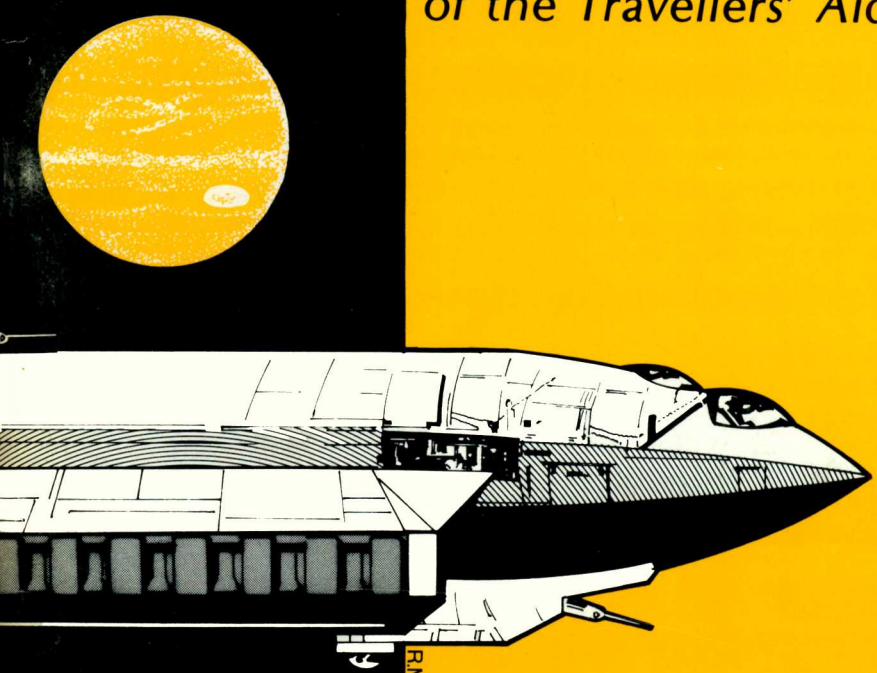
No. 4, $2

the JOURNAL of the Travellers' Aid Society



R.MacGowane

in this issue-

TRAVELLER

In addition to the basic three-booklet Traveller set, the following *Books, Adventures, Supplements,* and *Games are* available for more Traveller action!

Mercenary *(Book 4)* aims at the military adventurer with extensive rules for detailed army and marine characters, new skills, and coverage of battle resolution. A full chapter covers the new weapons of the future. $5.98

High Guard *(Book 5)* deals with detailed characters who have served in the planetary or imperial space forces (including rules for college, medical, and flight schools). Design, construction, and combat for starships ranging in size from one hundred to one million tons is presented. $5.98

The Kinunir *(Adventure 1)* concerns a class of imperial battle cruisers, and leads a band of adventurers into industrial espionage, afoul of the law, and ultimately to the answer to a mysterious disappearance years ago. Included are rumors, situations, library data, and deck plans and statistics for a 1200 ton military starship. $4.98

Shadows/Annic Nova *(Double Adventure 1)* is a set of two adventures, printed back-to-back. Each is playable separately, and both are complete with pre-generated characters (if they prove necessary), a situation, ref's notes, and detailed plans or drawings. Shadows is an alien complex on a frontier world, and Annie Nova is a mysterious starship abandoned in orbit. . . . $4.98

1001 Characters *(Supplement 1)* is a set of pre-generated characters ideal for non-player character or patron encounters. A final chapter rates nine characters from fiction—test your familiarity with science-fiction $3.98

Animal Encounters *(Supplement 2)* contains 111 different animal encounter tables, already produced, and tagged for specific terrain and world types. Ideal for impromptu adventures and situations. $3.98

The Spinward Marches *(Supplement 3)* is a set of 16 pregenerated sub-sectors situated on the edge of the Imperium. Each subsector contains a map, a list of world data and statistics, and some background data. A final chapter recapitulates the meanings of the various world factors for easy reference, and and index leads the referee to worlds by name. $3.98

Citizens *(Supplement 4)* presents character generation rules for 12 new character types, including barbarians, doctors, scientists, nobles, and rogues. Each type includes forty examples pregenerated, and ready for use as patrons or non-player characters. Check out rogue number 19. . . . . $3.98

Mayday *(Game 1)* modifies the starship combat rules in Book 2 to conform to a hex grid, and supplies die-cut counters. The game is playable with encounters, or as a two-player situation. Boxed. $5.98

Snapshot *(Game 2)* is close-combat set aboard starships. Hijacking, piracy, mutiny, and personal conflict are all possible using these combat rules and the starship deck plans. Usable with Traveller, or by itself. $7.98

Game Designers' Workshop
203 North Street, Normal, Illinois 61761

the JOURNAL of the Travellers' Aid Society

Dates in this issue of the *Journal* are given in accordance with an arbitrary Imperial calendar of 365 days. The expression of date consists of a threedigit day number (showing the current day of the year), followed by a dash and a four-digit year number (showing the current year since the founding of the Imperium).

The date of this issue is **060-1106;** the 60th day of the 1106th year of the Imperium. All dates given in this issue correspond to this dating.

The Journal of the Travellers' Aid Society is a science-fiction gaming magazine dedicated to **Traveller,** GDW's role-playing game set in the far future.

Editor— Loren K. Wiseman
Spiritual Advisor— Marc W. Miller
Publisher— Game Designers' Workshop
Artists in this issue— Roger MacGowan, cover, 14-15. William H. Keith, 5, 8, 12, 22. Tom Smith, 28, 29.

 ISSN: 0193-3124. All editorial and general mail should be sent to *The Journal,* Box 432, Normal, I Minois 61 761.

The Journal of the Travellers' Aid Society is published quarterly with an individual issue price of $2. One year subscriptions are $7 in the United States and Canada. Foreign subscriptions (outside the U.S.A. or Canada, and not to FPO or APO addresses) are $14 per year, which includes air mail postage. Please make all payments in U. S. funds drawn on a U. S. bank. Advertisers should inquire for an advertising rate card.

Submissions: We welcome articles and illustrations for the *Journal.* Please inquire before submitting manuscripts; we will send a style and want sheet.

From the Management

This issue, lets discuss weapons, and some of the rationales behind weaponry in Traveller. Of the many questions people ask us, two are fairly common; first, why do we include so many "old fashioned" weapons (like swords and knives) in the rules; second, why are the modern weapons only guns, not disintegrators or ray pistols? Let's deal with each of these topics separately.

Old Fashioned Weapons

For completeness, Traveller is forced to include a wide variety of weapons such as swords, knives, spears, and other "primitive" weapons. Dealing with primitive cultures, players could find themselves involved in a fight with a group armed with such weapons, and the rules must cover the use of edged weapons, spears and such.

Another major consideration is law level. American technology produces nukes, artillery, napalm, machineguns, and dozens of other lethal devices, but the law level makes most of these unavailable and puts obstacles in the way of the purchase of the rest. Anyone, however, can get a knife, or a tire chain, or a louisville slugger. A significant number of killings every year are accomplished with weapons that a caveman would have no trouble with.

As far as the military goes, tradition and esprit de corps can be used to justify the inclusion of some blade training. Perhaps arbitrarily, marines in Traveller receive training in the cutlass as a service skill; it's justified as a morale-building effort, like bayonet training in the US army. (I received bayonet training, hell, I *gave* bayonet training, and the army hasn't used bayonets in any real action since 1918) Officers in armies all over the world were taught fencing long after it ceased to have any military significance. Over and above all of this, some training is still given in the use of the knife because it is still one of the more efficient ways to kill silently, always of use to commandos and the like.

Finally, both players and referees should keep in mind that old fashioned weapons are not really designed with the idea that characters will depend on them for their lives. Guns, even without skill, are more efficient in most situations and can be used to great effect. Blade skill is a background skill, and should be put to good use only where it is needed.

Why Guns, And Not Disintegrators?

We are, of course, ignoring the weapons from Mercenary, and are talking about the basic weaponry set forth in Book 1. Projectile throwing weapons dominate the table because we feel that, until the distant future, they will be the most efficient means of one man damaging another.

Traveller has tried to have a sound scientific basis for its rules. Stunners, blasters, and Uranium Q - 37 atomic space modulators are very spectacular, and for this reason comic books and movies make extensive use of them. When examined more closely, however, most of the weaponry people think of when you say science fiction is very unsound

scientifically, and those which aren't are incredibly inefficient on such a small scale. Let us consider, the phaser from Star Trek. The phaser can be set to disintegrate, to stun, to induce heat, or to explode. It was created by Hollywood to make a good showing on film, and to prevent the writers from having to think too much about weapons, but upon a little deeper consideration, it falls apart. A scientific basis can be developed for the disintegrator (see Mercenary, p 42, under Nuclear Dampers), but only at an extremely high level of technological development. Even then, it would be extremely bulky, and require large amounts of power. There are a couple of good explanations of how a stunner could work (Larry Niven's ultrasonic stunner, for instance) but power once again must be considered. Microwave radiation will induce heat in some substances, but not in rocks, as has been done on various episodes. There is no problem developing a basis for explosives, but why anyone would want a pistol that was also a hand grenade is beyond me.

Lasers, masers and particle beams are certain to figure significantly in the weaponry of the future, but they will not take the form most people think of. Energy weapons of this sort are capable of doing great damage, but they have several disadvantages. First, as their name suggests, they require great amounts of energy. For the near future, at least, such weapons will be vehicle mounted, in order for their power supply to be able to accompany them. Second, being beams, these weapons are limited to line-of-sight targets. If the man you want to kill runs behind a hill, you're going to have trouble hitting him. Third, for quite some time to come, weapons of this type will be very bulky.

On the personal, hand-carried level, projectile weapons are going to be with us for a long time to come. Conventional firearms cartridges are very efficient storage cells of energy, and improvements in them are sure to continue for many years. Individual soldiers (and civilians too) will continue to carry firearms until some more efficient, relatively inexpensive means of energy storage can be developed, and this is not likely to occur in the near future.

The point of this whole discussion is that we did not just throw together the combat system used in Traveller. It came about as a result of a great deal of thought, discussion, testing and argument. It represents, within the limits of a role-playing game, what we think combat in the future is going to be like.

Marc W. Miller

Forgive us if our editorial stance has not been preoccupied with how popular the Journal is, and how all you readers want more material, and so on. It is, and you do, as your letters tell us.

Beginning next issue, we expand to 40 pages, which means at least 5 more pages of text per issue. Same price, same schedule. Thank you all.

Loren K. Wiseman

Traveller is available overseas through GDW distributors in the UK and Australia.

United Kingdom: Traveller (and its additional booklets, adventures and supplements) is printed under license from GDW in the UK by Games Workshop, 1 Dalling Rd, Hammersmith, London, W6.

Australia: Traveller is imported and distributed by Jedko games, 18 Fonceca St, Mordialloc, Vic. Australia.

TRAVELLER
NEWS SERVICE

REGINA/REGINA (0310 - A788899 - A) Date: 274-1105

¶ The Traveller's Aid Society regrets to announce the indefinite closing of its class A facility on the planet Efate (Regina 0105 - A64930 - D) and the posting of that world as an amber travel zone. Gutted during a recent firefight in the administrative capital, there are no immediate plans to repair the facility until civil order has been restored on Efate.

¶ In the event that travel to Efate is necessary, a society travel agent remains on duty and can be reached through the offices of the Oberlindes Line at Down-Franklin Starport. Travellers are advised however, to avoid travel to this world if at all possible. Ω

PIXIE/REGINA (0303 - A100103 - D) Date: 241-1105

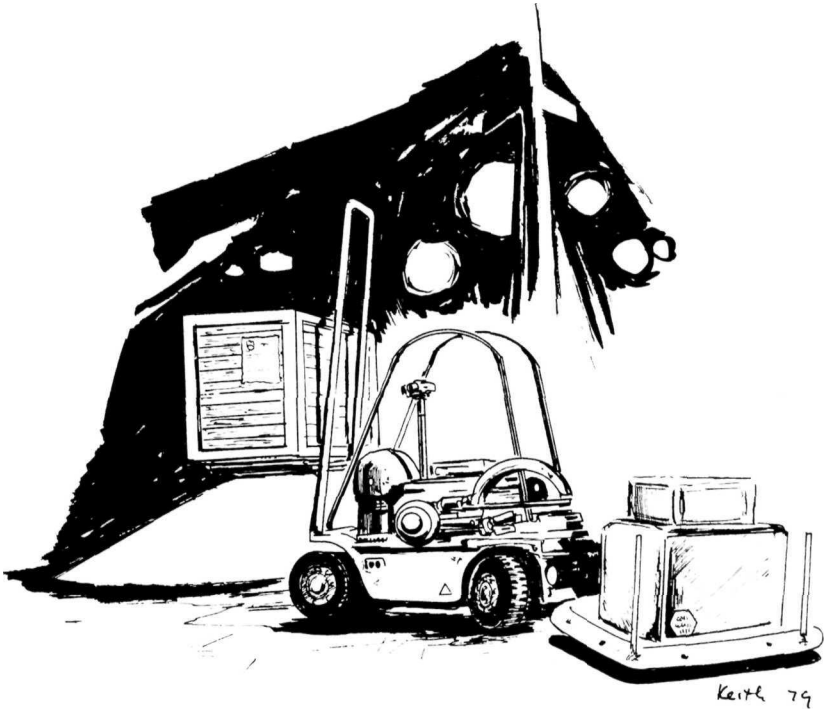
¶ The joint investigative commission into the mysterious series of explosions that ripped through General Shipyards' Vehicle Assembly Building No3 three months ago today released their findings. The two page report concluded, contrary to initial statements, that there was no evidence of sabotage and that the explosions appeared to be due to equipment failure resulting in simultaneous discharge of liquid hydrogen and oxygen, which was detonated by sparks from a short circuit in a flux welding unit which had been inadvertently left on at the end of the evening work shift.

¶ Public attention had been rivetted on the investigation since it was revealed that the explosions had seriously set back the production of L-Hyd drop tanks, equipment necessary to the opening of the high-capacity commercial service between the Regina subsector and the Interior.

¶ An initial public statement by Naval Commander Lobeck hault-Donesev, the former project-liason officer, had suggested Ine Givar involvement in the incident, and had mentioned Ine Givar activity on both Efate (Regina 0105) and Feri (Regina 0405). A subsequent Naval Counter-intelligence press release had denied any Ine Givar activity on Efate, Feri, and Forboldn (Regina 0208).

¶ When the Naval Counter-intelligence representative on the joint commission, Lieutenant Artura Gramlyn, was questioned about the inclusion of the planet Forboldn in the denial statement, he replied "Well, there isn't any Ine Givar activity on Forboldn. There isn't any Ine Givar activity anywhere in the Subsector. We are familiar with all Ine Givar activity, and there isn't any." Ω

Traveller News Service is another Imperium-wide benefit of membership in the Travellers' Aid Society.



Trade and Commerce

A number of people have argued that there will be no basis for trade as we know it in the far future. A world is generally possessed of sufficient and diverse resources that it will not have to import raw materials. Manufactured goods from its own tech level can be produced more efficiently locally, and there would be little demand for goods of lower tech levels. Worlds of high tech levels can avoid the raw materials problem almost entirely with sophisticated synthesis techniques. In terms of trading its manufactured goods to a lower tech level world, what does a low tech level world have that a high tech level world wants?

The difficulty with this argument is that it rests on the assumption that trade is the result of primitive manufacturing techniques, which it is not. Trade is the result of economic imbalance. The development of improved manufacturing, synthesizing, and energy generating processes will not spell the end of trade, so long as the rate of technological development is not evenly distributed. The important consideration is not what a tech 4 world would have that a tech 10 world wants; it is instead how much of its material wealth a tech 4 world is willing to give to obtain access to tech 10 goods.

The answer to this question provides the basis for any system of trade — the have-nots are willing to give a relatively high proportion of their wealth to obtain items beyond their capabilities to produce locally. In the context of Traveller, low tech level worlds are willing to trade a large number of their native products to obtain a small number of products of a higher tech level. This will result in a generally

higher standard of living in the higher tech level worlds, which is reflected by higher incomes (and prices) in absolute terms. Rather than generate separate tables of prices and incomes for each world, the easiest way to handle this is with currency exchange rates.

The exchange rate system proposed here is based on two variables: tech level and starport type. The assumptions are that the lower a planet's tech level and the more primitive its facilities, the more it is in need of more sophisticated goods. The table assumes a maximum normal tech level of 15 in the Imperium. The basic currency of exchange is the Imperial Credit (generally referred to as an Imperial). All currencies are listed in their percentage value of an Imperial. Thus, a credit from a tech level six world with a type D starport is worth .4 Imperial Credits. All interplanetary financial transactions and monetary exchanges are done on the basis of the Imperial, and thus it is not necessary to keep track of how much of your currency is obtained from one world, and so on. Upon landing, all currency desired is converted to the local currency at the table's listed rate and reconverted to Imperials upon departure.

Goods: All prices of goods on a world which are capable of being produced at the tech level of that world or lower are available at the base price given in Traveller in local currency. Goods available at a higher tech level are available at the equivalent of the base price of the item in credits of a world of the necessary tech level and with a type A starport. For example, a player wishes to purchase a map box on a tech 6 world. The base price of a map box is Cr 2500 (Traveller, Book 4, Mercenary, p 42) and it can be produced on worlds with a tech level of 9 or higher. To obtain the price of the map box on a tech 6 world, convert the base price from local currency to Imperials at its point of production. Consulting the table, a tech 9 world with a type A star-

	STARPORT TYPE					
Tech Level:	*A*	*B*	*C*	*D*	*E*	*X*
15	1.00	.95	.90	—	—	—
14	.95	.90	.85	.80	.75	—
13	.90	.85	.80	.75	.70	—
12	.85	.80	.75	.70	.65	—
11	.80	.75	.70	.65	.60	—
10	.75	.70	.65	.60	.55	.45
9	.70	.65	.60	.55	.50	.40
8	.65	.60	.55	.50	.45	.35
7	.60	.55	.50	.45	.40	.30
6	—	.50	.45	.40	.35	.20
5	—	.45	.40	.35	.30	.10
4	—	—	.30	.25	.20	bart
3	—	—	.20	.10	.05	bart
2	—	—	—	.05	bart	bart
1	—	—	—	.01	bart	bart
0	—	—	—	—	—	bart

port has an exchange rate of .7 credits per Imperial, thus making the price of the map box Cr 1750 (Imperial). The player is on a tech 6 world with a class D starport, which has an exchange rate of .40 credits per Imperial. Dividing 1750 by .40, the player discovers that the local price for the item is Cr 4375.

Services: Starport services are generally available at the local currency rate, including costs for refueling and life support servicing.

Maintenance is also available at local costs unless the maintenance is on a ship more advanced than that tech level could normally produce. For example, a player (or a group of players) in a type C cruiser lands at a class B starport on a tech 9 world with the intention of having yearly maintenance performed. The type C cruiser has type M power plants and drives, which can only be manufactured on worlds with a tech level of 12 or higher. Therefore, maintenance costs would be paid as if on a tech 12 world with a class B starport instead of a tech 9 world with a class B starport.

Trade and Speculation: When purchasing trade goods, the above notes on goods are in effect. Thus, anything capable of being produced locally and available for purchase is available at its base price in local currency. Any modification to this as a result of the purchase price die roll is done on the basis of the local price. Items which cannot be produced locally are available for the base price in the currency of a world of the correct tech level with a class A starport.

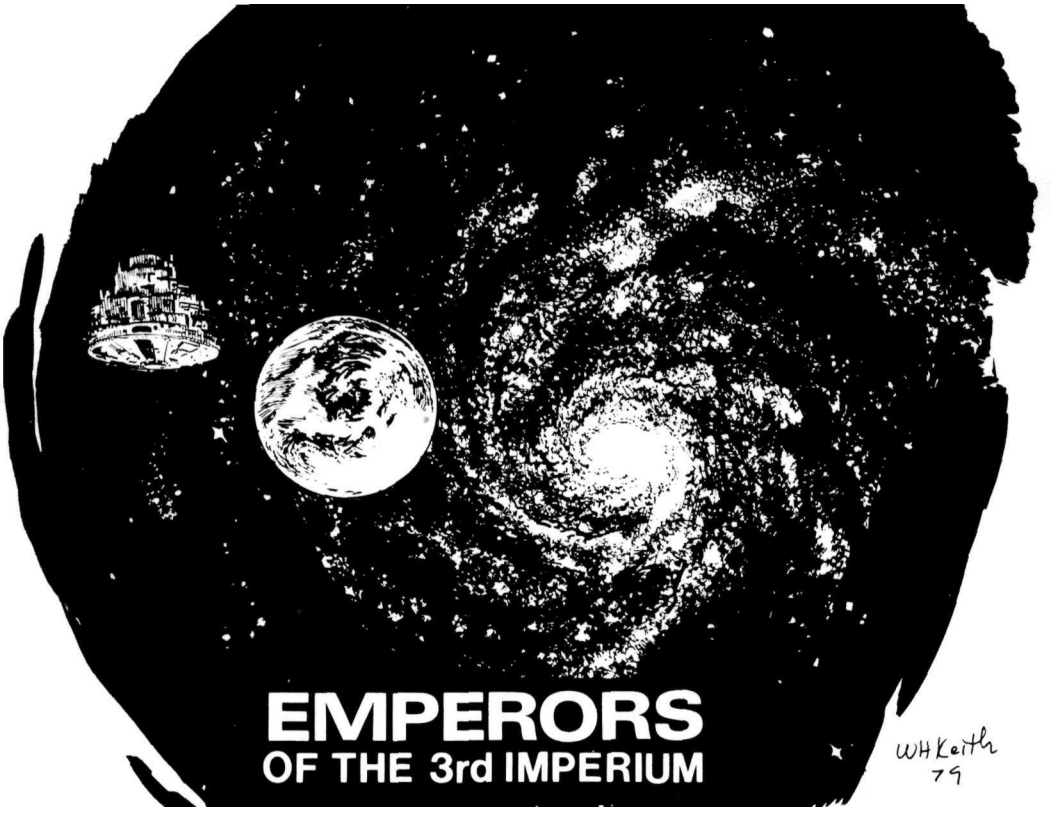
When selling goods, a different exchange rate is used. If selling goods to a world with a lower tech level, the exchange rate of the world of purchase is used. For example, consulting the resale table (Book 2) indicates that the price paid is Cr 100000. If the goods were purchased on a tech 9 world with a class B starport, (exchange rate .65 credits per Imperial) the value received would be Cr 65000 (Imperial). When selling goods to a world with a higher tech level, an exchange rate midway between the resale world and the purchase world is used. For instance, goods are purchased on a tech 6 starport C world (exchange rate .45) and resold on a tech 14 starport A world (exchange rate .95). The resale price would be in credits valued at .70 Imperial. If the resale price of the goods was Cr 100000, value received would be Cr 70000 (Imperial).

Barter: Those worlds with the notation "bart" are barter worlds, societies either so primitive or so remote that there is no meaningful basis of exchange between the economic heartlands of the Empire and them. Referees should determine the details of such a situation.

Ship Payments: Ship payments are done to the bank conducting the financing. Since this bank will presumably be on the world of manufacture, payment will be made at that exchange rate. This will mean that a ship manufactured on a world with a very high tech level will be more expensive in real terms than an identical ship manufactured on a world with a lower tech level. Referees may wish to account for this by assuming incorporation of a number of minor improvements on the ship of higher tech level design, such as greater system reliability.

Implementing the system: For small transactions, the best way to implement the system is to have travellers con-

continued on p. 31



The *Old* (or *First) Imperium* spanned a large portion of this spiral arm of the galaxy before Terrans ever reached the stars— it persisted for nearly two hundred years in the face of Terran expansion. Ultimately falling before the expansion of Terran humanity, it reincarnated as *The Rule of Man.* While Terrans were superb in their expansion to other systems and other worlds, their control of the stellar reaches already explored proved too little too late, and this *Ramshackle Empire* continued the pervasive decay present in the Old Imperium into an age of war and chaos called the *Long Night.*

This period of interstellar anarchy ended some 1500 years later with the establishment of the *3rd Imperium.* In a thirty year campaign which molded public opinion at the same time that battle starships were convincing local governments, Cleon Zhunastu committed a family industrial base and a firm foundation of political support to the creation of an empire that would rival the glories of past ages. He succeeded in forming a government that controlled, with velvet-gloved fist, nearly a hundred subsectors.

In the 1100 years since the assumption of Cleon I, the Emperor's List has been a convenient reference to the events in the growth and development of the Imperium. The relationship of dates and emperors serves as a mnemonic device and lends color to the data.

Cleon I: First of the Zhunastu dynasty and first Emperor of the Imperium. Born 57 PI, proclaimed hereditary emperor for life in the first year of the Imperium. Died of natural causes in 53.

Cleon II: Only issue of Cleon I. Also known as Cleon the Weak. Born 21, pro-

claimed emperor 53, abdicated 54. In point of fact, recent study indicates that the term weak may be an unfair description of Cleon II. Apparently unsuited to devious palace politics, but still recognizing the need to consolidate the power of the fledgling Imperium, Cleon abdicated in favor of his brilliant chancellor, Artemsus Lentuli. Vitally concerned with the welfare of his former realm, Cleon spent the rest of his long, active, colorful, and from all accounts, happy life on the frontier as a self-appointed, and extremely effective, one-man fire brigade.

Artemsus: First of the Lentuli dynasty. Born 17 PI, proclaimed emperor in 54, died of natural causes in 166 at the then incredible age of 183, demonstrating the characteristic natural longevity of the Lentuli line.

Martin I: Eldest son (an elder daughter preceded him, though did not pursue a career in government) of Artemsus. Born 12, proclaimed emperor 166, died of natural causes 195. The *Solomani Hypothesis* (that the humans of the galaxy are all descended from one genetic stock, spread by some ancient race for reasons unknown; and that the source of that stock was Terra of Sol) was proposed in 114 and received immediate, though somewhat uninterested acceptance.

Martin II: Oldest issue of Martin I. Born 53, proclaimed emperor 195, died 244 of natural causes without issue.

Cleon III: In the dynastic crisis caused by the death of Martin II without direct issue, Cleon Zhunastu, great-great-great grandson of Cleon II by direct first issue, appeared as the most legitimate claimant to the throne. Born 201, proclaimed emperor 244, assassinated 245. Also known as the Mad, it appears that while Cleon's claim to the throne was flawless, he was not. His behavior in office soon convinced surviving members of the government that he was a homicidal maniac, and a decision to dispose of him was made and implemented in short order.

Porfiria: Fourth in the reestablished Lentuli dynasty, Porfiria was the oldest issue of the grand-nephew of Martin II. Born 201, proclaimed empress 245, died of natural causes in 326.

Anguistus: Oldest issue of Porfiria. Born 246, proclaimed emperor 326, died of natural causes 365.

Martin III: Second issue of Anguistus (a preceding infant died in childhood). Born 289, proclaimed emperor in 365, died in an air/raft accident in 456 at the age of 167, having outlived his only issue. In memory of this deceased son, the title Martin IV was never used by an emperor.

Martin V: Grandson of Martin III, oldest issue of Martin IV. Born 357, proclaimed emperor 456, died of natural causes 457.

Nicholle: Oldest issue of Martin V. Born 401, proclaimed empress 457, assassinated 475.

Cleon IV: Generally believed to be responsible for the assassination of the Empress Nicholle and the murder of her immediate family, Cleon IV was a distant relation in the Zhunastu line and based his claims to legitimacy on that. Generally regarded as an interloper now, Cleon IV is considered to be the first of the non-dynastic emperors. Born 423, proclaimed emperor 475, assassinated 555.

Jerome: Ascended the throne by right of moot election. Born 525, proclaimed emperor 555, assassinated 582.

Jaqueline I: Ascended the throne by right of moot election. Born 561, proclaimed empress 582, assassinated 606.

During the reign of Jaqueline, extensive expansion of the Rimward Fringe of the Imperium took place, due primarily to her economic policies which depended on cost-effectiveness. Sol-Terra was reintegrated into the Imperium in 588.

Olav: First of the Emperors of the Flag. Olav hault-Plankwell, as Grand Admiral of the Marches, defeated the massive incursions of the *Out-World Coalition* in the *First Frontier War* (589-604). Upon return to the Imperial Core, Olav personally murdered the Empress Jaqueline I and proclaimed himself emperor by right of fleet control. Born 532, self-proclaimed emperor 606, killed in battle 609.

Ramon I: As Olav's chief-of-staff, Ramon was able to convince large portions of the fleet to attempt an overthrow of Olav. In the Battle of Tricanus 5 (609) Ramon's forces were apparently defeated, but Olav's flagship was destroyed with all hands in a final closing action. Born 560, proclaimed emperor by right of moot election 609, assassinated 609.

Constantus: Born 562, and self-proclaimed emperor by right of assassination in 609. Killed in battle 610.

Nicolai: Defeated the forces of Constantus in the Battle of Rakakaka (610). Born 559, proclaimed emperor 610, assassinated 612.

George: Born 558, self-proclaimed emperor by right of assassination 612, assassinated 613.

Numerous emperors of uncertain status and unlikely heritage ruled fragments of the Imperial Core from 613 through 615. None held a sufficient balance of power to be judged truly emperor, and the Home Worlds had formed a temporarily autonomous state. Nevertheless, no break in the Imperium is judged to have taken place as the Imperial bureaucracy continued to function without interruption.

Cleon V: Born 565, proclaimed emperor 615 after the resubjugation of the Home Worlds. Killed in battle, 618.

Joseph: Born 581, proclaimed emperor after defeating Cleon V in the Battle of Markhatch (618), killed in battle the same year.

Donald: Born 579, selfproclaimed emperor after the defeat of Joseph in the Battle of Arakoine (618), assassinated 618.

Emdiri: Born 571, proclaimed empress 618. assassinated 619.

Catharine: Born 582, proclaimed empress 619, assassinated 619.

Ramon II: Born 566, proclaimed emperor 619, killed in battle 619.

Jaqueline II: Born 569, proclaimed empress after defeating Ramon II in the Battle of the Nivzhine Belt (619), killed in battle 619.

Usuti: Born 558, proclaimed emperor after defeating Jaqueline II in the Second Battle of Arakoine (619), killed in battle 620.

Marava: Born 551, proclaimed empress after defeating Usuti in the Third Battle of Arakoine (619), killed in battle 620.

Ivan: Born 580, proclaimed emperor after the defeat of Marava in the Battle of Sulgami (620), killed in battle 620.

Martin VI: Born 597, proclaimed emperor after the defeat of Ivan in the First Battle of Zhimaway (621), assassinated 621.

Gustus: Born 581, proclaimed emperor 621, killed in battle 622.

Arbellatra: First of the Alkhalikoi dynasty (and occasionally considered to be 18th of the Emperors of the Flag). Born 587, served as Grand-Admiral of the Marches, and led the defeat of the

Out-World Coalition in the *Second Frontier War* (615-620). Returned to the Imperial Core with strong fleet elements and defeated the remnants of the Central Fleet under Gustus in the Second Battle of Zhimaway (622). Proclaimed regent in 622 pending the location of a suitable surviving heir to the throne. Proclaimed empress in 629. Died of natural causes in 666.

Zhakirov: Oldest issue of Arbellatra. Born 624, proclaimed emperor in 666. Zharirov's marriage to Antiama in 679 marked and cemented an alliance between the Alkhalikoi dynasty and the business interests of the Imperial Core; it broke the power of the Solomani interests at court, and ultimately led to the *Solomani Rim War* (990-1002).

Margaret I: Oldest issue of Zhakirov. Born 684, proclaimed empress in 688, died in a tunnel collapse without issue in 736.

Paulo I: Second issue of Zhakirov. Born 684, proclaimed emperor 736, died of natural causes in 767.

Tomutov I: Oldest issue of Paulo I. Born 712, proclaimed emperor 767, abdicated 768, died of natural causes 801.

Paula II: Oldest issue of Tomutov I. Perhaps best known for her steady hand at the helm of state during the *Psionic Suppressions* of 800-826. Born 752, proclaimed empress 768, died of natural causes 836.

Tomutova II: Third issue of Paula II (preceding heirs died before ascending the throne). Born 782, proclaimed empress 836, died of natural causes 908.

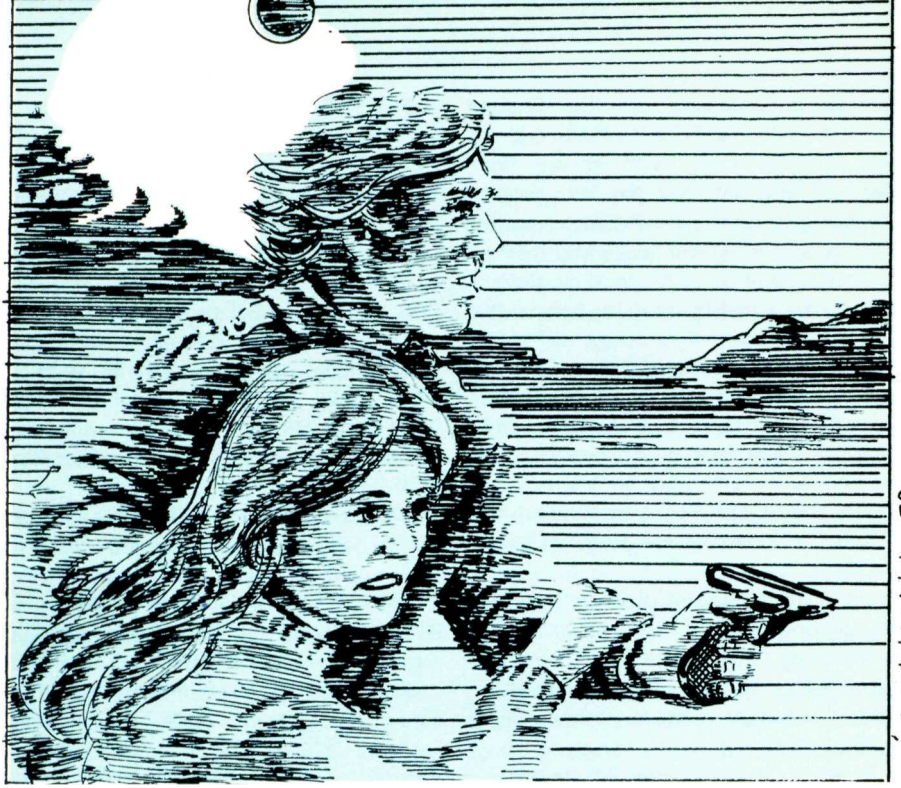
Margaret II: Oldest issue of Tomutova II. Born 824, proclaimed empress 908, died of natural causes 945.

Styryx: Oldest issue of Tomolin (oldest issue of Margaret II, b. 901, d. 944). Born 920, proclaimed emperor 945, abdicated 989 in the repercussions of the mismanaged *Third Frontier War* (979-986).

Gavin: Oldest surviving issue of Styryx. Born 946, proclaimed emperor 989, died of natural causes 1031.

Paulo III: Oldest issue of Gavin. Born 981, proclaimed emperor 1031, died of natural causes 1071.

Strephon: Oldest surviving issue of Paulo III. Born 1049, proclaimed emperor 1071. During his reign the *Fourth Frontier War* (1082-1084) erupted; clever public relations turned it to Strephon's advantage, although he physically had little to do with it. The long delay in communication with the front meant that his order held little sway, and the armistice arrived almost as soon as the news of war. The conflict, however, has been called the False War, and it resolved little of the continuing tension between the Zhodani and the Imperium.



Sharmun (X-86787A-5 Red) is a lost colony on the a frontier section of the empire. It was re-discovered by the scout service in 1076. The team determined that the government of the planet was split between the Victor, a charismatic dictator, the Collective, a state similar to Stalinist Russia, and several other minor states which either the Victor or the Collective was in the process of annexing. Both states were totalitarian and militaristic, both possessed stockpiles of atomic and conventional weapons, and both were convinced that an all-out war was someday inevitable. Both cultures were found to be xenophobic in the extreme and paranoid. The scout service xenologists judged it to be 87% likely that overt contact would trigger a nuclear war, either due to mistaken identity or out of fear by one side or the other that their enemies would be able to surpass them. Covert contact was judged 91% likely to cause war if discovered. The planet was posted Red and interdicted to allow Sharmun to resolve its own destiny.

Players will be contacted by Kinson, an NPC scout who has a ship but no money. (scouts 11, 19, 21, 39, 27 or others from 1001 Characters are suitable if money is reduced to Cr 250 or less and a scout ship is assumed). Kinson will tell them that 11 years ago he was loaned to the navy for a top-secret mission. Despite the secrecy the small navy fleet was attacked without warning as it swung through a planetary system to refuel. Kinson's ship, a destroyer, took multiple missile hits. It depressurized and lost control. Kinson had just completed some EVA and was wearing a

Amber Zone

vacc suit. He was able to escape through an ejection tube. As he closed his face plate he heard the navigator shout, "The money!" and the First Pilot reply, "No time!". Kinson watched as the damaged ship dropped toward a green planet below him. He was picked up a few hours later by the sole surviving Imperial ship. A total of four ships had been lost. Normally a court of inquiry convenes upon the loss of an Imperial ship, but instead Kinson was made to sign the Official Secrets Act and ordered to forget the whole affair. This unusual behavior aroused his curiosity, and he began snooping. It took time, but he found that his fleet had carried a quarterly fleet payroll: three months wages for all Imperial naval personnel in the sector. Imperial soldiers are (by old custom) paid in cash. The green planet below him had been Sharmun. Lastly, the scout which picked him up had detected neutrino emissions from a jump drive, indicating that Kinson's ship had reached the surface almost intact. Had news of the loss been released, hordes of treasure hunters would have descended on Sharmun. Kinson believes that the ship has not been found by the Sharmunese and that a small party would be able to find the money without being discovered.

Referee's Information:

The public data tapes have not been revised in 25 years. Sharmun is now at tech level 7. Both the collective and the Victors have space navies with efficient M-drive ships. They have colonized the two planets closest to Sharmun, and there is frequent traffic between the colonies and the home world. Both sides will assume the players' ship is hostile and shoot on sight.

The destroyer crashed into a lake in the Collective's territory. It has not been discovered. The lake is about 1 by 5 km. One long side is a swamp about 1 square km. On the other is a new Young Collectivist Camp, swarming with 400 well-scrubbed Y.C.'s 12-15 years old and 40 adult advisors. They are both sexes and wear cute red and white uniforms. There is a "Re-education Center for Enemies of the Collective" 20 km west of the lake. A city of 40000 population is 100 km to the south. Good highways link the youth camp, the concentration camp and the city. The area is heavily forested, but will not hide a scout ship. Twenty km north of the lake are rugged hills in which a scout ship can be concealed from all but direct overflight (camouflage net will block even that).

The ship is on its belly is 60 meters of water, bow up, about 150 meters from the swampy shore of the lake. The upper ½ of the ship still holds air, which will bubble to the surface if entry is forced, unless precautions are taken. Emergency lights still work, and several bodies are aboard, but there is evidence someone survived the crash.

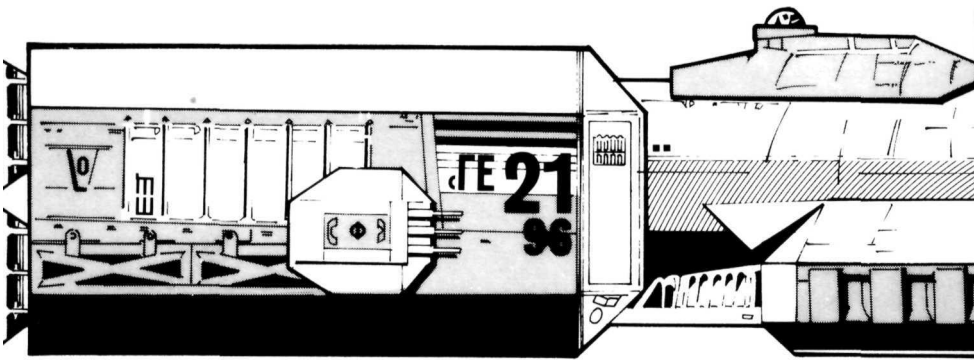
The money (Cr 5000000 in soggy but otherwise undamaged bills) is underwater, in the rear cargo hold, in two crates, about 2 x 1 x 1 meters. The cargo hatches are buried in mud and corroded shut.

Both Sharmunese governements have only conventional radar, which can be scrambled by a scout's defence screens. The location of the wreck should not be revealed at first, although a scout ship has detectors which will be able to locate it in a few hours. The season when the players arrive will be mid-summer, and the lake will be extensively used for swimming, fishing, boating, and so on.

The referee should prepare a sketch map of the lake and the area around it, including the two camps, the swamp, the city and the interconnecting road.

continued on p. 31

Gazelle



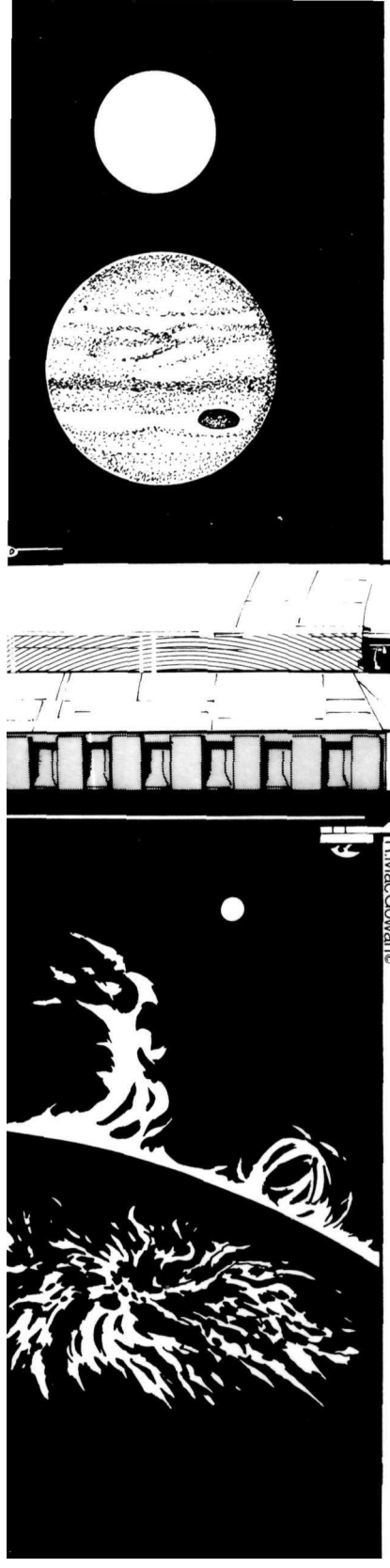
Stepping out of jumpspace near Carsten, the Free Trader *Empress Nicholle* immediately began routine scans of the few worlds of the system, and of the vacuum which separated them. The initial returns showed nothing unexpected: three worlds, a flock of worldlets at the trojan points of the gas giant, a dull red star. The navigator had just begun to notice the clump of pips at the limits of detector range when the communicator squawked.

"Unknown ship, identify yourself. This is Imperial Close Escort *Unicorn.* Perform no maneuvers until you have been identified." The transmission was characteristic of long-range communication: the imperial voice continued to repeat its basic message while the three minute light-speed gap was crossed.

Cirle Corward, navigator, gunner, boat driver, and underpaid, knew enough to respond quickly, simultaneously thumbing the alert button, straightening in her acceleration couch, and taking the microphone. *"Unicorn,* this is *Empress Nicholle,* Imperial Registry Five Five Niner Two Seven. Home port Equus. Bound for Carsten from Aramanx." She poked a few buttons and the computer started beamcasting her reply on a closed tape loop.

Forty seconds later, in response to the alert, the captain was on the bridge buttoning his shirt. "What's up?"

"Looks like an Imperial convoy out there. Or possibly a war patrol. They want our IDs, which I gave. Now we're waiting for their answer."



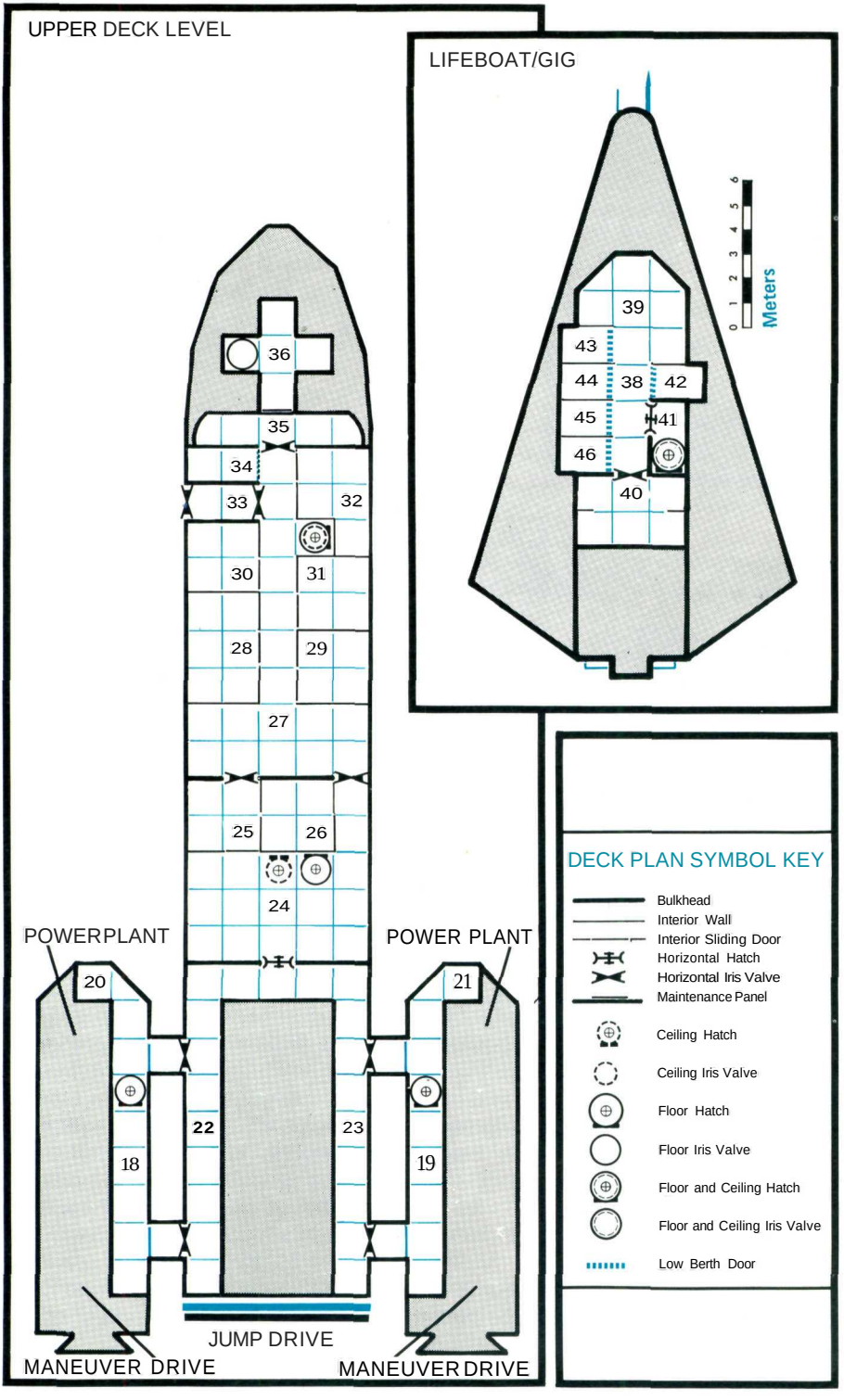
The captain settled into his acceleration couch, turned off the alert lights, and then squinted at the scanner readings. "What class did you say they were?"

She hadn't, but she glossed over that fact. "I don't have much data from this distance, but the hailer identified itself as the close escort *Unicorn,* and three of the four blips are identical. I make them all escorts of the same class."

"Hmm, that should be *Gazelle* class, maybe four hundred tons. Hand me that copy of *All the Emperor's Fighting Ships* there." He was interrupted as he leafed through the volume.

"Empress Nicholle, this is Imperial Close Escort *Unicorn.* Prepare to verify identification." Corward switched off the closed loop beamcast, and swivelled to the computer activation keyboard in anticipation. The transmission carried a humming undertone as their computer fed format to the free trader's computer. After a brief wait, "Transmit at my signal." The speaker beeped; the navigator keyed an instruction, and a burst of harmonics indicated that the data had been transmitted.

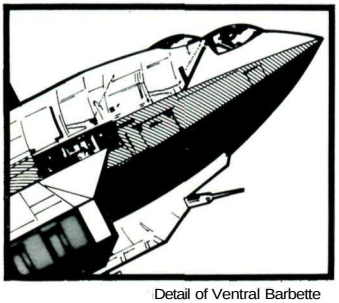
The captain went back to his book. After a few minutes, he looked up. "I am glad we're just carrying a load of protein this trip. I wouldn't want to tangle with even one *Gazelle* class escort, let alone five. Buzz the drive room and tell them everything is all right. Get them ready to skim the gas giant." He turned back to his book of deck plans and basic data, momentarily captivated by the description of one of Strephon's starships. The Imperial confirmation of his identity several minutes later came as no surprise at all.


UPPER DECK LEVEL
LIFEBOAT/GIG
0 1 2 3 4 5 6
Meters
39
43
44
38
42
45
41
46
40
36
35
34
33
32
30
31
28
29
27
25
26
24
POWERPLANT
POWER PLANT
20
21
22
23
18
19
JUMP DRIVE
MANEUVER DRIVE
MANEUVER DRIVE
DECK PLAN SYMBOL KEY
Bulkhead
Interior Wall
Interior Sliding Door
Horizontal Hatch
Horizontal Iris Valve
Maintenance Panel
Ceiling Hatch
Ceiling Iris Valve
Floor Hatch
Floor Iris Valve
Floor and Ceiling Hatch
Floor and Ceiling Iris Valve
Low Berth Door

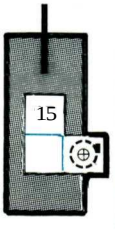
GAZELLE

CLASS CLOSE ESCORT SHIPS

Tonnage: 400 (standard). 5600 cubic meters.
Acceleration: 4G constant.
Dimensions: 48L x 23W x 8.5H. In meters.
Crew: 4 officers. 8 men. Rarely ship's troops.
Jump: 4
Powerplant: 4
Engineering: Two Triptic Halonic fusion power-plants coupled to an IDC Fardrive jump unit and 2 model 16 impulse maneuver drive modules.
Gravities: Inertial compensators; 1G floor field.
Range: Unlimited maneuver. 1 jump. 100 days.
Armament: Dual outboard triple beam turrets. One dorsal and one ventral barbette; fitted with charged/neutral particle accelerator single mounts.
Screens: Nuclear dampers. Armored hull.
Electronics: ISMM Model/3 on board computer. Integral fibre optic back-up system.
Ship's Boat: One 25.5m gig/lifeboat.
Special Feature: Twin L-Hydfuel tanks mounted longitudinally along the main hull.



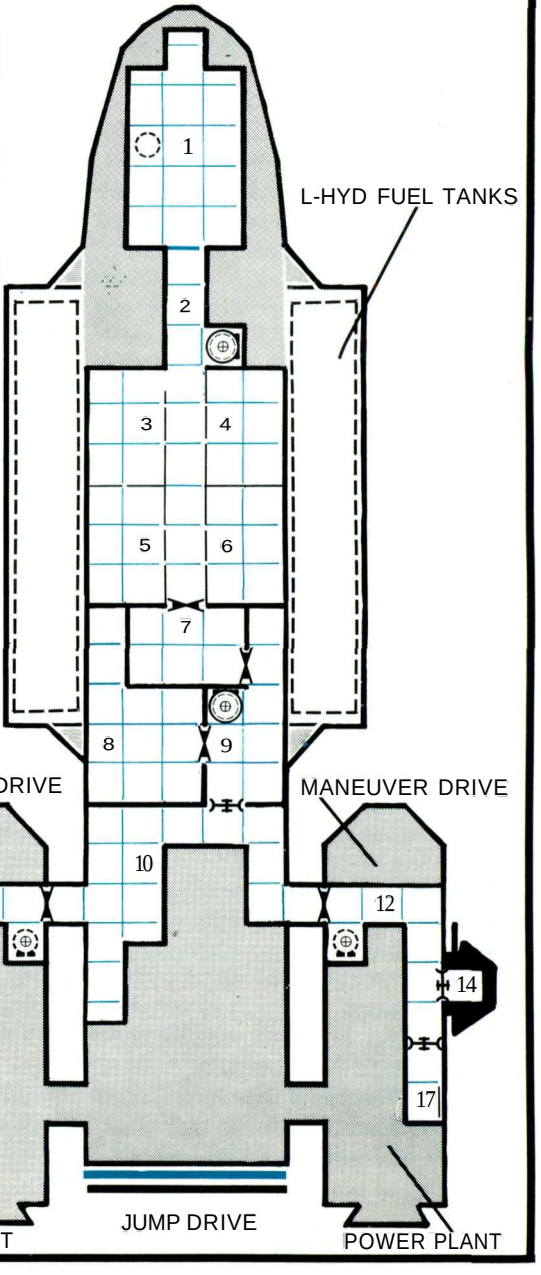
Detail of Ventral Barbette



VENTRAL BARBETTE

DORSAL BARBETTE

LOWER DECK LEVEL



The following data should be considered to be available in any library program within the Imperium, and available under the keywords— Gazelle Class Close Escort.

GENERAL SPECIFICATIONS

Naval tactics in the Imperial Navy call for large ships to be accompanied by well-armed, small fighting craft capable of engaging the enemy at long range, before they approach the principle ships in a task force or convoy. These small ships may be fighter craft carried by the larger ships, or they may be independent close escort vessels.

Thousands of close escorts have been built in the past several centuries, and hundreds have been built in the Gazelle Class. Specifications are reproduced on page 17.

ENTRY POINTS

Gazelle class ships have five possible points of entry. Normal points are the air lock at location 33, the gig hatch in location 9, and the ceiling hatch adjacent to location 32. Both the ceiling hatch and the gig hatch are crouch locks.

Unusual points of entry include the maintenance panels on the drive modules (locations 16 and 17), access panels on both the barbettes, and the sensor scanner domes on the nose of the ship (they must be dismounted or broken into) leading to location 36.

Crouch Locks: Small air locks with double hatches or doors mounted very close together. Ordinarily, such passages are used for mating ships, and for direct passage between them. They may be used for direct access to vacuum without evacuating an entire area.

Turrets: The triple laser turrets each have access panels on their rear faces, but they do not lead into the ship interior.

SHIP INTERIOR

The interior of the ship is divided into a lower deck level, an upper deck level, two barbettes, and a gig.

LOWER DECK LEVEL

The lower deck level is predominantly crew quarters and cargo hold.

1. Avionics Section containing deep radar, communications equipment, scanners, and detectors.
2. Connecting Corridor with flight and power consumption recorders.
3. Crew Stateroom for one gunner and one drive room lackey.
4. Crew Stateroom for one gunner and one drive room lackey.
5. Crew Stateroom for one gig pilot and one drive room lackey.
6. Crew Stateroom for two gunners, one of which is the chief gunner.
7. Common Room for crew members, generally used for off duty, or for training classes.
8. Cargo Hold for 12 tons. Interior includes shelving and storage bins, and is generally devoted to food and supply storage. The long narrow portion contains a dumbwaiter to the galley above.
9. Passage. This area allows activity for gig docking and personnel transfer.
10. Jump Drive Room.
11. Port Drive Module with one power plant and one maneuver drive.
12. Starboard Drive Module, similar to location 11.
13. Triple Laser Beam Turret with interior position for gunner.
14. Triple Laser Beam Turret with interior position for gunner.
15. Ventral Barbette located forward and accessed from hatch at location 2.
16. Port Vent Maintenance Area to allow cleaning and maintenance for the power plant discharge vents. Accessible from inside or from outside.
17. Starboard Vent Maintenance Area. Similar to location 16.

UPPER DECK LEVEL

The upper deck level contains the bridge, officers quarters, the galley, and sick bay.

18. Corridor allowing access to and operation of the port drive module.

19. Corridor allowing operation of the starboard drive module.

20. Port Nuclear Damper (described in High Guard).

21. Starboard Nuclear Damper (described in High Guard).

22. Corridor allowing access to and operation of the jump drive.

23. Corridor allowing access to and operation of the jump drive.

24. Ward Room for meals and leisure.

25. Galley for meal preparation.

26. Sick Bay.

27. Officer's Lounge for the privacy of officers in their leisure time.

28. Command Pilot's Stateroom.

29. Navigator's Stateroom.

30. Chief Engineer's Stateroom.

31. Medic's Stateroom.

32. Model/3 Computer Room.

33. Air Lock.

34. Ship's Locker.

35. Bridge with acceleration couches for command pilot and navigator.

36. Forward Avionics Area.

37. Dorsal Barbette with access via the ceiling hatch in location 24.

THE GIG

The gig serves as a lifeboat for the ship, and as its access to world surfaces.

38. Corridor within the gig.

39. Bridge with acceleration couches for pilot and gunner.

40. Drive Room.

41. Air Lock. Note that the hatches open both up, into the ship, and down, for exit when on a surface.

42 - 46. Low Passage Berths These berths can be used by conscious passengers, one per berth, or as low passage berths with two person in each.

THE BARBETTES

The barbettes, and their particle accelerator weapons are not specifically covered in Traveller Book 2. They are a variant drawn from the material in High Guard, and grafted onto Book 2. Specifically, the barbettes are 5 tons each. The particle accelerators should be treated as heavy lasers as in Traveller Book 2, subject to an advantageous DM of +2 to hit. Damage from such hits should be skewed toward crew casualties, and electronic and computer damage if there is no fibre optic back-up present.

High Guard. In the completed forms on pages 20 and 21, the registry number can be used as the High Guard ship profile (ignoring the final two digits).

L-HYD TANKS

The two longitudinal fuel tanks of the Gazelle class ship are engineered to be droppable in extreme circumstances. The ship has high capacity accumulators in its jump drive, and can completely burn its fuel prior to jump, storing the energy while the tanks are then jettisoned. The decrease in tonnage for the ship results in greater efficiency, and the ship can jump farther (J-6). Additional fuel tankage within the ship allows maneuver, but the tanks must be replaced before the ship can again jump.

MINIMUM CREW

Although the ship has a crew of 12, it is possible for it to function with fewer personnel. Minimum crew is four, a pilot (who doubles as navigator), a chief engineer (doubling as medic), and two ordinary engineers, who may also function as gunners. Someone aboard must be capable of operating the gig.

In the face of crew casualties, the ship can operate with a crew of two-pilot and engineer.

SHIP'S PAPERS (COMMERCIAL)

1. Date of Preparation: 091-1105

2. Ship Name	3. Registration Number
Unicorn	CE-4444C2-900600-40400-0-77

4. Ship Type	5. Builder	6. Homeworld
Close Escort	Clan Severn	Rhylanor (0306-A434934-F)

7. Laid Down	8. First Flight	9. Cost *(new)*	10. Occupation
105-1084	098-1086	MCr350.874	Naval Duty

STATISTICS

Basic ship information for classification and registration purposes.

11a. Hull Tonnage	11b. Streamlined?	11c. Max Atmosphere
400 ☐ Standard ☒ Custom	☐ Yes ☒ No	Skim only

12. Acceleration	13. Jump	14. Power Plant	15. Cargo *(in tons)*
4	4	4	9 tons

16. Staterooms	17. Low Berths	18. Full Crew	19. Minimal Crew
8	5 (in gig)	4 off, 8 men	2

20. Ship's Vehicles *(describe)*

one 25.5m combination lifeboat/gig. 20 tons, streamlined. Capable of maneuver up to 3G. One fixed beam laser aimed forward. Acceleration couches for 5, plus crew of 2. Or low berth carriage for 10 (5 doubles).

21. Crew Manifest *(list names, UPPs, skills, salaries, and shares for all crew members)*

Cmd Pilot -
Navigator -
Chf Engr -
Medic -
Chf Gunner-
Gig pilot -
Gunner -
Gunner -
Gunner -
Drv Lackey-
Drv Lackey-
Drv Lackey-

22. Owner *(include full particulars on owner, whether present or not)* ☐ Aboard ☐ Absent

Imperial Navy. Attached to 212th Fleet. Rhylanor.

23. Ship Name
Unicorn

SHIP'S COMPUTER

Data concerning the on-board computer and available programs.

24a. Computer Model	24b. CPU and Storage	24c. Mass	24d. Value
Model/3	5/9	3 tons	MCr18.

25. Computer Programs *(note those programs available)*

Routine	Space — Cr	Defensive	Space — Cr	Offensive	Space — Cr
☒ Maneuver	1 — 0.1	☒ Maneuver/evade 1	1 — 1.0	☐ Predict 1	1 — 2.0
☒ Jump 1	1 — 0.1	☒ Maneuver/evade 2	2 — 2.0	☐ Predict 2	2 — 4.0
☒ Jump 2	2 — 0.3	☒ Maneuver/evade 3	3 — 3.0	☒ Predict 3	1 — 6.0
☒ Jump 3	2 — 0.4	☒ Maneuver/evade 4	4 — 4.0	☒ Predict 4	3 — 8.0
☒ Jump 4	2 — 0.5	☐ Maneuver/evade 5	2 — 5.0	☐ Predict 5	2 - 10.0
☐ Jump 5	2 — 0.6	☐ Maneuver/evade 6	3 — 6.0	☒ Gunner Interact	1 — 1.0
☐ Jump 6	2 — 0.7	☒ Auto/evade	1 — 0.5	☒ Target	1 — 1.0
☒ Navigation	1 — 0.4	☐ Return Fire	1 — 0.5	☐ Selective 1	1 — 0.5
☒ Generate	2 — 0.8	☒ Anti-Missile	2 — 1.0	☐ Selective 2	2 — 0.8
☐ Anti-Hijack	1 — 0.1	☒ ECM	3 — 4.0	☐ Selective 3	1 — 1.0
☒ Library	1 — 0.3			☐ Multi-target 2	1 — 1.0
				☐ Multi-target 3	2 — 2.0
				☐ Multi-target 4	4 — 3.0
				☐ Launch	1 — 2.0
				☐ Double Fire	4 — 4.0

ADDITIONAL DATA

Information on armaments, inventories and services performed.

27. Turrets *(list turrets by hardpoint; indicate installed weaponry)*

1. Triple Laser Beam Turret, Starboard.
2. Triple Laser Beam Turret, Port.
3. Particle Accelerator Barbette, Dorsal.
4. Particle Accelerator Barbette, Ventral.

28. Ship's Locker *(inventory contents)*

twelve Vacc Suits, with EVA gear and 8hr oxy tanks.
four SMGs, each with 50 loaded magazines.
four Rifles, each with 50 loaded magazines.
six Auto Pistols, each with 20 loaded magazines.
twelev Cold Weather Clothing suits.
three Long Range Communicators.

29. Annual Maintenance *(indicate date of last performance)*

ROBOTS III

In this final installment, we will outline some rules for using robots in a Traveller campaign. Please bear in mind that these are only suggestions, and are not meant to be exhaustive. Individual referees should feel free to modify or add to these rules as they see fit.

GENERAL NOTES

Robots should be treated as non-player-characters by the referee. While they are intelligent and capable of some independent action, they are limited by their programming in the actions they may take. Referees might find it convenient to consider them to about the same mental caliber as an anthropoid ape (chimpanzees, gorillas, etc).

Robots are used by some societies in jobs that are considered too dangerous, too demeaning, or too tedious for human beings. In addition, although they are initially somewhat expensive, robots are cheaper than humans in the long run. A starship captain, wishing to save on crew salaries and staterooms might purchase a robot to act as a steward or even as a pilot or navigator. A military base on a planet far removed from the trade lanes and not likely to be attacked for years (but vital nonetheless) might be manned by robots. An outpost on a planet with an environment in which humans cannot operate efficiently might be staffed by robots. Other jobs that robots might fill include fire-fighting, mining, exploration and surveying, maintenance, and service (valet, butler, etc).

PROGRAMMING

The various actions a robot performs are controlled by the instructions which it is given. These instructions are called programs, and the process of instructing a robot is called programming.

A program tells the robot all it needs to know to perform a single job. Since

some jobs are more complex than others, some programs are longer than others. The total number of programs a robot can "know" at any one time is governed by the capacity of its brain. Each brain (see the previous article in the Journal, No. 3), has a maximum capacity for storage and use of programs (called programming capacity). Each program is given a size quantification on the program tables. A robot may contain any number of programs as long as total size of the programs does not exceed the program capacity.

A robot has access to all programs in its brain at all time, and may use any or all of them simultaneously, as long as the two do not actually interfere with each other.

The programs table lists a number of representative programs, their size and the cost to purchase them initially or to have a robot reprogrammed with them, and any equipment necessary to the job for which the program is intended.

The descriptions below give the minimum equipment requirements for a given program. Other equipment may be added if desired.

Referees will undoubted wish to devise programs of their own. The following definitions and descriptions will serve as a guide.

The following programs duplicate skills found in Traveller book 1. The basic program is equal to the first level of a particular skill (i.e. Pilot-1, and so on). Additional levels of skill (such as Pilot-2, etc) may be added at additional cost and increased space, (details are given under the add'l level columns of the programs table).

Pilot: Permits the robot to function as a pilot, per book 1, p 19. Requires two light work arms or direct interface with controls.

Navigator: Permits the robot to function as a navigator per Book 1, p 19. Requires two light work arms or direct interface.

Steward: Permits the robot to function as a steward per Book 1, p 19. Requires one light work arm (two preferred) and voder/vocorder.

Medical: Permits the robot to act as a medic, per p 20. Requires two light work arms.

Air/raft: Permits the robot to operate an Air/raft, per Book 1, p 16. Requires two light work arms or direct interface.

Ship's Boat: Permits the robot to operate a ship's boat, per Book 1, p 17. Requires two light work arms or direct interface.

ATV and AFV: Permits the robot to operate either an ATV or an AFV per Book 1, p 17. Requires one light work arm or direct interface.

Gunnery: Permits the robot to act as a starship gunner, per Book 1, p 19. Reuires two light work arms or direct interface.

Electrical: Permits the robot to operate, maintain and repair electronic devices per Book 1, p 18. Requires two light work arms and proper tools.

Mechanical: Permits the robot to operate, maintain and repair mechanical devices per Book 1, p 18. Requires two light work arms and proper tools.

Engineering: Permits the robot to operate and repair jump and maneuver drives and to operate, maintain and repair power plants per Book 1, p 20. Requires two light work arms and proper tool kit.

The remaining programs are do not duplicate any particular skill, but are job programs. They cannot be added to or expanded in any way.

General Vehicle: Permits the robot to operate most classes of land vehicle

(such as AFV, ATV, automobile, etc). This does not include primitive or specialized vehicles. Requires two light work arms or direct interface.

Valet: Permits the robot to act as a body servant, laying out clothes, cooking, running errands, and so on. requires two light work arms, and general human shape.

Weapon Handling: Permits the robot to operate and maintain any weapon, similar to Gun Combat skill in mercenary. Restricted to one type of weapon. Light work arm optional if weapon is installed.

General Weapon Handling: As above, but not restricted to one weapon. Requires at least one light work arm.

Zero-G Movement: Permits the robot to move in zero or low gravity conditions by using handholds, thrusters, and so on. Zero-G movement package is useful, but not required.

Minimum Security: Permits the robot to act as a security guard for minimum security installations. The robot will patrol a specified area at irregular intervals, and report any unauthorized personnel or extra-ordinary events such as fires, etc. Weapon and enhanced vision are advantagous, but not required.

Medium Security: As minimum security, but the robot will detain any unauthorized personnel entering a specified area. Weaponry and enhanced vision are required.

Maximum Security: As medium seccurity, but the robot will fire on unauthorized personnel entering a specified area. Weaponry and enhanced vision are required.

Ground Combat, Infantry: Gives the robot the rudiments of ground combat, permitting it to act as an infantryman. Weapon required, enhanced vision is advantagous.

Ground Combat, Armored: As above, but the robot is acquainted with armored and vehicular combat. This program includes AFV skill. Weapon optional, but two light work arms or direct interface required.

Fire-fighting/Rescue: This program permits the robot to battle all forms of conflagration, to rescue humans from disasters, and to administer rudimentary first aid. One light and one medium work arm are required.

Cargo Handling: Permits the robot to load and unload space ships, starships, helicopters, boats, and other air and ground vehicles. Medium or heavy work arms are required depending upon the exact nature of the tasks.

The above list should not be taken as comprehensive. Other programs are certainly possible. The referee should use the above descriptions as a guide in formulating any new programs or changes in old ones.

ROBOT'S RULES OF ORDER

What follows is a quick rundown on using robots in Traveller. Most of the specifics are left up to the individual referee. He or she should decide the role that robots are to play in his or her personal universe.

Movement: The movement ability of a robot depends upon the mass and the type of locomotory apparatus of the individual robot, the movement table gives the maximum speed over various terrain types for wheels, tracks, and a/g units. Leg equipped robots of chassis types I through V move at the same rate as humans, and are subject to the same restrictions (see Book 1, pp. 28-29). Leg equipped robots with chassis types VI - VII move at half human speed, and are prohibited from rough terrain and areas such as swamps or bogs (due to their high ground pressure, they become mired down more readily than those equipped with tracks or wheels).

Wheeled robots, tracked robots, and a/g robots should be thought of as AFV's, ATV's and air/rafts respectively, as an aid in determining how terrain and other factors effect their movement.

For the purposes of Snapshot, consider robots to have 20 action points. Other restrictions will have to be decided upon depending on the size and nature of the robot.

Combat: Unless specially armored, robots are as easily damaged as humans by combat. Combat involving robots should be adjudicated as per book 1, but with the following modifications:

The basic required throw to hit is the same for robots as for humans. This throw should be modified according to the robot's size and other factors.

A robot is considered to be armored as if it were a human wearing cloth. After determining that the robot was hit and the total points of damage done, the referee should determine what portion of the robot was hit. To do this, roll two six-sided dice, and compare the results with the following:

2	=	Brain
3 - 4	=	Locomotory App.
5 - 6	=	Work arms, if present, otherwise locomotory apparatus.
7 - 9	=	Power Plant
10	=	Weapons if any, otherwise power plant
11	=	Sensors
12	=	Commo Gear

If a brain receives damage points, it is destroyed, and the robot ceases to function.

If a locomotory apparatus takes damage, the extent of the damage will vary with the size of the unit. Consult the table below.

If commo gear or sensors take damage, divide the damage points equally among all components in that classification. If a particular piece of equipment takes one point or less of damage, it is reduced to 50% efficiency (what this means in game terms is up to the referee to decide). If it takes more than one point damage, it is reduced to 10% efficiency. If it takes two or more points damage, it is destroyed.

If a power plant takes one hit per 5 kgs of its mass, its power output is reduced to 50%. If it takes three hits per 5 kg of its mass, it is reduced to 10%. Four hits per 5 kg destroys the power plant. Each time a power plant is hit, there is a chance it will explode, des-

DAMAGE TO LOCOMOTORY APPARATUS

Type:	*Points of damage inflicted:*				
Wheels I-III	2-4	5-8	9+		
Wheels IV-V	3-5	6-9	10+		
Wheels VI-VII	4-6	7-10	11+		
Legs I-III	1-3	4-7	8+		
Legs IV-V	2-4	5-8	9+		
Legs VI-VII	3-5	6-9	10+		
Tracks I-III	3-5	6-9	10+		
Tracks IV-V	4-6	7-10	11+		
Tracks VI-VII	5-7	8-11	12+		
A/G I-III	1	2-5	6+		
A/G IV-V	2	3-6	7+		
A/G VI-VII	3	4-7	8+		
	-50% speed	*-75% speed*	*Loc.*	*App.*	*destroyed*

troying the robot. Roll 2D for 11+ each time a power plant is hit.

A work arm is reduced to 50% lifting capacity when it takes 3 points of damage if light, 6 points if medium, and 9 points if heavy. It is reduced to 10% lift if it takes 6, 9, and 12 points respectively. Any further points destroy the arm beyond hope of repair.

Other aspects of combat exist, which the individual referee must work out, to suit his or her campaign.

PROGRAMS

	BASIC LEVEL		ADD'L. LEVEL	
Programs:	*Space:*	*Cost:*	*Space:*	*Cost:*
Pilot	2	5	.4	1
Navigate	2	5	.4	1
Steward	1	3	.2	1
Medical	2	5	.5	1
Air/raft	1	4	.4	1
Ship's Boat	1	4	.4	1
ATV & AFV	.7	3	.4	1
Gunnery	1	4	.3	1
Electrical	1	4	.2	1
Mechanical	1	4	.2	1
Engineering	2	4	.4	1
General Vehicle	2	4	—	—
Valet	1	3		
Weapon Handling	.5	3	—	—
General Weapon Handling	1	4	—	—
Zero - G Movement	.5	2	—	—
Minimum Security	1	2	—	—
Medium Security	2	3	—	—
Maximum Security	2.7	3	—	—
Ground Combat, Infantry	2.5	4	—	—
Ground Combat, Armor	3	5	—	—
Fire-fight ing/Rescue	2	2	—	—
Cargo Handling	1	2	—	—

Cost is in 100 Credits

MOVEMENT (kms/hour)

	Terrain Type			
Chassis Type:	*Road:*	*Cross-Country:*	*Rough:*	*Mountainous:*
Wheels I-II	150	75	40	20
Wheels III-V	120	50	20	10
Wheels VI-VII	100	30	10	Prohibited
Tracks I-III	75	40	40	30
Tracks IV-V	50	20	30	10
Tracks VI-VII	40	15	20	5
A/G I-VII	200	200	200	200

Terrain equivalents (see Book 3, p 26):

Cross-Country = Clear, desert, plains, beach, shore.

Rough = Hills, foothills, forest, woods, jungle, rainforest, swamp, marsh.

Maintenance: All robots require maintenance twice per year. This must be carried out on a planet of at least tech level 12. Maintenance costs Cr 500 plus the cost of any replacement components needed. Damaged components may be repaired at a cost of one-half original purchase price.

Additional Components: The following additional components might be of interest:

Armor: A robot may be equipped with the equivalent of reflec armor at a cost of Cr 100 per 100 kg total mass, at no additional mass. A robot may be equipped with the equivalent of battle dress at a cost of Cr 500 per 100 kg of total mass. Uparmoring in this way increases the weight of the chassis by four, and must be done when first built.

Zero - G Movement Package: A set of gas-operated maneuver thrusters and magnets which permit a robot to operate in a zero gravity environment.

Direct Instrument Interface: This is not a component, but a mechanical arrangement. The robots circuits are connected to the control circuits of a ship or vehicle. Both the robot and the vehicle must be prepared ahead of time, at a cost of Cr 1500 per ship or vehicle. A player with mechanical expertise can make the necessary connections, with the necessary components costing Cr 750. The interface may be broken or reconnected at any time. This arrangement has the advantage of faster information transfer (and thus reaction time), permitting the robot to have a better chance of avoiding mishaps.

The Three Laws of Robotics: No discussion of robots in SF would be complete without at least a mention of Asimov's Three Laws. These are too well known to quote here, but they are intended to insure that robots do not harm humans. Obviously, these laws are going to be required by many governments, and just as obviously, any robot involved in war, police or security operations cannot be restrained by them. The referee should use his or her own judgement.

ANTHROPROMORPHISM

Robots can be made to generally resemble humans in shape (two arms, two legs, head, torso, etc). This is usually done when the robot is to spend a great deal of time amongst humans, or where it must use human tools and furniture. At increased expense and loss of flexibility, robots can be built to be almost indistinguishable from humans.

There are, of course, restrictions:

- The robot may must be built on chassis types I, II or III, no others, using legs for locomotion.

- They may incorporate internally no weapon other than a body/snub pistol, at twice normal cost. This weapon may be concealed only in the hand or chest.

- They must allocate 10% of the total unit mass available to smooth contours and external covering.

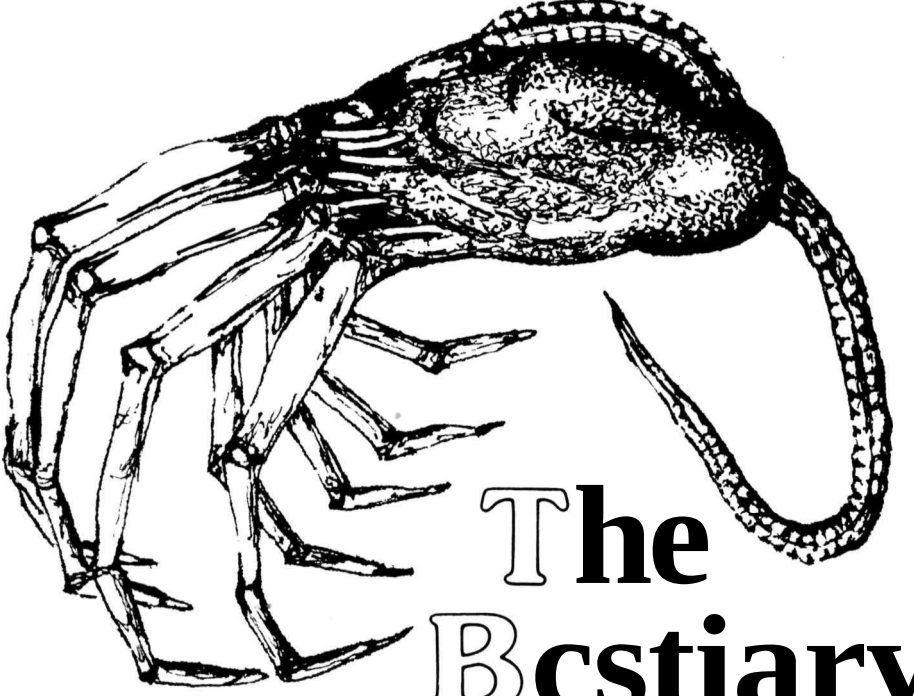
- Chassis, brain and power plant costs are doubled for such robots.

Referees will have to devise their own rules to cover such creations.

Final Notes: Two errors occured in last issue's article which may have caused some problems. The sample robot given on page 11 should weigh 70 kg not 74 as stated. The Chassis section of the components table contains a typo. The cost of chassis types I and II should be 7.5 and 9.5 respectively, not 75 and 95. Also, note that a robot does not have to use all its components at the same time, the power restrictions apply only to those components actually in use.

We would appreciate readers' comments and criticisms of these articles.

Loren K. Wiseman



The Bestiary

Reticulan Parasite
(unclassified)

This particular organism, originally discovered on a smallish planet (1200 km in diameter) orbiting Zeta II Reticuli, enters various stages in its short life cycle. It can be found in nearly any type of habitat— its requirements for life support are very low when in the dormant state. It is normally found as a large "pod," ovoid in shape, some one-third of a meter high, and of a leathery texture. These pods are attached to the floor surface or wall upon which they rest, always evenly spaced at intervals of about 1.5 meters. Typically, a quantity of 100 to 200 pods are found on one habitation.

These pods remain quite dormant until they "sense" a suitable nearby host organism, at which time a single creature inside becomes quite active. At first opportunity, the parasite will powerfully spring out of the opening top of the pod and, using its eight spindle-like legs, maneuver into a position to force a tubelike appendage into the host's body.

The parasite, at this stage, is rather small, about 1.5 kg, and roughly human hand sized. It has no apparent sensory organs. Besides the legs mentioned, it also has a tail approximately one-half meter long. The tail is used to propel the creature from its pod, and with the legs, to firmly attach the parasite to its host, so that the tube appendage may continue its work. This tube is used to keep the host comatose but functioning while the parasite transfers material inside the host body cavity. This process takes 2 to 4 hours, and when the procedure is completed, the hand-like organism will die and drop off. It is important to note that the creature in all states utilizes strange types of bodily fluids which are quite corrosive to all known metals, alloys, or plastics. These bizarre fluids can eat through a starship bulkhead in four seconds.

The host will regain consciousness and usually feels normal but quite hungry. Within two hours of awakening, however, the parasite will burst forth violently from the host's body and seek solitude from other organisms. It then undergoes a tremendously rapid growth process, reaching true maturity in 15 to 75 minutes.

The mature Reticulan Parasite, when developed from a human host, reaches 2.3 meters in height, weighing 120 kg. It is humanoid in form, although it often retains vestigal stumps on its back (remants of its four undeveloped legs from the intermediate stage). The head is most grotesque in shape, quite elongated (about 90 cm) and no sensory organs seem apparent. Only a large, many-toothed mouth is present. Within the mouth is a cylindrical appendage, rigid, that can extend with great force up to 30 cm to attack prey. This small appendage is ringed with many sharp teeth. The hands of the creature develop long talons, and the primal tail is retained, now some 2 m in length. The creature at maturity is tremendously powerful. Its strength in limbs, hands, tail, and jaws is far superior to normal human strength.

The parasite, at this stage, becomes quite vicious. It will stalk, capture, and kill nearly any animal organism it can for the remainder of its short life. It is not precisely known what the creature derives from these wanton murders, as it does not use the corpses for food at all. Biological theorists have postulated that the parasite obtains a "life energy (electrical or otherwise)" from its victims which it uses directly to perpetuate its small life span.

At any rate, the parasite becomes an extremely efficient killer and tracker. It quickly develops rudimentary animal intelligence and is capable of moving very silently and quickly. Its attacks are

swift and terribly violent, the only motive being murder. Despite its large size, its slim physique enables it to seclude itself within or move through relatively small passages.

The total lifespan of the Reticulan Parasite is directly proportional to the number of victims from which it can steal life. Often, from pod to new larvae, the creature lives only a few hours. When the parasite can no longer find organisms to prey upon, it will become comatose and the growth of new larvae will begin within the creature.

This growth will take several weeks, and when full larval stage is reached, some 100 to 200 larvae will emerge from and consume the adult body. These small larvae (weighing less than 200 grams each, and maggot-like in appearance) will attach themselves to the nearest surface at about 1.5 meter intervals (space permitting). These larvae grow in about 3 months into the seed pods mentioned earlier, and the cycle is renewed.

Animal	Type	Weight	Hits	Armor	Wounds &	Weapons	
100	Eggs	3kg	0/5	jack	0	none	A0 F0 S0
100	Larvae	200g	1/2	none	3	none	A0 F7 S½
1	Parasite	2kg	0/8	jack		special	A0 F0 S0
1	Parasite	6kg	9/4	jack	12	teeth	A0 F0 S3
1	Parasite	120kg	30/15	battle	9	teeth	A0 F0 S3

Attacks with surprise; flees if surprised
Acid blood inflicts 100-600 points damage per turn

It senses life energy, and tracks excellently regardless of scents or lighting. It can follow an energy trail left recently.

Normal mode of attack is to seize the prey with claws and/or tail (tail attacks as thrasher) and attack the prey with the stinger in its mouth. Its equivalent strength is 20. To break its hold an individual must throw 20-individual's strength on two dice.

Upon killing one victim, the creature derives one more hour of life. This must occur within two hours of bursting from the host, or the parasite will become dormant and produce larvae. The number of larvae produced is 50-300 (1Dx50).

In the intermediate form (the hand-like creature), it can be cut with a laser (armor as jack), but remember its acid-like blood. The hand-like creature cannot be removed from its host without the death of the host. If removed, it will immediately assault the nearest available potential host, and can use its bodily fluids at this stage to burn through protective armor of any kind.

It is suggested that this creature be used very sparingly, as it is extremely powerful, despite its short life-span. The seed pods can be concealed or disguised in order to persuade unlucky players to investigate. My intention with this essay has been to be true to my sources, not to create a beast that can be used for everyday encounters in Traveller.

Chuck Kallenbach III

Bibliography:

Alien, a novel by Alan Dean Foster, Warner Books, 1979.

Alien, The Illustrated Story, Archie Goodwin and Walter Simonson, Simon & Schuster, 1979.

Alien Poster Magazine, Paradise Press, 1979.

The Book of Alien, Paul Scanlon and Michael Gross Smith, Simon & Schuster, 1979.

After creating a diagram of a spaceship or map of a city, a planet, etc, cover it with transparent contact paper. The map can then be written on with a china marker during an adventure and wiped clean for re-use.

vert their personal spending money to local currency upon grounding ship and then pay base prices for support, lodging, bribes, items of personal equipment, etc. For large transactions, specifically trade and speculation, the easiest way to conduct the transaction is to convert the prices to their real value in Imperials. This is also the best way to carry out ship payments. Determine the monthly balance due to the bank at local prices on the world the ship was purchased on and convert this to Imperials. This gives the player a clear idea of how much money in real terms he must make a month.

Black Markets: Concern with balance of payments and trade, a wish to limit contact with off-world cultures, or a desire to protect and develop native industries may lead a strong and/or reactionary government to artificially regulate the exchange rate of its currency. Such a government will exchange Imperials for local currency at one or two exchange rate levels higher than the exchange rate table indicates. Thus, if the table indicates an exchange rate of .40, the official exchange rate may be set at .45 or .50. This is only used for exchanging Imperials for local currency. When local currency is exchanged back to Imperials, the normal exchange rate is used. The price of all goods on the world is determined using the actual exchange rate, not the artificial exchange rate.

In such a situation, a black market in currency will flourish, and can normally be contacted by players, with both Admin and Streetwise skills helping considerably. Whether or not a world sets such standards is up to the referee and should be based generally on government type and the unique situation the world is in. How vigorously the world attempts to suppress the black market is, of course, dependent upon law level.

Why Bother?: Two answers are possible. For the purist, this implements a system which reflects to a greater degree the economic differences between worlds of different tech levels and provides a sounder basis of economic interaction in the game. For the game player, it provides more diversity in the economic options available, and the more diverse the options, the more interesting the game. Besides, once the system is understood, it really isn't as much bother as it seems, unless carried to ridiculous extremes. (If your referee starts calculating the local price of the jawbreaker you're going to *buy* at the local candy store, he's gone too far.

Frank Chadwick

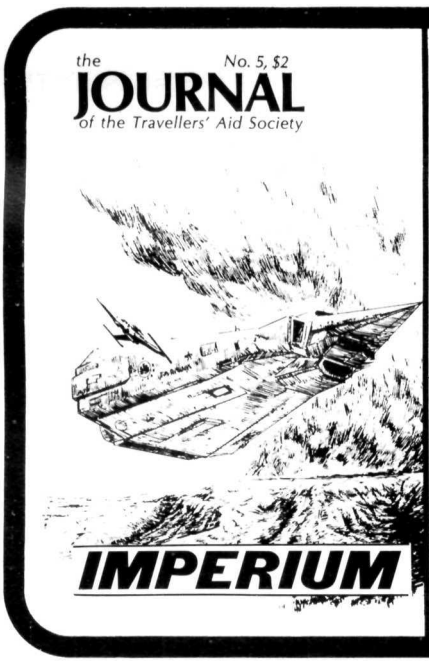
continued from p. 13

On the first full day after the players arrive, there is an escape from the concentration camp, and the YC camp will be put on alert. At night the adult advisors and the older youths will be armed with rifles and patrol the shores of the lake. This will last for three days and nights.

If the players are spotted, they will be shot or arrested. If their ship is spotted in the air, roll 2D for 10+ to trigger a war. If spotted on the ground, it will be rapidly surrounded by units of the Collective's army. If the players fire on any city or military force, they will start a war on 2D for 5+, and will at the very least draw return fire from the Collective's military.

The money in the crates was newly printed, with consecutive serial numbers within denominations. If any of the money returns to circulation, a massive Imperial investigation will be started, which the referee must adjudicate.

Jeff May



Next Issue:

Journal Expands To 40 Pages!
With:

Imperium Ground Combat Module, by Roberto Camino. An expanded alternate surface combat system for *Imperium.*

Special Psionic Abilities, by John Morrison. A look at "special abilities".

Expanded *Amber Zone,* some sample robots, a special edition of the *Ship's Locker* and more!

Starships and Spacecraft

Three 22" x 34" sheets, 25mm scale three-color deck plans of all standard TRAVELLER Starships and Auxiliaries, complete technical data, ship's papers and layout grid for your own Starship design.
No. 89.....$5.50

Traveller Referee Screen

Approved for use with "TRAVELLER". Four piece referee screen. Many combat tables and other useful data reprinted thereon. All weapons from 'MERCENARY' are included also.
No. 75.....$2.50

Traveller Logbook

Approved as a TRAVELLER gaming aid. Many charts on personal development and starship maintenance and combat character sheets and ship's papers are included. Illustrated.
No. 78.....$3.00

JUDGES GUILD
1165 N. University Ave. (J-1)
Decatur, IL 62526
Phone: (217) 422-1930

DOUBLE STAR- In a binary star system, the pressures of growth and expansion lead to war between two colonies of Earth. Double Star is a game of this war, fought as planets whirl in their orbits and fleets fight between worlds. Long range planning allows small moons to be pulled from orbit and hurled at enemy worlds; special training rules allow the use of formations by fleets, with great effect on firepower and defense. Limited industrial output, orbital fighters, planetary defense systems, and populations. Boxed, $9.98.

SNAPSHOT- As the small free trader *Beowulf* jumps between the stars, one of the passengers secretly assembles a concealed pistol, and slowly works his way to the bridge. Just as the hijacking begins, the computer kicks in: doors slam shut and seal off the ship's vital areas. This time, the hijacking is foiled. *Next time?* Snapshot is a game of close combat — be it hijacking, mutiny, or boarding parties — aboard the starships of the far future. All manner of weapons and all types of individuals are included, as well as detailed starship plans. Boxed, $7.98.

BELTER— Against a background of frantic prospecting (for the wealth of the asteroids is why people are here). Belter is a political/economic game of many levels. Represented are individual players, as well as groups of crewmen, prospectors, thugs and troops. . . all with their own abilities and goals. Players must manipulate this population as they seek both economic and political power. More than a simple boardgame, Belter introduces elements of role playing and imagination. Realistic constraints (supply and demand, supervised elections, physical violence) shape the course of the game. Boxed, $11.98.

TRAVELLER- is different. Not a boardgame, Traveller is devoted to role playing science-fiction situations. Players assume the roles of citizens of the future, with all the options wide open. Limited only by the amount of effort they wish to put into the game, players may explore new worlds, puzzle out enigmas of old civilizations, conduct complicated confidence games, smuggle, build empires, lead revolts, fight wars. . . the list is as endless as the imaginations of the players. Boxed, $11.98.

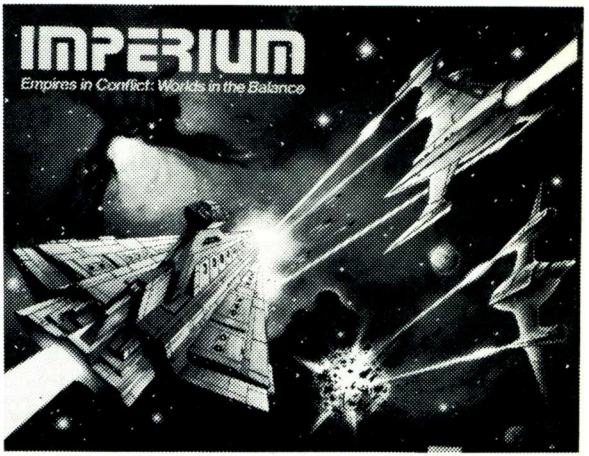
All above science-fiction games are boxed, and each contains a game map showing the location in contention, die-cut counters to represent ships, people, forces and equipment, and rules governing play. Traveller contains three 48 page rules booklets only. For more information on these and other GDW science-fiction games, write for our free SF flyer. All of these games are available through hobby and game shops, or direct (and postpaid in the US and Canada) from

GDW

203 North Street
Normal, Illinois 61761

Battle for the Stars . . .

To the empire which has ruled the stars of this spiral arm for generations, the Terrans are the new barbarians, beating at the gates and vandalizing civilization. . . This is the premise of *Imperium,* a far-reaching science-fiction boardgame of interstellar imperialism in the conceivable future. On a star map of the region surrounding Sol, starships battle for the possession of star systems, and elite armies invade and conquer whole worlds in the name of their Emperor.



A common subject in science-fiction is that of vast interstellar empires locked in deadly conflict. *Imperium* is a new departure in the fictional treatment of this subject: in lieu of a fixed story line on the subject (as in a novel or short story), an extensive framework of rules and information allows two players to pit themselves against each other, each attempting to best the other through strategic sense and tactical expertise. The story is always there, but the action and the ending are wide open; as players participate in the control of their empires, the story is rewritten new every time.

Imperium strives to include a wide variety of possibilities in order to insure continuing enjoyment of the game. Some of these features include:

- ★ *Starship Combat*— Ships are armed with both beams and missiles, as well as protective shields. Detailed rules cover the use and employment of these weapons when ships meet between the stars.
- ★ *Maintenance*— The support of ships in far-flung campaigns represents a continuing drain on any treasury. Strict maintenance rules continually limit the available forces for each side.
- ★ *Troops*— Some ships can carry the troop units which are essential to invasions and conquests. Planetary surface combat is a distinct phase of conflict.
- ★ *Interstellar Movement*— Starships can move freely along specified jump routes, or may elect to travel at sublight velocity.
- ★ *Continuing Wars*— *Imperium* may be played again and again; each game is not a duel to the death, only a struggle for ascendency. At the end of each game, a peace treaty is concluded, and starting positions for the next war are generated. Only after several wars have been fought is complete domination of an area possible.

Imperium is a complete boxed game, and includes 350 die cut-counters, a star map game board, and extensive rules and charts. Available at your local hobby dealer, or direct from:

Game Designers' Workshop, 203 North Street, Normal, Illinois 61761