft corner of the TAC. From the active sensor operations station, the ship's active sensor systems are monitored and controlled. During both normal and combat operations, active sensors are kept off-line on standby alert. This off-line condition is necessary due to the tremendous signature which is radiated when the active sensors are in a powered-up state. As the active sensors are not as critical to the vessel as the passive systems, the active sensor operator is often trained in passive sensor operation. The crewmember is then available as backup to the passive sensor operator in case of battle casualties.

Crew Quarters: Each crewmember's quarters is unique in interior layout, but all crew quarters contain similar facilities. Aboard all *Cayuga*-class ships, crewmembers have a great deal of space for their personal comfort and recreation. This space

for the crewmembers is intended to make up for the lack of on-board artificial gravity areas which are common to many other vessels. Each individual's quarters include a sleeping cocoon, a personal work area, a large number of storage cabinets, a limited access terminal linking into the ship's computer system, a personal video and audio entertainment system, and a large fresher.

The fresher contains a zero-G toilet, shower, and personal storage space. All freshers are dual purpose—they are also designed to serve as air tight emergency compartments. Built-in life-support units can maintain operation for up to 48 man-hours.

Engineering Control Room: This room is commonly referred to as simply "engineering." This large room is sandwiched between the forward and aft engine rooms. From here, the ship's two MHD turbine power plants can be monitored and controlled. Engineering contains a total of four work stations. Two work stations are located against the forward end of engineering and handle all systems for the 10-megawatt power plant in the forward engine room. The stations are situated side-by-side, with the port station monitoring and controlling the electrical output of the power plant, all power channeling and utilization, and so on. The starboard station, on the other hand, monitors and controls all input into the power plant, which includes fuel feeding, cooling systems, safety monitoring, and so on.

Two work stations are similarly located at the aft end of engineering. These work stations handle the same functions for the 15-megawatt power plant located in the aft engine room. Here, the starboard engineering station controls all power plant output, while the port station handles the operation of the power plant.

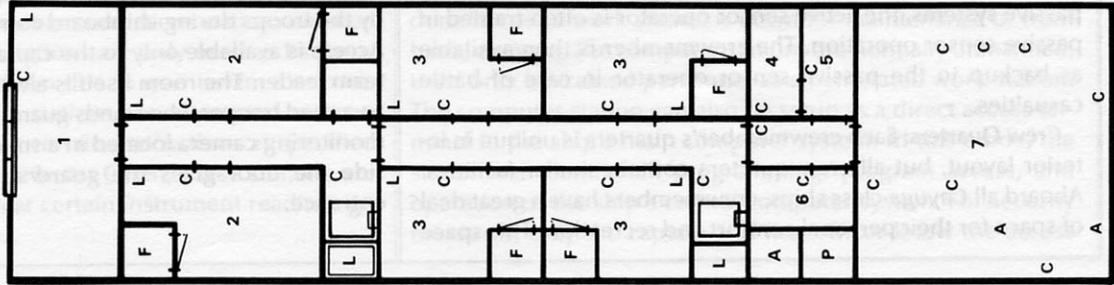
MedBay: The ship's MedBay is a small medical facility which is commonly used to handle most illnesses and injuries. Powerful diagnostic equipment can automatically identify hundreds of diseases from external scans alone. Additionally, blood analysis equipment can identify hundreds more. To handle injuries, the MedBay is equipped with a full array of first aid gear and limited-capability automated surgical devices. This medical equipment is primarily designed to handle things like closing wounds, setting broken bones, and so on. For major injuries which cannot be handled with on-board facilities, the diagnosis platform is fitted with a special cover which allows the unit to operate as a cryothermic suspension capsule. A patient kept inside this unit is suspended in cold-sleep until he or she can be moved for medical attention in a better-equipped medical facility.

TroopBay: The TroopBay is nothing more than a large central office for the administration of activities involving the small, but effective, complement of the ship's troops. The office also contains three large cabinets which are kept locked at all times. These storage cabinets contain weapons and equipment used by the troops during shipboard combat or planetary missions. Access is available only to the captain, first officer, and troop team leader. The room itself is always locked and manned by an armed trooper who stands guard inside the room. A security monitoring camera located in a small dome in the ceiling outside the door gives the guard a view of anyone desiring entrance.

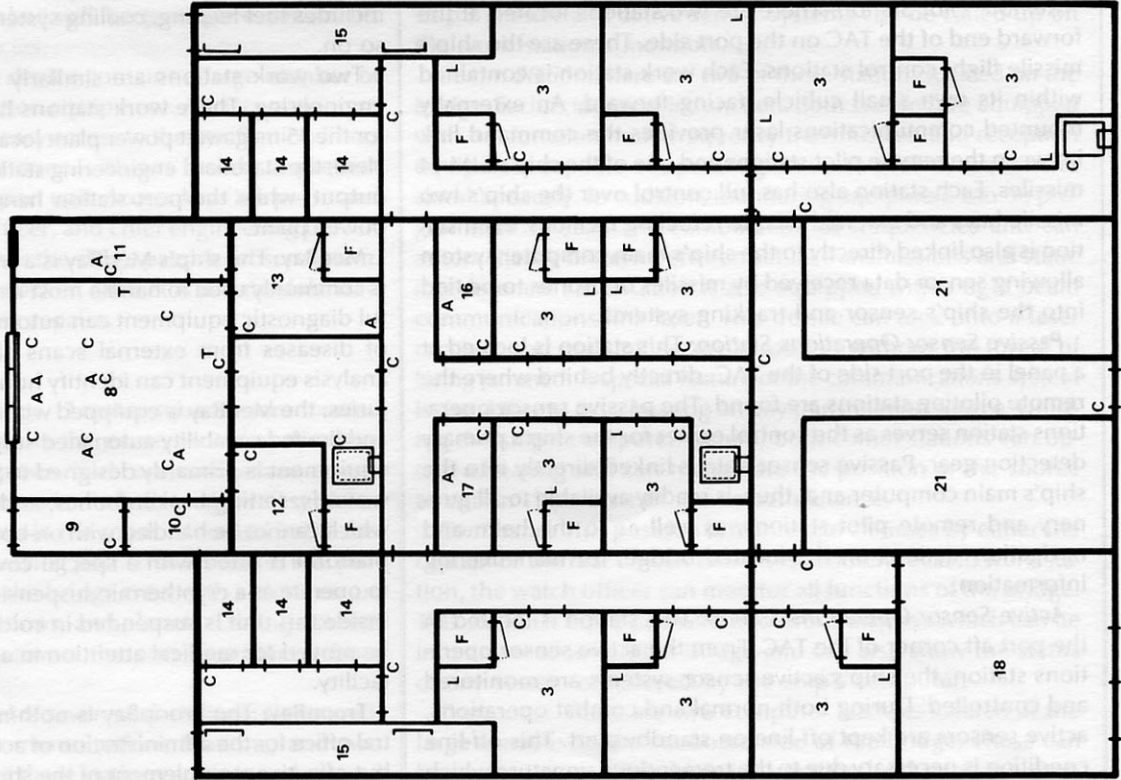
—Clare W. Hess

COMMAND MODULE

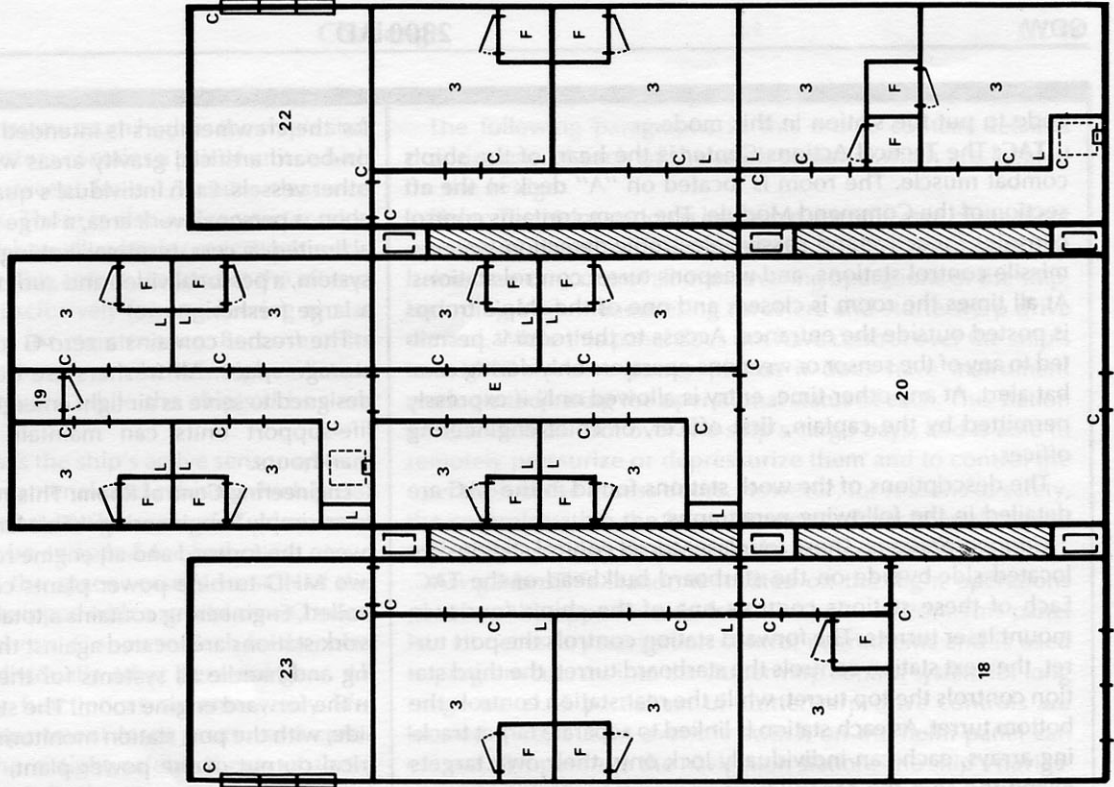
Deck A



Deck B

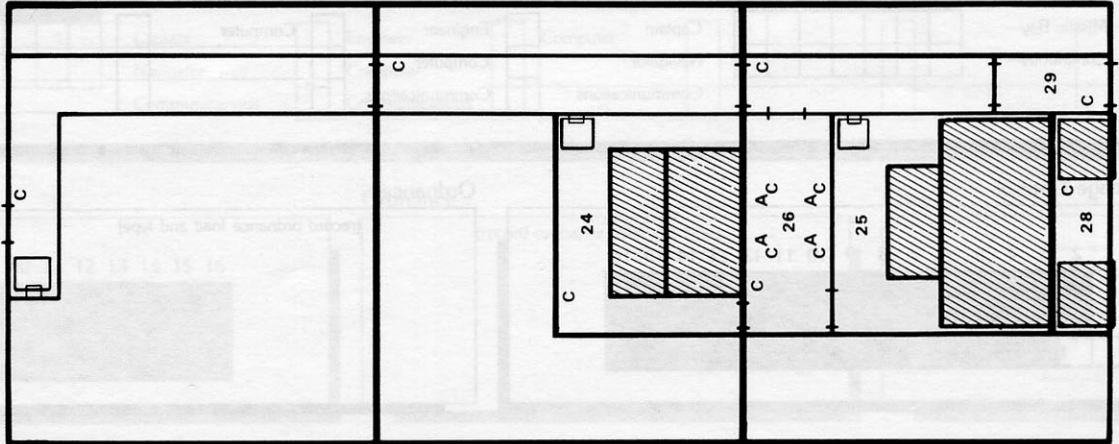


Deck C

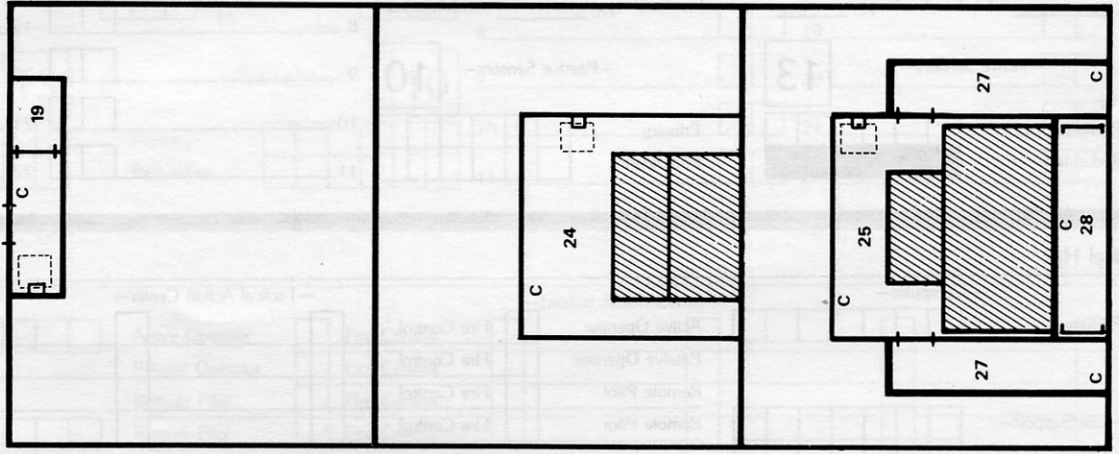


ENGINEERING MODULE

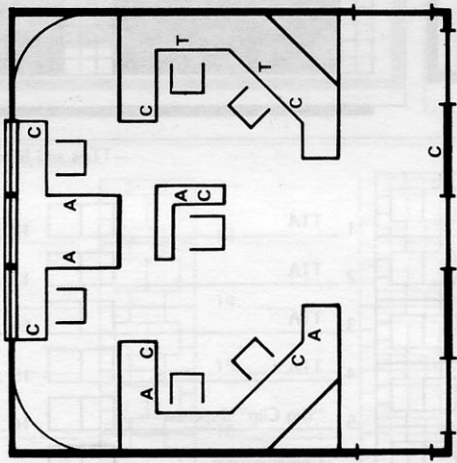
UPPER ENGINEERING DECK
Deck B



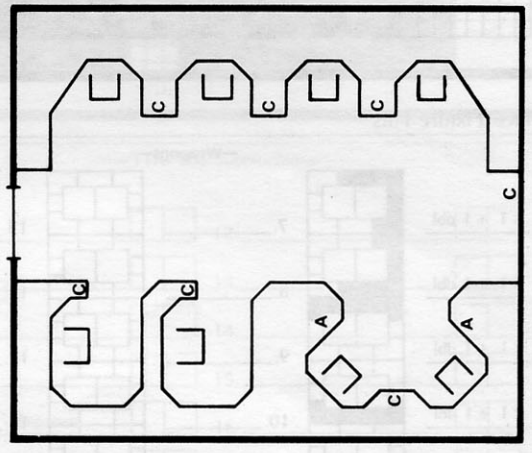
LOWER ENGINEERING DECK
Deck C



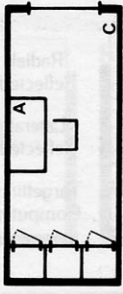
Bridge



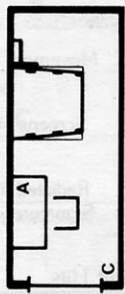
TAC



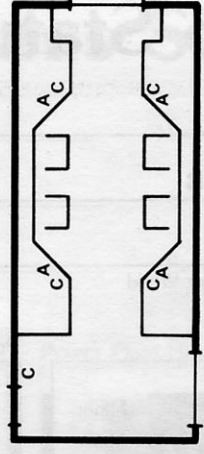
Troop Bay



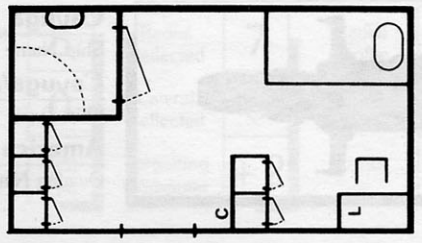
Med Bay



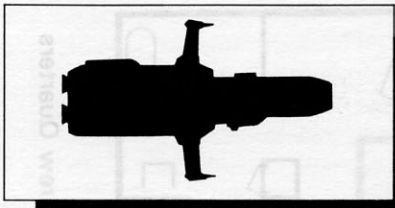
Engineering



Crew Quarters



Ship Status Sheet



Cayuga

Ship Name

Cayuga/A, B

Ship Type

America

Owning Nation or World

Movement

5

Radial
Reflected

7

Radial
Profile

-1

Screens

0

Lateral
Reflected

8

Lateral
Profile

 $+1$ Radiated
Signature
$$\begin{matrix} 4 \\ 3 \end{matrix} \begin{matrix} (5 \\ (4 \end{matrix}$$

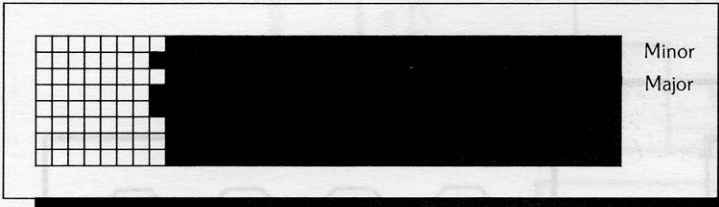
Targetting Computer

+ 2

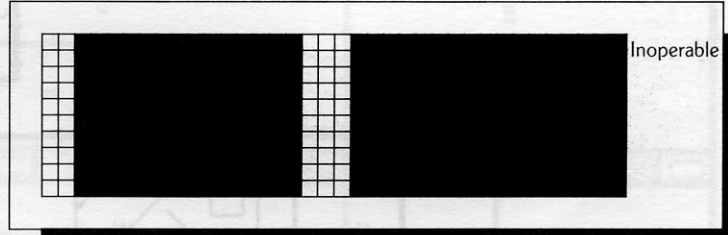
Armor

0

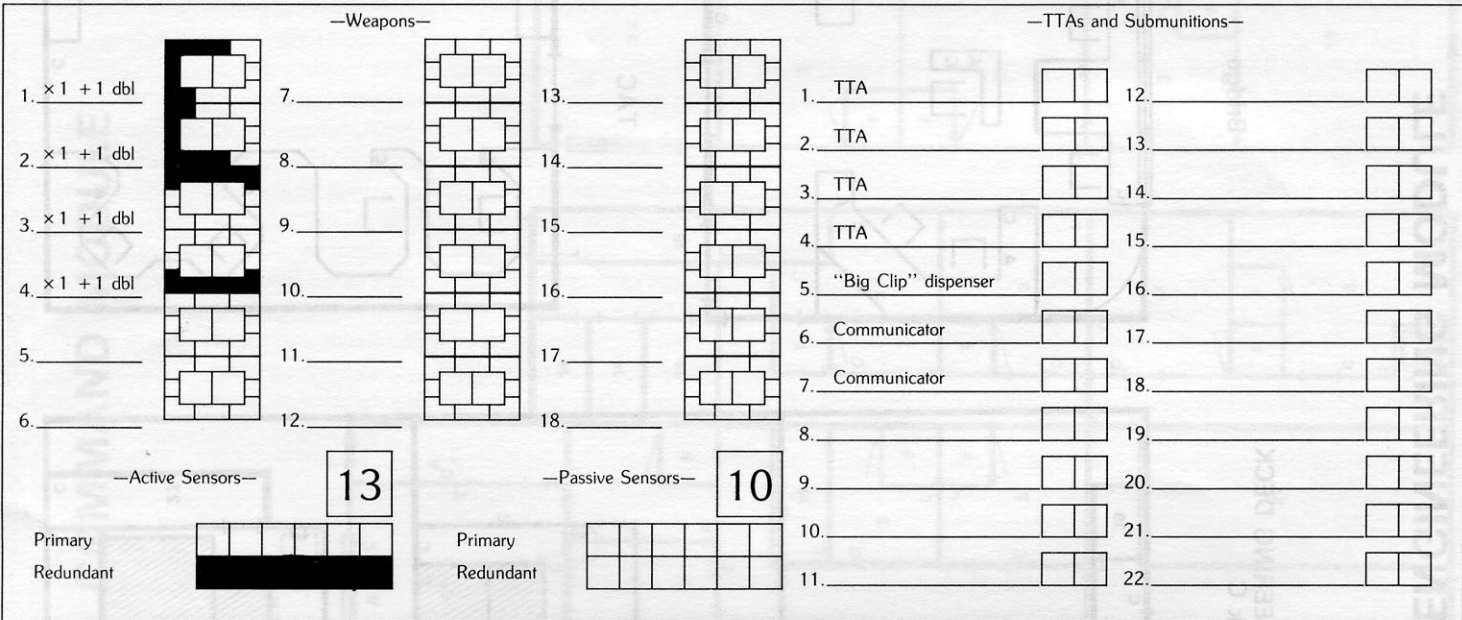
Hull Hits



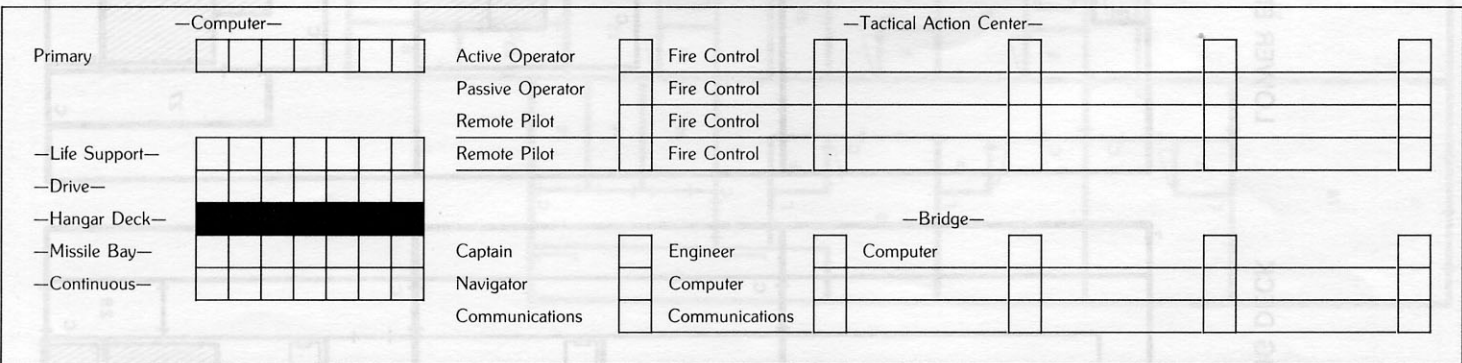
Power Plant Hits



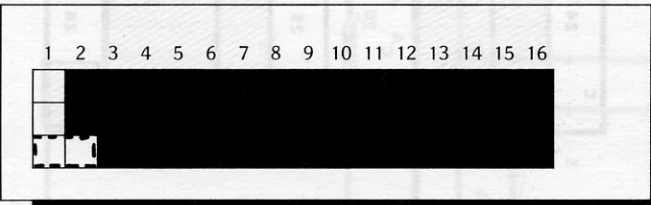
Surface Fixture Hits



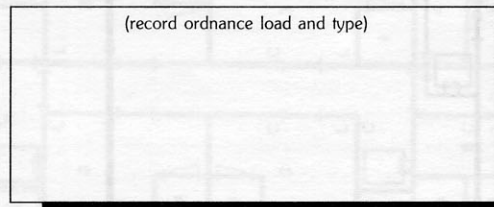
Critical Hits



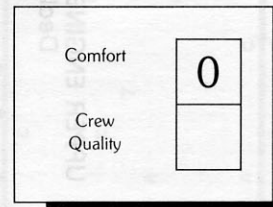
Damage Control



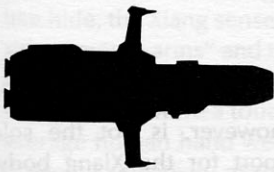
Ordnance



Crew



Ship Status Sheet



Sioux

Ship Name

Cayuga/C

Ship Type

America

Owning Nation or World

Movement

5

Radial
Reflected

7

Radial
Profile

-1

Screens

0

Lateral
Reflected

8

Lateral
Profile

+1

Radiated
Signature

4
3(5)
(4)

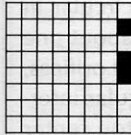
Targetting
Computer

+2

Armor

0

Hull Hits



Minor
Major

Power Plant Hits

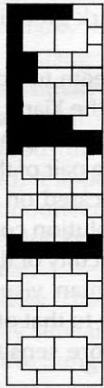


Inoperable

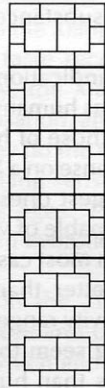
Surface Fixture Hits

—Weapons—

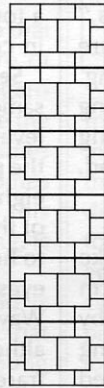
1. $\times 1 + 1$ dbl
2. $\times 1 + 1$ dbl
3. $\times 1 + 1$ dbl
4. $\times 1 + 1$ dbl
5. _____
6. _____



7. _____
8. _____
9. _____
10. _____
11. _____
12. _____

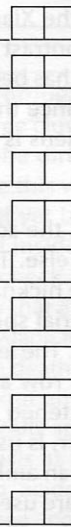


13. _____
14. _____
15. _____
16. _____
17. _____
18. _____



—TTAs and Submunitions—

1. TTA
2. TTA
3. TTA
4. TTA
5. "Big Clip" dispenser
6. Communicator
7. Communicator
8. _____
9. _____
10. _____
11. _____

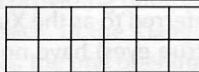


12. _____
13. _____
14. _____
15. _____
16. _____
17. _____
18. _____
19. _____
20. _____
21. _____
22. _____

—Active Sensors—

13

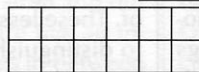
Primary
Redundant



—Passive Sensors—

10

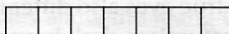
Primary
Redundant



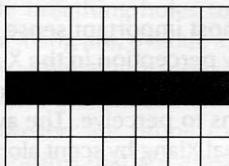
Critical Hits

—Computer—

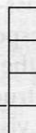
Primary



—Life Support—
—Drive—
—Hangar Deck—
—Missile Bay—
—Continuous—

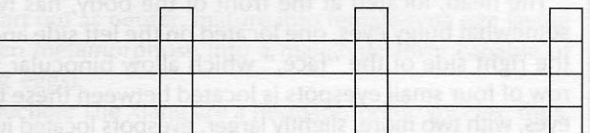
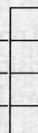


Active Operator
Passive Operator
Remote Pilot
Remote Pilot



Fire Control
Fire Control
Fire Control
Fire Control

—Tactical Action Center—

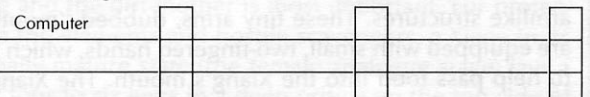


—Bridge—

Captain
Navigator
Communications



Engineer
Computer
Communications



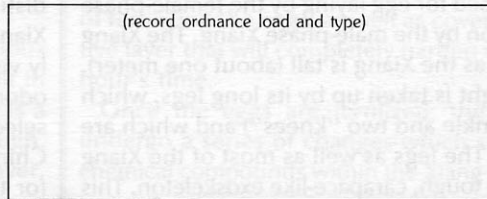
Damage Control

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16



Ordnance

(record ordnance load and type)

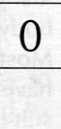


Crew

Comfort

0

Crew
Quality



The Xiang

The following is reprinted with permission from A First Course in Exobiology, 3rd ed., Chapter 19: "Sapientology," published in 2297 by the University of Toronto Press.

Chapter 19

SECTION 19.2: THE XIANG

Although they were the second sentient alien race contacted by mankind, the Xiang (pronounced "Shee—ahng") are currently one of the least understood of the extraterrestrial species. With the Xiang culture at roughly a Stone Age level of technology, it has proven difficult to find common bases for culture exchange between humans and Xiang. In addition, the Xiang are the only sentient species known to have a symbiosis necessary for their survival. Known as "dirt-mothers," these symbiotic partners of the Xiang are plantlike in nature and form—an interesting contrast to the spiderlike Xiang. Although significant progress has been made in understanding the Xiang and their culture since the first contact with Xiang in 2250, much about these aliens is still not well understood.

ANATOMY & PHYSIOLOGY

Appearance: In appearance, the adult Xiang looks more like a large spider than anything else. This arachnoid body form has prompted the Xiang to be nicknamed "Spider-people" by some humans. Unlike terrestrial spiders, however, the Xiang have ten legs rather than eight. The legs on a Xiang are arranged in two rows of five legs, one row along each side of a body that is approximately a flattened ellipsoid in shape. The foremost pair of legs, however, is used as a manipulatory pair of appendages rather than as an ambulatory pair. For locomotion, only the back eight legs are used. Each of those eight legs terminates in a four-toed foot, with each toe equipped with a tough claw. The front legs end in "hands" with three long fingers and one opposable thumb on each hand. The fingers are also equipped with tough claws.

The head, located at the front of the body, has two large, somewhat bulgy eyes, one located on the left side and one on the right side of the "face," which allow binocular vision. A row of four small eyespots is located between these two large eyes, with two more, slightly larger, eyespots located just above the middle two small eyespots. Below the row of eyespots is a sizeable, beaklike mouth which is surrounded by four small, armlike structures. These tiny arms, dubbed "mouth-arms," are equipped with small, two-fingered hands, which are used to help pass food into the Xiang's mouth. The Xiang mouth needs no teeth or lips, since a gizzard-like structure within the throat grinds up chunks of food once they are swallowed.

At the end of the body, opposite the head, is an ovipositor-like structure which is used for egg laying by the female-phase Xiang and egg fertilization by the male-phase Xiang. The Xiang body is roughly as long as the Xiang is tall (about one meter). Most of the Xiang's height is taken up by its long legs, which have three joints (one ankle and two "knees") and which are stilt-like in appearance. The legs as well as most of the Xiang body, are covered with a tough, carapace-like exoskeleton. This

exoskeleton, however, is not the sole means of support for the Xiang body, which also has a cartilaginous internal skeleton.

The Xiang's symbiotic partner, the dirt-mother, is a large mound-like organism, roughly circular in shape, which is about five meters in diameter and about one and a half meters tall at the center of the mound. Eight orifices, each a little under a meter across, are spaced at regular intervals around the base of the dirt-mother. At the very top center of the mound is a large, round depression which is about 35 centimeters deep. A thick ledge, roughly three centimeters wide, hangs out over and encircles the periphery of the depression. Most of the surface of the dirt-mother is covered with a tough, bark-like substance which is a dark greenish-brown in color.

Senses: From all indications, the Xiang seem to possess the same set of senses as humans do, although the Xiang sensitivity levels differ from those of humans. As with humans, sight is the predominant sense on a Xiang. Only one pair of the Xiang's eight eyes, the largest ones, which are located on the sides of the head, are capable of vision with resolution comparable to human vision. In most cases, the visual acuity of these large eyes is actually better than the best human visual acuity. Wavelength sensitivity range is comparable to that of humans, although the Xiang seem to be slightly more sensitive to infrared wavelengths than humans.

The other two eyes, including the mid-sized pair on the forehead, appear to be capable only of distinguishing conditions of light or darkness and have no real resolution to speak of. These lesser eyes (usually referred to as the Xiang eyespots to distinguish them from the true eyes) have no eyelids, but instead have a tough, rigid, lens-like membrane covering them. The true eyes, however, are equipped with protective eyelids which have a vertical closure rather than a horizontal closure like human eyes. With an amber-colored iris surrounding an hourglass-shaped pupil, the true eyes also differ in color from the eyespots, which are a featureless dark brown in hue. No sclera (the "white" of the eye) is visible either on the eyespots or the true eyes.

After vision, the second most important sense to a Xiang is the sense of smell. Olfactory perception in the Xiang is highly acute, allowing the Xiang to differentiate between a myriad of scents too subtle for humans to perceive. The average Xiang is able to identify an individual Xiang by scent alone (providing that individual has been encountered previously), usually well before that individual is within visual or auditory range. Complimenting their olfactory abilities, the Xiang have developed highly individualized scent glands which give each Xiang a distinct and unique odor. The strongest components of a Xiang's scent are easily perceptible to humans and are usually very similar among members of the same Xiang clan. This odoriferous characteristic of the Xiang was what prompted the selection of the species name by the Manchurians ("xiang" in Chinese means "fragrant" or "fragrance"—an apt description for this alien species).

With most of the Xiang body covered by a tough, carapace-like hide, the Xiang sense of touch is limited mostly to the sensitive "mouth-arms" and to the foreleg hands. Tactile sensitivity is more pronounced on the "mouth-arms" than on the foreleg hands, which have a touch threshold level comparable to the average human hand wearing leather gloves. The exact level of tactile sensitivity of the mouth-arms is unknown, but it is believed to be better than the most sensitive areas on humans. Because of this sensitivity, the Xiang have developed a method of touch communication using the mouth-arms, but this appears to be used only by members of the same clan.

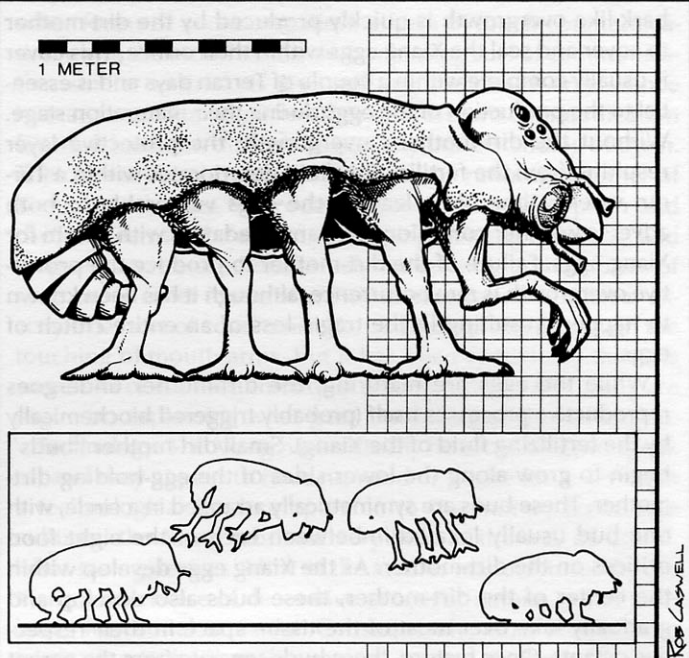
After sight and smell, the third most important sense to a Xiang is its auditory capability. Xiang hearing appears to encompass roughly the same frequency range as human hearing, although Xiang are able to perceive some ultrasonic frequencies that humans cannot. Volume sensitivity in the Xiang is also comparable to that of humans, and a few Xiang are able to detect sounds below the volume threshold of the average human ear.

Taste is a fairly minimal sense in the Xiang. Although the oral cavity in a Xiang does possess taste receptors, they are of limited sensitivity. Consequently, the Xiang tend to regard tastes as a background sort of sensation, and they perceive the odors of foodstuffs more than they do the tastes. From studies performed, it appears that the Xiang sense of taste becomes more pronounced as the Xiang ages. The reason for this enhancement, both physically and evolutionarily speaking, is still unclear.

Respiration: The atmosphere on the Xiang homeworld is remarkably similar in both pressure and composition to that of Stark, the Sung homeworld, which allows Xiang and Sung to comfortably breathe the same air (the atmosphere on the Xiang homeworld is slightly thinner than Earth's). The Xiang respiratory system has some similarity to that of humans, with a diaphragm providing pumping action to drive air in and out of lung-like sacs. In the Xiang, however, there are five air intake openings: the oral opening and four openings in-between the front legs (two openings per body side, with one between the first and second legs and one between the second and third on each side). The oral cavity leads to the largest air sac in the body, while the side openings lead to smaller sacs. These side breathing holes allow the Xiang to breathe while engaged in eating. The olfactory receptors in the Xiang are located both within the oral cavity and on the lining of the tubes leading from the side breathing holes to their respective air sacs.

Health: The Xiang are, overall, a remarkably healthy species. From all indications there appear to be no diseases native to their homeworld that affect them. Both the Xiang and the dirt-mothers, however, are prone to parasitic invasions. In the Xiang, the parasites that are most common are a small, mite-like organism that tends to attach itself in the crevices of a Xiang's ankle joint, and a tiny wormlike creature that likes to live in the folds of a Xiang's neck. Neither of these parasites is a particularly serious problem; both are generally a nuisance at worst.

On the other hand, dirt-mothers are prone to some serious parasitic infestations, which, if left unattended, can result in the death of the dirt-mother. The most serious of these is a wormlike borer which likes to eat his way through the tough, outer layer of the dirt-mother. Once through the outer layer,



the borer makes his way through the central tissue of the dirt-mother, where it lays a large cluster of eggs. Once these hatch, they eat out the core of the dirt-mother, which results in the dirt-mother's death. Since this would cause serious problems for a Xiang which has not yet laid eggs (or to a Xiang whose eggs were still unhatched inside the dirt-mother), most Xiang carefully and regularly check their dirt-mothers for these parasites and remove any that are found. It is not uncommon for young, inexperienced Xiang to miss some of these parasites, resulting in the premature death of their dirt-mothers and leaving the young Xiang without any way of producing offspring.

Genetic basis: Biochemically speaking, the Xiang have essentially the same genetic basis as both humans and Sung, with DNA, left-handed amino acids, and a carbon-based body chemistry. Beyond those common characteristics, the similarities end. The Xiang possess 20 pairs of chromosomes, fewer than the human 23 and the Sung, 29. Of the 20 chromosome pairs in the Xiang, there are no sex chromosomes since the Xiang are a metamorphosing, hermaphroditic species (Xiang start out as neuter, mature into female-type egg laying form, then metamorphose into a male-type form capable of fertilizing eggs).

Reproduction: The Xiang are a hermaphroditic species; thus, each Xiang lays a clutch of eggs once in its lifetime. It is during the egg-laying stage that the symbiotic relationship between the Xiang and the dirt-mother is most important. For protection from the elements and hostile scavengers, a Xiang in its first sexually mature state (the female analogue stage) lays a group of four to six eggs in a deep orifice on the top side of the dirt-mother. These eggs are then covered with a fluid produced by a different Xiang—one who is in the second sexually mature state (the male phase). This fluid serves the purpose of fertilizing the eggs, as well as covering them with a protective layer that will completely harden within approximately an hour's time.

Once the eggs are fertilized, the dirt-mother begins to undergo a series of changes which seem to be triggered by chemical compounds within the Xiang fertilizing fluid. A tough,

bark-like overgrowth is quickly produced by the dirt-mother to cover and seal the Xiang eggs within their orifice. This cover is usually complete within a couple of Terran days and is essential to the production of the eggs during their maturation stage. Without the dirt-mother's overgrowth, the protective layer resulting from the fertilization fluid deteriorates within a Terran week's time, thus leaving the eggs vulnerable to both adverse weather conditions and any predators with a taste for Xiang eggs. Failure of the dirt-mother to produce the protective overgrowth is rare occurrence, although it has been known to happen, resulting in the tragic loss of an entire clutch of eggs.

While the eggs are maturing, the dirt-mother undergoes reproductive processes itself (probably triggered biochemically by the fertilizing fluid of the Xiang). Small dirt-mother "buds" begin to grow along the lower sides of the egg-holding dirt-mother. These buds are symmetrically arranged in a circle, with one bud usually located in-between each of the eight food orifices on the dirt-mother. As the Xiang eggs develop within the center of the dirt-mother, these buds also develop and gradually take over most of the tissue space in their respective octants. Once mature, these buds separate from the parent dirt-mother, leaving the tough, upper husk empty except for a relatively small central area of tissue (which encompasses the Xiang egg chamber and surrounding support tissues), which is all that remains of the parent dirt-mother after reproduction.

When the dirt-mother starts budding, a saplike substance seeps into the egg chamber. This sap insulates the eggs and slowly thins the egg shell through an exothermic chemical reaction (which helps keep the eggs warm), eventually resulting in paper-thin eggshells just as the Xiang are ready to hatch. Once the Xiang eggs hatch (which is before the dirt-mother buds mature), the young Xiang use their front claws and their beak-like mouths to scratch their way out of the egg chamber, which has started to deteriorate from the sap coating the inside walls.

In the process of breaking the egg chamber's top, the newly hatched Xiang end up ingesting some of the sap, which contains compounds highly addictive to the young Xiang. The young Xiang must continue to get regular ingestions of this sap until it undergoes metamorphosis into the sexually mature female-stage (first taking sap from its dirt-mother, then getting sap from its own dirt-mother once it becomes independent). For the first two years of its life, the young Xiang is relatively dependent on its parent, who takes care of it.

Life cycle: The Xiang are a relatively short-lived species with an average lifespan of only about thirty years. After hatching out of its egg, the Xiang is a small (about ten centimeters), neuter version of the adult Xiang. During the first two years, the young Xiang learns to hunt, communicate, and take care of its dirt-mother. A growth spurt occurs near the end of the second year, causing the Xiang to reach its youth height of about thirty centimeters. At the end of its second year, the Xiang takes its now barely mature dirt-mother bud off to a plot of land of its own, where the dirt-mother can be "planted" and allowed to start its growth into full, adult maturity.

It is at this time that the young Xiang is most vulnerable. Since it is small in size and relatively unexperienced in the ways of the world, it can fall prey to numerous predators that would not think to trouble an adult Xiang (which is the largest

predator on the planet). Trouble can also arise if the young dirt-mother does not survive, which can occur for a number of reasons. Parasites, poor site selection, and unfavorable environmental conditions can all result in the death of the dirt-mother, which subsequently occurs in the death of the young Xiang. Without the sap that the dirt-mother produces, the Xiang will not mature into an adult (once the young Xiang has achieved its full height, the sap triggers the metamorphosis processes for the adult transformation). Deprived of the sap, the Xiang will go through symptoms which strongly resemble human drug withdrawal symptoms. Death usually results soon after. With all these factors, it is rare for more than one Xiang out of a single egg batch to survive to adulthood.

During the next six years after hatching, the young Xiang grows slowly, attaining the full adult height of about one meter in a second growth spurt during its eighth year. Once it has grown to its adult height, it metamorphosizes into the fertile, egg laying female-stage, with the maturing process happening the ninth and tenth years. Somehow, biochemically, this metamorphosis eliminates the need in the Xiang for the dirt-mother sap to which it has been addicted since hatching. The now female-phase Xiang then chooses an older, male-phase Xiang to join with and fertilize the eggs which are subsequently laid in the dirt-mother.

Once the eggs hatch, the Xiang spends the next two years teaching and caring for its offspring until they are ready to go off on their own. After the young are independent, the Xiang undergoes another metamorphosis. In this metamorphosis, the ovipositor structure is changed into a fertilizing structure, with a new set of glands coming into maturation while the old set withers and becomes nonfunctional. With the splitting of the dirt-mother into buds and the subsequent death of the diminished, remaining organism, the Xiang is then free to wander where it will, doing what it wishes (within the norms of Xiang society).

The adult male-phase Xiang is capable of fertilizing three to four clutches of eggs before it becomes sterile. Normally, a male-phase Xiang will fertilize only one clutch of eggs in its lifetime (very rarely will it fertilize two or three). Usually, the older, male-phase Xiang will live out the remainder of his life engaged in various pursuits, often of a creative (artistic) or exploratory nature. Death, when it comes, usually occurs of natural causes in the 25th to 30th years.

Locomotion: Out of ten legs, the foremost two, which are used for object manipulation, are the only ones not used for locomotion. With the leg-joint structure as it is, Xiang generally have a stilted, stiff-leggedness to their walk. The structure of the Xiang foot offers stable purchase on a variety of terrain, allowing them to walk with relative ease over rough, rocky terrain when necessary. This foot structure also allows them to climb numerous species of trees on their homeworld, provided that the tree surface covering is coarsely grooved enough.

Although their pace can be fairly rapid while walking, Xiang often resort to hopping if a situation requires fast movement by them over a sizeable distance. With a relatively low body mass coupled with a leg structure capable of significant "spring," an adult Xiang, if necessary, can propel itself an average of six meters in one hop (if they are in their native gravity). This Xiang hopping ability also aids in Xiang food hunting since most Xiang seem to have a taste for eating some of the

aerial species on their homeworld.

Nutrition: The Xiang are generally a carnivorous species once they have reached adulthood, although immature Xiang tend to be omnivorous and to eat whatever nonpoisonous food they can find. Adult Xiang have shown a definitive preference for eating a particular species of flyer native to their homeworld. Remarkably, these flyers, although smaller than the adult Xiang, bear a strong resemblance to the Sung (a resemblance which tends to make the Sung very uneasy when they see the Xiang devouring these flyers with gusto). Although these flyers (sungus inferus verettus) look a lot like miniature (about half a meter in height) Sung, they are much less intelligent than the Sung, and as a result, even though they can fly, they tend to be very easy prey (as well as being considered very tasty to a Xiang).

For a young, immature Xiang, the flyers that the adults find so tasty are dangerous predators who have a definite fondness for young Xiang (who are only about thirty centimeters tall at this stage). Consequently, the young Xiang tend to hunt small, ground-dwelling organisms that live in the underbrush, which affords protection from the flyers while the young Xiang hunts. During periods when the hunting is not good, young Xiang will eat various kinds of vegetation as well as scavenging kills made by other predators who have had their fill and left behind sizeable carcasses.

Both young and adult Xiang also are required to obtain nutrients for their dirt-mothers. Although the dirt-mothers do obtain some of their nutrient requirements from the soil they are based on, they must rely on the Xiang they are bonded with to provide the rest of their sustenance. This occurs in two ways. In the first, the Xiang scavenges dead organic matter (either animal or, preferably, plant) and "feeds" the dirt-mother by placing this material in one of the eight food orifices located around the bottom side of it. This material then decomposes within these orifices (with the aid of some secretions produced by the cells lining the inside of the orifices), and the nutrients are absorbed into the dirt-mother.

The second way a Xiang feeds its dirt-mother is through a secretion that it produces and deposits within the food orifices. This secretion, produced by glandlike structures on the underside of the Xiang's tail, seems to be composed of nutrient substances that are indigestible to the Xiang, along with other waste products of the Xiang body. What is useless to the Xiang body appears to have strong nutritive qualities for the dirt-mothers, which thrive when they are fed sufficient quantities of this secretion. dirt-mothers that are not fed regularly with this fluid show definite signs of ill health.

CULTURE

Language: Xiang appear to have one basic language ("Basic Speech") which all Xiang seem to speak, but each clan also seems to have its own dialect (mostly different adjective and adverb forms which are often duplicates of or more specific than those in Basic Speech) which embellishes that basic language. Xiang speech is limited mostly to vowel sounds (membranes within the oral cavity allow them to vary tones for the various vowel sounds) since their mouth is not very well adapted for consonants. Consequently, human speech is difficult for the Xiang.

In addition to their spoken language, Xiang also use two

other forms of communication: a form of touch communication using the mouth-arms, and a chirping sort of communication similar to crickets also utilizing the mouth-arms. Since humans cannot engage in either of these two communication forms, it has been difficult to gain any understanding of them. The cricket-like chirping, which uses the rubbing together of Xiang mouth-arms to produce sounds of varying pitch and rhythm, seems to be a form of "singing" among the Xiang, and it appears to be used exclusively for relating oral histories of sorts or for other forms of artistic expression. It is unclear exactly what sort of communication is accomplished through the touching of mouth-arms, but it has been speculated that it is some sort of intimate emotional communication (the Xiang are vague on explaining what goes on during such exchanges).

Technology: The Xiang have virtually no technology to speak of, and they appear to have no need or desire for it. Living at a technological level comparable to the human Stone Age cultures, the Xiang fabricate very little in the way of useful, labor-saving devices. Most of the articles manufactured by the Xiang workers are of decorative or artistic nature, rather than being functional or useful. Consequently, most of the Xiang fabrication technology is centered around methods for making such works of art. Xiang are curious about both human and Sung technology, but they are interested in it from an aesthetic point of view rather than in the terms of functionality. Metals and metalworking fascinate them, but only because interesting forms can be made from metals which are radically different from anything Xiang artisans have made before.

Art and Architecture: Art is an important aspect of Xiang culture and much of the art produced by them has an "organic" feel to it. Much use is made of woods and other plant material, with Xiang artisans carving, bending, or otherwise shaping these materials into shapes they find aesthetically pleasing. Dyes and paints made from various organic sources are frequently used to color works of art in patterns that often carry much meaning to a Xiang. Often, Xiang artisans coat their works with scented compounds which they select, blend, and use to convey a particular feeling or meaning to other Xiang.

Xiang art tends to fall into two categories: transient and permanent. Transient art is not designed to last, and in fact, it is often destroyed by the creator once it has been seen by everyone that the Xiang artist feels should see it. If not destroyed outright by the creator once its purpose is fulfilled, transient Xiang art is usually left to be reclaimed by nature. Such artworks are not maintained or repaired or even protected from the elements, but are instead left to gradually decay or fall apart, eventually becoming part of the land once again.

Permanent Xiang art is often composed of stone or very hard woods found on the Xiang homeworld. A permanent artwork is usually considered the possession of a specific Xiang clan and will be passed on from one generation to the next. Each generation will change or embellish such permanent artwork to suit their own designs, often repainting or carving new designs, scenes or patterns in place of, or as part of, the old scheme. Some of these permanent artworks are very old, usually in the form of slabs, pillars or small hut-like structures which are covered with extensive, intricate designwork.

The architecture on the Xiang homeworld is generally temporary shelter-type structures designed and built to protect Xiang and dirt-mothers from rare, adverse environmental

conditions. The body structures of the Xiang and dirt-mothers are such that, with the climatic conditions on the Xiang homeworld, shelter-type constructions are usually unnecessary. Such shelters as are built are usually constructed of plant materials, with animal hides occasionally being used as coverings.

Religion: Little is currently understood about Xiang religious views. It appears that the Xiang view the dirt-mothers with a religious-like reverence, although no one has yet determined exactly how the Xiang regard their symbiotic partners. A Xiang is considered to be "bonded" to its dirt-mother and must stay with the dirt-mother and attend it until the dirt-mother dies (and the Xiang's offspring have gone off and settled down with the dirt-mother's buds). Xiang never bond with new dirt-mothers if their old ones have died prematurely. Once the dirt-mother is dead (assuming it has lived its normal, natural lifespan), the adult Xiang (now in the male phase of its life), is free to wander where it will until its death.

***X**iang also hold a religious-like reverence for the harmony of life and the environment, and do not approve of actions that disrupt the harmony of the cycles of nature.*

At the time of a Xiang's death, tradition requires that the body be brought to the dead husk of its dirt-mother and tucked underneath the shell. Both the dead Xiang and the dirt-mother are covered with a coating of plant debris and soil to speed their return to the earth. If the dirt-mother is still alive and the Xiang dies prematurely, the Xiang is buried in the soil adjacent to the dirt-mother. The Xiang is also buried in the ground when the dirt-mother is dead but its husk is either inaccessible or unintact (destroyed usually by a freak of nature).

Xiang also hold a religious-like reverence for the harmony of life and the environment, and do not approve of actions that disrupt the harmony of the cycles of nature. The Sung strip mines on the Xiang homeworld have disturbed them greatly, even though the Xiang have agreed to work for the Sung in extracting ores in these mines. The Sung have assured that once the mines are depleted, the land will be restored to its former state, which has eased the Xiang worries that such drastic manipulations of the land will result in some dire consequences (what those consequences are believed to be is a mystery to all but the Xiang, who refuse to discuss in depth such disturbing beliefs). If the Xiang believe in a deity, it would seem to be the homeworld itself (a Gaea-like concept), with the dirt-mothers being some sort of linking being between the Xiang and their deity. Due to difficulties in communication on religious topics (which tend to be abstract in nature and thus difficult to make translations on), it will probably be a lengthy period of time before Xiang religion (or even whether or not they have one) is clearly understood.

POLITICAL GEOGRAPHY AND ORGANIZATION

Xiang society seems to be broken down into groups along family lines. These groups, or clans, tend to stay in one

geographical region, although older Xiang have been known to wander off into regions not normally occupied by their clan. A clan is usually composed of those Xiang related through a given dirt-mother's line. Adult Xiang in the male-stage often join the clan of the Xiang whose eggs they are fertilizing, although this is often temporary. Clan territory boundaries are usually quite definite and are often marked out along the perimeters by sophisticated scent markings applied to rocks, trees, or ornamental markers made by the clan.

Clans generally stay within their own territorial boundaries, with encroachment on another's territory usually accidental (due probably to a lack of scent markers in that region). If a clan finds that its territory can no longer support it and there is no virgin land available to expand into, it regards it as a sign from nature that it has grown larger than nature intended. To make room for the younger Xiang in the clan, the clan's oldest members who have lived the useful parts of their lives already will then undergo voluntary suicide (usually performed at the side of its dirt-mother) by ingesting a poisonous drink. The Xiang who have sacrificed themselves are then given elaborate funeral rites designed to compensate for their prematurely ended lives and to celebrate their reuniting with their dirt-mothers.

The only sort of hierarchy in Xiang society seems to be based on age, but this does not appear to be any sort of rigid structure. Younger Xiang are usually advised and directed by older ones, but there is really no rule saying that younger Xiang must honor and obey their elders, who often end up wandering off and doing things independently. The younger Xiang are often tied to a dirt-mother and are not free to pursue their own interests as much as the older Xiang.

Sapientological studies on the Xiang are ongoing, with progress being made in deciphering the various forms of communication used by the Xiang. Once humans are better able to understand the Xiang languages, much greater knowledge about their culture, society, and lives will be able to be gained. Until that time, our knowledge of the Xiang must grow slowly, and must be based more on observation and deduction than on concrete facts obtained through direct exchange with them.

—Deb Zeigler

ULSTER IMPORTS, LTD.

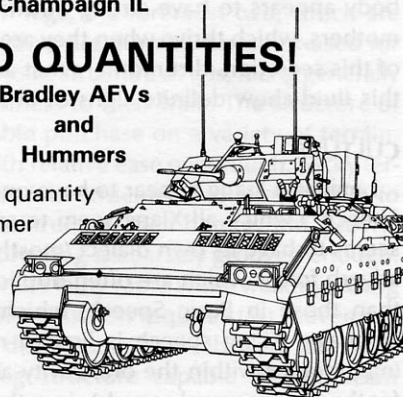
PO Box 1748

Champaign IL

LIMITED QUANTITIES!

Bradley AFVs
and
Hummers

We have a limited quantity of 20mm scale Hummer and Bradley AFV's, in metal, imported from the UK. Send SASE and ask for a listing of what we have.



Warning: Figures contain lead and are not recommended for children under 12.

Twilight: 2000 is a trademark of GDW.



DO YOU KNOW ME? . .

probably not, . . . that's why when I'm out for supplies I carry my **ELMONITUM** card. It's universally recognized! And when I'm looking for action-packed sci-fi gaming, I play **SPACE MASTER™**. Need I say more?



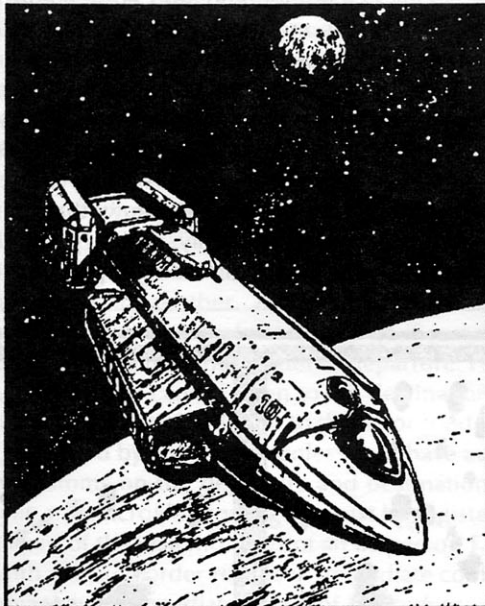
Space Master



JUST THE BEST SCI-FI ROLE PLAYING

IRON CROWN ENTERPRISES / P.O. BOX 1605 / CHARLOTTESVILLE, VIRGINIA 22902

Approved For Use With Traveller®



Gazelle Class CLOSE ESCORT
15mm \$6, 25mm \$8

MasterCard

VISA

Orders
accepted

By Phone Call
(701) 524-1045
9-5 Mon-Friday
No collect Calls

Send for a
free catalog
listing other
products for
Traveller.



The Adventure is designed for characters of virtually any background in the employ of a merchant company based in the Kreegan Deep sector. Characters should possess a mix of skills spanning many fields.

Approved For Use With
TRAVELLER®

The text and content of this folio are primarily devoted to background information designed to set the stage for an adventuring session. The referee may find it advisable to prepare various encounter tables, NPC descriptions, and other material of a procedural nature before writing out an adventure, unless he is skilled in extrapolating such information during the course of play. Almost any of the many booklets and modules available for Traveller may prove useful in resolving this situation. The referee should especially refer to Book 4 (Mercenary), Alien Module 1 (Asian), and the fiction adventure Trading Teams published by Marvel Comics and available from SEEKER.



Escape: Adventure \$3

At your TRAVELLER Dealer!

Available Direct from: **SEEKER**, P.O. Box 337, Finley, ND. 58230-0337. Please include \$1 per order for shipping. Overseas orders Send \$3 U.S.funds. (APO/FPO's not included). SEEKER holds a license with Game Designers' Workshop to produce officially approved products for Traveller.



Papers & Passports

No, this is not the title of a new GDW role-playing game.

The 24th century has custom and quarantine procedures that almost all travellers have to go through before reaching their final destination. This article explains the varied and confusing procedures that are often encountered just before touching down on a planet.

WHAT'S IT ALL ABOUT?

Put simply, customs is a practice that allows transportation services the right of illegal search and seizure. This means that any given space-line can look through luggage, handbags, packages, and anything else they want. The purpose of this magical ability is to find things that could either blow up something important to ship survival (such as engines), or contaminate the destination planet (there's nothing like plague). Less often, customs is a means to stop "suspicious suspects," or help the police find an escaping criminal. More often, customs is used by sadistic customs officers to slow down the otherwise nice vacations of holiday travellers.

Custom searches normally take place upon departure and arrival at a planet's orbiting control station. Less "critical" planets may allow landings into spaceports on the planet rather than an orbiting station.

I'VE GOTTA CATCH A BUS!

Customs can be anything from a textbook example of speed and efficiency to the standard red tape purgatory everyone is used to. Factors that affect

how quickly passengers get through include destination, total number of travellers, and attitude of officials.

Depending on the planet, total time from space station docking to planet touchdown varies from one hour to two weeks. Small asteroids, ice planets, and other inhospitable places warrant the least amount of customs interference, as they are the least likely to be affected by germs or firearms.

On the other hand, important planets like Earth have stringent customs inspections which can last days. Every piece of baggage, every pocket, and every pen is searched for possible hostile equipment. Each phase of Earth's and other important planets' customs search usually takes place in several locations, both on the orbiting station and on other, smaller stations. These smaller stations are used strictly for customs searches. Travellers are occasionally rerouted to moons for further inspection, which is standard procedure on Earth.

Noncommercial ships are required to maintain a stationary orbit and go through customs like all other travellers. Some ships are searched by a scanning crew for illegal merchandise.

ROLL UP YOUR SLEEVES & SAY "AHH"

There are many methods used to find illegal equipment and goods held by passengers. The first is normal metal detection and "pat-down" searches which all passengers go through no matter what planet they are on. Customs on interplanetary hops and asteroids usually go no further than these searches.

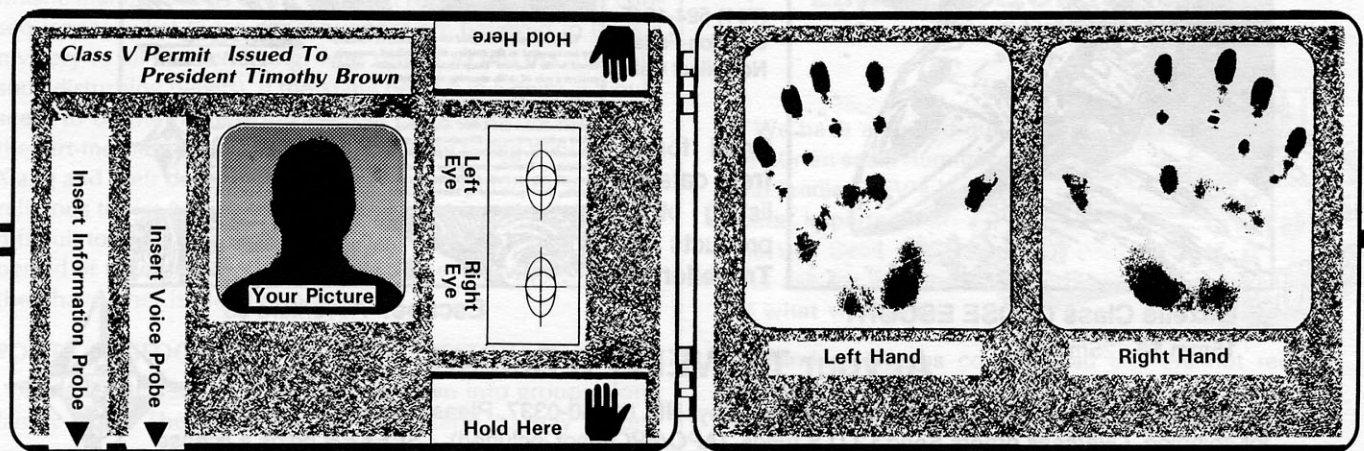
The next type of search is a more thorough metal detector "shake-down" version of the first. All habitable planets perform these searches before allowing passengers to leave the spaceport. In addition, all baggage is X-rayed.

The third search is reserved for more important planets, such as light agricultural, entertainment, or "unimportant" military installations. Each passenger must personally pass a cursory X-ray scan, in addition to the body search normally performed by all planets. More important planets have more intensive X-ray scanings.

Very intense searches are reserved for heavy agricultural and regular military installations. In addition to the previous searches, each passenger must undergo a chromatic scan for diseases and illegal chemicals, as well as being neutrino scanned, which shows things not normally detected by X-ray scans, such as certain plastics or alloys.

Important planets with major installations require a magnetic resonance (MR) scan in addition to everything else. MR scans show radioactives that are slowly breaking down in the bloodstream (sometimes used to trigger transmission equipment), and equipment hidden in bones, as well as most subdermal equipment.

Earth requires all of the above tests for every passenger, but it also requires a psychological test that will determine violent behavior waiting to be triggered. Many people know that this test is almost totally arbitrary and has little chance of finding a psychopath, but it



keeps the rest of the worlds happy.

Many worlds have their own favored methods of search, in addition to the above. Many agricultural planets use animals such as vargs or dogs to sniff out drugs or explosives. Other planets prefer to take hapless passengers into the back room and try to scare them into confessing they have something illegal. The most advanced or wealthy worlds use sophisticated equipment such as the CorteScan 2000 to determine guilt.

WHAT'S ALL THIS THEN?

A passenger and his baggage are soon parted. There are times when a traveller will not see his equipment for days as it is "busily" being processed by customs. Customs goes through *everything* looking for contraband. Pens are written with, cameras are taken apart, and the bags themselves are checked. Items are looked at by human and mechanical senses.

Customs looks for things other than
the obvious bomb....

If customs actually finds something it doesn't like, every passenger from that ship is held over until the officials have satisfactorily dealt with the culprit. This can be anything from a simple arrest with questioning to following the suspect over several days to see if there are other passengers that are "connections." In any case, travellers can expect a delay of two to three times the normal stay due to "possible contamination in food preparation" or some other lame excuse.

Customs looks for things other than the obvious bomb or viral infection. First and foremost are weapons, whole or in pieces. Guns, knives, bullets, tear gas, and similar items are all very illegal on ships, and anyone caught is punished severely according to local law enforcement procedures.

Next are things that could be weapons, such as canes, crutches, and others that might have weapon-like use. Medical equipment is checked by a medical professional for validity. Other items are held at the discretion of the customs officer.

Food and produce are commonly searched for by all planets' customs. Food can contain dangerous diseases such as blight or fungus and therefore cannot be transferred by a passenger from one planet to another. All food is confiscated and destroyed. Food may be transferred in cargo if searched and sterilized by customs from the planet of departure. However, food bought *en route* can be taken to the destination planet.

Animals have restrictions similar to those for food. Animals may not be carried by passengers unless they have authorization from customs on the departure and destination planet.

Electronic and microelectronic gear must be registered and tested in front of the watchful eyes of an inspector. Failure to comply with a testing order results in immediate confiscation of all baggage and immediate arrest of the owner.

Items that are normally illegal are immediately confiscated, such as drugs, drug paraphernalia, and similar things.

SQUEAKY CLEAN!

Depending on the planet of departure, some planets require

sterilization procedures for incoming travellers. The reason for this is similar to the restrictions placed on food and animals: people carry germs and infections and must be clean before they are allowed access to their destination world.

Needless to say, sterilization and quarantine are a hassle that can take days or weeks, depending on the circumstances. If a passenger just came from a planet that had a sudden break out of hepatitis, he may be subject to at least a week of nauseating sterilization procedures. If a character just came from Earth (which has the most intensive sterilization), he may only be required to go through minor sterilization procedures.

Getting clean and germ-free isn't pleasant. The procedure begins with light radiation treatments and on to chemical purging. Chemical purging is geared toward stopping a spectrum of diseases. Treatment goes on to include antibody injection, more radiation, and more chemicals. Nobody feels well after sterilization, and green is a popular facial color.

Earth and important agricultural planets require lengthy sterilization procedures. Smaller or less "volatile" planets require shorter or no sterilization procedures.

I'M WITH THE BAND

Military equipment and weapons are not illegal with the proper permits. There are three methods to get these papers: apply before leaving, apply on arrival, or belong to the military. The first two methods take forever and require excellent justification, such as being a member of a law enforcement agency in hot pursuit of a criminal, or being a bounty hunter, which is an occasional excuse depending on the planet. Permit delivery can take anywhere from one week to one year depending on circumstances. Earth never allows off-world passengers to bring weapons. A rejection notice sometimes means that the police are watching the person who applied for the permit; a granted permit means the police definitely are.

Belonging to the military means troopers carry weapons with them, but only in combat. Carrying a gun onto a passenger ship without written orders result in the offender being court-martialed.

GREEN CARDS! GREEN CARDS!

Passports are a means for planets to keep track of who comes and goes, and where they are coming from and going to. A traveller is required to have a passport at all times. A Class I passport is nothing more than a booklet with the owner's picture and place of origin. Every time the owner goes somewhere, customs stamps the date and place with ink in the book. This is the same as a 20th century passport. Class I passports are only usable for planetary and near-planetary travel.

A Class II passport is the same as a Class I passport except it includes finger-and palm print identification. Class II passports are used for any type of interplanetary travel.

A Class III passport includes the same information as a Class II passport, but also includes voiceprint analysis and a small holographic picture of the owner's entire body. The voiceprint and hologram are accessed with an outside power source. Class III passports are the standard intersystem traveller's passport and are accepted by all planets.

Class IV passports are the same as Class III passports except they include retinal scan information. Government officials and certain branches of the military carry Class IV passports. Some

important company chief executives use these passports. Class IV passports are used for travel to military installations and restricted areas on planets.

Depending on the political or military situation of a system, higher level passports may be required for entrance.

The Class V passport includes all the features of the Class IV, but in addition has a skin cell analysis plate. The owner is checked by having him hold the passport along marked areas of the passport and then inserting it halfway into an analyzer. The passport contains an electronic picture of what the owner's skin cells look like on the microscopic level, and the analyzer matches this with the holder's cells. A mismatch means that the passport does not belong to the holder. This passport is only used by high officials and important military leaders.

Not having a passport or having the wrong passport can lead to anything from a curt warning to life imprisonment; never try to take an intercontinental trip using somebody else's Class V passport. These allow the holder to go *anywhere*.

Depending on the political or military situation of a system, higher level passports may be required for entrance. Usually though, if there are any problems, all access to the system is denied.

It normally takes four to six weeks to get a Class I or II passport. Class III passports take eight weeks because of the inclusion of the voiceprint and hologram. Class IV and V passports take almost no time to get because someone with the rank high enough to get one of these is simply not kept waiting.

FINALLY

After all the hassles passengers go through to get to their destination, it's a wonder anyone goes anywhere for anything. If you are going somewhere just remember the traveller's motto: "I'll probably get there eventually."

—Kevin Stein

THE BAD GUYS PLAY FOR KEEPS... ...But You Wear the Badge

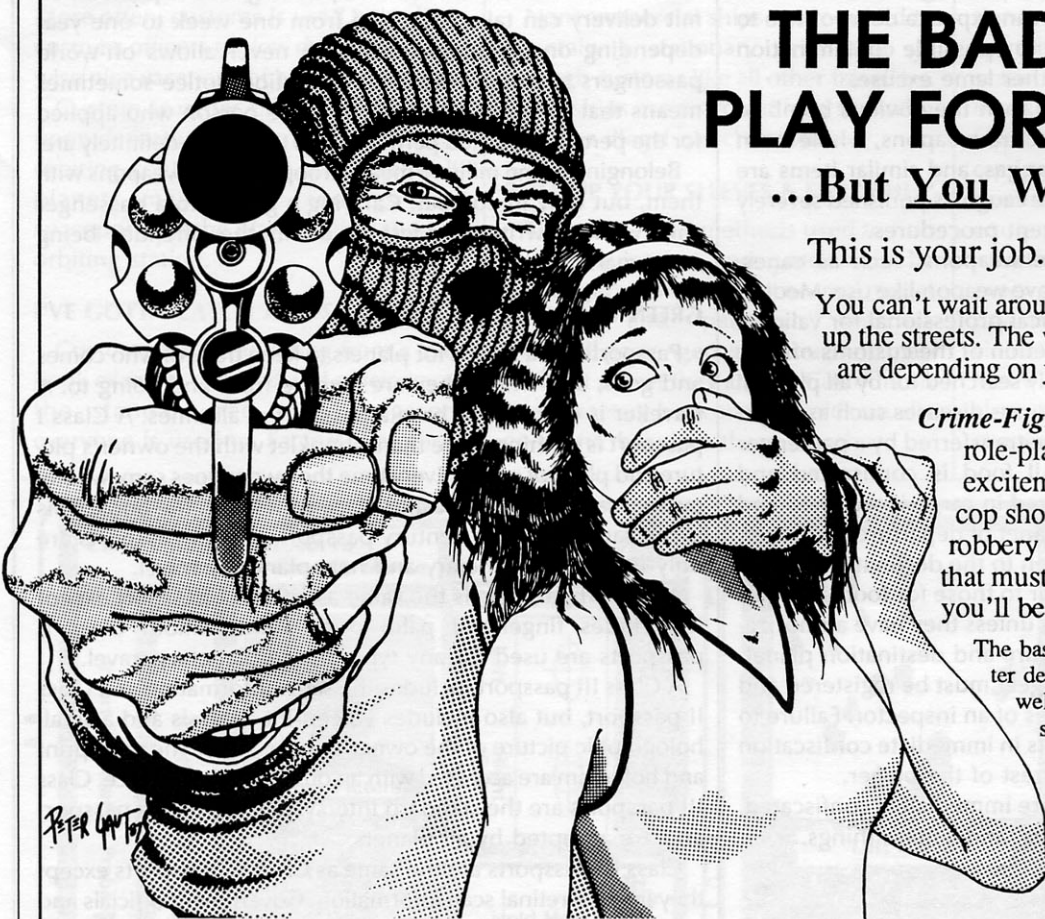
This is your job. Get used to it.

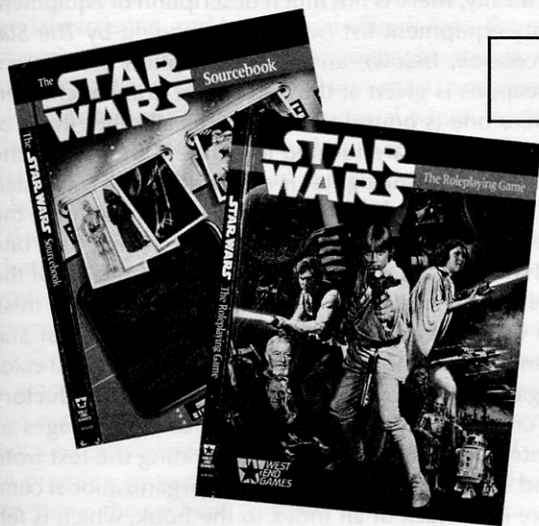
You can't wait around for someone else to clean up the streets. The would-be victims out there are depending on *you* to make their city safe.

Crime-Fighter is an action-packed role-playing system with all of the excitement and drama of the TV cop shows. Whether it's an armed robbery in progress or a crime boss that must be brought to justice, you'll be there 'Code 3.'

The basic set includes rules for character design, movement, and combat as well as an extensive 'sourcebook' section on police procedures and two ready-to-run 'episodes'—everything you need to start your police career.

TASK FORCE GAMES
1110 N. Fillmore
Amarillo, TX 79107





Star Wars: The Roleplaying Game.[™]

West End Games. \$14.95.

Game Design: Greg Costikyan

"Rebel Breakout" Adventure: Curtis Smith

Solo Adventure and Adventure Ideas: Ken Rolston

Editing: Eric Goldberg, Paul Murphy, Bill Slavicsek

Hardback game book. 144 pages.

For Gamemaster and one or more players (four to five is ideal).

October, 1987.

Living up to the excitement, the grandeur, and the fast-paced, heroic action of George Lucas's *Star Wars* trilogy of films is the task which West End Games undertook in their new game *Star Wars: The Roleplaying Game*. And they have succeeded admirably at what must have been a most imposing task. *Star Wars: The Roleplaying Game*, set at the end of the first movie, captures the essence of the movies and renders it playable as an enjoyable, easy-to-learn, but not overly simple, role-playing game.

CHARACTERS

Character generation is a matter of minutes. One simply selects a character template, a sort of blueprint of a character type, and then customizes it to one's own tastes. All characteristics which a character has are broken down into attributes (the potential one is born with) and skills (the things one learns). The level of ability that a character has in an attribute or skill is expressed in a die code, rather than as a set number or a skill level as in *MegaTraveller* and many other games. The die code represents the number of six-sided dice that one would roll when using a particular skill or attribute. For instance, if a character has a Strength of 4D and wishes to arm-wrestle a Wookiee with a Strength of 5D in a cantina, the player would roll four six-sided dice and the referee would roll five six-sided dice for the Wookiee. The one with the highest total would win the match. Many templates are recognizable as adaptations from the movies, such as the Smuggler and the Brash Pilot, while others are new, like the Armchair Historian

Review

or the Alien Student of the Force. In all, 24 templates are available, and you can design your own if none of these satisfy you. To customize a template, seven dice, total, are added to any skills which a

character has, with no more than two dice being added to any one skill. Even if dice are not added to customize a skill, the die code of the attribute which governs it is used as the default value for the skill. Skill points, which are awarded at a rate of about five an adventure, depending on the quality of one's role playing, can be used to buy higher die codes—a system which is reminiscent of such games as *James Bond: 007*—and provides for further customization of a character as he or she progresses. These skill points provide a concrete reward for good play while avoiding the perpetual problem of the *AD&D* game in that the criteria for achieving them is not tied to either killing things or acquiring wealth, but to how well one personifies one's chosen character, and if one comes up with good ideas, fitting actions, and helps achieve the goal of the adventure. This reinforces the action and adventure nature of the game and avoids tedious and boring treasure division and experience point totaling—pure bookkeeping tasks.

COMBAT

The combat system hinges on the die codes used to express attributes and skills. A combat round proceeds through decision, declaration, and action segments. In decision, everyone, including the referee, decides his or her actions. Declaration involves everyone explaining what his or her character (or NPCs) wish to attempt during the round, which is five seconds long in game time. Then all actions take place at the same time, except when a character wishes to attempt several things in the same round, such as shooting two stormtroopers. If more than one action is attempted, all first actions happen at the same time, then all second actions, etc., until all actions in a round have been finished. The limiting factors on what can be accomplished in a round are common sense and the fact that each additional action past the first that a character attempts subtracts one die from all die codes for skills he or she is using that round. In other words, if a character tries to hit one stormtrooper in a round with a Blaster skill of 4D, then he or she rolls four dice. If the character tries to fire twice, he or she may only roll three dice. The total rolled on the appropriate number of dice is compared to a difficulty number, which depends on range and the target's Dodge roll (if any). If that number or higher is rolled, a hit is scored, and damage then is rolled. The amount of damage depends on a comparison of the weapon's damage die code to the target's Strength die code; both of these are rolled, and the ratios are then compared in a simple manner to see how badly the target has been damaged.

The advantage of this combat method is that no complex combat matrices are needed; the difficulty numbers remain the same for any weapon at similar ranges—five for point blank, 10 for close, 15 for medium and 20 for long. Hand-to-hand combat is slightly different, but again, is not complex, and combat

is easily handled by visualization rather than representation with miniatures for swifter combat resolution (although miniatures rules adaptations for scale are included). The procedures for personal combat and starship combat are strikingly similar, with the same difficulty numbers for similar ranges (on a star combat scale) and damage ratios and results for a person and for a ship paralleling each other. This makes starship combat in *Star Wars* easy to comprehend, once personal combat is understood. The universal application of the difficulty ratings and the principles of die code usage (dropping a die for each action attempted over the first) make the rules easy to absorb and provide for very little reference to the rule book in the midst of an adventure because a confidence in the logic of the system allows a referee to improvise a reasonable rule if the exact written one has slipped from his or her mind.

THE FORCE

Of course, to fully capture the flavor of *Star Wars*, some provisions for the Force must be made, and West End has found a practical and fair way of doing this. Each character has a certain amount of Force points which can be used when he or she "trusts to the Force." At any time characters do this, their attribute and skill codes for the round are doubled (twice as many dice are rolled). This allows characters who are not aspiring to be Jedi Knights to still accomplish seemingly impossible heroic actions occasionally, and it encourages group cooperation toward the goals of the heroic cause of the Rebellion, as Force points spent on unselfish actions which help the group toward its goal are regained. Players can also decide to play a character with Force skills, such as a Minor Jedi or an Alien Student of the Force. Force skills can be improved with skill points, like other character skills, and they allow a character to do many of the things which Obi-Wan and Darth Vader did in the movies: sense people's thoughts, influence their minds, and withstand blaster fire.

TOUCHES OF CLASS

Several useful sections of advice are offered on how to referee, and the advice they give works well, although it tends to be game specific and works best only for *Star Wars*. West End supplies photocopyable character sheets with ample room and a good design; all tables are located on several pages in the back of the book for easy reference; a beginning adventure complete with maps and a script to help players get into character is provided; and a section providing 10 additional, partially fleshed out, usable adventure ideas for the referee to expand upon rounds out the game book's contents. Nice touches include an excellent graphic presentation throughout the book, many stills from the movies (some in color), some humorous "real" advertisements for such things as R2 units, X-wing fighters, and the Imperial Navy ("The Imperial Navy: A Proud Allegiance"), and a short programmed adventure to introduce neophytes to the concept of role playing which is amusing even for experienced gamers.

PROBLEMS

Generally, I find little to fault in the *Star Wars* game system or the book. It does involve rolling a lot of six-sided dice, especially in starship combat, so lay in a stock before you play, but no other type of dice are required. The game is very

adventure-oriented, involving lots of combat—so much so that it would be difficult to run a session with no combat. This type of session might not be desirable, though, considering the nature of the movie world the game imitates. Within the game book, specifically, there is not much description of equipment and a scanty equipment list (which is remedied by *The Star Wars Sourcebook*, below), and the description of different kinds of weapons is given at the end of the Combat chapter, a place where one is bound to forget it, as all other items of a list and table nature are located together in the rear of the book. Data for the Y-wing fighter is not located with other starship data, in the Starships chapter but is at the end of the "Rebel Breakout" scenario. From the given Y-wing data one cannot tell whether a gunner is required to operate all of the ship's guns or only the turret (the *Sourcebook* answers this), a question which beginning referees running their first *Star Wars* scenarios should not have to confront. Also, the full-color "ad" for a galaxy-wide tour which appears in the introductory adventure could have easily been moved back two pages so as not to interrupt the adventure by separating the text from the map and script as it does. The biggest organizational complaint I have is the lack of an index to the book, which is felt sorely by anyone who cannot remember which section a piece of information was in, as the table of contents is very scanty.

EVALUATION

The game system is well designed on an easily absorbed concept (the die code and difficulty level system); variety is available in character establishment; support is provided for the referee running the game for the first time; and West End seems dedicated to providing good support for the game. *The Star Wars Sourcebook* swiftly followed the publication of the role-playing game, and *Star Warriors*, a boardgame/wargame simulating in detail the dogfighting style of ship-to-ship combat which the *Star Wars* trilogy uses, was released by West End at the same time as the role-playing game. *Star Wars: The Roleplaying Game* is a game for people who like space opera—adventure in space which is not overly concerned with the "How's" and "Why's" of technology. It is not a game for you if you like detailed hit locations and damage results, many weapons with widely varying damage potentials, Machiavellian plotting in adventures, or playing bad guys (unless you wish to be a referee). It is definitely a game which captures the heroic spirit of the movies it is patterned on, is streamlined to maintain their fast pace, and is fun to play.

The Star Wars Sourcebook.

West End Games. \$14.95.

Supplement to Star Wars: The Roleplaying Game.

By: Bill Slavicsek & Curtis Smith

Development & Editing: Jeffrey L. Briggs, Paul Murphy

Additional Development: Peter Corless, Greg Costikyan, Doug Kaufman

Hardback book. 144 pages.

November, 1987.

CONTENTS

The Star Wars Sourcebook provides support material for *Star Wars*, the game, and it also describes all the heroes, vehicles, starships, and aliens of the *Star Wars* universe for anyone who

is simply interested in something similar to an encyclopedia for *Star Wars*. The *Sourcebook* includes chapters on spacecraft systems, starfighters, combat starships, droids, repulsorlift vehicles, Imperial ground assault vehicles, aliens, creatures, general equipment, lightsabers, stormtroopers, rebel bases, Imperial garrisons, and heroes and villains from the movies. The material is thorough and entertainingly written, with game statistics set apart from the text into charts and sidebars. Many sidebars present apocryphal material which lends color and flavor to the general text, such as the detailed breakdown of Han Solo's current debt to Jabba the Hut; the background biography on a typical Imperial pilot, Flight Captain T. Alvak, DFM; and the flowchart breakdown of a standard Imperial star destroyer TIE fighter complement. Although there are no color plates, as in the *Roleplaying Game* book, the *Sourcebook* is crammed with black and white photos and movie stills, Ralph McQuarrie production sketches, and blue prints presented in a graphically appealing way on pages which appear full, but not overcrowded. The mass of information presented in this book is comprehensive in its scope and organized well in order to promote its usefulness. Although the book does not have an index, the table of contents is thorough enough to serve as one for most purposes.

PROBLEMS

The few problems with the book are minor in comparison to its strengths. Most problems in this book lie in the area of minor omissions. While a combined chart of starfighter statistics is provided for easy comparison, no such chart for larger starships is provided. Additionally, there is no illustration or sketch of a Z-95 Headhunter Starfighter, no clear picture of a Y-Wing, no statistics or picture of the largest of the Imperial star destroyers, the *Super-class*, and, although its statistics are listed on the combined Spacecraft Performance

Data Chart, the Imperial Customs Frigate is neither described in detail nor illustrated.

The personal equipment and the weapons descriptions are rather general and vague, and while this is excusable for items which are self-obvious, such as sleeping bags, the differences among, for example, a standard detonator, a timer fuse, and a remote fuse are not explained. Detailed description of blasters and some melee weapons is only given in *Star Wars: The Roleplaying Game*; the end of the Combat chapter is still the only place you can find out how many people are required to fire some of the large weapons. While some blasters are finally illustrated in the *Sourcebook*, the illustrations are not labeled, and I am still not sure which illustration on the page is which blaster. Other pages in this book which include multiple drawings or photographs of vehicles do not have captions under the photos, so at times it is difficult for a player to tell which is which.

While the *Star Wars* game book wisely situates the frequently referred-to charts of a game in one location, the rear of the volume, the *Sourcebook* intersperses its two vital charts within the text, necessitating constant page-flipping to locate them. The Equipment Cost Chart, Spacecraft Performance Data Chart, and another performance data chart for large starships could have easily been located at the end of the book for easy reference and would have only eliminated one page of advertisements.

EVALUATION

Overall, though, this is an excellent sourcebook for the *Star Wars* game and a good encyclopedia of the movies, as it is well-organized, fairly thorough, visually clear and appealing, useful for the game it supports, and even well bound (sewn, not glued) for its price.

—Julia Martin

PAPER MAYHEM

"The Informative PBM Magazine"



Having a hard time getting enough players together for your favorite role playing or boardgame? Eliminate this problem by joining the world of play-by-mail gaming.

Subscribe to PAPER MAYHEM and discover the world of play-by-mail (PBM) gaming. Virtually every facet of PBM gaming is covered by PAPER MAYHEM: fantasy, science fiction, historical, and sports. Each bimonthly issue brings you the latest on various PBM games.

So why delay and miss out on all the fun? Read PAPER MAYHEM and take advantage of PBM gaming.

Subscription to PAPER MAYHEM are: 1 year subscription \$20.25
2 year subscription \$35.10

(Subscriptions to Canada add \$6.00 per year. All subscriptions payable in US Funds. Allow 6-8 weeks for delivery.)

PAPER MAYHEM, DEPT. GDW, 1518 ADAMS ST., OTTAWA, IL 61350-4764

Send \$1.00 for the Journal of PBM Gaming. The Journal is a listing of PBM Companies and their games.

MEGATRAVELLER™

SCIENCE-FICTION ROLE PLAYING

Adventure in the Shattered Imperium

The vast interstellar Imperium has ruled its 11,000 worlds for more than 1000 years, straining to guard its borders and keep the peace within them. Until now, the Imperial government has succeeded. But now the emperor has been assassinated, and rival forces are competing for the throne. Powerful forces are at work tearing the empire apart.

As former citizens themselves, the players must make their stand in the midst of this chaos, supporting one faction or another in the ongoing civil war. They can be wary merchants, squeezing out profits from those in need of goods; mercenary soldiers, willing to market their combat proficiency; or even valiant space-warriors, fighting for the side they feel is right. In any event, the adventuring environment is ripe for the bold traveller who seeks power or glory amid the ashes of the crumbling Imperium.

MegaTraveller is the first true updated edition of **Traveller**, incorporating only the most advanced rules and systems developed over the last decade, tailored to fit the chaotic environment of the shattered Imperium. **MegaTraveller** consists of three rules books, plus a new map of the Spinward Marches. \$30.



PLAYERS' MANUAL

Intended as a reference book for every participant, it includes tasks, character gen, skills, and more. Available separately for \$10.



REFEREE'S MANUAL

This book covers the essentials of universe creation and manipulation, including task resolution. Available separately for \$10.



IMPERIAL ENCYCLOPEDIA

Supporting background material for the Imperium and the ongoing war is given in this volume. Available separately for \$10.



Since 1973

GDW

PO Box 1646, Bloomington, IL 61702-1646

Alone Against the Empire

Alone Against the Empire is a solitaire adventure used with West End Games' *Star Wars: The Roleplaying Game*™. Nearly everyone is familiar with the *Star Wars* movies; in the role-playing game, players take on the roles of different character types, but all are members of the Rebel Alliance fighting the corrupt Empire.

It is not strictly necessary that you own a copy of the *Star Wars* rules to play this solitaire adventure—a summary of the pertinent rules is given here.

HOW TO PLAY

For anyone who has never played a solitaire adventure before, the procedure is fairly simple. First, you make sure that you are familiar with the game rules so that as they come up during play, you will know how to proceed. Second, you familiarize yourself with the personality and capabilities of the character you will be playing. Third, you read the introduction to the adventure itself in order to gain an understanding of the setting in which you will be playing. Finally, you go to the first numbered paragraph, read it through, and pick an option from the ones listed at its end. That option will have another paragraph number listed with it. You turn to that paragraph to learn what happens as a result of the option you chose. At the end of that paragraph will be another list of options

from which you will choose one; it will direct you to another paragraph, and so on, until you reach the conclusion to the adventure. (Occasionally, one paragraph will simply direct you to another paragraph without giving you a choice of options.)

Note that although the paragraphs in the adventure are printed in a numerical order so that you can easily find the one you are looking for, the content of the story is jumbled around so that adjacent paragraphs will usually have nothing to do with the one you are reading. This is to prevent your decisions from being biased by information you have not reached through the process of play. Do not read paragraphs you have not reached through play. To do so would be cheating, which is against the Jedi code.

RULES SUMMARY

Star Wars: The Roleplaying Game rules cover everything from understanding alien languages to starship combat. Not all of that is necessary in this adventure, however. The following rules will get you through *Alone Against the Empire*. Note, however, that the official *Star Wars* rules are more complete in nearly every subject mentioned.

The Character Sheet

Shown on page 63 is a facsimile of a

Star Wars character sheet for the hero of this adventure. A little explanation will help you to understand what everything means.

Front: The important technical information, such as skill codes, is listed on the front of the character sheet.

Quixotic Jedi: This is the character type (there are 23 others in the basic game, as well as rules for creating your own from scratch). It serves as a general identifier.

Character Name: We have chosen the name of CSL (SEE eh sel) Danenberger. You may change this to something else if you like.

Height: We chose a height of six feet, one inch for CSL, to fit with our character concept for this adventure. It is a totally arbitrary definition that you are free to change.

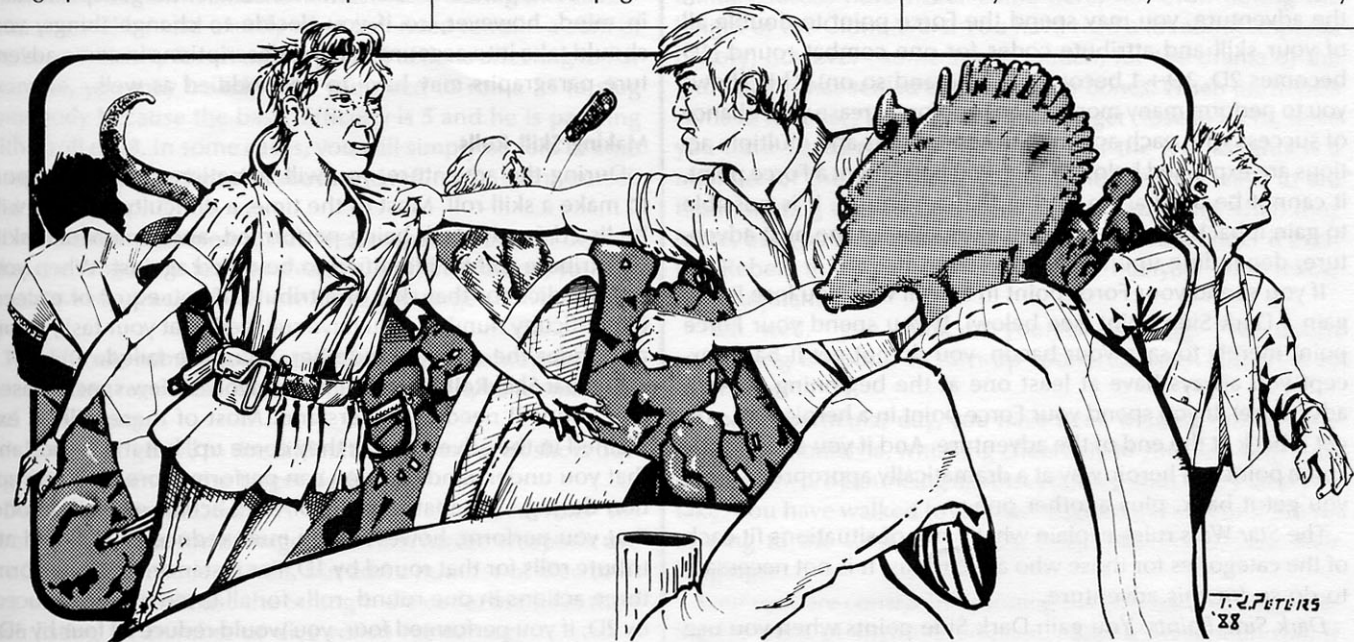
Weight: Like height, we chose 175 pounds to fit our character concept. You may change it if you wish.

Gender: We leave the choice of gender up to you.

Age: Another totally arbitrary decision, we chose an age of 17 years. Feel free to change it.

Appearance: Listed here is our image of CSL's looks. You may wish to envision something different.

Attributes: The first of the listed attributes is *DEXTERITY*. You can easily identify the others by the fact that they



are printed as all capital letters in bold print. The *Star Wars* rules set the attribute ratings for each character type. The rating you see—3D + 2 for Dexterity—gives the number of six-sided dice you roll plus the modifier added to it whenever you are called upon to use this attribute in play. For example, if you want to grab a precious statuette as it slides over a cliff, you may be asked to make a Dexterity roll. CSL, with a rating of 3D + 2, would roll three dice and add 2 to the total. If the dice turned up as a 3, a 4, and a 4, the total would be $3 + 4 + 4 + 2 = 13$.

The other attributes are **KNOWLEDGE**, **MECHANICAL**, **PERCEPTION**, **STRENGTH**, and **TECHNICAL**.

Skills: The first of the character's listed skills is *Blaster*. Skills are printed in upper and lower case normal type, as opposed to attributes, which are in all capitals and bold. You will notice that each attribute has a number of skills listed below it. All of these skills begin with the same die code as the attribute they are listed under. For example, *Blaster* is listed under **DEXTERITY**, so it also has a beginning rating of 3D + 2.

There are a few too many skills for us to list them all here, but so that you will be sure to get the idea, *Blaster* through *Melee* are **DEXTERITY** skills, *Alien Races* through *Technology* are **KNOWLEDGE** skills, etc.

Sense, printed in upper and lower case bold letters, is a special type of skill, being one of three possible *Force* skills. If a character has one or more of these skills, it begins with a die code of 1D.

During the character creation process, a total of 7D may be added to individual skill codes to personalize the character. A maximum of 2D can be added to any one skill, however. For example, 1D could be added to seven different skills, or 2D could be added to three skills, and 1D to a fourth, and the like. *Force* skills can be increased in this way as well as any others.

For CSL Danenberger, we have added 2D to *Melee Parry* and *Melee*, raising them from 3D + 2 to 5D + 2; 2D to *Sense*, raising it from 1D to 3D; and 1D to *Climbing/Jumping*, raising it from 3D to 4D.

Force Points: All characters begin with one Force point. It is possible to gain or lose them during an adventure. During the adventure, you may spend the Force point to double all of your skill and attribute codes for one combat round (1D becomes 2D, 3D + 1 becomes 6D + 2, and so on). This allows you to perform many more actions and/or increase your chance of success with each action. (Successful rolls and multiple actions are explained below.) Once you have spent a Force point, it cannot be used again during that adventure. It is possible to gain it back, and even get an extra one for the next adventure, depending upon how you spend it.

If you spend your Force point in an evil way, you lose it and gain a Dark Side point (see below). If you spend your Force point merely to save your bacon, you do not get it back (except you always have at least one at the beginning of each adventure). If you spend your Force point in a heroic way, you get it back at the end of the adventure. And if you spend your Force point in a heroic way at a dramatically appropriate time, you get it back, plus another one.

The *Star Wars* rules explain what types of situations fit each of the categories for those who are curious. It is not necessary to do so for this adventure.

Dark Side Points: You gain Dark Side points when you use

the Force for evil. The more you have, the greater your chance of eventually being seduced by the Dark Side of the Force and losing your character (all *Star Wars* player characters are good guys, remember?). This will not happen in *Alone Against the Empire*, so we will leave further explanation to the *Star Wars* rules for those interested.

Wound Status: You use the Wound Status space to note if you are wounded. Wounded characters subtract 1D from all of their skill and attribute codes until they are healed.

Skill Points: Skill points are awarded to a character as experience after an adventure and can be used to increase individual skill codes. The Skill Points space is used to keep track of how many unspent Skill points your character has. Since this is not necessary for play of this adventure, curious readers are referred to the *Star Wars* rules.

Back: The back of the character sheet includes background information for a typical character of the given type. Listed are the character type (Quixotic Jedi, in this case), the equipment the character begins play with, a sample background history, a sample personality description, and suggestions for connecting this character with other characters. In *Star Wars*, it is very important that the player characters in an adventure have some sort of reason for all being together, in order to promote camaraderie. In this solitaire adventure, you will find that an explanation is given for who CSL Danenberger is connected with, giving this character a motivation for the adventure.

The note about the Jedi Code is important for the Quixotic Jedi. Basically, a Jedi never does evil, never takes life except in self-defense or the defense of others, and never uses the Force in anger because all of these can lead the Jedi to the Dark Side of the Force.

Using Other Characters

If you own the *Star Wars* rules, you are perfectly welcome to use other characters for this adventure. Or you may wish to use the *Quixotic Jedi* but change where the 7D are spent during character creation.

The adventure is written with CSL Danenberger specifically in mind, however, so if you decide to change things, you should take into account that the descriptions in some adventure paragraphs may have to be modified as well.

Making Skill Rolls

During the adventure, you will sometimes be called upon to make a skill roll. Most of the time, a difficulty number will be listed for the task being performed, and a particular skill or attribute will be identified to be rolled against. When you roll the dice for that skill or attribute, if you equal or exceed the difficulty number, you have succeeded at your task; if you roll under the difficulty number, you have failed.

Combat Skill Rolls: Combat rules involve a few special cases that you will need to understand. Most of these will be explained in the adventure as they come up, but it is important that you understand that you can perform more than one action during a combat round. For each action more than one that you perform, however, you must reduce all skill and attribute rolls for that round by 1D. For instance, if you perform three actions in one round, rolls for all three will be reduced by 2D; if you performed four, you would reduce all four by 3D.

Next, most actions occur one to a phase, and there are as many phases in a combat round as there need to be to accommodate the number of actions taken by the character with the most actions. For example, if two characters were involved in combat, and one took two actions while the other took five, the round would have five action phases. During the first action phase, both characters would perform their first action; during the second action phase, both would perform their second action; during the third through fifth action phases, only the second character would act, performing one action in each.

The *Star Wars* rules also include phases in which the players and gamemaster determine just what their characters are going to do during the combat round, but some of this is already taken care of by the solitaire nature of this game. Just remember to decide how many actions you will take during a round before you begin rolling for any of them.

As has been stated, most actions occur one to a phase and must be decided upon before the round begins. There is one exception that is important for this adventure: Dodging and parrying need not be declared before the round begins but are chosen when the character is being attacked, just before the attack dice are rolled (a character has to decide whether to do one of these actions before he sees whether the attack is successful or not).

Dodging only works against things flying through the air—things like knives, arrows, and blaster bolts; brawling parry only works against brawling; but melee parry works against both melee and brawling. (Brawling, by the way, means unarmed physical attacks such as kicks and punches; melee means armed physical attacks like axe swings and spear thrusts.)

Every time a character dodges or parries during a combat round, he counts it as another action performed, subtracting another 1D from all actions for the rest of the round, including the dodge or parry itself. You should note that you cannot perform so many actions that a skill would drop below 1D. Any such actions are simply lost for that round (but you still count them in determining how many dice are subtracted for the round).

Combat Difficulty Numbers: In most cases during this adventure, you will be told exactly what you need to roll—a sum of the base difficulty for an action plus all actions affecting it. For example, you may be told that you need to roll a 23 to slug somebody because the base difficulty is 5 and he is parrying with a roll of 18. In some cases, you will simply be told to conduct combat using the rules above and rolling for both yourself and your opponent(s).

Fire Combat: If someone has fire weapons, you will be told what the ranges are for that weapon, and, in addition, you will need to keep track of how close the target is when fired upon.

The difficulty number is 5 for point-blank range (always less than three meters, regardless of weapon), 10 for short, 15 for medium, and 20 for long.

Add the dodge roll to the difficulty number for all shots during that segment if the target dodges.

Damage Determination: A brawling character rolls his Strength die code for damage if he hits. Melee weapons use the Strength die code as well, but add a number of dice to it. Fire weapons do not use the Strength die code, but have their own listing for number of dice rolled for damage.

The target of an attack rolls his Strength code for each attack to see how well he resists damage. (Some characters may have armor on: for the purposes of this adventure, it is already added into the strength codes listed and subtracted from the listed dexterity.) The damage rolled is compared to the strength roll.

If the strength roll is higher, the character is stunned and can do nothing else for the rest of the round. If the damage rolled is equal to the strength roll or higher, the character is wounded, knocked down for the round, and is minus 1D on all attribute and skill rolls until healed. (A wounded character who is wounded again becomes incapacitated, which is the next category.) If the damage rolled is equal to twice the strength roll or higher, the character is incapacitated, meaning he is knocked down and is unconscious. If the damage rolled is equal to thrice the strength roll or higher, the character is knocked down, unconscious, and mortally wounded. (The *Star Wars* rules explain these effects more fully—like how to get healed and how not to die from a mortal wound.)

BEGINNING THE ADVENTURE

While the rules summary above does not cover nearly the entirety of the *Star Wars* rules, it does give you enough to play *Alone Against the Empire*. Go to paragraph number one to begin your adventure.

1. You are CSL (SEE eh sel) Danenberger, a citizen of the planet Kyroutac. Kyroutac has been a backwater world for centuries, its population largely made up of farmers, with only one city large enough to have the facilities of a spaceport (the capital city of Montalvia). Recently, however, it has gained importance in the eyes of the Rebel Alliance as an ideal spot to obtain food supplies. A few days ago, the Alliance sent a diplomatic party to talk with Kyroutac's governing council; the talks are still underway. Some members of Kyroutac's council feel the world should join the Rebel Alliance; others fear the retribution of the Empire.

Kyroutac is officially an Empire world, of course, but Imperial military forces have never come here, not even during the height of the Clone Wars. You have read a lot about Imperial history, however—some say too much, for the drama of the Jedi Knights has settled deep into your bones. When the Rebels came to Kyroutac, you naturally tried to get close to them, since you have heard rumors that the last of the Jedi Knights is a member of the Rebellion. You have looked for ways to aid them, hoping to convince them to take you along when they leave, but you have found nothing so far. You wonder if even the Rebels think you are crazy, as so many of your fellow Kyroutacians do.

"Oh well," you think to yourself, smiling. "No doubt something is bound to turn up sooner or later. Just trust to the Force."

On this particular day, you have been walking through the streets of Montalvia, whistling cheerfully to yourself, with your duelling sword bouncing against your leg with every step you take. You have walked to the east edge of the city, and are returning to the west, where the Rebel diplomats have their lodgings.

Your eyes are constantly scanning the area around you, looking for signs of anything unusual. Make a Perception roll: If

you roll a 5 or better, go to paragraph 29; if you roll less than 5, go to paragraph 53.

2. Moving quickly, the Rebel Commander strikes the High Councilman on the back of the neck with the hard edge of his hand. Your fellow Kyroutaquin crumples nervelessly to the floor. The other Rebels gather up a few things, then head for the door. Their Commander waves you ahead when you tell him that you can lead him by a safer way than the main streets.

Taking the Rebels to the spaceport by means of a maze of back alleys, you finally stop next to a hangar at the edge of the landing area. Most of the stormtroopers have left the field and are probably nearly to the Rebel lodgings by now. Go to paragraph 54.

3. You run away before the guard can fire again. Go to paragraph 42.

4. Turn to paragraph 14.

5. Suddenly, someone clobbers you from behind. Your vision goes hazy around the edges, and there is a warm rush through your head. As you fall to the pavement, you see the face of the Kyroutaquin official you met at the Rebel lodgings smiling grimly over you. Turn to paragraph 45.

6. Your knees go weak, and you fall to the ground, helpless. You can hear the guard calling on a communicator for the city police to come and haul you away. Within about 10 seconds, however, you regain control of your numb limbs and climb to your feet. Go to paragraph 3.

7. Make a Climbing/Jumping roll four times. The difficulty number is 15. If all are successful, go to paragraph 32; otherwise go to 14.

8. You are stunned by the shot and knocked down. Within a few seconds, however, you struggle to your feet and begin running once again. Go to paragraph 17.

9. Laughing at the guard's melodramatic manner, you proceed toward the gate in the fence, where you hope to get some answers. Behind you, you hear him mutter something impolite and the sound of plastic sliding across leather. You spin to see him drawing a bead on you with his stun pistol. Make a dodge roll as the guard fires (his difficulty number and roll have already been calculated). If you roll a 9 or less, go to paragraph 47; otherwise go to 49.

10. You are incapacitated by the attack. You immediately lose consciousness and after medical treatment, you wake up to find yourself in the local jail; go to paragraph 26.

11. Guessing that someone on Kyroutaquin's council has called the Imperials here to capture the Rebels, you decide that you had better get back to the Rebel lodgings as fast as you can. (You try not to think that there is also probably an Imperial Star Destroyer in orbit. That can wait until later.)

Make another Sneak roll. If you spotted the stormtroopers



before they began to exit the cargo transports, your difficulty number is 10; if you didn't see them until they started to exit, your difficulty number is 15. If you succeed, go to paragraph 19; if not, go to 13.

12. You are wounded by the shot and knocked down. Within a few seconds, however, you struggle to your feet and begin running once again. Because of the wound, however, you will be minus 1D on all skill rolls for the rest of the adventure, and if you are wounded again, you will become incapacitated (in which case, go to paragraph 10, instead of the one listed at the end of this paragraph). Go to paragraph 17.

13. As you start to leap away, you hear a metallic voice shout, "Halt." One of the stormtroopers in the nearest ship has spotted you and is raising his blaster rifle. Do you stop (go to paragraph 30), or do you run (go to paragraph 25)?

14. You land on a table wrong, and it breaks to splinters under you. Suddenly, two large hairy fists lift you to your feet. Then one rears back to strike you.

You are locked in brawling combat with an ugly bruiser who has a Brawling skill of 4D, a Brawling Parry of 2D, and a Strength of 3D + 2. He will only make one attack per combat round, but will try to parry if you successfully attack him. Because of the crowded nature of the cantina, you cannot draw your dueling sword, so you'll have to make do with your fists.

If you defeat the bruiser, go to paragraph 37; otherwise, go to 10 if you are incapacitated or 23 if you are mortally wounded.

15. Make a Hide/Sneak roll. The difficulty number is 10. If you succeed, go to paragraph 28; if you fail, go to 31.

16. You've been hit by a shot from the blaster rifle! Roll for Strength (blaster damage has been rolled). If you get 17 or more, go to paragraph 8; if less than 17 but at least 9, go to 12; if less than 9 but at least 6, go to 10; if less than 6, go to 23.

17. The stormtrooper fires again. Again you can dodge (at 1D less as you are running); his roll to hit has been made already. If you roll less than a 5, go to paragraph 16; otherwise, go to 38.

18. You sense someone following you, but you easily lose him by dodging through a couple of twisted alleyways. Do you now go back to the spaceport to spy some more (go to paragraph 50), or do you wander the city again (go to 39)?

19. Working your way cautiously away from the field, you slip silently back through the grass to the edge of town. Go to paragraph 38.

20. Other than the increased activity at the spaceport, nothing much seems to be happening in Montalvia today. Growing thirsty, you decide to stop in a nearby cantina for a cool drink.

The light is very dim inside, and you stand just inside the doorway for the moment it takes for your eyes to adjust. When they do, you notice that everyone in the place seems to be staring at you. Oh well, that's not too unusual.

You find a table in a corner and lean back against the whitewashed inner wall. Eventually, a service droid approaches. You order an exotic blend of iced tea made from the scrapings of a shelled creature from the Spiral Sea, then scan the room as you sip it gingerly. The hours pass by. You begin to doze in your chair. Go to paragraph 24.

21. Your side cramps painfully from where the stunner hit you, but you manage to remain on your feet. Go to paragraph 3.

22. No one seems to notice the brush bat's noise. Go to paragraph 28.

23. You are mortally wounded by the attack. It will take 1D + 2 rounds for medical help to get to you. Roll 2D once for each round. If at any time you roll a number less than the number of rounds that have elapsed, go to paragraph 27; otherwise, go to paragraph 36.

24. You are awakened by the sound of a table breaking. Somehow a brawl has broken out. The floor is full of supposedly intelligent creatures slugging away at one another.

You decide to try to escape this ruckus, but you'll never make it past all of the combatants by conventional means. You need an inspired plan.

If you jump from tabletop to tabletop, you should be able to make it to the door and out into the street before the police show up. Climbing to your own tabletop, you proceed to put your plan into action. A grin of excitement spreads across your face as you prepare for the first leap. Go to paragraph 7.

25. Running as fast as your legs will carry you, you can also dodge the stormtrooper's fire, but at 1D less than usual. The stormtrooper's roll has been made; you should roll for your dodge. If you roll less than a 6, go to paragraph 16; otherwise, go to paragraph 38.

26. They hold you overnight and release you in the morning, keeping your sword.

When you check, you discover that the Rebel diplomats are gone, and no one wants to talk to you about where they went.

This is the end of the adventure for CSL. Perhaps you'd like to try again with another character.

27. You die before help can reach you. This is the end of the adventure for CSL. Perhaps you'd like to try again with another character.

28. You find a gully where you can move right up to the fence without being seen (you hope). The nearest cargo transport is about 20 meters away. As you watch, the hatch opens, but it is very dark inside. Normal senses are not up to this task; you must make a Sense roll. The difficulty number is 15. If you succeed, turn to paragraph 40; if you fail, turn to 51.

29. Toward the southwest, the direction of the spaceport, there seems to be a lot of activity. An unusually great number of grain transports are landing. Someone off-planet must have made a great purchase of grain and has sent the transport ships to get it all. Do you head toward the spaceport (paragraph 33), or do you continue to patrol to the west, the direction you are currently headed (paragraph 20)?

30. The stormtrooper keeps you covered until the local police arrive to cart you off to jail. Go to paragraph 26.

31. Working your way through the dry grass at the field's edge, you startle up a brush bat. It flies up, screeching horribly, and wings over the fenced-in area. Go to paragraph 22.

32. You make it over four tables. Fists and drinking utensils are flying all around you. You must make three more Climbing/Jumping rolls, but since you have to dodge the flying objects, your skill code will be less 1D. The difficulty number is still 15. If all three rolls are successful, go to paragraph 43; otherwise, go to 4.

33. It takes you about 20 minutes to reach the spaceport. You don't notice anything unusual along the way, but once you get there, it strikes you as strange that the cargo transports you saw have all landed within a fenced-in area. Usually, they just land out on the open field. You decide to try to get closer. Do you walk openly up to the fence (paragraph 35), or do you sneak around to the back of the fenced-in area, near the west edge of the field (paragraph 15)?

34. Before long, Imperial stormtroopers begin to exit this and the other cargo transports. Turn to paragraph 11.

35. When you get within arm's reach of the fence, a guard armed with a stunner pistol, waves you away shouting, "Get on outa here, this is private property." Do you do as he says (go to 42), or do you walk toward the gate (paragraph 9)?

36. The medics get to you in time. After medical treatment, you wake up in the local jail; go to paragraph 26.

37. Leaving the big bruiser lying on the floor, you try for the door once again. You slip past two creatures who are strangling each other against the bar, duck beneath a flying chair, and jump over a squat being who attempts to kick your feet out from under you. Go to paragraph 43.

38. You run all the way to the Rebel lodgings, figuring that the stormtroopers aren't far behind you.

The Rebels are quartered in an old apartment building surrounded by abandoned warehouses. You've been here many times in the past, usually just standing in the lobby daydreaming about becoming a member of the order of the famous Jedi Knights. This time, however, you dash up the front stairs, through the front door, and up the interior stairs to the second floor. You pound furiously on the door to the Rebel apartments.

A 3PO protocol droid opens the door, and before he can give a greeting, you push past him into the main sitting room. The Rebel Commander is standing next to the front window, talking to a member of the Kyroutaquian High Council. The five other Rebel members stand in a group in the center of the room. As you burst in, they spread out to position themselves between you and the Commander.

Breathlessly, you stammer out your information. The Rebel Commander's expression turns hard and grim; the other Rebels look shocked. The Kyroutaquian High Councilman looks as if he could happily cut your throat.

Turn to paragraph 2.

39. Wandering the city streets, whistling absent-mindedly, you try to decide what to do next. Nothing untoward is happening in the city proper, or you would surely spot it. After an hour or so, you decide to return to the Rebel lodgings. When you get there, you notice that they seem oddly deserted. Entering the building, you discover that the Rebels are gone.

You head back out to the street. Go to paragraph 5.

40. By means of the Force, your eyesight is increased beyond normal human ability long enough for you to see Imperial stormtroopers inside the cargo transport, preparing to exit. Go to paragraph 11.

41. Your fellow Kyroutaquian objects to leaving, but the Rebel Commander begs his indulgence. The Kyroutaquian official steps into the room with the other Rebels, and you get to talk to the Commander alone. Make a Command Roll to convince him that your information is important. Since you really haven't seen very much, the difficulty number is 15. If you succeed, go to paragraph 52; if you fail, go to paragraph 48.

42. You move back toward a more crowded area of the field and stand in the shadow of a hangar. You can now either sneak around to the back of the fenced-in area (go to 15), or you can leave the spaceport to return to the Rebel lodgings (paragraph 44).

43. Leaping agilely through the front doors, you land on your feet in the street outside. You decide that it is prob-

ably high time to head back to the Rebel lodgings.

When you get there, you notice that they seem oddly deserted. Entering the building, you discover that the Rebels are gone. Although over the course of the next several days, you ask around to find out where they went, no one wants to talk to you about them.

This is the end of the adventure for CSL. Perhaps you would like to try again with another character.

44. You make your way up the western edge of the city, along alleys and back streets, to the Rebel lodgings, an old apartment building surrounded by empty warehouses. As you head up the stairs to the second floor, you daydream that you are a Jedi Knight, going to report to the old Republic's Senate. You imagine that they listen to your revelation of covert activities at the spaceport with rapt expressions of growing horror, and with a suitable amount of admiration for your courage in searching it out.

In actuality, when you knock at their door, a 3PO unit opens it. "Yes sir, how can I serve you?" it says in its electronic voice.

"I'd like to speak to the Rebel spokesman, please," you respond, "I have news of great import." The last words slip out before you quite realize what you are saying, and you try lamely to finish with a dramatic flair of ominous portent. The effect is somewhat ruined by the embarrassed grin that follows.

The droid leads you into the main room of the apartment. A tired-looking man in a Rebel uniform sits next to a coffee table, a Kyroutaquian official stands silently in front of the room's large front window. In an adjacent room, you can hear the muffled conversation of the other five Rebel visitors.

"Pardon me, Commander," the droid addresses the man in the chair, "A messenger is here with news of great import."

The Kyroutaquian looks at you with interest as the man in the chair lifts his head to learn what you have to say. Do you tell what you know about the activity at the spaceport (go to paragraph 46), or do you ask to speak to the Commander alone (paragraph 41)?

45. The world goes black. When you wake up, you are in a cell in the Montalvia city jail. Go to paragraph 26.

46. As you tell what you have seen (which honestly isn't much), the Kyroutaquian steps forward and whispers something to the Rebel Commander. A sarcastic smile rests on his lips as he speaks. The Commander nods, then returns his attention to you. Make a Command roll to convince the Commander that your information is important. Your fellow Kyroutaquian is undercutting your creditability, so the difficulty number is 30. If you succeed, go to paragraph 52; otherwise, go to 48.

47. The guard's shot hits you. Make a strength roll (the guard's damage roll has already been figured). If you roll a 7 or less, go to paragraph 45; if you roll greater than 7, but no more than 14, go to 6; if you roll more than 14, go to 21.

48. The Rebel Commander tells you he will check in to it and thanks you for your concern. You are sure he doesn't really believe there is any danger, and you leave the building feeling ashamed and disappointed at having failed in your goal.

You walk across the street from the Rebel lodgings. Make a Perception roll; the difficulty number is 11. If you succeed, go to paragraph 18; if you fail, go to paragraph 5.

49. The guard's shot missed! Lucky you. Go to paragraph 3.

50. You head back to the spaceport by the same way you came, hoping to learn something more about the strange activity there. Reaching a hangar building at the edge of the landing field, you decide to sneak around the back side of the fenced-in area. Go to paragraph 15.

51. Your eyes cannot penetrate the darkness of the cargo transport's interior, so you stay where you are for a few minutes, waiting to see what will happen. Turn to paragraph 34.

52. The Rebel Commander decides to bring his fellow Rebels and accompany you to the spaceport to see for himself what is going on. As they prepare, your fellow Kyrouaquian tries to convince them that the activity at the spaceport is nothing unusual, but now that the Commander has begun to act, he will not change his mind. The Kyrouaquian official eventually grows very flustered and marches out of the building in a huff.

Taking the Rebels to the spaceport by means of a maze of back streets, you stop next to a hangar building at the edge of the landing area just in time to see a number of Imperial stormtroopers quietly exiting from the cargo vessels. There are nearly a hundred in all. It is obvious that someone on Kyrouac's ruling council contacted the Empire about the presence of Rebel diplomats on the planet, and the Empire responded by quietly sneaking stormtroopers in on the cargo transports. There are enough of them to take over the city government as well. No doubt there is also a Star Destroyer hanging in orbit. Go to paragraph 54.

53. Walking a little farther, you look around again. Make another Perception roll: on a 5 or better, go to paragraph 29; if you roll less than 5, go to paragraph 53 (yes, this same paragraph).

54. There are 10 stormtroopers about halfway between you and the Rebel ship, which is 30 meters away.

The Rebel Commander slaps you on the back. "Do you know how to use one of these, kid?" he asks, handing you a holdout blaster. "We're going to have to make a run for our ship, and it would be safest for you to come with us."

That's just what you've been wanting.

To get to the ship, you can walk five meters a combat round, which doesn't count as an action, or you can run 10, which does count as an action. The holdout blasters that you and the Rebels are holding have a short range of three to four meters, a medium range of five to eight, and a long range of nine to 12. They have a damage code of 3D + 1. Each of the Rebels has a Blaster skill of 5D + 2, a Dodge of 4D + 1, and a Strength of 3D. The 10 stormtroopers are 15 meters away from you. They have blaster rifles, so you are always within their short-range designation; the weapons have a damage code of 5D. The stormtroopers have a Blaster skill of 3D, and a Strength code

of 3D. They will not dodge your shots. If you brawl or melee with them, they have a Brawling code of 3D and a Brawling Parry of 3D—they have no melee weapons.

If you get past the stormtroopers, you can make it safely to the ship before any of the others can react. Whether you can get past the Imperial Star Destroyer in orbit is another adventure, but you have achieved your goal of joining the Rebel Alliance.

—Lester W. Smith

QUIXOTIC JEDI (front)

Character Name CSL Dandenberger

Height 6 feet Weight 160 lbs.

Gender _____ Age 17

Appearance Tall, gangly, with freckled complexion and a mop of red hair.

DEXTERITY	3D + 2	PERCEPTION	3D
Blaster	3D + 2	Bargain	3D
Brawling Parry	3D + 2	Command	3D
Dodge	3D + 2	Con	3D
Grenade	3D + 2	Gambling	3D
Heavy Weapons	3D + 2	Hide/Sneak	3D
Melee Parry	5D + 2	Search	3D
Melee	5D + 2		3D
KNOWLEDGE	2D + 1	STRENGTH	3D
Alien Races	2D + 1	Brawling	3D
Bureaucracy	2D + 1	Climbing/Jumping	4D
Cultures	2D + 1	Lifting	3D
Languages	2D + 1	Stamina	3D
Planetary Systems	2D + 1	Swimming	3D
Streetwise	2D + 1		3D
Survival	2D + 1	TECHNICAL	2D + 1
Technology	2D + 1	Comp. Prog./Repair	2D + 1
MECHANICAL	2D + 2	Demolition	2D + 1
Astrogation	2D + 2	Droid Prog./Repair	2D + 1
Beast Riding	2D + 2	Medicine	2D + 1
Repulsorlift Op.	2D + 2	Repulsorlift Repair	2D + 1
Starship Gunnery	2D + 2	Security	2D + 1
Starship Piloting	2D + 2	Starship Repair	2D + 1
Starship Shields	2D + 2	Sense	3D

Force Points 1 Dark Side Points _____ Wound Status _____ Skill Points _____

QUIXOTIC JEDI (back)

Equipment: Dueling saber, damage = Strength + 1D + 1 (a real Jedi would have a lightsaber); 1000 credits.

Background: You've always been fascinated by the subject of the Jedi Knights. You've read everything you could find about them—about their heroism, their mystic powers of the Force, their lightsabers. And despite the fact that, from everything you have read, the Jedi no longer exist, you have decided to become one. From what you have learned of the great evils that the Empire has committed and of the cruel power of Darth Vader, you have become convinced that the power of the Jedi must be restored—and you intend to restore it.

People think you are insane, that the Jedi are merely legends and the Force just a fantasy. But you have *felt* the power of the Force—only briefly, and only occasionally, it is true, but you have felt it nonetheless. And sometimes in moments of great need or great excitement, Jedi powers can operate through you.

But with or without the powers of the Force, you fight against the injustices you encounter around you, and you cheer on the Rebellion. Maybe your friends are right—maybe you are crazy—but they still have to respect you for sticking to your ideals.

Personality: Your incessant cheerfulness, your flair for the dramatic, and your elaborate speech set you apart from your fellows. When faced with a problem, you disdain the direct approach, preferring the excitement of complicated schemes which seldom work as they are intended.

You hold to the Jedi Code as the guide for your actions.

Connections With Other Characters: In this adventure, you will be playing solo, so there are no other player characters for you to have connections with. Instead, you have developed the beginnings of a friendship with the Rebel diplomats who have come to visit your planet. They are still not sure that you have a good grasp on reality, but your unfailing good cheer has made you welcome with them for now.

PUT YOUR WANT AD HERE. Any *Traveller*, *Twilight: 2000*, or *2300 AD* related ads accepted, subject only to space available and good taste. Buy or sell out-of-print booklets. Advertise fanzines. Find people to play against. Challenge Classifieds, Challenge Magazine, PO Box 1646, Bloomington, IL 61702.

Classifieds

Wanted: Players and/or referees for *Twilight: 2000* and *The Price of Freedom* in the Warren, Ohio area. Please contact Jim R. Nicholl, 2930 Pleasant Valley Dr., Warren, OH 44481.

Wanted: *Hotel Complex* (FASA), *Beyond Sector* (Paranoia Press), *50 Starbases* (Judges Guild), and *K'kree* (GDW). Also, will *Traveller* players or referees in the southwest corner of Milwaukee County please contact Kelly Bishop at 5836 S. 109th St., Hales Corners, WI 53130.

Everything Traveller: A comprehensive list of more than 350 published *Traveller* items. Send \$2 to Ed Edwards, 1410 E. Boyd, Norman, OK 73071-2650.

Wanted: *Traveller* Alien Module number 2, *K'kree*, in good condition. Also, photocopies of Paranoia Press' *Vanguard Reaches*, *The Beyond Sector*, and *SORAG*. Dave Jezierski, 6732 W. 64th Place, Apt 2E Chicago, IL 60638.

Wanted: A copy of *Atlas of the Imperium*, preferably in good condition. Someone, somewhere, must have a copy they're willing to sell me! J. D. Law-Green, 1, Whitelands, Rawdon, Leeds, W. Yorks. LS19-6BU, ENGLAND.

Inquiry: Is there such a thing as *Star Port Module 2* by FASA? If there is, I would like a copy or a photocopy. I have several trade items, including back issues of the *Journal of the Travellers' Aid Society*. James Ward, 7907 Wynbrook Rd, Baltimore, MD 21224.

Wanted: IBM compatible *Traveller* programs on 3.5" disk. Send info to: Dennis Ricketts, 5C Greenhill Ln, Hampton, VA 23666.

For Sale: Mint Condition *Azhanti High Lightning*, \$65. Many *Traveller* adventures by GDW, Judges Guild, Paranoia Press, FASA, and Group One. Send large self-addressed envelope for complete listings. Lou Zocchi, 1512 30th Ave, Dept C, Gulfport, MS 39501.

Wanted: *Journal 1* in fine condition. Able to pay current rate of value. Darren Sherbot, 125 Carleton Dr., Saskatoon, Sask. S7H 3P1, CANADA.

WANTED: *Challenge 25*, will pay \$5.00. Travis Newport, 8017 Bonnie Cr., Abilene, TX 79605.

JUMPSPACE: A quality, amateur magazine for *Traveller* written by dedicated gamers. Each issue is available singly for \$2.50, or a 4-issue subscription is \$8.00. Send to: Starlance Publications, 50 Basin Drive, Mesa, WA 99343.

T-TECH: A new *Traveller* fanzine devoted to the technology of the Imperium needs your input. Will publish new equipment, starships, weapons, robots, etc. Tentatively scheduled for Feb. '88 release. Send SASE for submission information to: T-TECH, 7783 Kensington Lane, Hanover Park, IL 60103.

WANTED: JTAS 1-5, 20; *Traveller* programs for Commodore 64. Dennis Ricketts, 1 Greenhill Ln-2A, Hampton, VA 23666.

WANTED: Will players and/or referees of *Traveller* or *Traveller: 2300* in the Cleveland, Ohio area please contact George F. Cooper III, 3433 North Ave, Parma, OH 44134. Will-

ing to either play or referee.

WANTED: The *USS Lexington* NCC-1703 Chapter of Star Fleet is looking for players and/or gamemasters for *Traveller* and *Twilight: 2000*. Contact Captain Gunther

Bellows, 227 Fox Fire, Columbia, SC 29212.

WANTED: Maryland/Washington DC area referees: I want to swap information. If interested, please contact Jason Weiser, 4027 Postgate Terrace, Silver Spring, MD 20906.

PLYMOUTH STELLAR SHIPYARD: Need a ship for your characters, but you're stuck on what to design? Need a whole fleet? Need a whole armada? Then send a SASE to the Plymouth Stellar Shipyard for a free list of *Traveller* ship designs and services, many of which are free. Referee, let the PSS design that ship for you or a whole fleet for your command. Don't know how much money a planet, subsector or sector has to build a fleet with? Send along a list of the planetary UPPs to the PSS, and we'll send you a free list showing how many credits your planet/subsector/sector has from its annual tax base and how much tonnage your starports can build at a single time, and even a free copy of the PSS Thesis of Naval Combat (Jump Drive Ships vs. BattleRiders?), a \$2 value. Just send your SASE to Plymouth Stellar Shipyard, c/o INFOLINE, PO Box 585, Plymouth, NH 03264-0585.

WANTED: Used *Traveller* and *Twilight: 2000* game rules and accessories. Other role-playing games accepted also. Send SASE and/or game for price details and/or money for game to Greg Short, 11659 Doverwood, Riverside, CA 92505.

TRAVELLER: Long-time *Traveller* ref switching to *2300*. Selling *Journals*, *Alien Modules*, *Snapshot*, etc; many hard-to-find, *Traveller*-related items, such as *Beyond Sector* and *50 Starbases*. Also have *Twilight: 2000* and miniatures. Write to Claud Wolf, PO Box 545, Strathmore, CA 93267.

CHALLENGE Next Issue

For Traveller

Project Farstar: Several exciting short scenarios in the spirit of *76 Patrons*.

For 2300 AD

North America: 300 years have done plenty to change the character of the United States and Canada.

For Twilight: 2000

Hit List USSR: An annotated target listing for the Soviet Union.

■ **Plus:** Our regular features, and more!

SPACEGAMER

FantasyGamer

IS BACK



Space Gamer / Fantasy Gamer magazine is returning well in time for Christmas, and with so much to herald, we want to make sure you get the right gift! Space Gamer magazine has been published for eleven years, and has served Science-Fiction and Fantasy gaming fans faithfully through the years. It is a magazine with a long history, an outstanding reputation, and now it's having a glorious rebirth.

The new Space Gamer / Fantasy Gamer magazine will be appearing in stores and mailboxes throughout the land by December. Issue number 77 will mark a new era of creativity for one of the longest-published magazines in the hobby.

The new Editor is Anne Jaffe, formerly of Game News magazine. Anne is not only one of the industry's most qualified (and esteemed) editors, she is also energetic, organized, devoted, punctual, and has a great eye for the details that make all of the difference in a quality magazine product.

The new Art Director is Vince DeNardo, currently Art Director for both Fire & Movement and Computer Gaming World magazines. Vince is giving Space Gamer / Fantasy Gamer a new look, dynamically improved over previous issues, and an advance for all magazines of this genre.

Even the publisher is giving you more with the new Space Gamer / Fantasy Gamer. An increase in size from 48 to 64 pages (while still keeping the current cover price) is one heck of a fine gesture. They're not stopping there, however, because this notice also includes the following new subscriber deal:

Bundles of FREE issues with your paid subscription!

That's right, get a 3-issue trial subscription for only \$9.50 and pick out any bundle of back issues, or try a 6-issue one year subscription for only \$18.00 and pick out any **two** bundles of back issues, or get a full 12-issue two year subscription for only \$35.00 and pick out any **three** bundles of back issues.

Please include an additional \$3.50 for one, \$5.50 for two, or \$7.00 for three bundles of back issues to pay for shipping and handling; Canadian addresses please add an additional \$1.25 per bundle; overseas an additional \$2.00 per bundle.

Please specify which bundles of back issues you want. Each contains from five to thirteen issues of Space Gamer and Fantasy Gamer magazines grouped together by the common theme of the major articles in them. Bundles may also be purchased separately for only \$6.00 each (postage paid in the US, Canada add \$1.25 per bundle, overseas add \$2.00 per bundle).

BUNDLE A: AD&D/D&D #1
BUNDLE B: AD&D/D&D #2
BUNDLE C: Traveller #1
BUNDLE D: Traveller #2
BUNDLE E: Ogre/G.E.V. #1
BUNDLE F: Ogre/G.E.V. #2
BUNDLE G: Car Wars/Killer
BUNDLE H: Play-by-Mail
BUNDLE I: Complete games in every issue
BUNDLE J: Everything else #1
BUNDLE K: Everything else #2

The best fantasy and science-fiction reading awaits you in issue after issue of Space Gamer / Fantasy Gamer magazine. Join the adventure today!

All payments must be in US funds and drawn on a US bank. Make all checks payable to DTI, P.O. Box 8399, Long Beach, CA 90808. (213) 423-3675.

ENCLOSED IS MY \$ _____. I AM SUBSCRIBING TO THE NEW SPACE GAMER / FANTASY GAMER FOR _____ ISSUES. PLEASE SEND ME THE BUNDLES OF BACK ISSUES I HAVE CIRCLED BELOW:

NAME _____

ADDRESS _____

CITY _____ STATE _____ ZIP _____

SEND

BUNDLES A B C D E F G H I J K

TWILIGHT: 2000

The Weapons of the World are at Your Disposal



The *Small Arms Guide* is a sourcebook for **Twilight: 2000** which contains a consolidated listing of every personal firearm in the basic game, as well as additional material of interest to both players and referees. In response to player requests, the single entry for the generic pistols (such as the 9mmP Auto) of the basic rules has now been expanded to include every major handgun type in use by the year 2000, ranging from the German Luger and "Broomhandle" Mauser pistols of the early 1900s to the advanced materials and technology of the Austrian Glock 17. Increased coverage of both military and civilian rifles is also presented in the *Small Arms Guide*. Submachinegun coverage now includes all major types, from the Tommygun of the 1920s to modern suppressed designs, such as the H&K MP5 and Ingram MAC-10.

Each weapon entry contains an illustration of that particular firearm and full details for the incorporation of the weapon into the game. \$7.00.



Since 1973
GDW
PO Box 1646
Bloomington, IL
61702-1646