

HIGH PASSAGE

A Ticket To Traveller Adventure



The cover illustrates a group of adventurers observing illegal operations on an interdicted planet.

Cover and Interior art: William H. Keith, Jr.

Design and Layout: Jordan Weisman Ross Babcock

Copy Editing: Ross Babcock

HIGH PASSAGE is published quarterly by the HIGH PASSAGE GROUP and FASA.

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FASA P.O. Box 6930 Chicago, IL 60680

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Breifing From The Editors

To be perfect is to be a computer, to err is human, but to really screw up requires a combination of both. Evidence of this is issue 3's Star Atlas, the Ile subsector. The population reads 111.3 billion, it should have read 11.2 billion. So much for our subsector generation program.

Speaking of subsectors, some of you have asked when and if we are going to publish the Old Expanses separately. We will, it's only a question of when. At the moment we are toying around with several ideas about how to present it. Issue 5 is in the works, and will be our largest issue yet! Don't miss it.

This issue we have some hellos and farewells to make. Actually, the farewell is more like 'See ya Around'. Craig Johnson and Scott Walschlager have decided to join the Air Force. This means that they will not be able to be as active in HIGH PASSAGE as they have been in the past, but we expect that they will be writing articles frequently.

As you have probably noticed, we also welcome aboard Andrew Keith this issue. His work is nothing short of excellent, and his knowledge of Traveller and his skill in writing will greatly improve High Passage.

With this issue I fulfill a long-overdue promise and officially welcome aboard Gordon Sheridan. Gordon has worked behind the scenes on HIGH PASSAGE issues Two and Three, helping a great deal with just about everything. Welcome aboard, my friend. Sorry it took so long to get you here.

Finally we expand to 56 pages per issue. Increased circulation is mostly responsible, and you, our readers, are responsible for that. We cannot thank you enough.

Jim Cunningham

Change is in the wind!

Starting with the next issue (no. 5) of **High Passage**, a new look - and a new editorial team - will be coming to the magazine. The issue begins our second year; we plan to mark that new beginning with a bigger, better, brighter product than ever before!

Jim Cunningham will remain in overall command as Executive Editor of **High Passage**, to insure that continuity is maintained in the magazine and in the presentation of the Old Expanses. FASA will continue the fine production and administrative work which has made the magazine the fine *Traveller* forum that it has been over the past year. The main change comes at the editorial level, whith new people brought in to supervise the basic creative efforts going into **High Passage**.

Stepping in as Editor is J. Andrew Keith, while William H. Keith Jr. will become Associate Editor and Art Director. The Keith brothers are probably known to most people who buy *Traveller* products; they have had their work appear in **High Passage**, the *Journal of the Travellers Aid Society*, the *Space Gamer*, and in products ranging from **GDW's** Double Adventure 5, *Chamax Plague/Horde*, through such FASA adventures as *Ordeal by Eshaar* and *Legend of the Sky Raiders*, all the way to the folio adventures put out by their own company, Marischal Adventures. With a broad knowledge of the *Traveller* universe and a great deal of excellence to **High Passage** magazine.

Because we are confident of a bright future for **High Passage**, we are making some other changes, too. Subscriptions to the magazine will once again be accepted; the cost will be \$18.00 per year. Issue 5 is due out in July, and will thereafter be quarterly . . . once the rocky road of transition to the new routine - and some changes in format - have been passed.

Several new features will be added to out current format, along with a generally broader range of articles and *Traveller*-related material. Because we are hoping to make so many expansions and changes, we are now, more than ever, eager to see new submissions by writers and artists. We request that you send to us for a manuscript guideline and format sheet before submitting, however; if you do so, you will save time and effort all around (for yourself and for us!). Send a stamped, self-addressed envelope to the Editorial Address given below; we will get back to you with all the information you need to submit to us. Submissions which are not made according to the standards outlined on this sheet will not be acceptable.

Finally, if you have any comments, suggestions, or ideas about any facet of **High Passage** magazine, we hope you will share them with us. **High Passage** is your magazine as much as it is ours. We want to keep it that way.

For subscriptions, orders, and other business, mail to: FASA/High Passage P.O. Box 6930 Chicago, Illinois

60680-6930

Correspondence, submissions, and other editorial mail should be addressed to:

J. Andrew Keith, Editor High Passage Magazine P.O. Box 672 Elk Grove Village, Illinois 60007

In our next Issue:

DAY OF THE GATHERING . . . a complete adventure, Approved for use with *Traveller*, by Jim Cunningham.

PLANETARY GOVERNMENT IN TRAVELLER . . . Marc Miller discusses *Traveller* governments, what they mean, and how they work. SQUADRONS OF THE OLD EXPANSES . . . a look at some of the

warships operating in the Old Expanses. Plus STARSHIP FILES, WARBOOK, the PORT AUTHOURITY

HANDBOOK, AWAITING SHIPMENT, and other exciting features!

Issue 5 is scheduled for July publication. Subscriptions now available.

134-635

INTRODUCTION

This adventure, 134-635, deals with a group of adventurers caught in the rivalry between three mining companies and the Imperium. In addition to *Basic Traveller* (Books 1,2 and 3), *Citizens of the Imperium* (Supplement 4), and *High Guard* (Book 5) are also required. Other Traveller items such as *Traders and Gunboats* (Supplement 7), and *Fighting Ships* (Supplement 9) may be useful in playing this adventure. Date: 182-1108. Place: Dese/Ahri, the Old Expanses, the Imperium.

CHARACTERS

This adventure is designed to be played by a group of adventurers numbering at least two and no more than eight. A list of pre-generated characters is provided below. Referees using an ongoing campaign may wish to alter the characters and adventure to fit his/her own needs. If the characters below are used, however, the belter must be used as his/her ship will be used by the adventurers for transportation.

- 1. Belter A87876 Age 30 3 terms Cr 1000 Vacc Suit - 2, Pilot - 1, Prospecting - 3, Electronic - 1 Arzhent Class Prospector/Surveyor Caldorian
- 2. Ex Navy Lieutenant 569967 Age 22 1 term Cr 50,000 SMG - 1, Rifle - 1, Mechanical - 1, Electronic - 1
- 3. Ex Scout 67A77B Age 22 1 term Cr 50,000 Pilot - 1, Vacc Suit - 1, Electronic - 1
- 4. Ex Marine 9A7878 Age 22 1 term Cr 10,000 Cutlass - 2, Vacc Suit - 1, Revolver - 1, Mechanical - 1 Cutlass
- 5. Scientist 673C87 Ace 34 4 terms Cr 25,000 Mechanical - 3, SMG - 1, Shotgun - 1, Computer - 1, Navigation - 1, Admin - 1, Middle Passage, SMG
- 6. Ex Merchant 3rd off. 657987 Age 30 3 terms Cr 21,000 Engineering - 2, Medical - 1, Pilot - 1 Low Passage Shotgun

FEATURE ADVENTURE

- 7. Retired Army General 6259BB Age 38 5 terms Cr 14,000 Medical - 2, Leader - 2, Rifle - 1, SMG - 1, Electronic - 1, Tactics - 1, Admin - 1, Computer - 1 Low Passage
- 8. Ex Scout 8876C2 Age 30 3 terms Cr 30,000 Navigation - 2, Medical - 1, Pilot - 1 Low Passage

A PROSPECT FOR PROSPECTING

The Quinoid subsector is well-known by prospectors throughout The Old Expanses. The numerous asteroid belts in that subsector contain an immense amount of mineral wealth which makes them very popular.

The group, aware of the potential profits to be made, and equipped with an Arzhent Prospector, is attempting to travel to the Quinoid subsector, but lacks the funds to pay for the costs of fuel and maintenance. In hopes of acquiring the needed cash, the group has checked around with various individuals and corporations for a short, high paying and probably dangerous job.

AN OFFER FROM STERNMETAL HORIZONS

The group is contacted by Hammond Westfall, a local representative of Sternmetal Horizons, an Imperium wide megacorporation. After interviewing the group to ensure that they are the type of people he wants for such a mission, Westfall will state that the mission involves breaking some Imperial laws.

If the group is still interested, he will continue. The task involves taking a survey of 134-635, a world which is interdicted by the Imperium. Westfall explains that Sternmetal has obtained information that 134-635 has a high content of valuable minerals, among them Lanthanum and Zuchai crystals. The planet is an Imperial Reservation, and is believed to have been tapped during the Solomani Rim War. Sternmetal needs more information which can only be obtained by going to 134-635 and taking comprehensive orbital scans and soil samples. The group would then return and give the information to Sternmetal. Sternmetal will provide the adventurere with a method of getting past the interdiction, and will pay the group Cr 100,000 upon receipt of the data requested.

Upon acceptance of the mission, Westfall will provide the group with the codes for the interdiction satellites, but no detailed information on the satellites themselves. The codes are: OVERIDE:::IISS:::UH-077011H and RESET:::IISS:::AZ-49XX00Q.

GATHERING INFORMATION

Because 134-635 is interdicted and uninhabited, no first hand information is obtainable. Talking to the population, particularly starport employees or members of the Imperial Navy will provide a few guesses:

A. The planet is interdicted because it has large lanthanum deposits.

- B. The planet is used by the Imperial Navy and Army for weapons testing and war games.
- C. (This rumor can only be obtained from a member of the Imperial Navy.) A war games exercise is scheduled to take place on 134-635 in a few weeks.

PHASE ONE

Phase One involves the adventurers' first visit to 134-635. There should be no problems at this stage unless they make themselves known to the Ling Standard Products Personnel. Remember that the adventurers must have some sort of breathing gear because of the exotic atmosphere.

Upon arrival in system, the interdiction satellite will follow standard procedure. After inputting the override and reset codes, the satellite will respond with the following report which will be printed on a screen or hard copy.

ACKNOWLEDGE OVERRIDE CODE ACKNOWLEDGE RESET CODE COMMENCE DATA DUMP: START 150-1108					
157-1108 162-1108 166-1108 175-1108 175-1108 191-1108	STORM QATACK BELLATRIX PEGASUS MARE CALDORIAN	IISS IISS ANEITH IN IN L'STEICH	SZ-4732352 S-12222R1 AA-32313B1:UNAUTHORIZED:RF CE-3455762 CE-3455762 LJ-1122221		
DR: AIRLOCK MALF 166-1108					



Note that the adventurers' ship is the last entry. This should be of no concern, as by broadcasting the reset code the tapes were erased and cleared for new data. The only people with a copy of the ship transcript are the adventurers.

The Bellatrix listed above was a hot-shot merchant who thought that there might be some profits to be made in the system. When he received the warning, he chickened out. The players should not know this, and may regard the entry as something else.

The RS indicates that the satellite's supply of nuclear missiles is low and in need of resupply. If the adventurers do not broadcast the codes, the satellite will follow standard procedure (see this issue's Port Authority Handbook).

An orbital scan (which takes about an hour to complete) will provide a map and a computer analysis from which the players must decide to land and take samples. Nothing unusual will happen at locations aside from the Ling Standard Products base, with the possible exception of an animal encounter.

Assume that the adventurers will land about half a kilometer from the LSP base and have not alerted the personnel there. The Barnalou is not visible from the air because of effective camouflage. As the group approaches the direction of the landing pad, they will hear loud rumblings, shouts and crashes which accompany cargo loading. Assuming the adventurers stay out of sight, the crew loading the Barnalou will continue loading sealed containers (as shown in Supplement 7) aboard the ship.

If the adventurers close within earshot, they will overhear the crew talking about such things as rotation of the crews on the planet and the amount of lanthanum that has been mined in the last three weeks.

Shortly after the completion of loading, the crew will board the ship and it will lift off.

If the players make themselves known (openly greeting the LSP personnel, etc.) they will be taken prisoner and brought to the base for questioning. No matter what this reveals or what deals are made with the LSP personnel, they will debate (within earshot) about the adventurers and what to do with them. After some arguing, it will be decided that the group must be disposed of. The method decided upon is as follows; The adventurers will be locked in the cargo hold of their ship, the hatches and iris valves locked. The ship's computer will be programmed to have the ship lift off on a suborbital course. Once high enough, the interdiction satellite will pick up the ship on its sensors, and since there is no one on board to broadcast the override code, it will open fire and disable their ship, which will burn up in an uncontrolled reentry. A record of an unauthorized vessel will be recorded in the satellite's data banks and will come to the attention of the Imperium (or Sternmetals if they obtain access to the records) should anyone become suspicious of the ship's fate.

A few minutes later the LSP crew will proceed with the plan. Several minutes after launching the satellite will begin firing on the ship. The referee should act as if he were performing starship combat, but ignore the result and instead proceed with the following.

The first hit will rip open part of the vessel's fuel tanks, and the resulting instability will shake the ship for a second.

This jolt will jar loose the metal rod which was holding the dogs on the forward hatch mechanism in the closed position. If the hatch is tried now, it will open. Control of the ship can be regained and the override code can be broadcast. Damage to the ship will prevent it from landing until repairs are made. These repairs can only be made at a starport with such facilities.

THE RETURN TO DESE

Sternmetal will not be concernedwhether the adventurers obtained the survey once they hear of the LSP base. After debriefing the adventurers will be asked to wait in a nearby lounge until some decisions are made. If the adventurers' ship was damaged, Sternmetal will pay for its repair at the orbital starport facilities.

A couple of hours later, a Sternmetal employee will request the group to meet with Westfall in his office once again.

PHASE TWO

Westfall informs the group that the installation on 134-635 has probably been responsible for LSP's rise in profits in this subsector over the past few months. Sternmetal can't simply report the matter to the Imperium because doing so would reveal that they had also sent personnel there and would uncover their interest in the planet. Under the circumstances it had been decided that the LSP installation must be removed. Since the adventurers have already been to 134-635, they are the ideal people for the job. Are they interested!

Once Westfall is sure the group wants the job, he will provide them with more information. First, Sternmetal's goal is not only to destroy the LSP base outright, but also to bring the base to the attention of the Imperium. To this end things have worked out fairly well. The 810th Fleet is scheduled to have war games in the system in just two weeks and it is assumed that the excercise will involve troop landings on the planet. The terms of the mission are as follows:

- 1. The LSP installation is to be destroyed in such a manner that:
 - A. It will appear to have been an accident
 - B. Evidence remaining will link the base to LSP
 - C. The method of destruction will be noticable to the 810th fleet
 - D. The group must have confirmation that the matter has been noticed by the 810th fleet.
- 2. If not already obtained, a complete survey of 134-635 must be completed as described earlier.

Pay is Cr 300,000. The adventurers must decide how to destroy the LSP base and supply their own equipment.

PHASE THREE

There are several methods of destroying the LSP base. Nuclear or

conventional bombing should be ruled out, if for no other reason than they would not appear to have been accidental. Workable methods include such things as detonating the methane gas indicated on the survey (if the survey has been taken), activating the Barnalou's jump drives while the ship is on the ground, or tampering with its power plant.

BEATEN AT THEIR OWN GAME

Once the group is on the surface carrying out their plan, they will be jumped by the team sent out by Halden Minerals who are on 134-634 on a very similar mission with a few major differences . . .

A high ranking Sternmetal official has been selling information of the corporation's operation to Halden Minerals for several months. When Halden learned of the LSP base and that Sternmetal was going to do away with it, Halden decided to take advantage of the situation to discredit both corporations.

The agents from Halden Minerals have been assigned to trap both the adventurers and the LSP personnel in the mine on the accommodations level. This is to be done by disabling the lift and destroying the emergency ladder as well as incapacitating the robots. Destruction is to be achieved by rigging the methane to explode after the Imperial 810th fleet arrives. The explosion will be highly visible from orbit, as will the remains of the two ships on the surface. Thus, when the 810th fleet investigates, evidence will point to LSP and Sternmetal, not Halden Minerals.

WAYS OUT

There are several ways out of the adventurers situation. A few are mentioned here; players will undoubtedly think of their own.

First, if there are any LSP employees left alive, they will point out that there is another passage leading up to the surface other than the main one which has now been made unusable by the agents of Halden Minerals. Once a mining robot had malfunctioned and tunneled up instead of down and did not respond to commands to shut down. The resulting tunnel, while small, is big enough to permit a person to crawl up by bracing himself with his back and legs against the sides and "walk" up the shaft. To succeed, the player must roll dexterity or less. Failure of the saving throw indicates the character has fallen. Apply 3D of wounds.

If there are no LSP personnel left alive, it is possible for the adventurers to find the shaft on their own.

If the adventurers have eliminated these possibilities and cannot think of others, a last resort could be to have one of Halden Mineral's agent turn traitor and decide to free the adventurers and/or the LSP personnel. The way out is a very variable part of the adventure. The referee must decide based on the characters, their armament and their actions. Hence, no definite explanation is included here.

CONFIRMATION

It is a simple task to observe the events after the installation is destroyed. Providing the players select a method which would be visible from orbit, the 810th fleet will investigate almost immediately, ship transmissions can be recorded and will confirm that the 810th fleet has taken notice.

The adventurers should hide their ship, of course, in such locations as the gas giant or in the outer system. Additionally, the ship's transponder should be turned off.

REFEREE'S NOTES

Orbital scans will reveal the planet's features and include a map. Areas of potential mining interest are marked (including the deposits near the installation). Pick three areas to be old strip mines. These are left from when the Imperium tapped the planet for materials back in the early stages of the Solomani Rim War. Perhaps some old mining equipment was left behind, it will be of tech level 14 manufacture.

THE LING STANDARD PRODUCTS INSTALLATION

The LSP installation is divided into four basic areas: the surface landing pad, crew accommodations area, the refinery, and mining levels. Each area is described in detail below.

Surface Landing Pad: Unmarked so as to be invisible from orbit, the landing pad is surrounded by concealed landing lights which are used during approaches. The pad itself is not paved, but the ground beneath it has been compressed to prevent a ship from sinking into the surface.

Off to one side of the pad is the entrance to the grav lift shaft. A small box set into the ground contains simple controls to open and close a concealed hatch and call the grav platform to the surface. The hatch itself is is easy to spot while on the surface, but not readily detectable from orbit.

When opened, the hatch allows access to the main shaft of the installation. The shaft is 15 meters square, and runs the entire depth of the mine. The shaft is traversed by the 10 meter square platform mentioned above. the platform is used as an elevator to raise and lower cargo, crew, etc. to and from the mine sections, and has a set of controls identical to those on the surface. The platform is powered by null-grav modules mounted beneath it and is recharged from the installations's generator every 4 weeks.

Along the west wall of the shaft is an emergency ladder in case of failure of the grav platform. Robots cannot use this ladder, and are dependent on the platform or their own null-grav modules.

Crew Accommodations Area: The crew accommodations area consists of a Ling Standard Products Model 215 Dombase, which is described else where in this issue. Items particular to this unit include such items as personal effects of the crew, records pertaining to the mining operation, additional computer gear to provide monitoring of the refinery and the robots, weapons (4 auto pistols, 2 shotguns) in the storage locker. Near the dombase are two cargo containers which contain supplies for the personnel and some spare parts.

Next to the cargo containers is a small hatch which leads down to the waste area below. Waste from the dombase is disposed of by using this chute. The chute is not obvious unless someone looks at the roof. This is mentioned in more detail in another section of the adventure.

The refinery on 134-635 is not a true refinery, but rather a pre-refinery capable of filtering out unusable portions of ore which would waste precious cargo space on the Barnalou. Machinery here scans ore and makes sure it is not contaminated.

Other machinery cuts out unusable portions and then chops the ore into smaller pieces which are easier to store and allow more efficient use of available space in cargo containers.

Also located on the refinery level is the robot repair center. The center contains tools, equipment, parts, etc. for repairing the robots and most other items at the installation. Included are electronic and mechanical shops usable by anyone with Electronic and/or Mechanical 1 or better. This is where the bulk of the crew duties are performed.

Lastly, there is a hatch which opens to a chute leading to the drained Methane deposit below which is being used for waste disposal.

THE MINING LEVELS

There are five levels used for mining so far on 134-635. They are randomly shaped, cut by the robots to follow the vein of material to be mined. There are no lights in the mine, the robots being equipped with vision which does not require it. There is nothing particular to note aside from the unusual smoothness of the walls, ceiling and floors; since these were cut by lasers from the robots, there are no jagged out-croppings.

The crew at the LSP installation consists of four men: The commander/computer operator, a geologist, and two technicians.

	Com./Comp. 778795 Age 31 3 terms
•	Computer - 4. Admin - 2. Rifle - 1.
	Geologist 4669A8 Age 27 2 terms
	Prospecting - 3. Computer - 1.
	Technician C77862 Age 26 2 terms
	Mechanical - 3. Brawling - 1. Computer - 1. Auto Pistol - 1.
	Technician 349884 Age 27 2 terms
	Mechanical - 2. Electronic - 2. Computer - 1. J-O-T - 1

Because of the low number of personnel, there is only one shift. Thus everyone sleeps, works, etc., at the same time.

The commander normally works with the computer, checking the performance of the systems it controls and occasionally upgrading the software. He also monitors some of the round the clock mining.

The geologist studies data gathered by scans, the robots, etc., and directs where the mining should take place based on his predictions of where the most ore can be extracted.

The two technicians perform maintenance on the robots, the base, and







ACCOMODATIONS LEVEL



whatever else is in need of repair. In addition, they supervise the refinery which is operational only when they are on duty.

The personnel at this base are highly paid, highly motivated, and loyal to their employers; under ordinary circumstances none of them will accept a bribe.

THE BARNALOU

The Barnalou is a modified type R subsidized merchant which is used by LSP to transfer ore and crews to and from their installation on 134-635.

The ship is able to slip by the interdiction satellites because it carries a black globe. When the ship jumps into the 134-635 system it sets a precise course to the planet aiming for a low orbit and the globe is activated at full power. This renders the ship invisible to the satellite's sensors. When the ship arrives in low orbit the globe is turned off and the ship lands. Because the satellites are set to scan into the system searching for ships jumping in, they do not scan low orbit, assuming that a ship would have to get past them first. On the way out the reverse process is used.

HIGH GUARD STATISTICS

TYPE R SUBSIDIZED MERCHANT

R-21739 Barnalou R - 4211111 - 000010 - 10001 - 0 MCr 901.61 400 tons batteries bearing 1 1 batteries 1 1 Passengers - 4. Low - 0. Fuel - 50. Cargo - 216. E.P. - 1.5. Hardpoints - 2. Agility - 1.

The Barnalou is operated from the LSP terminal of Mitemer starport on Debruler. If the players decide to check the ship on their own records available to them include TAS form 3 and IN form 3.

For a small bribe the clerk at Mitemer will also provide the adventurers with a copy of the Barnalou's latest flight plan as filed by her captain. The paperwork is all accurate except for the destination which is listed as Algren. No one has ever checked into whether the ship arrived at its listed port of call, and asking questions in the wrong place may arouse the suspicion of LSP who will deal with the adventurers and attempt to silence them permanently (i.e., kill them).

Don't get caught BEHIND ENEMY LINES

COMING THIS SUMMER

THE HALDEN MINERALS TEAM

The personnel hired by Halden Minerals are both ruthless and efficient. They are being paid highly for their job, and will not accept bribes.

Leader 536B98 Shotgun, Cloth Armor

Foil - 1, Liaison - 1, Bribery - 1, Grav Vehicles - 1, Demolition - 1.
Thug 33A885 Shotgun, Cloth Armor Shotgun - 1, Auto Pistol - 1, Tactics - 1.
Thug 6A95A6 Sub machine gun, Cloth Armor SMG - 2, Auto Pistol - 1, Pilot - 2, J-O-T - 1.

BACKGROUND: 134-635

The reason behind the interdiction of 134-635 is not widely announced, but most anyone who cares to check the planet out can guess the reason: The planet is an Imperial Reservation.

Valuable minerals were discovered on the planet long ago. Even then the Imperium saw the need for preserving potential sources which would be needed during a time of crisis. This thinking paid off during the Solomani Rim War. Material mined from three locations on the planet helped support the Imperial war effort during the bad times at the beginning of the war. Badly needed material began to arrive from other sources after the first year and a half, and mining operations on 134-635 were suspended.

Since the war, the planet has been virtually ignored and is used only occasionally by the Imperial Armed Forces for war game exercises.

LIBRARY DATA

Acrolund (Acrolund/Rusco 0201-X77770-7): A nuclear war all but destroyed this world's civilization in 994. Since then, the world has been interdicted in an attempt to get the inhabitants to rebuild their world. Until recently, few attempts have been made to land on Acrolund. However, in the past several months, there has been a rapid increase in attempts to pass through the interdiction force, which consists of automated satellites. In an attempt to crack down on such activities, the Sector Government has announced that additional forces consisting of manned vessels such as cruisers will be stationed at the planet in the near future.

Galiano (Galiano/Jayna 0709-A768497-F): Capital of the Old Expanses Sector. Galino was formerly the Capital of the Twenty-One Worlds Empire during the Long Night, and was one of the first planets in the sector to become a member of the Third Imperium. Its astrographical position and planetary characteristics also make it an ideal capital.

Interdiction Satellite: Because of the high number of interdicted worlds and small number of ships available to enforce those interdictions, both the Imperial Government and local governemnts make use of automated stations to enforce the interdictions of less important worlds. Some satellites are armed and will fire on intruders, others merely record the intruders transponder code.

These satellites can be deactivated by broadcasting a special override code. Only certain naval, scout, and other need-to-know vessels are given the code. In addition, the code is often particular to an individual satellite and is changed every two months.

Quin Belts: Five asteroid belts located in the Quinoid Subsector known collectively as the Quin Belts. Popular belief is that these were created during the war of the Ancients, but no evidence to this effect has ever been discovered. The Quin Belts are a major source of raw materials for industry in the Quinoid Subsector and many other locations throughout the Old Expanses.

Star Rider: The Star Rider was a 40,000 ton starship constructed at tech 14 made famous by its role in the Solomani Rim War (990-1002). After the war's conclusion, the vessel was placed in ordinary at the naval depot at Ultraneta. She remained there until 1100, when the decision was made to scrap her. A group of naval historians encouraged the government of Shenk/ Shenk to purchase the vessel and bring it to that world where it would be converted into an orbiting museum. The government of Shenk, after arranging several other deals to help pay for the ship, was granted permission to buy the ship. A small crew was placed aboard to make the Star Rider spaceworthy. After several weeks of long hard work, the ship was made ready, but just barely so.

Enroute to her new home, her maneuver drives failed while she was skimming a gas giant, and she could not pull out. There were no survivors.

Twenty-One Worlds: Presently a subsector located in the G position of the Old Expanses, the name Twenty-One Worlds was originally attached to the Twenty-One Worlds Empire, which was a pocket of civilization in the Old Expanses during the Long Night. The Twenty-One Worlds Empire managed to hold together by one means or another through most of the Long Night, but finally fell a couple of centuries before Dawn.

Ultraneta (Ultraneta/Jayna 0403-A00055A-F): Asteroid Belt in the Jayna Subsector noted for the naval depot located in the system. The depot was constructed in the early 990s and was used extensively during the Solomani Rim War (990-1002). Today the depot is mostly shut down, its primary task being to maintain the small Old Expanses Sector Fleet.

INTERDICTION SATELLITE

GENERAL BACKGROUND

The DDD&S Type 37 unmanned station is used by the Old Expanses Sector Government to protect worlds which it deems necessary to interdict. The Navy and Scout Service both use manned ships or satellites of their own design. Only a few examples of the Type 37 were produced, and several have been removed from service.

In addition to performing most interdiction satellite functions, the Type 37 can also be used as a manned observation station. Facilities on board can support three officers and nine ratings for a period of six months needing only refueling. To accomplish this, and to provide transportation to the world's surface and to any ships which may wander in system, a standard 50 ton modular cutter is stored on board, Deck plans and other information on the modular cutter can be found in Supplement 7, *Traders and Gunboats* or in issue number 5 of *The Journal of the Traveller's Aid Society*.

OPERATION

The Type 37 responds to unauthorized intruders in several stages:

1. A warning is broadcast on most radio frequencies stating that the system is interdicted and off-limits to all but authorized Imperial traffic. The vessel is told to refuel at the gas giant and leave the system at once. In addition, a recording of the vessel's transponder code is made. Later when the satellite is serviced, a copy of the tape can be made and the ship tracked down.

2. If this is ignored, another warning is broadcast, stating that the satellite is armed and will fire on any vessel which attempts to land on the planet.

3. If this is also ignored, warning shots will be fired at the incoming ship, and yet another warning stating that the next shots will be on target is broadcast.

4. As a last resort, the satellite will shoot to kill at the incoming vessel.

If at any time, the satellite is fired upon, it will skip steps 2 and 3 and return fire immediately.

THE OVERRIDE CODES

Naval, Scout, and several other authorized ships are issued override codes to prevent the satellites from destroying vessels which are authorized to be in the system. There are two types of codes: an override code and a reset code. Both codes are broadcast in the same format as the transponder code (see The Port Authority Handbook, High Passage Issue 3). The codes are supposed to be changed every two months. In practice, however, the codes are updated every three to four months due to economic reasons.

The override code, when received will cause the satellite to ignore the vessel which broadcast it. A record of the ship's transponder code is also made. The reset code, when received by the satellite, will activate the record tape log of vessels which have visited the system, a damage report, and a resupply report. After the transmission of that data, the tapes are erased and reset for other ships which enter the system. Due to a software error, no record is made of the vessel which reset the satellite.

ARMAMENT

The satellite's armament consists of missiles which carry nuclear warheads. Since most commercial ships do not carry nuclear dampers, the missiles are usually effective. The satellite's high armor gives it sufficient protection against the light armament of most commercial ships.

HIGH GUARD STATISTICS

Type SA Interdiction Satellite SA -203014G0 - F00000 - 00004 - 0 MCr 202.9 200 tons

TL - 15. Passengers - 12. Low - 0. Cargo - 24 Fuel - 8. Agility - 0.

DEPLOYMENT

Type 37 Interdiction Satellites are deployed at the following locations: 134-635/Ahri 3 Acrolund/Rusco 5 (scheduled to be replaced by late 1108) Cold Rock/Vendtup 3

Interdiction Satellite (Type 37): Using a 200 ton hull, the Type 37 Interdiction Satellite is designed for guarding worlds not deemed important enough to warrant a manned interdiction force. The vessel is not equipped for interstellar travel, and because of its limited onboard fuel supply is severly limited in its maneuvering. Maneuver is 1-G acceleration. Electrical power is supplied via two large solar panels which feed power to storage capacitors. An eight ton fuel tank is used for the satellite's maneuver drive. The satellite is not capable or refueling itself, it must be refueled from an external source. The brain of the satellite consists of a model G computer (model/7 incorporating a fiber optic backup system). The satellite is not normally manned, but is equipped to handle a crew of 12 if an observation post is desired. Also included for crew transportation is a 50 ton cutter. The station's armament consists of two triple missile turrets equipped with nuclear missiles. The entire satellite is heavily armored.

The price for such a satellite is MCr 235.84.

ENTRIES AND EXITS

There are only two entries and exits on the Type 37 Interdiction Satellite. One is the main air lock located above the maneuver drive. The other entry/exit is the cutter storage bay. The doors can be opened by remote control or from the bridge.

THE EXTERIOR

The type 37 Interdiction Satellite is roughly cylindrical but is actually oval in cross section. The satellite is not considered to be streamlined because



of several large projections which would be ripped off in reentry. These include the main antenna, deep scanner antenna assembly, and solar panels. The main antenna is slightly longer than the satellite itself and is used by the satellite's powerful communications radios. The deep scanner antenna assembly contains several antennae for both deep space scanning and planetary scans. The solar panels on either side of the satellite supply electrical power.

THE INTERIOR

Deck A

1. Bridge. Controls for the manual operations of the satellite are located here. These include scanner, maneuvering, and forward control stations.

2. Fuel Tankage.

3. Access corridor. Access to most of the satellite's major areas (bridge, Engine room, Cutter Bay, B Deck), are located along this corridor.

4. Cutter Bay. This is a storage area for the satellite's modular cutter. The iris valve normally locks to the cutter's forward entrance lock. A large door opposite the iris valve allows entry/exit for the vehicle.

5. Maneuver Drive/Power Plant. Most machinery for the Drive and power plant is located here. Consoles for the manual operation of both are also located here.



Deck B

6. Commanding Officer's Stateroom. When the satellite is manned, the commanding officer uses this stateroom. Facilities include a bunk, desk, and fresher.

7. Stateroom. Similar to 6, but smaller and contains facilities for two.

8. Identical to location 7.

9. Identical to location 7.

10. Identical to location 7.

11. Identical to location 7.

12. Identical to location 7.

14. Common Area. Contains recreational facilities such as exercise equipment, lounge chairs, video, etc.

15. Galley. Facilities for the storage and preperation of food are located here.

16. Missile Magazine. Storage of the satellite's nuclear missiles and an automated loader for the turrets. A large door at the aft end allows access without having to load missiles from other parts of the satellite.

17. Access Corridor. Connects key locations of B Deck. A hatch at the aft end leads up to A Deck.

18. Air Lock. Main personnel entry/exit. Safety locks prevent both valves being opened at the same time.

19. Computer/Cutter upper Bay. Part of the satellite's computer is located here under which is the upper section of the bay for the 50 ton cutter.

LING STANDARD PRODUCTS MODEL 215 DOMBASE

Larger than the average advanced base, the Ling Standard Products Model 215 Dombase provides somewhat more spacious accommodations and more facilities. The structure, when in use, measures 9 meters in diameter and 3.5 meters in height and when stored, only 2.5 meters in height. The structure is formed from a geodesic structure which serves as a base. For storage, the top detaches and is stored inverted in the bottom of the dome. This base is used on missions which require long periods be spent

inside a small temporary structure. Setup time for two persons is four hours. Weight is 7.25 tons, cost is Cr 75,000. TL - 9.

INTERIOR DESCRIPTION

- 1. Stateroom. Contains bunk and personal storage facilities.
- 2. Stateroom. Identical to stateroom one.
- 3. Stateroom. Identical to stateroom one.
- 4. Stateroom. Identical to stateroom one.

5. Computer/Communications Center. Contains a model/1 bis computer and long range communications gear for contacting ships in system.



6. Medical Center. Contains medical facilities including a mechocter. The mechoctor can perform many diagnostic functions and can perform some medical functions, such as giving injections.

7. Power/Life support. Contains the base power plant and life support gear. This equipment can be serviced by removing part of the exterior wall of the dome or through the access hatch located on the inside.

8. Fuel. Hydrogen for the base's power plant is stored here.

9. Fresher. Facilities include a toilet, sink, and shower.

10. Storage Locker. Equipment such as vacc suits, weapons, etc. are kept here when not in use.

11. Air Lock. Main entry/exit of the base. Safety locks prevent both hatches from being open at the same time unless a manual override is activated.

12. Living Area. Similar to a common room on a starship, the living area in the dombase is somewhat larger than that in an advanced base. This is done to provide more comfortable quarters and avoid claustrophobia during times of prolonged occupation.

13. Galley Equipment. Contains storage for food along with equipment for preparing it.

RIMREACH PRODUCTS MODEL MI-014 MINING ROBOT

This robot is in use in many mines throughout the Old Expanses where manual labor would be too hazardous or expensive. This unit both mines ore and transports it. For mining the unit carries a modified laser carbine. The robot positions itself so that ore cut from a vein will land directly in the cargo compartment. When the compartment is full it then proceeds to a designated dumping area.

The robot is capable of operating independently or by remote control. To accomplish the latter, the unit carries a slave computer.

Chassis type VI, with grav locomotion. TL 15 brain and slave unit, basic and active IR sensor packages. A modified laser carbine is fastened to the end of a light work arm for cutting. The entire robot is powered by a type G and a type C power plant. 1000 kg. Cr 1009600.





THE PORT AUTHORITY HANDBOOK INTERDICTED WORLDS Article XXVIII, Section 2

". . Interdiction of a system, once declared, will close that system to all traffic, excepting those ships and vessels authorized by the recommending agency or express permission from Imperial authorities. The posting of Interdiction orders is carried out on the recommendation of The Imperial Navy, the Imperial Interstellar Survey Service, or such government authorities on the Imperium or sector levels as may be authorized by law; regardless of the source of, or reason for, interdiction orders, systems under interdict MAY NOT BE ENTERED FOR ANY PURPOSE, by any non-authorized shipping. Failure to comply with this regulation is an offense against Imperial Interstellar Commerce and Travel laws, punishable by the full rigor of the legal system..."

Interdicted systems, the so-called "red zones", are posted as such by order of the Imperial government, but at the recommendation and under the jurisdiction of certain particular branches of Imperial service. The Imperial Navy, the Scout Service, and certain high-ranking government officials are all permitted to recommend such interdictions. The referee is responsible for determining the agency under which an interdiction order has been posted which will indicate certain important reasons behind that interdiction. Roll 2D; on a 9+, the throw indicates that the interdiction was made under Navy authority. If not, 8+ on a second roll of 2D determines that the Scout Service was responsible. Should this roll also not be made, the interdiction was posted on the recommendation of a government official for politically motivated reasons. Government orders must come from officials who function on a sector-wide level or higher. Subsector officials, nobles, and the like have no authority to request or order such an action.

The Imperial Navy declares interdiciton on the basis of Imperial security considerations. Planets perceived as potential threats to the safety of the Realm are often quarantined in this manner. For example, the discovery of a psionically gifted race has been known to lead to red zone status for their world, based on the general fear of psionic powers common in the Imperium. Aggressive or xenophobic races or governments have been similarly treated, under the assumption that they should be cut off from trade and technology.

Navy interdictions are vigorously enforced. Under normal circumstances an interdicition under Naval authority is closely monitored by a squadron of second line ships varying in size and composition according to the severity of the threat. One flagship of cruiser or dreadnought size is almost always included in such squadrons to maintain command control over the other ships which differ widely from case to case. An interdicting squadron normally posts picket vessels in orbit around the planet being guarded while the main squadron takes up position in the vicinity of the system's gas giant, if any. Use of the gas giant for refuelling by vessels which enter the system may be permitted or not at the discretion of the squadron's coming officer. The referee should use the reaction table or his own discretion to determine this.

The Scout Service is generally considered to be more compassionate in its interdiction recommendations. By and large the IISS recommends interdiction as a shelter for developing races or emerging worlds; the example of Tainarith, where cultural shock resulting from mishandled contact methods on the part of a merchant trade pioneer team, is often cited in support of the Scout Service position. Interdiction under Scout Service jurisdiction is implemented to give time for IISS cultural contact teams to gather information on newly dicovered races and slowly ease them into the mainstream of interstellar civilization.

Enforcement of a Scout Service interdiction order is often uneven; under normal circumstances though, one or more vessels lab ships, survey scouts, (see GDW Supplement 9, Fighting Ships), and other suitable craft will be found in orbit around the world in question, supporting survey teams that are maintained secretly on the ground. These ships will warn off traffic from the world itself, but will rarely interfere with other shipping that may visit the gas giant or other planets in the system. The Scouts do tend to be far more aggressive in dealings with merchant vessels which visit the system, feeling that mercantile contact poses the greatest threat to the orderly development of the culture.

On some rare occasions interdictions are posted by order of government offices. This may arise from many possible causes: preservation of a world for Imperial exploitation for example, or even as a safeguard before opening a new world to colonization. In some rare cases the reasons may be capricious or with the intent of personal gain, as when large merchant concerns bribe government officials into posting such a red zone order to then operate without competition on the planet. Enforcement can be carried out under Navy or Scout Service jurisdiction; at times it is so poor that no particular precautions are taken at all. Automated systems are often used for these relatively low priority interdiction orders. However, the presence of a naval squadron is not an impossibility, particularly when the political situation is connected in some way with security of the Imperium (a resource-rich world or research station, for instance).

The Old Expanses, an area settled a long time ago with a wellestablished civilization, has fewer interdicted planets than a frontier region like the Spinward Marches. Interdictions in civilized areas of this type tend to be



posted to protect reserve worlds, or when necessary, to insulate a planet which has strayed beyond the bounds of acceptable behavior (as viewed by the Imperium, that is). Worlds which have suffered from a devastating nuclear war or have embraced a philosophy contrary to Imperial dictates (a pro-psionic movement, for example), are examples of this kind of interdiction. The planets are interdicted both to protect the Imperium from their potential dangers, and as a particularly severe kind of economic and political sanction.

Vessels entering interdicted star systems are acting in direct contravention of the law, and will be treated accordingly if caught. As a general rule the Navy is least tolerant of unwanted visitors; use the Reaction Table for their response with a DM-3 in all situations. The Scouts are less likely to take severe action except with merchants suspected of undermining a culture's development. For merchant vessels only, use a DM-2; others roll reactions normally. Systems protected by unmanned stations will not be in a position to take immediate action, but if a ship fails to heed a warning broadcast, the vessel's transponder code (see Port Authority Handbook, Arrival In-System, High Passage 3) is recorded. Authorities will later track down the miscreant and take action.

In general, penalties for ignoring interdiction warnings will be severe. On some occasions intruders will actually be fired upon and destroyed by an enforcement squadron, or boarding parties will be put aboard to capture the ship. At any event, confiscation of the ship and/or cargo are not uncommon, while revocation of piloting papers, fines in excess of Cr 100000 and even long terms of imprisonment are all standard.

The interdicted system is not to be trifled with . . . but, as many adventurers have discovered, worlds under interdiction often hide valuable secrets or the way to make fantastic profits. Many have sought to evade the restrictions on interdicted worlds. Few have succeeded.

Arzhent Class Prospector/Surveyor

The Arzhent Class Prospector/surveyor was orignally designed in 1086 by Starkraft Design Corporation. Several examples were constructed by DDD&S with production ready for the others that the corporation thought were sure to follow.

The ship never became popular as DDD&S hoped it would as there was little demand for ships of such a type. Large mining corporations which initially expressed interest either already had their own ships or commissioned outside shipowners to do the job for them. Very few individual prospectors had enough to invest in such a ship; all the typical individual prospector could afford is a Type J Seeker.

All of this leads to the DDD&S cancellation of the Arzhent Class after production of only 12 examples, most of which are in service throughout the sector.

Prospector/Surveyor (Type J): using a 180 ton hull, the Prospector/ Surveyor is intended for prospecting on world surfaces and asteroids, as well as performing planetary survey work. Individual vessels in the class, however, rarely retain the vast amounts of electronic gear required for the planetary survey function. Modification of individual ships has converted some for use as freighters, small liners, and one example is now used as a corsair.

Performance is jump-2 and maneuver-2. The vessel is equipped with a model/2 bis computer and a pulse laser used for mining and armament. Accomodations for a crew of eight are four staterooms and a common area. To operate, the vessel requires only a crew of one. Part of the vessel's 60 tons of cargo space is taken up by a Rimreach Products GMV-10 General Purpose Grav Mining Vehicle. This has not been retained on all the ships of this class. Fuel tankage is 40 tons, and the ship has built in scoops and purification plant. Price of the ship (new) is MCr 61.75.

SECOND EDITION HIGH GUARD STATISTICS

Type LJ Prospector/Surveyor

LJ-8156 Arzhent LJ - 1122221 - 000000 - 10000 - 0 MCr 61.75 Crew - 1. Passengers - 7. TL - 15. Cargo - 60. Fuel - 40. 180 tons EP - 3.6. Agility - 1. Pulse Laser. One ATV carried in cargo bay.

THE EXTERIOR

From the outside the ship is roughly wedge-shaped and its overall dimensions (in meters) are 241 x 11w x 5h. Most noticeable features are the chin turret and the large cargo doors on the ship's underside.

STARSHIP FILES

ENTRIES AND EXITS

There are six entries and exits on the Arzhent Class Starship. A hatch on the upper rear side of the ship leads into the Engine room. This is not an air lock. Interior pressure prevents the hatch being opened unless the pressure on both sides of the hatch are equal. This hatch is normally used as a service port.

The cargo bay contains three entries and exit points. The first two are the main cargo doors located on the port and starboard sides of the ship. They are opened for cargo loading and unloading and controls for these are located on the bridge and the interior of the cargo deck. Also located in the floor of the cargo deck is a hatch identical to the one in the engine room. Adjacent to the crew common area is the main air lock which opens to the starboard side of the ship. Located in the ceiling of the main corridor is a small crouch lock, designed to be used if the main lock is malfunctioning or unreachable. This opens to the ship's dorsal surface.

THE INTERIOR

1. Avionics, Contains communications gear, navigational and general sensors, scanners, and detectors.

2. Bridge. The control center of the ship. Contains stations for the pilot and navigation/gunner. Only the pilot's station need be manned to operate the ship. The iris valves can be locked so that they may only be operated from the bridge.

3. Computer. This is the vessel's model/2 bis computer.

4. Crouch Lock. The ceiling above the corridor contains an iris valve which leads into the somewhat cramped emergency air lock.

5. Stateroom one. Facilities here include two bunks, closets, and fresher for two crew members.

6. Stateroom two. Identical to stateroom one.

7. Stateroom three. Identical to stateroom one.

8. Stateroom four. Identical to stateroom one.

9. Common Area/Galley. This area contains the vessel's small galley (much of the preparation and storage equipment being located under the floor), ship's locker, and lounge area. The main air lock is located on the starboard side, and a hatch in the rear of the compartment leads to the cargo bay.

10. Main Air Lock. This small room is identical to most standard air locks. Saftey interlocks prevent both iris valves from being opened at the same time unless there is a standard atmosphere outside the outer valve. A ladder leads down to the surface on the outside. This is the main personal entry/exit of the vessel.

11. Fuel. Part of the ship's fuel supply is located here. The main tanks are in the ship's upper surfaces. These tanks are self-sealing in emergency situations.

12. Cargo Bay. This is the upper level of the ship's cargo bay. There is no floor at this level, but the cargo net can be extended to cover most of the gap. This net is used when the ship is carrying mostly small items. Ladders at both the hatch to the common area and the engine room lead down to the floor which is 1.5 meters below the main deck.

13. Fuel Purification Plant. Machinery which purifies the ship's unrefined fuel is located here. Most maintenance is performed on it through maintenance panels in the engine room.

14. Engine Room. The ship's drives and power plants, as well as the equipment for monitoring and repairing them is located here.

15. Cargo floor. This area, 1.5 meters lower than the floor of the rest of the ship, is the bottom of the bat. Located here are the two main cargo doors which open downward to form loading ramps. At the aft section of the deck is a hatch which is used for maintenance purposes. The forward section of the bay is occupied by the ship's ATV. An overhead iris valve allows direct access from the ATV to the corridor above.

DISPOSITIONS

Most ships in the clsss were named after famous prospectors. Others were named by their purchasers.

Arzhent (LJ-8156) was the first vessel of the class produced and is the class ship. The ship was subjected to numerous atmosphere, temperature, and stress tests after it concluded its role as a flight prototype. The vessel was scrapped in 1092 after being "aged" over two centuries simulated stress.

Irek (LJ-8157) was destroyed at Rebields/Jayna when its engines failed while the ship was only a few meters in the air. The Irek then crashed into a fully loaded Far Trader, killing the crew and passengers. The resulting explosion also heavily damaged part of the starport.

Adral (LJ-8160) was hijacked at Nemyer/Sarid in 1104. The vessel has been reported as present in several pirate attacks since then.

Biweth (LJ-8164) was scrapped in 1102. The vessel had been illmaintained by its owner and was deemed too costly to repair.

Number	Name	Laid Down	First Fligh	t Status
8156	Arzhent	162-1086	130-1087	scrapped 1092
8157	lrek	274-1086	175-1087	destroyed 1107
8158	Ralbi	275-1086	179-1087	in service
8159	Calau	290-1086	192-1087	in service
8160	Adral	018-1087	281-1087	corsair
8161	Bau Toet	019-1087	285-1087	in service
8162	Ocath	073-1087	339-1087	in service
8163	Salou	075-1087	346-1087	in service
8164	Biweth	081-1087	347-1087	scrapped 1102
8165	Soand	127-1087	028-1088	in service
8166	Imance	184-1087	085-1088	in service
8167	Caldorian	257-1087	158-1088	in service





Petrochemicals

Petrochemcials Value = 10,000 Purchase DMs: NA-4, I+1, NI-5. Resale DMs: NA-4, I+3, NI-5. Lots = 1D tons.

Petrochemicals are extremly important to a variety of industries, and have many commercial uses as well. Though no longer vital as a source of fuel (except to those worlds where fusion power has not yet been introduced), petrochemical cargos are still very commonly found in warehouses on starport loading docks . . . awaiting shipment.

There are many different types of petrochemicals, and each type has specific uses. In addition to providing fuel for prefusion engines and generators, petrochemicals are the base from which synthetics, plastics, and a wide variety of chemical products for industrial applications are made. Some are valuable; many are dangerous to transport. All are very important to commerce and industry throughout the Imperium.

Petrochemical products are most commonly found, and often refined, on planets rated as 'non-industrial' and/or 'non-agricultural'. These are worlds where mineral and resource exploitation are the key sources of revenue. Large mining operations extract petroleum (or petroleum analogs), using techniques that are only silghtly different from those which have been passed down from centuries past. The raw petroleum is refined, with various separated fractions having different values and applications. Refinement is often done on the planet where the petroleum was discovered, so that different fractions can be shipped to different destinations according to need.

Petrochemicals are also available for shipment from industrial worlds, though at a rather higher price. By and large these are synthetic petrochemicals, created in the laboratory; at times, though these shipments represent byproducts left from the use of some other petrochemical in a particular industry.

Industrial worlds are the prime destination of petrochemcial cargos, they are either used to develop various products, or are further refined and processed for use elsewhere. On occassion, petrochemical cargos will wind up at some non-industrial world. In this case, they may be intended for use by local (as opposed to interstellar) industries. If the world has a tech level of 4-8, the cargo may be fuel for prefusion engines. For the most part, such uses are covered by local fossil fuel resources, but on resource-poor worlds imports of this kind are sometimes necessary. This is especially true if the world is in a state of transition between prefusion and fusion power.

AWAITING SHIPMENT



Finally, a planet which seemingly has no use for a petrochemical cargo may still be the destination of a shipment. This shipment would be sent to such a world because of the planet's location: it would be intended for transhipment elsewhere.

Petrochemical cargos are usually shipped in liquid form. They are sometimes shipped in tanker-type starships, filling an entire cargo area specifically built to hold liquids. Usually, though, they are shipped in drums or other containers holding around 250 liters apiece. Roughly ten such containers take up a displacement ton in the cargo hold. Each weighs 250 kilograms.

The value of petrochemical cargos varies greatly. Gasoline, for example has a base price of Cr .25 per liter; one displacement ton is worth around Cr 600. Other, more valuable fractions can go for as much as Cr 4 per liter, making a ton worth Cr 10,000.

In transporting petrochemicals, there is a chance (roll 8+) that the cargo will be highly volatile, and will require a number of special precautions to prevent a major shipboard disaster. Volatile cargos should never be exposed to flames. A spark or other source of fire can cause entire containers to catch fire, and possibly (on a roll of 6+ each combat round) explode. A container of petrochemicals which does not explode will catch fire, and could become a threat to nearby containers.

Petrochemical containers are sealed under normal conditions, and thus are fairly safe. It is only when they are breached that they become dangerous. Fumes from petrochemicals tend to spread rapidly, and will transmit a spark or flame back to the main container very rapidly; thus a breach (even one that does not cause an actual leak) will expose a fairly large area to danger. When fumes spread from a breached container, flame anywhere within three meters of the source will set off the fire and explosion risk. Unbreached containers are only set off by certain direct stimuli, discussed below. Should combat take place in a hold area containing volatile petrochemicals, the following basic rules should be used. The referee may wish to add other possible results, or may wish to adapt some of these to non-combat situations as well. For example, a welding tool being used to patch a hull plate in the area where the petrochemicals are stored could, if improperly used, be treated like a laser shot. Other modifications are up to the referee.

Each missed shot by projectile firearms will breach a container on a roll or 9+. If the roll is 11+, the container is also ignited. If not, it begins to leak, fumes begin spreading, and the container becomes a much more potent danger.

Each missed shot by a laser will breach and automatically ignite a container on a roll of 8+.

Each shot, whether hit or miss, made by a plasma or fusion gun will ignite the container on a roll of 6+.

Each explosion (of a grenade, another container, or any other type of explosive) within six meters (4 squares) automatically sets off all breached containers, and will breach and ignite others on a roll of 10+ for each.

Burning petrochemicals can set off other containers in adjacent squares. If these containers are unbreached, they are ignited on a roll of 11+. If breached, a 6+ will accomplish the task, and the danger zone is two squares, rather than one. Flames and heat cause 3D damage per combat round to all characters within 1.5 meters of the fire.

An exploding container hurls burning chemicals and hot fragments 4 squares - six meters - in every direction, unless stopped by bulkheads or other blocking objects. An exploding petrochemical container has a *Striker* demolitions point value of 250. For basic *Traveller* purposes, the explosion inflicts damage to characters, equipment, and bulkheads in the following manner:

Within 1 square: 5D automatic Within 2 squares: 3D automatic Within 3 squares: 2D automatic Within 4 squares: 2D on a roll of 8+

Damage caused by explosions may breach interior or exterior bulkheads. Interior bulkheads are breached when 100 damage points are taken. Exterior bulkheads take 1000 damage points before being penetrated. A chain reaction of explosions in the ship can weaken or breach the hull. Where a large cargo of petrochemicals is being carried, the referee may want to make a quick diagram showing the various squares being effected by explosions. Damage to each square can then be tracked separately.

Explosions can also be triggered by hits taken during starship combat. Each hit on the hold area triggers an explosion in a petrochemical container on a roll of 9+.

All rolls for explosions, fires, and the like are made once each combat round (10 seconds) for as long as the proper stimulus exists. Fires can be put out by firefighting equipment (either portable or permanently installed foam dispensers), or by opening the hold to vacuum. Explosions may still occur in vacuum, but take direct stimuli (a laser hit on the container, for example); the chance of an explosion in such conditions is lower so a DM-2 is applied to all throws to determine the chance of an explosion. There are few limits to the import of petrochemicals on any world. In some instances, however, local environmental standards or government resource exploitation subsidies will cause tarrifs to be imposed upon the importation of petrochemical cargos. These duties will range, usually, from Cr 20 to Cr 120.

In short, the transport of petrochemical cargos is a common but often hazardous, part of interstellar commerce. Those who come into contact with such cargos are urged to exercise great caution, and follow all safety precautions. Failure to do so is not merely foolish, but suicidal.





Grav Mining Vehicle(tech 10)

This vehicle requires only one person to operate, but has facilities for a crew of two and two additional passengers (equipped for prolonged operations). The turret mounts a pulse laser used for heavy mining. Fire control equipment is not of military grade; it functions as Tech 5 Direct Fire Control, but the unwieldy nature of the equipment makes it even less effective. Height: 2.5 m (+ turret, 1.1 m). Width: 6.1 m. Length: 9.2 m. Total volume: 140.3 m³. Weight (unloaded): 39.351 tons. Weight (loaded): 136.351 tons. Price: Cr 1,583,700.

Movement: Unloaded, full power: Maximum, 2800 kph/2333 cm: cruise, 2100 kph/1750 cm; NOE, 40 kph/33 cm.

Unloaded, standard power: Maximum, 540 kph/450 cm: cruise, 405 kph/336 cm; NOE, 40 kph/33 cm.

Loaded: Maximum, 120 kph/200 cm; cruise, 90 kph/75 cm, NOE, 30 kph/25 cm.

Movement effects on fire: Fire control limitations and power constraints make fire during movement impossible.

Armor: Chassis, Deck, and Belly: 1. Turret: 2.

Target Size DMs: +1 high, +4 low.

Equipment: 50 power radio; 2 searchlights; Map Box; Echo Sounding Gear (treat as Sound Ranging Equipment for size and price); Mineral Test Bench; crane; sealed environment with life support for four. 97 tons cargo capacity.

Power: 18 megawatt fusion power plant consumes 27 liters of fuel per hour (at full power output); fuel capacity is 675 liters, enough for 25 hours. Grav generators produce 160 tons of thrust (loaded, 1.1 Gs; unloaded, 3.8 Gs).

Weapon: The 10 megawatt imput, single lens pulse laser may engage one target and is automatically spotted when it fires. Its range and penetration are given below:

Effective	Long	Extreme
30(54)	50(54)	125(54)

Because of the poor fire control systems, a DM-2 is applied to all attempts to hit targets at greater than effective range.

The Rimreach Products GMV-10 is a civilian mining vehicle designed to locate, mine, and transport ore while operating in a variety of environments. With a displacement tonnage of ten tons, this grav vehicle is often used in place of ATVs aboard ships with vehicle bays of proper capacity; it is far more useful (though less versatile than the ATV) for prospecting on worlds with a significant gravity (size 1 or higher). It is also occasionally used to prospect on a world while operating from a base in orbit, as it can attain

IN TRANSIT

orbit without difficulty or adverse effect to passengers or crew. Facilities for up to four individuals allows cramped living for fairly extended periods of time.

Special equipment carried on board allows the vehicle to carry out prospecting missions with great efficiency. Echo Sounding Gear (tied by direct link to the vehicle's map box) obtains data on subsurface strata through the use of explosions set off on the surface. Demolitions gear can be used to set these explosions off. Using echo sounding, the detonation of 3-5 expolsions will usually serve to develop an accurate map of an area about 1 km square, provided explosions are set off around the perimeter of the area to be mapped, and at least 500 meters from one another. Time involved with with the actual number of explosions set off depends on the time taken to plant charges, travel time, and many other factors.



A Mineral Test Bench is also fitted on board, in a compartment just forward of the cargo bay. The test bench is fully equipped with gear for mineral analysis and evaluation. It takes up 10 m³ (mostly work space for two individuals), weighs 300 kilograms, and is priced at Cr 3000. Another special feature is the crane (see *Striker* Book 3, page 45), used for ore handling.

The Everone Mark I Pulse Laser, a single-lens, 10 mw output system effective primarily at short ranges (poor focusing makes is very hard to hit accruately over 300 meters), is mounted in a remote turret mounted on top of the vehicle. When engaged in mining operations, the laser is generally used to break up rock formations for easier handling; it is not intended for tunneling use. Repeated pulses can be used for limited tunneling, especially where rock faults or previous tunnels are followed; however, only about .1 meters of rock can be penetrated on any single firing (on the average).

The enormous power required to lift the mining vehicle when it is fully loaded allows the vehicle to achieve great speeds - up to 2800 kph - when no cargo is carried. This speed, however, is rarely attained in actual use. The controls and hull of the GMV-10 are not suited for high-speed flight; the vehicle is in no way streamlined, and is very hard to handle at such speeds. In addition, fuel is burned very quickly when full power is used. Economics as well as safety dictate that the vehicle simply does not operate at maximum capability except when necessary.

Standard unloaded cruising speed is usually around 400 kph, and thus fuel consumption is only 4.5 liters per hour. This allows the vehicle to remain in operation for up to 150 hours before refueling. Users are advised against operation of the vehicle at greater than 540 kph, as this can involve severe safety hazards.

When extremely long trips out of reach of fuel supplies are contemplated, it is possible to extend the vehicle's range by the addition of collapsible fuel tanks. These are similar to those discribed for starships in Adventure 5, *Trillion Credit Squadron*. Collapsible tanks for vehicular use are 14 m³ (one displacement ton), and cost Cr 500. Each such tank has a fuel capacity of 14,000 liters, weithing .98 tons when filled. Fuel must be pumped into regular vehicle fuel tanks before use, taking about 3 hours to complete. When empty, the tanks take up .2 m³ of cargo space, and weigh .05 tons. Each such tank can extend operating time by several weeks - the exact length depending on the vehicle's power output during the period.

Referee's Notes: When engaged in mining activities, the following guidelines should serve to define most routine operations. For each area of one square kilometer mapped, the referee should roll 2D. On a 9+, sounding information will turn up formations that will appear potentially valuable (the exact nature of this will depend on what is being sought). The referee must determine the actual value of such deposits, but individuals with Prospecting skill should be given more clues as to the potential worth of a given

VEHICLES FOR SALE

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All vehicles are designed to be used as personal transportation units also. Coming next month; VEHICLES: G-Carrier and ATV/APC, FIGURES: Darian Confederation in battle dress (TL15 +), and Vargr in Battle dress and Combat Environ Suits (TL12 +).



find, even before samples are taken. This reflects the individual's past experience with mining, as well as the almost instinctive ability many prospectors have in telling good sites from bad ones.

Any time a 2 (exactly) is rolled when mapping, the map will be inaccurate. It may fail to show a valuable deposit that is present, or it may indicate that a major find is located in the area, when in fact, there is little of value. Modifiers do not apply here, but characters with prospecting skill will usually have a better feel for the value of the site than unskilled characters.

Use of the GMV-10 at very high speeds while unloaded can be particularly dangerous. When the speed of the vehicle is raised over the 'standard maximum' of 540 kph, the referee should roll 2D for every ten minutes the speed is maintained. On a roll of 9+, strain on controls or structure will cause a mishap, ranging from hull damage to control failure (at the referee's option). A DM+1 should be applied for every 100 kph over the limit the vehicle is travelling, and further modifications (again at the referee's descretion) for prolonged or sudden bursts of speed are also recommended. Negative DMs can be applied for character skills (grav vehicle, J-O-T, or mechanics with electronic, mechanical, or gravitic skills) to offset these handicaps.

Other complications and special situations may be introduced by the referee as they are needed.

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Orbital Tug

Orbital Tug QT - 04066S1 - 000000 - 0 MCr 55.0 50 tons Crew - 2. Passengers - 0. Cargo - 16.5. Fuel - 3. E.P. - 3. Agility - 6. TL - 10.

This Auxiliary Tender is a small, powerful ship used for heavy construction, cargo transfer, and other activity requiring the movement of massive bodies in deep space. Several of this type are usually present at any orbital dockyard or construction facility. Some are often found at commercial space stations and orbital starports. A few have been adapted for asteroid mining, and can be encountered in a system's belt.

The basic tug is stripped of all frills and conveniences. It is, in essence nothing more than a control room, a cargo bay, and a massive engineering plant, coupled together to concentrate brute force where needed. It is intended to be a working craft, operating close to a space station or mother ship, and so makes no provisions what so ever for extended operations (though cargo space can be modified to permit living quarters installation).

A large power plant and maneuver drive are essential to the tug's performance. With the tug under full power, without extra payload, the drive can achieve 6-G acceleration, with an agility of 6. It is intended, however, that the tug's power be applied to much larger payloads. For this purpose the craft can be attached to other objects, increasing the displacement being propelled by the engines. The effects of various loads on the craft's performance are listed below:

No extra payload (total displacement 50 tons): 6G, Agility - 6. Payload - 10 tons (total displacement 60 tons): 5G, Agility - 5. Payload - 25 tons (total displacement 75 tons): 4G, Agility - 4. Payload - 50 tons (total displacement 100 tons): 3G, Agility - 3. Payload - 120 tons (total displacement 170 tons): 2G, Agility - 2. Payload - 350 tons (total displacement 400 tons): 1G, Agility - 1.

Payload, in this case, means the additional capacity of the ship, not the cargo capacity proper (which, of course is contained in the 50 tons of the tug itself). These guidelings should be used to establish allowable operations of the tug.

A variety of equipment is mounted on the hull, including various types of grapples, winches, and other gear. Of chief importance are the two remote arms, operated by a waldo arrangement from the tug's bridge. This gear and the controls for it take the place of the usual gunnery space aboard more

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normal small craft; the whole mechanism is controlled from the 'gunnery' position. Most of the external equipment can be handled by this individual, but attachment of lines and other preparations will normally require an EVA by one or both crew members.

The orbital tug makes use of a model/2 bis computer, an extremely important piece of equipment given the delicacy of many of the maneuvers and tasks the craft is called upon to perform. Some special computer programs are available for use with the tug; these are of a highly specialized nature, and are unlikely to be needed for ships not engaging in the kind of work the tug routinely does.

Maneuver/Match is a series of six programs which are used to help the tug match velocities and dock with targets which are not moving at a constant, predictable speed or course (due to spin, erratic acceleration, or other factors). Use of these programs helps reduce the chance of a collision. Each has a DM based on ship's boat skill (take the fraction of skill and drop fractions). This program does not replace the normal maneuver program.

Auto/Match is similar to Maneuver/Match, but performs at a lower level. It allows a docking DM of -2.



Waldo Operation is required to use any of the grappling or manipulative devices mounted on board the tug. When running, it allows the operator to interact with these mechanisms from the bridge control station.

Thrust Coordination is a program used when several tugs linked to the same body are to attempt coordinated maneuvers. One ship becomes the control vessel; others will apply thrust together for maximum effect. Several ships cannot combine resources without the use of this program; even trifling variations will set a linkage spinning if such a maneuver is attempted without the program.

Enhanced Tracking is a program which keeps close track of a large number of targets at once. It is used in heavy-traffic areas or in any case where danger might arise from operations in an area where many ships or other objects may be encountered. Use of the program is required by safety regulations in most systems; it otherwise whas no special effect in game terms.

Space	MCr	Program Title and Effects	Skills	Throw
1	1.5	Maneuver/Match-1; -¼ ships boat skill	1, ships boat - 2	10+
2	2.5	Maneuver/Match-2; -½ ships boat skill	1, ships boat - 3	11+
3	3.5	Maneuver/Match-3; -¾ ships boat skill	2, ships boat - 4	10+
4	4.5	Maneuver/Match-4; -ships boat skill	2, ships boat - 5	11+
2	5.5	Maneuver/Match-5; - ships boat skill	3, ships boat - 6	10+
3	6.5	Maneuver/Match-6; -5	3, ships boat - 7	11+
2	2.0	Auto/Match; -2	2, ships boat - 2	11+
1	1.0	Waldo Operations; allows waldo use	2, electronic - 3	11+
2	3.0	Thrust Coordination; allows multi-ship	2, ships boat - 3	10+
		linked thrust		
1	1.0	Enhanced Tracking; required in B+ systems	1, electronics - 3	10+

When approaching any target which is not travelling along an easily predicted vector, even the tiniest error in thrust or vector can cause a dangerous collision. When closing with such a target, a roll is made every 5 minutes to determine how the maneuver is progressing. If the roll is 2-, vector is matched and the tug is in a position of link up with the target. If the roll is 10+, a collision occurs. This roll is repeated until a link is successfully made or until the tug ceases in attempts to match vector. While linked, these rolls are not necessary.

Several modifiers are applied to these basic throws. If a match program is not running in the computer, DM+2. Negative modifiers are given for each of the match programs, most based on the pilot's ships boat skill. The referee should feel free to impose additional DMs for unusual conditions or situations, as he sees fit.

Collisions, when they occur, can be hazardous to one or both of the bodies involved. If the target is a ship or other object carrying a crew, collision damage should be applied to both. If not, only the tug need check for damage. A collision is treated as a Book 2 missile hit. 1D separate rolls are made on the small craft damage table. Weapons damage is treated as damage to the remote arms and other grappling gear. Other damage is treated normally.

Though not the sort of ship which is likely to be used all the time by *Traveller* players, the orbital tug is a versatile little craft that may be met under a variety of conditions. It may also be of use in resolving specific types of adventure situations. They might be encountered in large orbital construction projects or dockyards, where they could prove to be the only viable means of attack or escape for an adventuring band. Modified tugs

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with cabins added in the cargo bay area, might be used in prospecting situations in an asteroid belt or on an airless world. And, of course, tugs could provide critical in a rescue situation, where a crippled ship must be rescued from a dangerous situation.

Using these ideas, or others that may occur to creative referees or players, orbital construction, cargo handling, rescue, and many other interest ing situations can be given added excitement and interest in any *Traveller* campaign or adventure.



Tempest Class Attack Cruiser

Attack Cruiser CC - P436BJ3 - 90	6800 - 999N9 - 4 MCr 4	10112.21 50 ktons
batteries bearing	6261 Q	TL - 15.
batteries	8281 W	Crew - 475
Passengers - 36. Low - 0. Cargo - 4	150. Fuel - 20,500. E.P	5500. Agility-6.
	e .	

Marines - 150. 40 fighters. 4 small craft.

Tonnage: 50,000 tons (standard). 700,000 cubic meters.

Crew: 56 officers, 419 ratings. 150 marines. 44 pilots.

Performance: Jump - 3. 6 - G. Power Plant - B. 5500 EP. Agility - 6. Electronics: Model/9 fib computer.

- Hardpoints: One spinal weapons mount. Thirty 50-ton bays. Eight 100 ton bays. One hundred hardpoints.
- Armaments: One meson gun spinal mount (factor N). Eight 100 ton particle accelerator bays. Thirty 50 ton missile bays. Eighty triple beam laser turrets, organized into eight batteries. Twenty double fusion gun turrets, organized into two batteries.
- Defenses: Nuclear damper (factor 8). Meson Screen (factor 6). Armored hull (factor 9).
- Craft: Forty 10 ton fighters. One launch tube. Four 50 ton small craft. Exact types vary; cost not included in ship cost.
- Fuel treatment: On-board fuel scoops and fuel purification plant.
- Cost: MCr 40112.21 standard. MCr 32,089.768 in quantity.
- Construction time: 48 months singly. 36 months in quantity.
- Comments: Conceived and designed as a multi-purpose patrol vessel for use along the Imperial frontier, the TEMPEST class of Attack Cruisers is almost always employed on independent missions. Though capable of holding its own in combat against most ships of near-equal size, the Attack Cruiser is considered to be of greater value when used away from large battle fleets. It has proven to be ideal for missions where one or two ships are to 'show the flag' to various states beyond the Imperial border, or for routine frontier patrol work. The Attack Cruiser can generally outrun anything that it cannot fight (though this is not always the case), thus making it a perfect vessel for the kind of patrol work demanded along the edge of the Imperium.

Attack Cruisers are often employed as flagships for small squadrons (those consisting by and large of fairly small starships); passenger space has been designed into the vessel to accomodate a small squadron staff over and above usual complement. Four fighter squadrons are carried on board as well, for various scouting and combat support duties. Remaining weaponry is well-balanced, making the ship a good all-around fighting craft. Versatility, however, has forced the ship to forgo any really outstanding single feature.

Most frontier reagions have at least a few Attack Cruisers of the TEMPEST class on hand. In the Old Expanses, a squadron of ships is normally stationed at the naval base at Peart/So Skire (though these ships are usually detached for independent operations throughout the sector); others are sometimes present in the region as well. In Reavers' Deep, patrolling Attack Cruisers are often encountered along the frontier, or in adjacent client states, helping to keep the Imperial presence strong in the minds of the Imperium's neighbors.



WARBOOK

Merchant Facilities

Although not as important as the Scout and Naval bases generated during star system creation, merchant facilities on various planets can be of great use to characters involved in adventures with a mercantile slant. In order to generate the type of facilities maintained by a given company on any particular world, use the Merchant Facilities Table (below).

The descriptions of the facilities following the table are meant as approximations only, and may be freely altered by the referee to suit the needs of a given situation. The population number of a planet should never be exceeded by the number of employees at a particular merchant office. Other adjustments are left in the hands of the referee.

MERCHANT FACILITIES TABLE (roll 1 die)

0 or less No permanent facility

1	No permanent facility	DMs
2	small facility	+2 if planet is Rich
3	small facility	- 3 if planet is Poor
4	warehouse	+3 if starport is type A
5	warehouse	+2 if starport is type B
6	local office	 1 if starpost is type E
7	local office	- 5 if starport is type X
8	local office	?? referee's choice
9	major office	

10+ major office

No permanent facility: Neither personnel or offices of any kind are established on the world. A ship visiting here has no local resources to draw upon whatsoever.

Small facility: Warehouse space and 2D individuals represent company interests on the world. Representatives are concentrated in a single small post at the starport. In many cases, the starport is a small one operated specifically by the company itself.

Warehouse: A somewhat larger presence on the world, employing up to 2D x 10 people. The major facility will be located near the starport, but smaller ones will be found elsewhere on the planet - anywhere company interests must be represented. The majority of the employees are locals, used as laborers, cargo handlers, or clerical help. This type of facility will have vehicles available, and occassionally small craft for contact with ships in orbit as well.

OFFICES AND FACILITIES



Local office: A fairly large office center is maintained at or near the starport, along with other facilities as needed elsewhere on the planet. This type of operation can be the headquarters of a small concern, or a small outpost of a giant corporation or megacorporation. It employs upto $2D \times 50$ people, many of them locals. Several company small craft, plus permanently leased docking bays for visiting starships, will be present.

Major office: Employing up to 2D x 100 or more people, a major office is usually a regional headquarters for a really large concern - a sector spanning firm or even a megacorporation. The main facility, located near the starport, is in some ways a tiny starport itself. Small craft, docking bays, refueling and servicing facilities, and even berths for major repairs or shipbuilding are often found in these areas, reserved for use by company ships only.

Determining the extent to which a planet has attracted mecantile firms (or supports locally-orginated ones) is a job that must be left in the hands of the referee. No strictly random method of determining the number of such companies persent will be able to handle the many variables that may influence any given situation. When the referee sets out to create the overall picture of the planet's commercial operation, he should remember to include the planet's location, technology, starport type, trade value, extent of contact off-world, and many other factors. Most importantly, though, he must balance the particular needs of the adventure into the overall pattern; all other considerations must take second place behind this crucial point.

Generally, backwater worlds will tend to have only a few off-world trade facilities, perhaps only one or two. In some cases, a company will have a virtual monopoly over local trade, especially in those cases where a facility is found on a class - X starport world (where it is probably established in violation of Imperial interdiction edicts). Other worlds simply may not be worth the investment of most companies - there may, in fact, be no trading offices present at all. Or a planet may have a single agent representing several different non-competitive interests.

At the other extreme, very important worlds - usually characterized as those with Class A or B starports, subsector or client state capitols, or a trade designation of 'Rich' - may have offices of one or more megacorporations, scores of major firms, and hundreds of minor ones. Inbetween these two examples are a vast range of different possible variations.

Judgement is thus necessary. The tables presented previously should be used any time the referee has decided that some particular firm maintains offices on a world; it is up to him, though, to actually indicate that the office is present in the first place.

This information can have many interesting effects on an adventure or campaign. On backwater worlds where limitations of personnel, equipment, and facilities available arise from the small size of a trading firm's operation, players in need of local assistance from that company are apt to be hampered. Large concerns, on the other hand, present a wide range of resources . . . but bureaucracy with all its attendent difficulties will become a major problem for the players. Use of this system, then can help a great deal in establishing more completely the background and general situation faced by adventurers involved with mercantile operations on any specific world in - or out - of the Imperium.

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Caledon Highlanders

UNIT:Caledon HighlandersUNIT TYPE:Mercenary, Combined ArmsUNIT SIZE:Regimental Combat TeamBASE OF OPERATIONS: Caledon/Caledon, Reavers' Deep SectorUNIT COMMANDER:Colonel Sir William Fraser, KC

History: Organized by Colonel Fraser shortly after his retirement from service with the Principality Marines in 1098, the Caledon Highlanders have earned a reputatuion for fighting skill which has spread through much of Reavers' Deep and into adjoining Imperial and Solomani territories. Fraser's mercenaries have fought in several of the petty wars that have kept the region in turmoil over the past decade. Between active campaigns, the unit has been employed in such diverse occupations as furnishing guards to mineral exploi-

tation firms operating in the heart of the Deep, garrisoning the recent settlement on New Haven against the aboriginal vatives, and acting as a cadre force for the expanding army of the Thorinian Confederacy.

The Highlanders have been plagued by financial problems; in many ways their equipment (particularly artillery and armor) are not up to the requirements of waging a modern war. For this reason they are most often employed in situations where technically unsophisticated opposition is the norm. Luckily, such situations are quite common throughout the Deep.

When possible, the regiment hires out as a single force. In this capacity they can act as the spearhead for a local army or as a training cadre for local militia or conscript troops. At present, the unit is under contract to the provisional government of Ildrissar, and is engaged in operations against forces of the Carillian Assembly fighting on that world.

Organization: The Caledon Highlanders have adopted a flexible, efficient organization which enables the unit to function effectively as a self-contained, independent force under most circumstances. Only two real weaknesses exist; first, the lack of standardized heavy equipment, and second, a lack of interstellar transport. Employers must furnish shipping in order to transfer the Highlanders from world to world.



STRIKER FORCE

Overall command of the Caledon Highlanders rests in the hands of Colonel Fraser, who has a staff and a small headquarters totalling 25 men. Three grav personnel carriers, heavily fitted with electronics and communications gear, are important to the HQ organization. One carries Fraser, a second the Regimental Vice-Commander, and the third acts as a communications and coordination vehicle.

The regiment consists of three Infantry battalions, a Pioneer Battalion, a battery of regimental artillery, and a logistics unit. The artillery battery consists of twelve behicles in two sections. Ten of these vehicles are intended for fire support, and mount MRLs or (when possible) drone missiles. Each carries a crew of three. Each section also contains a Fire Direction Center vehicle, carrying a number of extra people to coordinate fire. The Battery Commander rides in one of these vehicles. The unit also includes six forward observers who, equipped with grav belts, communications gear, and laser designation equipment, operate independently at the front.

Logistics, transport, and supply is handled through the logistics unit. This force tends to fluctuate in size from one campaign to another. Generally though, it includes drivers, mechanics, cooks, some medical personnel, and other non-combatants. Unarmed G-carriers and grav sleds of various kinds are available for supply and ammunition transport; these can also be attached to non-lift infantry to enhance mobility. Between 75 and 100 vehicles are available for this purpose.

The pioneer battalion is a very special force, intended to operate ahead of the main body of troops. The unit can sieze and hold positions, scout, and bring up engineers to clear the way for regular troops that follow. The various companies can also be employed separately.

Battalion HQ includes the battalion commander and his staff, an HQ squad, and the battalion aid station. The artillery battery is very similar to the unit already described above. The grav tank company has twelve tanks organized into three platoons, plus an extra command tank with room for the company commander and NCO. Total personnel numbers 54 individuals.

The company of engineers contains 175 men and 18 vehicles. It is used for tasks requiring combat engineering, including bridge-laying, field fortification, and similar jobs. Troops in the unit are completely combattrained, and are capable of fighting in front-line operations when required. Their vehicles are lightly armed (usually with anti-personnel weaponry only), but have extensive storage space and mount cranes, bulldozer blades, minelaying equipment, and other special gear.

The lift recon company is very much like a standard infantry company (discussed below), but all troopers in the unit have individual grav belts for personal mobility. The unit numbers 210 individuals in four 50 man platoons (plus company leadership). It is employed for purposes of reconnaisance, or to harrass enemy forces in the field. It is the best-trained unit in the regiment, with excellent morale and the best equimpent. It sometimes is employed as a commando force in addition to other duties.

Each of the three infantry battalions is organized as outlined below.



Infantry battalions have a headquarters (battalion commander, staff, HQ squad, battalion air station), four infantry companies, an artillery battery, and a grav tank company. Basic organization of the artillery and grav tank units is much like those discussed previously.

The mainstay of the battalion's strength is the infantry companies. Each company numbers 210 men; 10 are company level staff, with four 50 man platoons. Platoons contain five squads of 9 men each, organized into two sections (with one squad held in reserve). Section leaders are mounted individually. Infantry companies are not normally provided with vehicles, but when extra mobility is required grav carriers and drivers can be attached from the logistics pool on a temporary basis. Only about half of the infantry companies available can be lifted in this fashion without disrupting supply and transport functions for the rest of the unit. In an emergency, though, the entire infantry force can be lifted, at the cost of considerable hardship for the rest of the unit. This cost-saving measure is possible largely because the regiment is frequently employed in situations where grav mobility is not an important factor, thus making a virtue out of necessity.



Equipment: The Caledon Highlanders are equipped at Tech Level 13. Basic infantry equipment includes chameleon combat armor (with commo and LI gear), gauss rifles, and RAM grenades. Other equipment and weaponry may be made available for special reasons or tasks.

Squad level support weaponry includes the PGMP-13, tac missiles, and VRF gauss guns. There is little standardization, as yet, to heavier equipment and vehicles; these are largely limited to whatever the unit can afford, rather than a specific TO&E.

UNIFORMS OF THE CALEDON HIGHLANDERS

Soldiers of the Caledon Highlanders are expected to have three different uniform kits available. First is the full-dress uniform, worn only on infrequent, ceremonial occassions (inspections, parades, reviews, etc.). Full dress uniform is a variant on the traditional kilt of the Highlander's Scottish forebearers, and is an indirect descendent of the Black Watch tartan of Old Earth. As this uniform is encountered only rarely (and never in the field), further discussion is not necessary.

Fatigue uniforms are worn in the field or in garrison situations. Fatigues are camouflage-patterned outfits like the one shown below. The shoulder patch identifies regiment, battalion, and company. A fatigue cap is worn with the uniform. While in fatigues, hand-held common and vision gear must be carried. On the march, a backpack with the soldier's equipment is carried; this backpack masses around 30 kilos, and carries a wide variety of important equipment and personal effects.

Combat armor is worn in battle, except where circumstance force soldiers to fight in fatigues. Combat armor provides a self-contained envirnoment for each soldier, thus allowing operations in hostile atmospheres or against chemical warfare. The armor worn by troopers of the Caledon Highlanders is pictured below.

The author would like to acknowledge the assistance of John Harshman, for organizational information, and Frank Chadwick, who created the Pioneer Battalion.





NOTE: The Caledon Highlanders appear in adventures presented in Aslan Mercenary Ships, FASA's new set of starship deck plans covering mercenary starships used by an Aslan military unit. These scenarios may be on interest to persons who seek further information on action involving the Caledon Highlanders.

Aslan Mercenary Ships is available from many fine hobby stores, or from FASA, P.O. Box 6930, Chicago, Illinois, 60680. The set is priced at \$12.50.

On Ildrissar the Caledon Highlanders are fighting the Aslan Mercenary regiment **Teahleikhoi** - Soldiers of the Falling Night To see how humans fare against the fierce Aslan and to learn more about Aslan military organization and tactics consult Aslan Mercenary Ships. Included are 3 22½ x 33 inch sheets of deck plans, 2 16 page booklets describing the two 3000 ton ships and The Aslan At War. Also included are 112 illustrated counters depicting an Aslan platoon and a full ship's crew.



Verin Dalleroi

Verin Dalleroi 7C8A98 Age 38 5 terms Cr 70,000 (usually) Gambling - 3. Body Pistol - 2. Streetwise - 2. Body Pistol

A flamboyant, colorful figure, Verin Dalleroi's reputation has spread far and wide through the Old Expanses. Dalleroi's backround is obscure and his origins far from certain. Many incidents from his exciting life are, however, well-known; he is something of a legend through much of the Expanses. Verin Dalleroi is a gambler, a drifter who seems to follow his whims in his restless roaming from world to world. Action, excitement, and adventure



seem to follow him wherever he goes, and he thrives on his unsettled, independent life. Friendly and outgoing, Dalleroi gets along well with people. His charming, elegant manner is at once affable and disarming.

Dalleroi is characterized by his flair and verve. He likes theatrical gestures, grand entrances, and great shows of style. His clothing is always striking, but of excellent taste; his courtly mannerisms make Dalleroi stand out in any crowd. He often seems to be playing to an audience with everything he does and says.

Often encountered aboard starships in the Old Expanses, Verin Dalleroi travels from one planet to another with great frequency. For the most part he prefers well appointed accomodations on passenger lin-

ers; he rarely will take anything less than the best suite aboard. Now and again, though, circumstances (a lack of ready cash or a need for haste in departing from a particular world) will sometimes force him to take less luxurious transport. In such cases, though he may not be comfortable, Dalleroi usually manages to make his circumstances seem better than they really are through sheer force of personality.

BOARDING PASS

While aboard a ship, Dalleroi spends most of his time in common areas or lounges, practicing his craft. He will engage in any of a variety of interesting games with any passenger or crewman who cares to try his luck. Because of his reputation, Dalleroi often signs aboard under false names; usually, though, before the trip is through he will see to it that his victims are informed of who they have played against. In many cases, his fame leaves him open to recognition regardless of his adopted identity.

Player characters who see Dalleroi will know him, and who he is, automatically if they have Streetwise skill. A roll of intelligence or less (representing the player having seen and remembered news accounts or other mentions, descriptions, or pictures of Dalleroi) will also allow recognition. The referee may decide whether or not non-player characters aboard will know him.

Dalleroi is, of course, most frequently encountered over a game of cards. He may also, however, become involved with fellow passengers on board in any of a number of ways. He is often on the run from the law or from recent sore losers, and may wish to hire adventurers as bodyguards or to help divert pursuit while he makes an escape. Or adventurers may be hired by those who pursue him. Other potentials for encounters or interactions with players are also possible, as the referee desires.

Generally a peaceful man who relies on charm and brains rather than force, Dalleroi is nonetheless a crack shot with a body pistol. He usually carries at least one on his person, often in a concealed holster worn at the small of his back. He may surrender one weapon, but keep a second in reserve for emergencies. He also carries a dagger hidden in a boot sheath. Accounts of his escape from crooked casino owners aboard the Solar Flare a few years back have mentioned these weapons; throw intelligence or less for a player character to know about them.

Travellers who fall in with Verin Dalleroi will usually regret the encounter. They usually end up poorer as a result of such a meeting. Nonetheless, thanks to his great charm and wit, his victims often claim that playing with him is one of the most pleasant financial disasters they ever have had.

GILKU

Although Verin Dalleroi will play any game of chance with equal zest and enthusiasm, his name is perhaps most often associated with Gilku.

Gilku is an old and well-established Vilani game of chance. Its origins are obscure, but probably predate Vilani starflight and the First Imperium. Considerable evolution and change has taken place over the centuries, but the game's history is certainly long. The present game is played with a deck of 72 cards, and can be played by from one to seven individuals.

Cards in gilku represent numbers from one to six, plus two additional card types, the 'ku' and 'gilku' cards. There are sixteen ones, fourteen twos, twelve threes, and so forth, ending with four 'ku' and two 'gilku'. Six cards are delt to each player to begin a game.

Starting with the player to the left of the dealer, and proceeding counter-clockwise, each player has the option of playing his hand or improving it by discarding any number of cards and drawing new ones. If he desires to play, he states the fact; if not, he says "I reserve." Each player makes this choice, and that taken by the majority of the players is put into effect. In case of a tie, the dealer or house vote counts double. If a draw is allowed, each player must discard at least two cards, but may discard any number. New cards are then dealt. This procedure of discarding and drawing is repeated until a play vote is achieved; each time the discard/draw process is gone through, the value of the final point score doubles.



When play begins, the player to the dealer's left puts down a card; other players must attempt to put down a higher value card, if possible. If they have no higher cards, an equal one must be put down if available.¹ Should one player clearly win the trick, he takes it. When ties arise, the trick remains on the table until the next trick is won, with the winner taking all disputed tricks. A tie results in all involved tieing players counting their cards five points higher than normal value on subsequent rounds, until the tie is resolved. When a trick is taken, that player must now start the next trick by laying down a new card. Strategy of card play is of great importance to the game, as is a shrewd judgement of odds in determining whether to play or draw during the opening rounds.

Points are tallied after the last trick is played (and, if the last trick is tied, all cards not yet taken are lost completely). The value of cards is that shown (with 'ku' counting for 10 points, and 'gilku' for 15). Wagers are usually set in terms of an agreed sum per point scored, i.e. Cr 1 per point. This value will be increased by doubling which occurs before beginning play proper.

Several variations of this game are common throughout the Imperium Referee's Notes: To approxiamate the course of a game of gilku, a referee can use the following methods.

Each player and NPC rolls 2D and adds gambling skill to the result.

NPCs are required to play on a roll of 8+, or to draw if the result is less than 8. Players have freedom of choice; they may play or reserve. Each time the vote is taken, the stakes of the game increase, as described above.

There are six tricks in a game. Each player rolls 2D for each trick, adding gambling skill. The high result takes the trick. The score received by the player will be 1D x the number of people in the game x the winner's gambling skill (this last multible may never excede 3). The doubling and redoubling of stakes in the opening rounds will also effect the value. Ties are treated as described in the game rules above.

After six tricks, money changes hands and a new game may begin.

Referees may also wish to make an actual set of cards, and play a game out, as an experiment, Such an option is time-consuming, but may prove of some interest.

¹ The 'ku' takes any card with a numeric value; the 'gilku' takes any other card.



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THE AHRHI SUBSECTOR

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Shilhen	0109 D565220	5	S	Non-industrial	G
Yestor	0110 C667478	4	S	Non-industrial	G
Simblent	0202 A57A651	D		Non-industrial	G
Ahri	0203 C357A95	В	S	Subsector Capital	G
Lhmoore	0204 D122959	Α		Non-agricultural, Industrial	G
Zell	0205 B8A6358	D		Non-industrial	G
Abeare	0206 B453543	8	Ν	Non-industrial, poor	G
Louks	0209 D9DA613	9	S	Non-industrial	G
Fulinara	0304 C566336	6		Non-industriał	A G
Debruler	0306 C9A6200	-	S	Non-industrial	G
Silvis	0309 B34459E	7		Agricultural, non-industrial	G
Biros	0310 B594258	9		Non-industrial	G
Ince	0403 D465200	6	S	Non-industrial	
Arend	0404 EAB8495	8		Non-industrial	
134-635	0405 X6A5000	0		Non-industrial	RG
Dese	0406 B57A887	9	Ν		G
Phoub	0408 E447311	7		Non-industrial	G
Drand	0503 B544744	8	S	Agricultural	G
Yeaph	0505 D675349	6	S	Non-industrial	G
THal	0603 B599144	9		Non-industrial	G
Imdra	0604 D867447	6		Non-industrial	G
Millington	0610 C48B789	7		Rich	A G
Vate	0705 B22168A	Α	Ν	Poor, non-agricultural	G
Tesb	0803 D77B544	7		Non-industrial	G
Calan	0805 C834110	9		Non-industrial	G
Kize	0810 C100135	В		Non-industrial	

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STAR ATLAS

