

SMALL UNIT TACTICS FOR TWILIGHT:2000

BY MARK HAYES

The world of TWILIGHT:2000 is unique in many ways when compared to other post-apocalyptic role-playing games. Perhaps the most striking difference is that the characters are all well-trained combat veterans. It's therefore, not unusual to find armed combat taking on a far greater degree of importance than in most other RPG's.

Very few players have been through Army or Marine basic training. Most have never received any kind of small arms instruction. It's not surprising, then that most players fight their characters as if they were merely civilians armed with military weapons.

In most other RPG's, the combat system is just one of several rules elements that allows players to accomplish objectives. In these games combat, which consists of aiming a weapon at your opponent and rolling dice, is not only enjoyable, but is often a satisfactory means of dealing with opposition. In TWILIGHT:2000, however, this method of fighting can get expensive. Characters in my game who simply stand (or kneel or lie) in one place and fire their weapons round after round usually attract a lot of undesired attention; most of it in the form of 5.45mm automatic weapons fire. It has been suggested to me that games that place a lot of emphasis on combat become boring through a lack of intellectual challenge. Therefore, there is a need to acquaint players and referees with the basics of modern small unit tactics and to integrate this into the game.

Military groups in TWILIGHT:2000 should be more than a motley group of gun-toting GIs. They should be equipped and organized to form a balanced military formation. First, this means that a player may have to sacrifice his favorite weapon (read: the one that does the most damage) for one that improves the group's tactical flexibility. Most characters should not be weighed down by heavy weapons, dozens of grenades, or excessive amounts of ammunition. They must be able to move quickly and unencumbered when necessary. Referees need to enforce encumbrance rules to avoid abuses.

TWILIGHT:2000 players should also organize their characters into a realistic battle formation. Most modern armies break their squads (6-12 men) into two or more fire teams. The most common fire team consists of four men plus a team leader. The fire team concept is very useful for both fire and movement. There must always be two fire teams to a squad until its strength falls below five. Then one team is organized. Each fire team should be roughly balanced in terms of firepower and the types of targets that can be engaged.

One of the foundational concepts of modern tactics is that of the "overwatch". Simply put, this means that, when in contact with the enemy, no element of your unit should move without another element being in position to provide covering fire. The firing element can disrupt the enemy's fire on the maneuvering element, thus providing it with greater security. This is termed "Bounding Overwatch". Although the fire team is ideally suited to this concept, the elements involved can be small as individual soldiers. I suggest that all dismounted personnel work this technique at least in pairs.

Another key concept in tactics is that all movement close to an enemy must be made along the most covered route possible. Such cover includes obstacles such as logs, trees, bushes, ravines, buildings, prepared trenches, and so forth. Above all a character must not become an easy target. This involves having a fine eye for the terrain. It may frustrate some referees to be inundated with requests for detailed terrain descriptions, but such interplay helps develop the situation in everyone's mind and improves tactics.

Next month we will look at how small units can function in the wilderness and how a character's skills can assist him in combat.

CAMPAIGN REPORT (Cont.)

MURPHY'S ESCAPE- Referee: Mark Gelinaz: Gathering the wits, women, and waifs, the plucky (or is that lucky) survivors of the initial Kafer onslaught leave Murphyville. Avoiding the radioactive ruins of Miller, they head toward Tanstaafi city, cutting south to escape the expected fallout. Rather than cut across the road system, they head across uncharted wilderness seeking to avoid further encounters with the invaders. On the way they encountered humans who had cast off their veneer of civilization in the face of disaster. On the top of a mountain with a microwave relay station, they learn that not all of the colony has been destroyed but fighting is continuing. Will this group reach the city safely? Will Mrs. T'Ping, who is pregnant, deliver in the wilderness? Can they avoid Kafers? Watch and see!

TWILIGHT:2000

PERILS IN POLAND- Referee: Bruce Gelinaz: No gaming.

INFIDELS IN IRAN- Referee: Bruce Gelinaz: No gaming.

ROAD TO KRAKOW- Referee: Mark Hayes: When we last saw our adventurers, they had just acquired a Soviet UAZ with a mysterious crate marked "JUNEBUG". Lt. Sagan, with her remaining

horse, "Zeke" Nile, Morris Gruntworth, "Tex", and the rest of the group continued for Krakow, arriving late in the day. After obtaining a "pass" into the city, the characters sought a bar. The bar, run by Americans, had as patrons a variety of suspicious characters. One in particular seemed especially interested in JUNEBUG, and arranged a meeting later that evening. The characters, full of suspicion arrived at the meeting location. A trap confirmed their suspicions. The characters emerged victorious, but a little battered, from the firefight and ensuing chase. Because they inadvertently helped the city militia clear out a nest of KGB, the characters were offered a difficult job, with a helicopter ride to Germany as a reward.



QUICK REVIEWS

ESCAPE

REVIEW BY MARK GELINAS



ESCAPE is an adventure for TRAVELLER. It was written by J. Andrew Keith, contains artwork by William H. Keith, Jr., and is slightly larger than their "Folio Adventures". The adventure is set in Ea subsector of Reaver's Deep sector. This sector lies between Imperial and Aslan space and interaction between humans and Aslan can lead to conflict. In ESCAPE, several humans are captured by an ambitious group of Aslan, and must do as the title indicates or face severe consequences. This adventure available from SEEKER is very well done; a good indication of what smaller companies are capable of doing. The information on Ea subsector helps fill gaps of the Reaver's Deep that was left by the ending of FASA's TRAVELLER coverage and the demise of Gamelords. This sector is a fascinating one, full of adventure possibilities for a variety of gaming styles. This adventure is recommended as an interesting scenario, but could be developed into a campaign with little work.

GAZELLE CLASS CLOSE ESCORT

REVIEW BY MARK GELINAS

Other than the Scout, the Gazelle is probably one of the most familiar ships to many TRAVELLER players. These of 25mm deck plans from SEEKER will allow this starship to be used with that scale miniatures with ease. Although the official TRAVELLER scale is 15mm, there are many referees who prefer to use 25mm figures. Stafford Greene did an excellent job enlarging the deck plans. Yet, he went beyond enlargement in that he richly detailed each deck and room to give a better visual representation of the interior of the ship. The set also contains a smaller version of the plans for the referee to use, and a cut-away side view that gives an idea of what a typical starship passageway might look like. These plans are highly recommended to those who regularly use miniatures or who would like to get a better feel for the inside of this class of warship.



PARALLAX

A DIVERGING POINT OF VIEW



STAR MAPPING MADE EASY

BY MICHAEL R. MIKESH

Got an idea. Ever noticed the similarity between contemporary star charts and TRAVELLER sector maps? How about this as a new TRAVELLER setting:

The universe is small (a few hundred parsecs in circumference) and closed, which means if you keep flying in one direction, you wind up where you started. In fact, a map of the universe is identical to the celestial sphere as viewed from Earth. You've seen star globes with the constellations mapped on them? The same. The star globe replaces your ATLAS OF THE IMPERIUM.

There are a number of conveniences that come from this. The stick figure lines defining each constellation are the x-boat routes for individual empires. And the stars have realistic names, not silly ones like Edwards or Mikesh you see in the ATLAS. If your charts don't have all the names, you can find the rest in STAR NAMES by Richard Hinckley Allen.

And who lives in the Empire of Scorpio? Well you'll have to make that up. But at least you can find their disposition in an astrology book.

Editor's Note: This was written as presented in order to preserve the conversational tone. I wrote to Mike asking about how to measure jump distances with this. I have not yet received a reply, so I will speculate. If his differs, it will appear in a later PARALLAX.

Here are two methods that you could use. One is just establish a linear distance as one parsec (jump) and measure directly on the map you are using remembering that "polar" routes may be shorter, and east meets west. The other is to let one degree as measured from Earth equal one parsec. And what about Earth? As our charts are mapped from Earth, you could make all stars equidistant with a standard distance, or establish distances to certain ones. In either case, the Sol system would be an important crossroad.

SMALL UNIT TACTICS FOR TWILIGHT:2000 PART II

BY MARK HAYES

Last month we laid the groundwork for understanding modern small unit tactics. This month we will look at how to incorporate these ideas into the wilderness environment.

At the start of any travel period a referee that is thinking ahead will ask the players, "what type of formation are you marching in?". The fire team, discussed in the last issue, is suited to organized movement as well as to fighting. The way it is used in modern combat is to have the team travel in a wedge formation with the leader at the tip and support weapons at the base points.

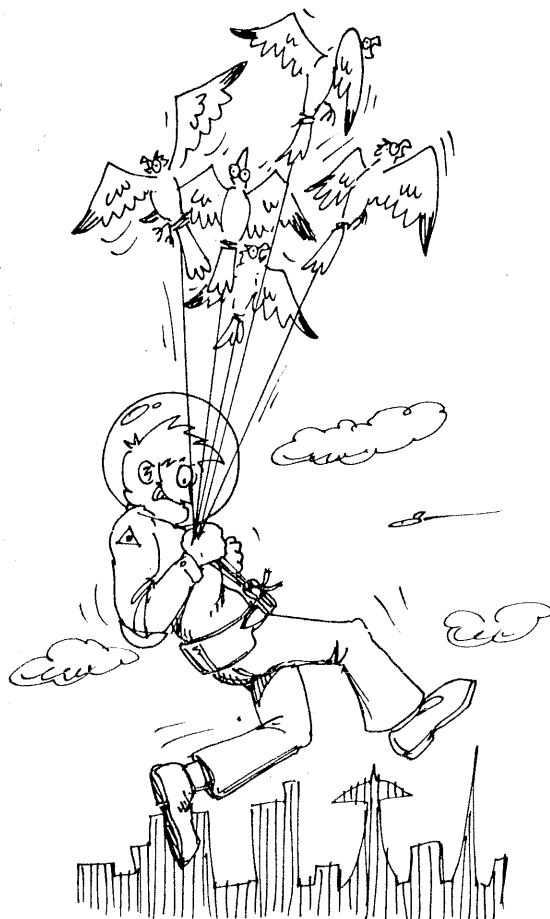
When no contact with the enemy is expected, the second team follows the first at about twenty meters. The squad leader travels between the two fire teams. When contact with the enemy is considered possible, "travelling overwatch" is used. Distance between the teams is increased to fifty meters. This allows the second team to deploy into a supporting position without initially being pinned down by fire.

The most important point while traveling (mounted or dismounted) is that contact with the enemy should be made with the smallest element possible so that the rest will be free to react. The referee should reinforce the advantages of this type of formation. If the characters insist on traveling in the ubiquitous single file column, and then run into an enemy using bounding overwatch, the referee can make a pointed demonstration of the inadequacies of their chosen formation. The leading enemy element can draw the characters' attention to their front while the second element envelops one or both the characters' flanks.

The column cannot deploy as quickly and thus should be susceptible to such action. In a recent game I ran, the characters were caught at just this type of disadvantage. Disaster was prevented by a ranger's sharp eye when he spotted the flanking troops just prior to their assault. Even so, the characters lost one killed and two wounded during this action.

Last month we touched on the importance of using covering terrain for movement. When taking up a defensive position, it is crucial that the unit limit the number of covered approaches to its position. Almost invariably dead zones or blind spots will exist in the unit's coverage. These are created by the myriads of folds that exist in almost any piece of terrain, as well as logs, stumps, and other natural features. Proper planning can minimize the detrimental effects of these dead zones. None of them should allow the enemy to infiltrate through the unit's lines. Indirect fire weapons, including mortars and grenade launchers can prove invaluable by sighting them in on such potential hiding places. If the unit intends to spend very much time at their camp, they can use mines and explosives to cover these areas. In general, mines are very useful in covering likely avenues of enemy advance. An abatis can also be made by felling trees across a road or path. Combat engineers can be most useful in this situation and need to be full of such ideas. Normally, machine guns should be positioned to fire across the front of the unit's main position. This is called "grazing fire" and makes use of the maximum firepower over the widest area. It is difficult to represent all these factors (and more) on a map or terrain table, even if you are using miniatures. One useful technique involves more deeply defining the CRM skill. By definition, it is the "the ability to USE small arms". This should be more than the character's ability to hit a target. Real life basic training teaches a recruit how to move with his rifle and how to best utilize it in the surrounding terrain. The quality of a prepared defensive position is determined by making an AVG:(INT+CRM)/2 roll. If the position is set up in a hurry or after the shooting starts, the task becomes DIF. CBE skill should be used, instead, if the position includes trenches, foxholes, bunkers, etc. If one person is directing the placement of the positions, then it is his skill and intelligence that are used. The results of the roll are as follows: Outstanding Success- position has practically no dead zones and excellent killing zones; Success- minimal number of blind spots and dead zones; Failure- multiple blind spots and dead zones; Catastrophic Failure- enemy with any intelligence will be able to approach or even pass through position under cover, own fire zone is extremely limited. Finding a covered approach to a defensive position is based on the success in preparing the position. If the defensive roll was a Catastrophic Failure, the task is ESY-RCN; if a Failure, AVG-RCN; Success, DIF-RCN; Outstanding Success, UDIF-RCN. In order to find how close the approach comes to a position roll on the spotting table one line down from the actual terrain. Moving successfully along a covered approach is AVG-CRM. The degree of success or failure will determine how difficult the moving character is to spot, and how much cover he receives. Next month we will look at urban fighting and include some general tips for referees.

SPACER SAM SEZ: BELWARE OF BARGAIN BASEMENT GRAV BELTS!



GEOCON VII JULY 15-17, 1988

The seventh edition of this semi-annual event will start about noon on Friday, July 15th and run until the evening of Sunday July 17th. We plan to have a lot of gaming and a lot of fun. Early indications are that this may turn out to be the biggest GEOCON yet. Because we are expecting such a large turnout, and we want to run two or more games per period, we will be holding this event at the house of the Club's Second, Joe Umphress. We will provide directions to this location in the next TIMES.

Now, because we are planning on having two gaming sessions per period, we will need more referees than our usual one or two. Also, we would like your inputs for the types of games to be run. If you desire to make an input, contact your Chapter Representative or the Editor ASAP, because the Council will be finalizing the schedule (if such could ever be said to be "final") sometime in mid-June.

There will be a charge for GEOCON. For the entire weekend, the charge will be \$5.00. If you can only make it one day, the one day fee is \$2.00.

Another event at GEOCON will be the sixth in our continuing series of Referee Seminars. Don't let the name "Referee Seminar" keep you from attending these lectures. Players can provide valuable input also, and we refs can learn a thing or two from players' comments. The topics for the sixth seminar will be: Designing a Scenario, The Importance of a Barfight, and Creating NPC's.

Of course, we will be having our usual Midnight Movies (even if they do start at 2:00 a.m. or later). This year we are looking at showing one of our perennial favorites "GALAXINA" and also "SPACEBALLS". Of course these are not hard and fast, and are subject to change if there is enough input from attendees.

There will be some space for those living far away and who wish to spend the nights at GEOCON, but space is somewhat limited, so make your reservation early. Naturally, all attendees will be required to abide by the house rules, for the safety of themselves and others. These will be published in the next TIMES as well.

In all, it looks like it will be a whole lot of fun. We hope that you can make it and join us in the fun.

SMALL UNIT TACTICS FOR TWILIGHT:2000

BY MARK HAYES

PART III

Urban Combat

Urban combat tends to be much bloodier than fighting in the open fields. When you realize that modern streetfighting is conducted at close range with fully automatic weapons it's not difficult to see why. Players should keep this in mind before casually deciding to storm KGB headquarters in Krakow.

All the principles we discussed in the previous two issues are certainly valid for urban combat as well. However, mobile formations that can quickly concentrate their firepower can be even more devastating given the short, decisive nature of streetfighting actions.

Quite often characters that fight in the urban environment have a specific objective to take or defend, usually a certain building or city block. In this type of warfare a mortar, a tank's main gun, or missiles are at a disadvantage. The light machine gun (LMG) and grenade should be the weapons of choice. The LMG provides excellent covering fire for assaulting troops. One should be set up to cover any move across streets, up alleys, through parks, across yards, etc.

The hand grenade is still among the most effective weapons for urban combat. Smoke grenades should be used whenever crossing a street under fire. The portion of the street to be crossed can be sealed off by exploding a smoke grenade at both ends of the street. Fragmentation grenades should be used liberally when clearing a building. One should proceed entrance into every room. Of course, players will have to purchase lots of grenades when initially outfitting their characters. The concussion from a grenade exploding in a small room will knock down and stun the players' opponents even if the fragmentation doesn't get them. The characters can then rush into the room and (if all goes well) clean up.

When defending a room within a building the trick is to keep the enemy from being able to just toss a grenade inside. This is done by covering the entrance to the room or corridor adjacent to the one being defended. If unable to do that, or if forced to fall back into the room, the characters should take up position behind heavy sofas, overturned beds, dressers with the legs cut off: anything that will reduce the concussion effects of a grenade blast (as well as provide cover from fragmentation and small arms).

All grenades have some sort of time delay when the handle is released. When throwing them a short distance (like dropping them out a window or just tossing them inside a room) the grenade should be held until only three or four seconds are left before it explodes. This will severely limit the reaction time of the unlucky recipient.

Even the most tactically innovative and competent players will quickly become bored with combat if the referee doesn't listen to and incorporate their ideas into the game. A good referee must continuously look for ways to make each combat situation realistic. He must use his common sense and whatever military knowledge he has to present challenges and prepare responses for and to the players. He begins this with a realistic presentation of the player's opponents.

Russians are not orcs! Neither are they mindless zombies and should not be run as such. Depending on their training and experience, Soviet formations should be every bit as tactically competent as the characters'. They should prepare ambushes, use bounding overwatch, conduct fighting withdrawals, and generally operate just as effectively as the professional military organizations they represent. Conversely, they should also experience some of the same problems.

Soldiers (especially from East Bloc armies) are highly dependent on their leaders for guidance and inspiration on the battlefield. If NPC formations should lose that control (due to being out of ammo range or the losing a leader) they will no longer act in a unified manner. Some men will do the wrong thing, some will pull back independently, and many will probably do nothing at all (i.e. hesitate).

The tactical options available to the players of Twilight: 2000 are limitless. Players and referees that desire more ideas are encouraged to consult Army or Marine Corps manuals. My hope is that this series of articles has shown Twilight and potential Twilight players that combat decisions in the game can be much more of a challenge than simply choosing which weapon to fire.

There was a young lady named Bright,
Whose speed was far faster than light;

She set out one day,
In a relative way,
And returned the previous night.

A.H.R. BULLER (1923)

QUICK
REVIEWS

TRAVELLERS' DIGEST #12

REVIEW BY MARK GELINAS

The cover of this issue is dark and ominous, which is a good foreshadowing of the adventures contained inside. The Brin, a new minor race one of whom is illustrated on the cover, are detailed to a great extent. An overview of the Old Expanses Sector is provided with a map and information about the Denthenes Subsector. Although this subsector first appeared in HIGH PASSAGE's #1 and #3, that publication has long been out of print and is generally difficult to obtain. Information presented on the Old Expanses may provide a key to why that sector capitulated so readily to the Solomani advance. Also featured are the magazines regular articles, including Medical Digest, Weapons Drawings, and Gaming Digest. The 2300 AD articles provide more insight on the exploration of the American Arm, and a vehicle for the USMC. The vehicle description, while interesting, left out some material needed to make it useful in actual play, such as the armor value of the craft. In spite of this minor omission, this issue, as all issues of this magazine, is highly recommended for the TRAVELLER, MEGATRAVELLER, and 2300 AD referee and player. For sheer usefulness, I find that I refer to the DIGEST far more often than I refer to CHALLENGE.

KAFER SOURCEBOOK

REVIEW BY MARK GELINAS

If you are a 2300 AD referee and you run Kafers, you NEED this book. Written by one of the finest authors in the roleplaying industry, William H. Keith, Jr., this 2300 AD supplement will provide the referee with a deep understanding of the what's and why's of this very alien race. Using this material will allow the referee to make the Kafers more like the sentient race that they are rather than a bunch of "bugs with blasters". This richly detailed supplement contains information on Kaffer history, physiology, psychology, planets, technology, equipment, language, and more. The artwork is very good, especially the color vehicle foldouts by A.C. Farley. This supplement is intended for the 2300 AD referee. Players reading it will inevitably gain more knowledge about the Kafers than their characters would ordinarily have. Players: do yourself a favor, and learn the mysteries of the Kafers through play. It will be far more rewarding that way.

PARALLAX
A DIVERGING POINT OF VIEW

This month's Parallax concerns itself with the history of the Alpher Alliance of Worlds, which is the intersellar government that is sending out the ODESSEY in search for Earth. The dates here are using the same timeline as that used in last month's Parallax.

Alpher was explored and settled in the last quarter of the first millenium of the Empire of Sol. At year 1000, it was declared the capital of the province bearing its name.

1203- The Province of Alpher secedes from the Empire. Because it is far from Sol, its secession is accepted with little fighting.

1498- A fighter arrives at Alpher and reports that most ships were destroyed in the third battle of Aosta. No enemy fleet follows and the mothership is never located. Alpher, now is now an isolated world without jump technology.

2537- Alpher returns to space exploring planets in its system.

2586- An excavation at some ancient ruins uncovers a jump drive technical manual. With Alpher starting to feel population pressure, research into this lost technology is encouraged.

2602- The first flight of a jump ship ends in failure as the ship fails to return. Scientist go back to recheck their research. (The ship was captured by Miskatonic system ships.)

2605- A second, armed ship is sent out contacts and makes a treaty with Carver.

2607- The Alpher Alliance of Worlds is formed.

2611- Miskatonic joins the Alliance.

2615- The Expansion Wars begin.

2652- The Expansion Wars end.

2653- An Old Empire vessel is discovered in extreme orbit about Alpher's sun. Scientist study it for its Jump-2 technology.

2655- The Supreme Council decides to send an exploratory team to find the Sol system. The recovered vessel is chosen for the task and named ODESSEY. A refit begins immediately.

2657- The ODESSEY's maiden flight is a Jump-1 to Dakota. The flight has no problems. The ship prepares for its first Jump-2 and the long journey in search of the homeworld.

ATM's and ATRL's in TWILIGHT:2000

BY MARK HAYES

On the modern battlefield, ATM's can be devastating against tanks and other AFV's. This fact is well reflected in the game by doubling the character's HW skill to determine the base chance to hit. However, their effectiveness can be reduced by good use of tactics. TWILIGHT:2000 rules can easily accommodate these tactics. During the first week of the Yom Kippur War, Israeli armor charged Arab infantry head on as they had done with great success in past conflicts. The Arabs, using Sagger ATM's and RPG-7's, inflicted horrendous casualties. The attacks ground to a halt, leading many armchair analysts to conclude that the days of the tank were over. However, the Israelis quickly adjusted their tactical doctrine and discovered several methods to reduce the effectiveness of tank-killing infantry teams.

The first of these is called "jinking". The tank commander rides unbuttoned (his head sticking up out of the hatch), and keeps a sharp eye out ahead. If he spots the missile firing or in flight, he keeps careful track of the progress. A few seconds before the missile is to strike, he orders the driver to turn sharply to the right or left and then back again. The sudden movement will often cause the missile operator to over-compensate and miss. This tactic can be reflected in the game by first allowing the TC to roll to spot the missile. To spot an ATM firing is RCN-ESY or INT-AVE. To spot an ATM in flight is RCN-AVE or INT-DF (if the missile is spotted at launch, an in-flight spotting roll is not required). If the TC is successful, the vehicle is moving, and he has the room, he may "jink". This halves the ATM operator's chance to hit.

Another method the Israelis discovered was the use of "overwatch" and suppression fire. Several vehicles moved in a formation and each was assigned a sector to watch. If one spotted an ATM he immediately alerted the rest of the formation and engaged the operator with cannon and machine guns. As in the rules, if the operator is killed or wounded, the missile misses. In addition, if the operator is spotted (not just the ATM) and he is fired at (but not hit) his chance to hit is halved if he fails a "Coolness Under Fire Roll". A vehicle's crew can suppress the operator of an ATM even if he is not spotted but the missile is. The vehicle's weapons fire down the line from which the ATM came and a normal to hit roll is made. If a "hit" is achieved, then halve the operator's chance to hit if he fails a "Coolness" roll (even though he is not hit himself).

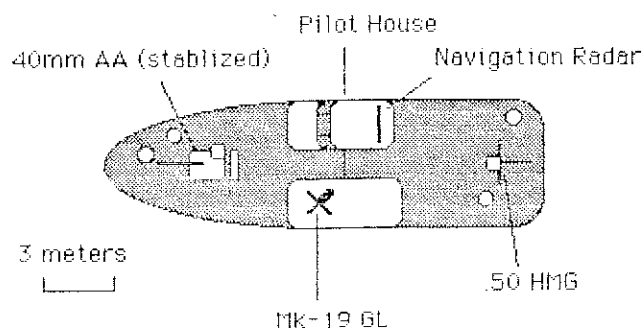
Another thing remember when using ATM's and anti-tank rocket launchers (ATRL's) is the backblast. The danger area is considered to be about 20 meters behind the weapon. This usually precludes their use from inside buildings and helicopters (it's amazing what Rambo gets away with). An exception to this is the Armbrust which has no backblast (it was designed to be used inside buildings).

ATM's also have minimum ranges. Due to a variety of factors, one would not be able to hit anything closer than the stated minimum range. Minimum ranges are given for the following weapons: TOW-65 m; AT4/MILAN- 25 m; AT5/HOT- 75 m; ARMBRUST- 10 m.

Finally, ATM's and ATRL's are not often used in TWILIGHT:2000 because there is a distinct lack of armored targets. Ah, but have you ever thought of using them against infantry? The British found out during the Falklands Conflict that the Milan made short work of Argentine infantry emplacements, and did so at ranges beyond which their small arms could effectively retaliate. The ATM's and ATRL's have a knock down radius and a burst radius. Don't forget to use these factors in your combat resolution.

PB Mk-III SEA SPECTRE

BY MARK HAYES



DISPLACEMENT: 28 tons unloaded, 36.7 loaded. TOP SPEED: 30 knots. DIMENSIONS: 19.78 x 5.5 x 1.8 meters. RANGE: 500 nautical miles at 30 knots. MANNING: 1 Officer, 4 Enlisted. ARMAMENT: 1/40 mm AA (RF: +20) or 1-2/25mm Mk 88 AG; 1/Mk 19 Grenade Launcher; 1/M2 HB .50 MG. CONSTRUCTION: Aluminum. FLOATATION HITS: 56. SPEED LOSS: one knot for every floatation hit.

QUICK REVIEWS

2300 AD

REVIEW BY MARK GELINAS

This is not a new game but an evolution of an older game, what started as TRAVELLER:2300 evolved to 2300 and is now 2300AD. This set is a revision of the original rules, correcting a few inconsistencies, but mostly adding a lot of new material. Added material includes new skills for characters, a few new weapons, new equipment, illustrations of equipment, organization descriptions, organization patches, and descriptions of each of the alien races for the referee. The players' book almost doubled in size, and the referee's book almost tripled in size. Yet it is compatible with the original set, characters can be effectively used without change. The STAR MAP is still included, and the beginning adventure is now a solitaire. This set is definitely worth the \$20.00 price tag, even if you bought the original set. Highly recommended for anyone who likes hard science fiction.

INVASION

REVIEW BY MARK GELINAS

INVASION details the Kafer invasion of the French Arm for 2300AD. It is very informative and includes STAR CRUISER scenarios, MAPS of planets discussed, and system data for systems involved. The Kafer invasion will have a profound effect on the entire French Arm, and possibly on the entire human race. It has increased manifold the possibilities of an encounter with the Kafers, and even allows for some scenarios which do not involve "Kafer Bashing". Although this is an excellent supplement, it is not for everyone. Highly recommended for 2300AD referees or STAR CRUISER players.

TRAVELLERS' DIGEST #13

REVIEW BY MARK GELINAS

If you ever wondered what Terra was like in the TRAVELLER era, buy this issue. It is packed with information about Terra during that time. The best article, however, is the Medical Digest on Replacement Body Parts, laid out in the MEGATRAVELLER step by step arrangement. A bonus is the very detailed description the starship design process from MEGATRAVELLER. The process is used to develop MEGATRAVELLER stats for the REGAL class battlecruiser. The article gives examples and hints on design, and is followed by the design rules errata. The 2300AD article space was reduced to allow inclusion of more information on Terra. The article that was included discussed Pentapod starships and makes interesting reading. This issue is very highly recommended.

CHALLENGE #33

REVIEW BY MARK GELINAS

This issue of CHALLENGE is one of the better issues that GDW has produced. It is filled with informative articles for all their RPG's. Included are RUSSIA:2000 Part II giving the hit list for targets of nuclear weapons; STUTTERWARP REVISITED; a TRAVELLER scenario; new TWILIGHT:2000 vehicles with statistics; TRAVELLER NEWS SERVICE articles; and more. There is a lengthy 2300 AD scenario for use with STAR CRUISER. With a little work, an enterprising referee could modify it to a strict role-playing scenario. Also for 2300 AD is an extensive discussion of the conditions and lifestyles of North American countries in the year 2300. The non-workshop game reviewed was LIVING STEEL and associated supplements. This issue is highly recommended.

PARALLAX

A DIVERGING POINT OF VIEW

THE GREAT RIFT

BY MIKE MKESH

All TIMES readers should be aware of what the Great Rift is in the context of TRAVELLER. But do you know where the idea came from? Speculating, I think it was the background starfield GDW used for the 1981 map of Charted Space. Unless I'm mistaken, that photo is of a small segment of the Milky Way as it arcs across our sky. Running along the middle of that starry arc is an irregular black streak. This is interstellar dust at the galactic plane masking out the background stars. Astronomers call this black streak the Great Rift. It shows up in the photo. GDW retained the name, Great Rift, but meant it to be a literal void of stars.

TRAVELLER literature doesn't say much about the science of the Great and Lesser Rifts. But considering the above, I think GDW would go along with the claim that the Rifts are dominated, not by stars as elsewhere, but by dust. This would give these areas of space a distinct nature accounting for the abrupt absence of stars.



TWILIGHT:2000

ANTI TANK WEAPONS

BY MARK HAYES



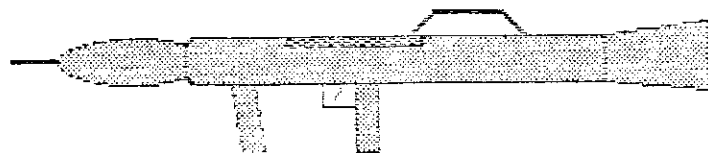
LAW 80

TYPE	RND	RNG	DAM	ARM	KDR	BURST
LAW 80	HEAT	120	X 300	---	5	5

ROF: 1 MAG: 0

LAW 80: A single shot disposable anti-tank rocket launcher. It uses a spotting rifle with tracer rounds. Fire the spotting rifle in the same round as the LAW. The rifle fires as an L-42. If the rifle round hits, double the chance to hit with the LAW.

Weight: 9 kg. Price: \$300 (S/R).



M3 CARL-GUSTAV

TYPE	RND	RNG	DAM	ARM	KDR	BURST
M3	HEAT	170	X 400	---	5	10
CARL-GUSTAV	HE	120	X 300	X10	10	30
	CHEM	120	X 20	X10	---	20
	ILLUM	150	---	---	---	100

ROF: 1 MAG: (2), (3) for HEAT round

M3 CARL-GUSTAV: A lightweight version of a multi-purpose rocket launcher used by Great Britain and Sweden. All of its external parts are made of aluminum or plastic. The Milan has replaced it in many units, but some would still be available.

Ammo: 84mm rockets. Weight: 8 kgs.

Price: \$200 (S/R).

AMMUNITION

84mm HEAT, FFV597: Fired from the M3 Carl-Gustav rocket launcher. The round is rocket assisted and fin stabilized. It was designed to penetrate the front of MBT's with compound armor. The round is in two parts and takes one person 3 rounds to load.

Weight: 7 kgs (23 kgs per case of 3).

Price: \$200 each or \$500 per case (S/R).

84mm HE: Fired from the M3 Carl-Gustav rocket launcher.

Weight: 3 kgs (10 kgs per case of 3).

Price: \$50 each or \$125 per case (C/R).

84mm CHEM: A smoke round fired from the M3 Carl-Gustav rocket launcher.

Weight: 3 kgs (10 kgs per case of 3).

Price: \$50 each or \$125 per case (S/R).

84 mm ILLUM: An illumination round fired from the M3 Carl-Gustav rocket launcher.

Weight: 3 kgs (10 kgs per case of 3).

Price: \$50 each or \$125 per case (R/R).



2300 AD

MAD DOG'S MUNITION MAGAZINE

SCOTT MADDOW: WEAPONS DESIGNER



AK-60

TYPE: 7.5mm-Short Conventional Carbine
 COUNTRY: Russia WEIGHT(EMPTY): 2.5kg
 LENGTH: 69cm(BULK=2) ACTION: SS or Burst
 AMMO: 7.5mm x 25mm Ball MUZZLE
 VELOCITY: 650mps MAGAZINE: 20 round Box
 MAGAZINE WEIGHT: .3kg ROF: 3 AIMED FIRE
 RANGE: 400m AREA FIRE BURST: 10(AFV=.5)
 AREA FIRE RANGE: 200m DPV: .5 PRICE:
 200Lv (LV 8 for 100 Rounds)

The AK-60 was designed for front line non-combatant troops. Its intention is to give them more firepower than a pistol could provide. It is a rugged field weapon and able to take a lot of abuse. The weapon has a tendency to pull to the side when firing bursts, greatly reducing its value as an area fire weapon. The round used by the weapon is unique and not easily obtained. It is an effective weapon which can be found in use by police forces and reserve troops. It also enjoys some popularity as a civilian weapon.



NEWSLINE: 2300

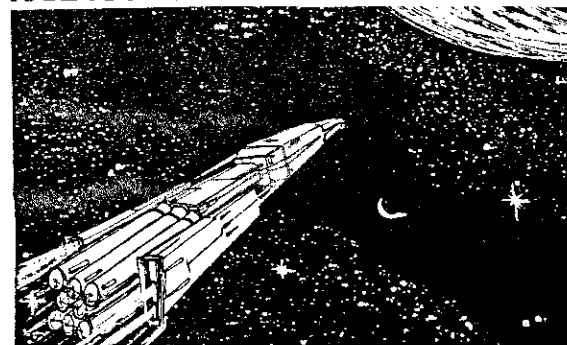


DISASTER STRIKES MINE

DUNKELHEIM: MAY 21, 2301: An explosion at Krupp Metals mine #23 killed 3 workers today, and injured several others. The damage from the explosion will shut operations at #23 down until extensive repairs can be made. It is possible that some parts may have to be brought from Earth. Krupp investigators are searching for evidence of sabotage.

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TWILIGHT:2000



2300 AD

ALTERNATE SETTINGS: NORWAY 1996

BY MARK HAYES

One of the many things that other gamers and I have found exciting about TWILIGHT:2000 is the ability to use modern weapons and equipment in a role-playing environment. The system has excellent rules for vehicle combat, artillery, and helicopters. However, most of the settings in GDW material do not incorporate anything larger than a heavy machine gun. So, how can we use all this "neat stuff" without violating the spirit of a deteriorating, post-apocalyptic world? Why not set some of your TWILIGHT:2000 games earlier during World War III? The next several articles in this column will deal with alternate settings for TWILIGHT games: set earlier in the war but still appropriate for role-playing adventures. The first I will describe is NATO's Northern Flank- Norway.

October 7, 1996-The Bundeswehr crosses the frontier between East and West Germany and begins attacking Soviet garrison units still in the country.

October 10-Norway orders full mobilization of armed forces.

October 20-Soviet Red Banner Northern Fleet Amphibious Units sortie and take station in the northern Norwegian Sea.

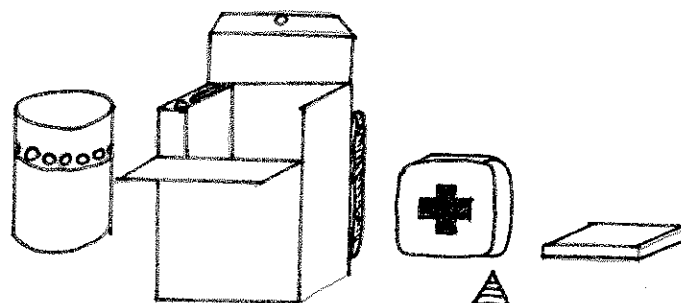
November 1-Elements of the U.S. 10th Infantry Division (Mountain) arrive in southern Norway in preparation for rapid movement north.

November 5-In an attempt to gain a quick victory in northern Norway, Soviet armed forces invade. The 69th Motorized Rifle Division crosses the border, seizes the small port of Kirkenes, and engages the Norwegian Finnmark Regiment. Soviet paratroopers from the 7th Guards Air Assault Division land in battalion strength at and around Alta-Banak, Hammerfest, and Tromsø. Elements of the 27th Naval Infantry Regiment support the paras at Hammerfest and Tromsø. Soviet aviation is forced to use its limited resources in too many operations. Its effectiveness suffers accordingly.

November 6-10-The Allied Command Europe (ACE) Mobile Force (a brigade-sized formation consisting of special units from several NATO countries) deploys into Bardufoss and moves quickly into the mountain passes outside of Tromsø along with the Norwegian armored brigade, Norland, in order to prevent further Soviet advances. The 15th Mechanized Brigade of the Norwegian Army follows close behind. The 5th Mountain Brigade from Bodo begins moving north on the 10th in order to cover for the movements of the 15th Mech Brigade. The U.S. 10th Infantry Division deploys by air into Bardufoss starting on the 9th and moves north leaving one battalion each to garrison Narvik, Evenes-Andøya, and Bardufoss. The Norwegian regiment in Finnmark is overwhelmed as the Soviets commit another category III division (the 45th MRD) to the offensive. The regiment breaks down into small groups and conducts hit-and-run operations in an attempt to disrupt the Soviet advance. The lack of close air support for the 69th and 45th MRD allows the Norwegians to achieve some measure of success. British and Dutch Marines are deployed to northern Norway and are then moved by helicopter into Finnmark to assist the Norwegians.

November 11-The Soviet stratagem to pull Norwegian units in place out of Narvik and Bardufoss by assaulting Tromsø is partially successful. The remaining Soviet Airborne and Naval units are thrown at the Narvik-Bardufoss area. Included in this assault are the remaining units of the 7th Guards Air Assault Division, the 30th Naval Infantry Regiment, and a battalion of the 76th Guards Air Assault Division brought in by helicopters. Not having the time to prepare defensive positions, the units of the U.S. 10th Division are shattered in extremely heavy fighting. Too exhausted by the stubborn defense of the American troops to try and exploit their success, the Soviet units involved in the assault dig in. Successful in their maneuvers to contain a Soviet breakout at Tromsø, NATO units assault that Soviet position. A Marine Amphibious Battalion of the 2nd Marine Regiment, 4th Marine Amphibious Brigade lands outside Tromsø and coordinates an attack with Norwegian units operating in the area. Elements of the 10th Mountain Division plan to take part, but the massive Soviet assault on Narvik forces NATO to cancel its participation. The division turns back south. As a result, the fighting around Tromsø is severe. It takes NATO forces three days to kill or capture the 2000 Soviet defenders.

Next month I will conclude the timeline, and space permitting take a look at some Norwegian equipment.



SURVIVAL KIT

A prepackaged kit containing the following items: Respirator, 1 kg; Replacement Filters (100), .1 kg; Water (3 liters) 3.3 kg; Dehydrated Food (30 days), 3.0 kg; Cold Light Stick (30 x 24 hours each), .3 kg; Emergency Beacon (50 km range), 1 kg; Flares (3), 1 kg; SS-7 Air Rifle and Magazine, 1.1 kg; Recharge Bottle, .5 kg; 1000 rounds, 2.5 kg; Tarpaulin (2 meters x 4 meters), 1 kg; Nylon Cord (200 meters), .5 kg; Rope (20 meters), 2 kgs; First Aid Kit, 1 kg; Survival Knife, .5 kg; Cold Climate Clothing, 2 kgs; Solar Still, 2 kgs; Survival Manual, .5 kg; Misc. (Matches, Hooks, Etc.), .1 kg; Plastic Case with Staps (.5 x .4 x .2 meters), 1 kg. Total weight of the Survival Kit is 24.4 kgs, the price is LV 1,500. Most items are described in the ADVENTURERS' GUIDE.



NEWSLINE: 2300

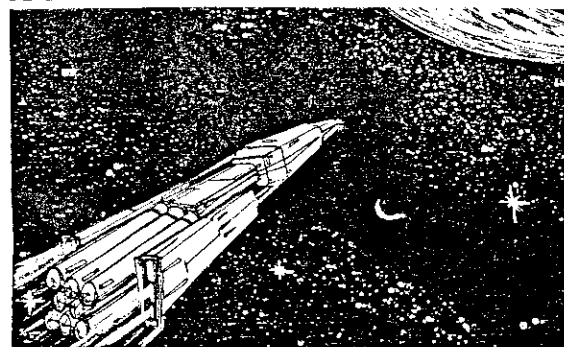


LINER LIQUIDATED

DUKOU: May 29, 2301: A bomb exploded in the engineering section of the BEIJING today. The vessel which had been making an approach to Dukou immediately lost power and crashed on the planet killing all 239 passengers and crew. Investigators on the scene of the crash believe that a bomb caused the explosion. No group has claimed responsibility as yet.

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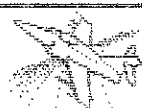


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TWILIGHT:2000



2300 AD

TOOLBOX: 2300

NEW EQUIPMENT FOR ADVENTURERS

FLARE GUN: The flare gun can be used for a variety of signalling applications. It can fire a flare a distance of 75 meters. Three types of flares can be obtained for the gun, an illumination flare, a signal flare, and a smoke flare. Each type of flare will burn for 1 minute. Weight: 1 kg Flare Weight: .3 kg Price: Lv 25 (Lv 3 for signal flares, Lv 5 for smoke or illumination flares)

SOLAR STILL: The solar still uses high efficiency solar panels to provide power to the still portion. Any substance containing water can be placed in the still. Distillation times depends on material used. 1 liter per hour is typical for a fluid solution. Vegetable matter can yield between .1 and .5 liters per hour depending on fluid content. Releasing water from minerals is far more difficult, generally yielding a liter per day or less. Weight: 2 kg Price: Lv 200

SURVIVAL KNIFE: The Survival Knife is similar to a regular knife in most aspects, except in design and function. It has a serrated top rib for cutting wood, bone, or chitin. Its hollow handle allows it to be mounted on a shaft to form a spear. Most survival knives have handy survival items such as matches, line, needles, and hooks stored in the hollow handle. The screw on end cap frequently has a small magnetic compass inside. The survival knife serves its intended purpose well, but may not be suited for general combat purposes. Length: 25 cm (Bulk=0) Weight: 2 kg Melee Range: Short Melee Skill Modifier: +2 DP: 0.1 Price: Lv 35

GUNNEY GRUNT WORTH GROWLS:

YOUR WEAPON'S
BURST RADIUS
CAN BITE YOU!



ALTERNATE SETTINGS: NORWAY 1996

BY MARK HAYES

NOVEMBER 12- Soviets commit attack helicopters to Finnmark to protect supply convoys and to facilitate the movement of Soviet Mechanized formations.

NOVEMBER 12-15- Scattered fighting occurs in the mountains east of Tromsø as troops from the NATO A.C.E. brigade encounter Soviet patrols from Airborne and Naval Infantry units pushing south from Ålto-Banak.

NOVEMBER 14- A Canadian battalion arrives in Bodo. Canada's commitment to the defense of NATO's northern flank was severely cut back in the 1980's due to diversion of funds to their nuclear submarine program.

NOVEMBER 12 - DECEMBER 14- Heavy fighting occurs around Narvik and Berdudfoss as NATO units work to eliminate the Soviet air and beach head.

NATO units include the U.S. 6th and 10th Divisions, the Norwegian 5th (mountain), 12th, (mechanized), 12th (mountain), and 14th (armor) brigades, along with the Canadian special forces battalion.

NOVEMBER 15 - DECEMBER 14- Soviet Mechanized forces assisted by the Naval Infantry and Airborne units out of Ålto-Banak attempt to push through the mountain passes east of Tronso. The NATO units in the area (now including the rest of the 4th Marine Amphibious Brigade) repulse all attacks with heavy casualties. The Soviet 54th MRD (Category I) joins the assaults on December 3rd but only adds numbers to the already lengthy body count. NATO heliborne and ski mobile commando raids on Soviet supply lines greatly contributes to the collapse of their offensive.

The Dutch and Italian governments order the withdrawal of their troops from Norway after U.S. forces invade East Germany on December 3rd.

DECEMBER 15- All Soviet offensive operations in Norway are cancelled and all units are ordered to withdraw to the Kola Peninsula. Soviet units in the Narvik pocket attempt to break out. Very few are successful. Those that are are hunted down by NATO patrols. The remaining Soviet Naval Infantry and Paratroopers, exhausted, starving, and frozen, surrender.

DECEMBER 18- The NATO counter-offensive begins. Heavy airstrikes along with commando raids decimate the retreating Soviet formations. Advance units of the Norwegian Finnmark Regiment cross the Soviet Border on January 12.

NEWSLINE: 2300

TRILON TOUCHDOWN

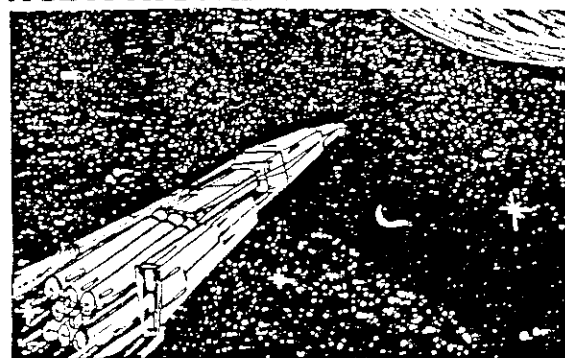
AUORE: March 16, 2301- The Trilon Corporation in cooperation with the freedom fighters on Novos Klyev staged a relief operation. In a daring effort to relieve that besieged colony, a Trilon spaceplane landed food, ammunition, and medical supplies. The operation was not entirely successful, though, as the unloading operations were interrupted by the arrival of Kafer death machines. Some of the freedom fighters were forced to evacuate the planet on the spaceplane.

KAFERS KILL KOLONIE

BETA CANUM: June 23, 2301- News reached Beta Canum today about the massacre of the German colony at Hochbaden. After several days of fighting, Kafer warships breached all of the major domes on that world. Although some rescue efforts have been mounted, it is unlikely that anyone remaining on that world has survived. Indeed, the rescuers themselves are in peril from the Kafer hordes. One wonders how soon Kafer warships will follow this news. One can only hope that the valiant navies can turn them back.

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TWILIGHT:2000



2300 AD

ALTERNATE SETTINGS: NORWAY 1996

BY MARK HAYES
ROLE-PLAYING SITUATIONS

The time-line suggests a number of role-playing situations for TWILIGHT:2000. First, lets look at the extreme north. The Norwegian Finnmark Regiment is forced to break up early in the war due to a massive assault by heavy Soviet units. However, its superb training for arctic warfare, combined with the assistance of the British and Dutch Marines, makes it a credible force for operating against Soviet supply lines which must run through Finnmark. This force can be broken into squad-sized units to conduct hit-and-run raids on supply depots or to ambush motorized columns. Most NATO units would be ski-mobile, but some could be flown in by helicopter or even operate for long periods behind Soviet lines with arctic vehicles. Soviet rear echelon forces are likely to have a lot of trouble with these raiders because (at least during the first part of the offensive) they consist of Category III units without arctic training or air support.

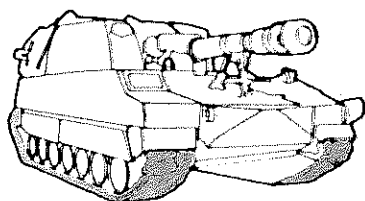
More interesting situations could result when the Soviets commit helicopter gunships as escorts for their convoys through Finnmark. The Soviets discovered in Afghanistan that this was probably the most effective means of protecting troop and supply movements through guerilla infested territory. The gunships (equipped with HE rockets) would work in pairs circling the convoy and flying ahead to sniff out any potential ambush sites. Remember, if you use Mi-24's, you have a small squad of infantry which can be landed to chase the NATO guerillas.

Another possible gaming situation would be in the mountains east of Tromso. Soviet Airborne and Naval Infantry patrols pushing south would encounter members of the ACE Mobile Brigade. This unit consists of formations from several NATO countries that rotate different battalions and companies through the brigade periodically. Quite often one of the units consists of Italian Mountain Infantry. The Norwegians are still a little uneasy about having German troops on their soil, so the Bundeswehr contribution usually consists of medical troops. All troops assigned to the ACE Brigade are arctic equipped and trained. The unique make-up of this brigade allows players to form the cosmopolitan unit that is often typical of TWILIGHT:2000 groups.

Clashes between patrols in the mountains outside of Tromso are well suited to TWILIGHT encounters. The light NATO formations would also be attempting to prevent further advances by the Soviets. These mountains are crucial to NATO's defense of Norway, and both sides will escalate the fighting in the mountains to control strategic passes. Scenarios can also cover Soviet motorized columns breaking through the passes into the relatively flat area around Tromso. Players can man the few Norwegian Leopards or U.S. Marine M-1's in the area to blunt these thrusts.

Still another area suited to role-playing situations would be the attempted breakout by Soviet Airborne and Naval Infantry forces at Narvik and Bodo. Have your players ever considered role-playing Soviet troops fighting NATO units? The situation would be similar to the U.S. 5th Mechanized Division's breakout at Kalisz. The units would be broken down into smaller formations with everyone trying to make his own way through NATO lines, across the frozen wilderness, and home. NATO ski patrols and helicopter infantry would be constantly searching the area, hunting down stray enemy soldiers. Soviet characters might even cut across Sweden and open up a whole new set of encounters.

Of course, you can have the characters take part in the assault of the Soviet defenses around Tromso or other standard combat situations. The troop density north of the Arctic Circle is lower than almost any other place in the world. Even so, you can use tanks, fighter-bombers, helicopters, arctic vehicles, and other "high-tech goodies" in realistic role-playing situations.



SPACER TERMS IN 2300

BY SCOTT MADDOX

This is the first of what may become a series of articles describing what life is like aboard a starfaring vessel in the universe of 2300 AD. While these terms primarily look at space life from the military point of view, some may be applied to civilian vessels as well. Indeed, many space force personnel carry their spacer terms with them as they take jobs on civilian vessels.

BENDS- The term bends is an anachronism. As used by spacers it does not refer to the condition of too much nitrogen in the blood stream. Rather, it is a condition related to being embarked for a long time aboard a vessel which does not have a spin-habitat to produce an artificial gravity. The person's muscles and joints are used less and less, even with a rigorous regimen of exercise. When the person returns to a normal gravity environment, he experiences anything from a mild discomfort to excruciating pain for several days while his body gets accustomed to gravity once again. This condition is usually treated by the use of high protein supplements and mild pain relievers. The condition is called the bends because the person feels like he is cramping from the weight on him, and is often bent over.

HOT RACKING- When large crews are placed on board vessels which were not intended to carry that many, personnel must share accommodations, particularly the bunk or "rack". This works best when the crew works a twelve hour rotation with the personnel who have to share on opposite rotations. Carrying extra personnel strains life support as well, and many times auxiliary life support equipment must be brought on board. This practice is generally done for very short periods of time.

SITTING ON THE HOTSEAT- This term refers to pilots sitting inside ready to launch small craft on larger vessels. Fuel is constantly pumped in and the power plant is kept going. This practice allows for speedy and efficient small craft launching. The term sometimes is applied to missile crews who keep missiles loaded and refueled for similar reasons.

SWIM CALL- This is another term borrowed from old nautical traditions. The main difference is that the "sea" is the vacuum of space. During a swim call, personnel are allowed to do an EVA for recreational purposes. Some personnel enjoy a game of Z-G Ball, which is a zero gravity form of football. Because there is a danger of personnel drifting off, lifeguards are posted with tether lines and maneuvering packs. Swim call is also a time during which novice personnel can learn the operation of P-Suits and zero-g maneuvering. This allows for practice of skills in a low threat situation. Some people cannot handle the vastness of space and experience symptoms of agoraphobia. Swim call is a time to overcome this particular fear. Some ship's captains do not allow swim call because of the intrinsic dangers of EVA, others would rather take a little risk than have an inexperienced person performing an EVA during a critical situation.



NEWSLINE:

2300



DUNKELHEIM DEFENSELESS

BETA CANUM: JUNE 30, 2301- Refugees arriving at Aurora from Dunkelheim report that the planet lay virtually defenseless against the Kafer advance. With no human warships in the system, and the disappearance of the militia and government officials, the Kafers are likely to find little resistance at that planet. The disappearance of the militia and officials remains a mystery as none of them were among the refugees disembarking at Beta Canum.

AURORE ALONE AGAINST ALIENS

BETA CANUM: JULY 13, 2301- A merchant ship which braved the Kafer blockade down the arm brought news today that the world of Aurora remains in human control. Although it is cut off by Kafer forces further up the arm, Auroran space is free of Kafer warships. The only Kafers left in the system are the remnants of the Kafer invasion force that landed months ago and were subsequently cut off. It is not known how long this world can hold out against constant Kafer assaults with little or no reinforcements or resupply. There are rumors that cargoes of food, medical supplies, and ammunition are bringing high prices.



TWILIGHT:2000

ALTERNATE SETTINGS: NORWAY 1996

BY MARK HAYES

THE NORWEGIAN ARMY IN TWILIGHT:2000 NOTES

Rather than creating a new skill to cover arctic warfare, use MNT. Nearly all mountain units are arctic trained anyway. Further define the skill to include the use of cross-country skis and as a knowledge to avoid the long term effects of exposure to arctic temperatures. Also make MNT a military skill as well as a background skill.

The Norwegian Army stresses physical fitness at the entry level to a higher degree than most other armies. Add +2 to any fitness roll when generating a Norwegian Army character.

SERVICE BRANCH/SPECIALTY TABLE

FINMARK BRIGADE	ROLL	REQ	SKILL	BENEFITS
INFANTRY	7	CON	RCN-30, CRM-20, FOR-20, MNT-1/2COST	
ARMOR	7	—	RCN-20, MNT-20, LCG or TVD at 20 THE OTHER AT 1/2 COST	

RANK TABLE ADDITIONS

NORWEGIAN ARMY

DIE	ENLISTED	OFFICERS
1	LANCE CORPORAL	2nd LIEUTENANT
2	LANCE CORPORAL	2nd LIEUTENANT
3	CORPORAL	1st LIEUTENANT
4	SERGEANT	1st LIEUTENANT
5	SERGEANT	CAPTAIN
6	STAFF SERGEANT	MAJOR
7	SERGEANT MAJOR	LT. COLONEL

PERSONAL WEAPONS

NORWAY:

MP 40 SUBMACHINEGUN
CETME MODEL L ASSAULT RIFLE
MG3 MACHINEGUN
P-38 WALTHER PISTOL

ANTI-TANK WEAPONS

TOW-2 ATGW

LAW-80*

84mm CARL GUSTAV*

*SEE TIDEWATER TRAVELLER TIMES ISSUE 16

Next month we will look at some of the vehicles of the Norwegian Army.



2300 AD

SPACER TERMS IN 2300

BY SCOTT MADDOW

AFT- Toward the back end of the ship.

CAGE- A term for a spin habitat which reminds many spacers of a hamster cage with a treadmill.

EVA- Extra Vehicular Activity: any activity conducted by sentient beings outside of a space vessel currently in space.

FORWARD- Toward the front of the ship.

G-WARD- In spin habitats, the terms port and starboard are rather useless because what is port and starboard relative to the direction of ship's travel is constantly changing in the spinning area. Therefore many spacers use the term G-Ward to denote a direction out from the center of the spinning habitat.

HAB- A term for a spin habitat.

HUBWARD- For reasons similar to the use of the term G-Ward, Hubward refers to a direction toward the hub of a spinning habitat. Because of the orientation of the habitat(s), this may or may not correspond to the ship's centerline.

PORT- When facing forward in a ship, port is to the left side of the ship. Staterooms, weapons, valves, etc. on the port side of the ship are generally given even numbers.

SHIPS REFERENCE- For an oceangoing craft, which remained relatively horizontal, the terms port and starboard were adequate to refer to the relative direction of an object to the ship. In space this is not true so many spacers have adopted an alternate system using the ship's reference. Generally, most ships use two 0-degree references; one in the direction of travel, and the other toward the ship's "top". The position of any object in three dimensional space relative to the ship could be expressed as two angles. Each angle would be referred to ship's reference and be separated by the word "mark" when spoken. Because there is no North in space, "True" bearings would be meaningless.

STARBOARD- When facing forward in a ship, starboard is to the right side of the ship. Staterooms, weapons, valves, etc. positioned on the starboard side of a ship are generally given odd numbers.

UST (UNIVERSAL SHIP TIME)- Because of the variety of local times in systems, or even time zones on a single planet, most ships operate on a single time standard known as Universal Ship Time or UST. Holding to old nautical traditions, UST is identical to the time in Greenwich Mean Time. Traditionally, this was also referred to a Zulu time. Also because night and day are relative in space, UST uses a 24 hour clock with 1:00 PM being 1300 and 12:00 PM being 2400. Times written in UST are generally followed by the letter U or Z (for Zulu) depending on the Captain's preference. Therefore a time of 12:15 AM would be written as 0015U, and 4:45 PM would become 1645U.



NEWSLINE: 2300



DUNKELHEIM DEFEATED

BETA CANUM: JULY 17, 2301- The French merchant vessel PARIS arrived at Beta Canum today. Observers at the upper beanstalk station reported that the ship seemed to have battle damage. One reporter managed to speak to crew members before they were silenced by French authorities. The ship which had been doing some off route trading down the arm passed through the system of DM +36 2393. There they detected a large number of unknown vessels before being fired upon by several smaller vessels. Fortunately, the ship had finished cycling its drives and escaped, but not before they received several hits, one of which killed Captain Mitterand. First Officer Du Lac assumed command and brought the ship to Beta Canum. There is speculation that the unknown vessels that were detected were in fact elements of the Kafer invasion force. The fact that the PARIS was fired upon seems to corroborate this speculation. It would seem that that Dunkelheim now lies in the grip of Kafer oppression. It may be assumed that most of the colonist are either dead or being hunted down by the merciless invaders. The invasion now seems to be unstoppable, and fear is spreading.





TWILIGHT:2000

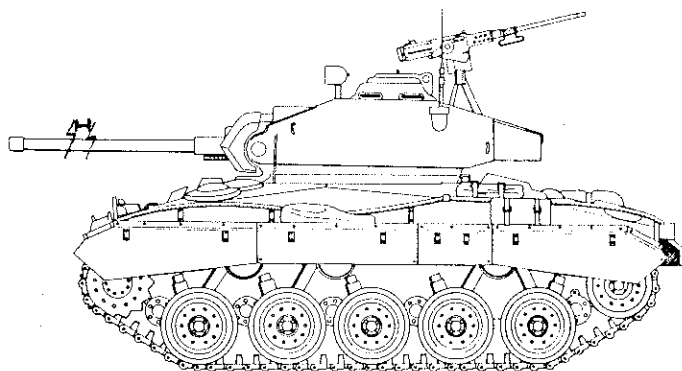


2300 AD

ALTERNATE SETTINGS: NORWAY 1996

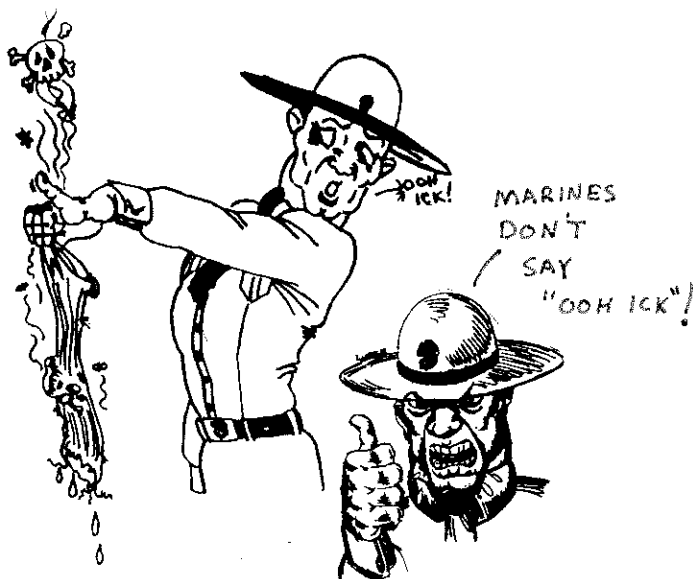
BY MARK HAYES

NORWEGIAN VEHICLES IN TWILIGHT:2000 PART I



NM116: This is essentially an old American M24 Chaffee light tank with a 90mm gun. The Norwegians classify this AFV as a tank destroyer. Although it is unlikely to have much success against modern MBT's, the NM116 is still quite effective against the numerous light vehicles that populate the Norwegian battlefields. Price: \$100,000 (R/R) treat as "5" in Norway in 1996. RF: +30. Armament: 1 x 90 mm gun (U.S. ARMY VEHICLE GUIDE), MAG MG (hull mounted), MAG MG (co-ax), and M2HB MG (pintle). Ammo: 36 x 90mm, 120 x .50 belted, 1200 x 7.62 belted. Tr Move: 110/60. Com Move: 40/30. Fuel Cap: 420. Fuel Cons: 140. Fuel Type: D. Veh Weight: 20 tons. Crew: 4. Mnt: 12.

R: LH(40), G(40), HB(15)	D, R, G, E, F
L: LH(40), G(40), HB(15)	D, L, S, E, F
R: TF(60), TB(20)	G, C, A
C: TF(60), TB(20)	X, W, N, A
L: TF(60), TB(20)	L, A
TS(40)	L, C, G, W, A, X
F: HS(40)	D, R
C: HS(40)	L, G, S
R: HS(40)	E, F
FD (15)	D, R
TD (15)	X, W, C, G, L, N, S, A
BD (15)	F, E, A



IN HONOR OF ED CAMPBELL FROM WHOM WE FIRST
HEARD THESE IMMORTAL WORDS.

SPACER TERMS IN 2300

BY GELINAS, MAGGOW AND UMPHRESS

ANTI-SPINWARD- Another directional term used with spin habitats. Abbreviated A-S, this refers to the direction away from the spin. Occasionally used in slang, i.e. some one doing something wrong is said to be going A-S backwards.

FIELD DAY- Cleanliness is important on a ship for both health and fire prevention purposes. A major ship's cleaning evolution is called a field day.

GS- Slang for geosynchronous orbit. Although this properly refers only to a stationary orbit about Earth, it is used for a stationary orbit about any planet.

IFF- Stands for Identification Friend or Foe. A signal used to identify a vessel's nationality similar to transponders used by commercial vessels. Since this signal is easy to detect, it is often turned off, especially in engagements with Kafers, whose bulky vessels are easy to identify.

MAIL BOUY- This carry-over from nautical times refers to a communications satellite, especially one that beams news, etc. to ships in system. Often senior personnel will have novice spacers wait to "catch the mail bouy". This prank frequently involves having the victim get dressed in full EVA gear and then go throughout the ship getting various items that the "forgot" but will need to retrieve the bouy.

PORT AND STARBOARD (WATCHES)- Any watch situation which involves two people rotating on the same watch. Most vessels use this method with each watchstander standing a 12 hour watch.

PORT AND REPORT (WATCHES)- A watchstanding situation in which only one person onboard is qualified to stand the watch. This person stands the watch almost constantly with trainees or minimally qualified personnel standing in for brief periods of relief. The qualified watchstander will often have to sleep in the watch space while a trainee is on watch in order to be able to quickly respond to an emergency. An unqualified trainee who causes this condition is not a popular person.

RACK- Slang for a spacer's bunk.

RACK HOUND- Slang for one who spends the majority of his off watch time sleeping.

SHOOTING AN AIR SLUG- Some missile systems use high pressure air to eject the missile from the tube. To shoot an air slug is to test that system without actually ejecting a missile.

SPACE BAT- A mythical creature and evolutionary relative of the sea bat. This is a prank played on junior personnel, especially junior officers, involving a box with holes and a broom.

SPINWARD- In a spin habitat, the direction of the spin.



NEWSLINE: 2300



FRENCH FLEET FIGHTS

BETA COMAE BERENICES: AUG 27, 2301- There is new hope along the French firm today. A multi-national fleet under command of Vice-Admiral Rochemont aboard the Imperial French Battleship Richelieu fought an extended engagement with Kafer forces. Reports received tell of numerous Kafer losses including at least four Kafer battleships. After several days of fighting, the Kafers withdrew. A naval spokesman expressed confidence in the fleet's ability to drive the Kafers back beyond Arcturus. There was no mention of human losses.

Journey all over the universe in a map, without the expense and fatigue of traveling, without suffering the inconveniences of heat, cold, hunger, and thirst.

Miguel De Cervantes
Don Quixote de la Mancha
1615



TWILIGHT:2000



2300 AD

ALTERNATE SETTINGS: NORWAY 1996

BY MARK HAYES

NORWEGIAN VEHICLES IN TWILIGHT:2000 PART II

LEOPARD 1A5: German built medium tank that serves as the MBT of several countries including Norway. The Leopard I design has undergone several upgrades since it first entered service with the Bundeswehr in 1965. The 1A5 represents the practical limit to which the design could be taken. The gunsights provide thermal imaging and image intensification.

Price: \$500,000 (R/R) treat as "S" in Norway in 1996. RF: +40. Armament: 1 x 105 mm rifled gun L7A3, 1 x MG3 (coax), and 2 x MG3 (pintle). Ammo: 55 x 105mm and 1800 x 7.62N belted. Tr Move: 110/45. Com Move: 40/30. Fuel Cap: 600. Fuel Cons: 450. Fuel Type: D, Avg. Load: 300 Kg. Veh Weight: 43 tons. Crew: 4. Mnt: 18.

R: LH(200), G(220), HB(170)

L: LH(200), G(220), HB(170)

R: TF(220), TB(100)

C: TF(220), TB(100)

L: TF(110), TB(100)

TS(110)

F: HS(80)

C: HS(80)

R: HS(80)

FD (25)

TD (25)

BD (25)

D, R, G, E, F

D, L, S, E, F

G, C, A

X, W, N, A

L, A

L, C, G, W, A, X

D, R

L, G, S

E, F

D, R

X, W, C, G, L, N, S, A

F, E, A

LARGE CALIBER GUN

TYPE	RND	RNG	DAM	ARM	KDR	BLURST
105 MM RIFLED	HEAT	400	X25C	-	5	15
L7A3	APDSFS	500	X30	-	-	-
ROF: 1	APDS	600	X28	-	-	-
MAG: 1	MESH	400	X25C	X 2	10	20
	WP	400	X15C	X10	-	20



A
MARINE ON DUTY
HAS
NO FRIENDS



A SPACER'S BUNK IN 2300

BY MARK GELINAS

Of all the facilities onboard a starship, perhaps the most important to the spacer is his bunk or "rack". Onboard most vessels, space is at a premium, and the spacer's bunk is one of the few places he can call his own, it is his home away from home.

The spacer will spend most of his off watch time in his bunk. It is more than a place to sleep. The spacer can read, write, meditate, or be entertained in the confines of his bunk. It is also a place where the spacer can be alone.

The typical bunk is two meters long by one meter deep and one meter high. For reference, the parts of the bunk are as follows: the bed- the bottom part of the bunk; the head and foot- the walls at the head and foot of the bunk; the wall- the wall on the backside of the bunk; and the overhead- the roof of the bunk.

The bunk described here is, of course, the type used for military or starship crewmembers. Passenger accommodations are very different. These descriptions also assume a spin habitat.

COMFORT: The bunk has a 10 cm thick foam pad mattress. In the lower gravity of a spin habitat, this is quite comfortable. Also, the head is in the direction of the habitat's spin to prevent a falling sensation. A net covers the opening of zero-g bunks preventing the occupant from floating out.

COMMUNICATIONS: Each bunk has a small com panel with which the occupant may talk to or be called from the various spaces onboard the ship.

DECORATION: The spacer's bunk is his home. He is allowed to decorate the walls and overhead in any manner that he likes. This is sometimes restricted by the Captain's sense of "good taste". Decoration usually takes the form of pictures, posters, and pin-ups, but personnel on long term assignment have been known to paint their bunk's walls.

ENTERTAINMENT: Each bunk has a variety of entertainment systems. There is a jack for a headset which connects to the ship's entertainment system. Most personnel prefer to bring their own music and play in the music player that each bunk has. The overhead has a fold down flat screen which can connect into the ship's entertainment system or show movies that the individual plays in the bunk's video player. When in a system, the communications officer often looks on to an entertainment channel of the planet and connects it to the ship's entertainment system. This allows individuals to listen to the "radio" while in their bunk. The ship often maintains a small library and individuals can check out book chips to read using their video player. Some spacers bring their own book chips or even printed books to read. The wall has a fold-down desk for writing or using a personal computer.

ETIQUETTE: One does not disturb an individual who is in his bunk with the curtains closed. Exceptions to this are to make a wake-up call or in the case of an emergency.

LIGHT: Each bunk has a light on the overhead near the head.

PRIVACY: The bunk has curtains across the opening providing occupant privacy and keeping the light from disturbing others.

STORAGE: Under the bed is a bedpan which provides storage for some clothing. At the head is a locker providing .5 cubic meters of storage. On the overhead is a small locker for shoes, but this usually is used to hold book or movie chips, or other items to which the spacer may want quick access. A bag which attaches to the foot is provided for dirty clothes storage.

VENTILATION: A ventilation duct at the head provides fresh air and heat to the bunk. A knob allows adjustment of airflow.



NEWSLINE:

2300



VICTORY VANISHES

BETA COMAE BERENICES: SEP 10, 2301- The Kafer's returning to the Beta Comae Berenices system have driven the human defenders from the system. The French fleet had moved on leaving British and German squadrons to defend the system not expecting the Kafer to return soon. During the battle, the defenders had early success damaging a Delta, but were soon overwhelmed and driven off.



TWILIGHT:2000



2300 AD

ALTERNATE SETTINGS: NORWAY 1996
BY MARK HAYES
NORWEGIAN VEHICLES IN TWILIGHT:2000
PART III

NM 135: This is the standard APC of the Norwegian Army. It is basically an M 113 with a 20mm autocannon in a powered turret. The turret also mounts a 7.62mm machinegun co-axially. Treat the machinegun as a MAG. Use the rest of the description as per the M 113 in the equipment list.
Price: \$75,000 (S/R) treat as "C" in Norway in 1996. Armament: 1 x 20 mm autocannon, 1 x MAG (coax). Ammo: 300 x 20mm and 1100 x 7.62N belted. Tr Move: 120/70. Com Move: 40/30. Fuel Cap: 360. Fuel Cons: 120. Fuel Type: D. Veh Weight: 12 tons. Crew: 2+10. Mnt: 6.

R: LHK30, G(30), HB(10)	E, F, P
L: LHK30, G(30), HB(10)	D, R
R: TF(30), TB(30)	X, N, W
C: TF(30), TB(30)	X, W, N, G
L: TF(30), TB(30)	N, W, G
TS(30)	G, N, W, X
F: HS(10)	D, E, F
C: HS(10)	G, S, P
R: HS(10)	S, F
FD (10)	D, E, F
TD (15)	X, W, N, G
BD (10)	P, S

LARGE CALIBER GUN

TYPE	RND	RNG	DAM	ARM	KOR BURST
20 MM AUTO-	APF	250	X3	-	2.5
CANNON	HE	250	X3C	X10	2.5 5.0
ROF: 4					
MAG: 33					

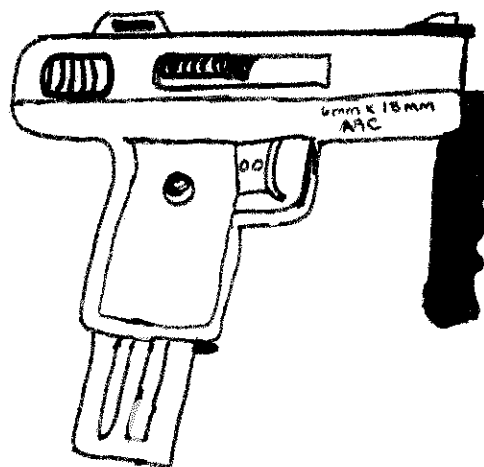
Y005 IS
BONED FO'
A DIRTY RIFLE



SGT LANE
SERVES AT YMI



MAD DOG MADDOW'S MUNITIONS MANUAL



AAC Model 664

Due to the extremely tight security in many air and space ports, getting a weapon through customs is nearly impossible. Even super modern all polymer weapons are caught by high tech detection devices. The America Arms Corporation (AAC), however, promotes and supports the right to keep and bear arms. Accordingly they have developed a line of covert duty weapons. This weapon breaks into 3 easily concealable and innocent looking pieces. The possession of such a weapon is usually very illegal. Consequently, they are very hard to obtain, and usually at grossly inflated prices if they can be obtained at all.

Type: 6mm Micro Machine Pistol Country: America Weight(Empty): .5 Kgs Length: 37 cm (Bulk=0) Action: Single shot or bursts Ammunition: 6 x 15 mm fixed cartridge ball Muzzle Velocity: 530 mps Magazine: 20 round box magazine Magazine Weight: .1 Kg RoF: 5 Aimed Fire Range: 50 m Area Fire Burst: 10(AFV+1.5) Area Fire Range: 30 m DP Value: .2 Price: Lv 250 (Lv 1 for a box of 100 rounds)



NEWSLINE: 2300



KAFERS AT KIMANJANO

KIMANJANO: DEC 5, 2301- A force of Kafer warships has entered the outer reaches of the Kimanjano system. Because of the multi-national task force in system, French authorities are confident that they can hold on to the system. Kimanjano is an important crossroads in the French Arm. The loss of that system would be serious.



TWILIGHT:2000



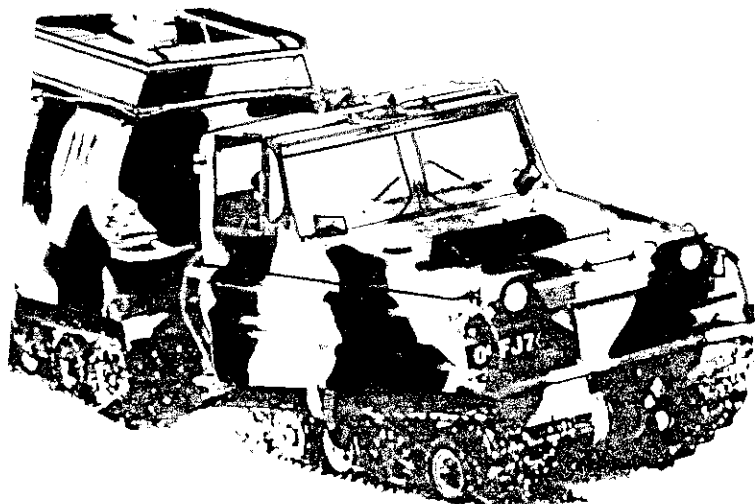
2300 AD

ALTERNATE SETTINGS: NORWAY 1996

BY MARK HAYES

This month, we conclude our series on Norwegian vehicles.

NORWEGIAN VEHICLES IN TWILIGHT:2000 PART IV



BV.202: This vehicle, originally designed in Sweden, is designed for the transportation of men and equipment across snow and rough country. It is fully amphibious. It consists of two tracked units connected by a universal coupling. The front unit contains the engine, gear box and steering mechanism. It also houses the vehicle commander and driver. The rear unit carries the load and/or men. Deep snow or rough ground would reduce movement to 3/4 normal instead of 1/2. This vehicle is used by Norway, Sweden, Finland, and Great Britain (Royal Marines).

Price: \$25,000 (C/F). Armament: 1 x MG3 MG (on roof of front unit). Ammo: 33 x 7.62N belted. Tr Move: 100/80. Com Move: 50/40. Fuel Cap: 160. Fuel Cons: 40. Fuel Type: G. Veh Weight: 4 tons. Crew: 2+8. Mnt: 4.

R: LH, G, HB
L: LH, G, HB
R: TF, TB
C&L: TS, TF, TB
F: HS
C & B: HS
FD
TD
BD

E, F, C, P, S
E, F, D, P, S
P, S
D, P, S
D, E, F
P, S, F
E, F, D, C
P, S, F
P, S, F



THERE ARE
3 TYPES OF
BAYONET FIGHTERS:
THE QUICK,
THE DEAD,
AND THE SMART ONES
WHO CARRY
SIDEARMS

MUSIC MEDIA IN 2300

Long before 2300, the entertainment industry will have recovered from the difficulties of the Twilight War and the subsequent period of rebuilding. Indeed, in 2300 entertainment is a very big industry, especially on Earth, where most people have a lot of free time to fill.

While the industry will have recovered, and still function much the same as it did before, its methods will have changed. With advances in digital storage technology, the old, analog magnetic tape will largely fade away. True, some computer systems may still use magnetic tape as off-line storage, or for a memory back-up. However, most digital storage will be in the form of non-volatile memory storage chips.

The EPROM's of today may be but a foreshadowing of a more powerful storage chip. The advent of a chip with a large storage capacity, into the megabytes, will change the entertainment industry. The imaging devices listed in the EQUIPMENT GUIDE, give us an idea of how these chips will change photography. They will also change the way music is played. More powerful chips will allow a music computer to use more memory to store a song, thus making it more intricate. The laser disks and digital audio tapes we have today use digital codes to produce music. With a faster computer and increased memory, a chip can replace the compact disk or other recording media. A chip player has the advantage that it has no moving parts to wear out. Thus, unless one destroys the chip, the music will always be perfect.

Since an album will rarely fill a chip, music companies may buy flawed chips which still have sufficient storage space for their music. Occasionally, a company will place a large collection of songs from one or more groups on a good chip. Naturally, these would be advertised on late night television with 800 numbers. Most chip players hold more than one chip, and prices vary according to options. One which played the music sequentially and held only one chip would be cheap. A fancy multi-chip model with a selection programming option would cost much more.

SUNNY CHIPMAN: This is a portable chip player. The unit holds a single chip which it plays sequentially. Batteries provide about eight hours of play time. The unit comes with lightweight earphones. *Weight: 25 Kg Price: Lv 20*

SUNNY CHIPMAN II: An advanced model of the SUNNY CHIPMAN, this unit can hold two chips and has controls to allow access to various segments of the chip. The player can be programmed to play songs in any sequence. Songs may even be skipped. *Weight: 5 Kg Price: Lv 50*

MAGNUMBOX CHIP PLAYER: This player is designed for home entertainment. It holds 10 chips and has a full range of programming functions. *Weight: 2 Kgs Price: Lv 100.*

DIGITSOUND VEHICLE SYSTEM: This player is designed to be installed in a vehicle to provide it with a sound system. Otherwise, it is similar to the SUNNY CHIPMAN II. *Weight: 1 Kgs Price: Lv 60*

SUNNY CHIP RECORDER: An unit which allows sound recording on chips. Professional models cost and weigh much more. *Weight: 5 kgs Price: Lv 200*

SINGLE ALBUM CHIP: Holds 30 to 45 minutes of music or sound entertainment. *Weight: .05 Kg Price: Lv 1 (Blank), Pre-recorded ones varies with what is on it; usually Lv 5-15.*

LONG PLAYING CHIP: Holds 1 to 4 hours of music or sound entertainment. *Weight: .05 Kg Price: Lv 3 (Blank), Pre-recorded ones vary with what is on it; usually Lv 10 to 60.*



NEWSLINE: 2300



DEFENDERS DIVIDED

KIMANJANO: DEC 12, 2301- A difference of opinion between German and Japanese squadron commanders has left the colony of Kimanjano virtually defenseless. When the Katers finally attacked, the Japanese squadron took the brunt of the fighting while the Germans waited in "reserve." When the Japanese commander reasoned that his squadron had taken "unacceptable damage," he withdrew. Kimanjano is in trouble.



TWILIGHT:2000

REALISTIC COMBAT OPTIONS

BY MARK HAYES

One of the beauties of the combat system in TWILIGHT:2000 is its simplicity. However, there are occasions when I have a hard time seeing certain results of the rule mechanics as being realistic. Take, for example the case of our All American Hero, Corporal Johnny B. Quick.

Johnny is one of a group of player characters assaulting a Soviet position around a farm house. He and two other characters sprint across the open ground while the remaining good guy provides covering fire. The sneaky Soviets have a slit trench manned with a RPK team and two riflemen (AK-74's). The RPK gunner is a veteran and the riflemen are experienced.

They open up on our hero at a range of 50 meters (medium range for both weapons). This gives them a 12% and 5% chance to hit, respectively, per shot. Chances are that the player characters will escape this deluge of automatic fire the first round. Let's say, for sake of argument, that Johnny is hit three times at close range on the following turn (twice in the chest and once in the arm). If the die rolls are average, each shot will do 22 points of damage. Mighty Johnny has a constitution of 14 (the one statistic nearly always favored), so even the arm hit is "merely a flesh wound." Naturally, Johnny is wearing a kevlar vest so the Soviet low-powered rounds amount to only 4 points of damage! He is knocked down, probably the worst effect of being hit by three 5.45 mm rounds.

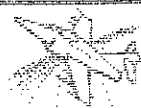
While down, our hero becomes the target of a highly trained (elite) Soviet sniper taking careful aim with his SVK rifle at a range of 100 meters. From merely a football field's length away, this crack shot operating his country's most accurate rifle has less than one chance in three (33%) to hit a stationary target.

After several clods of dirt are kicked up around him, Johnny glances at the scratch on his arm. Muttering something about not having time to bleed, he jumps up and trots toward the farm house spraying the slit trench with his M-16. With his "requisite" CFM skill of 80 he has a 48% chance with 4 shots to hit his assailants. Even though they are protected from the abdomen down, it is easy to see that the Soviets are likely to come out on the short end of this contest.

If this little scenario sounds perfectly all right to you, then you have been watching too many Arnold Schwarzenegger movies. Is there a solution? Can a little more realism be incorporated in the game system without overburdening it and hurting the elegance of its simplicity? I don't think that a lot of new and complicated rules are the answer, but here are a few suggestions.

Each shot represents 3 rounds. I'm assuming that a "hit" is by only one round. If a character is hit in the chest or abdomen roll 1D6. If a 4 or 5 is rolled, then he is hit by an additional round of that burst. Roll for placement and damage. If a 6 is rolled, the unlucky recipient is hit by all three rounds of that burst.

When taking careful aim with a sniper rifle, there are two additional effects. Medium range extends out to four times as the base range, and long range is eight times. Also, when taking careful aim with a sniper rifle, double the base chance to hit again if the target is stationary. More suggestions next issue.



2300 AD

TAKING CONTROL OF 2300 AD

BY JOHN CRIDER

Are you afraid of trying to referee 2300 AD because of the historical complexity? Are you tired of having you players know as much (or more) about the universe your are running as you do? Have you had the nightmare of spending hours or generating information only to have it contradicted in a moment by a new release? Let's look at the 2300 AD universe and how you can gain more control over your adventures.

In 1985, Frank Chadwick and others at GDW developed a historical background for 2300 AD. This background gives that game a unique position among role playing games: the referee doesn't have to brief the players of major historical events or political alliances that should effect character actions in the 2300 AD universe. However, this also severely limits what the referee can comfortably do while staying in the 2300 AD universe. In effect, the referee is running someone else's game.

With other game systems, it is easy to keep control of the universe. Just create your own! Their rules allow the easy creation of worlds, trade routes, and ships. With 2300 AD, however, this is much harder, because the rules do not provide for such development. If the referee wishes to deviate very far from the published material, he can create his own background using information provided by the game. Here are some suggestions on how to create that background and use the game.

The star system generation rules are very well written. At the very least we can generate all of the systems of the nearest forty stars around earth. About the only thing you might want to add are a hydrographic percentage, natural resources worth trading, and any native sentient beings. Alternately, you may wish to try a universe without extra terrestrial life.

For colonial expansion, use the colony charts provided and use a little imagination. For ship generation, you can use either the STAR CRUISER rules, or use ships from another game that you like. If starships are only a means to get the characters from one world to the next, borrowing may be simpler than buying STAR CRUISER, an excellent set of starship generation and combat rules.

Colonization, trade, and military trends must be examined and implemented. If you want your universe to have a history, then a lot of record keeping will be necessary. Keep careful track of those records or you will have lost a lot of work and gained a lot of holes in your universe.

These are a few suggestions. Next issue, we will examine some ways of dealing with the volume of work involved. We will also discuss how to distribute this to players.

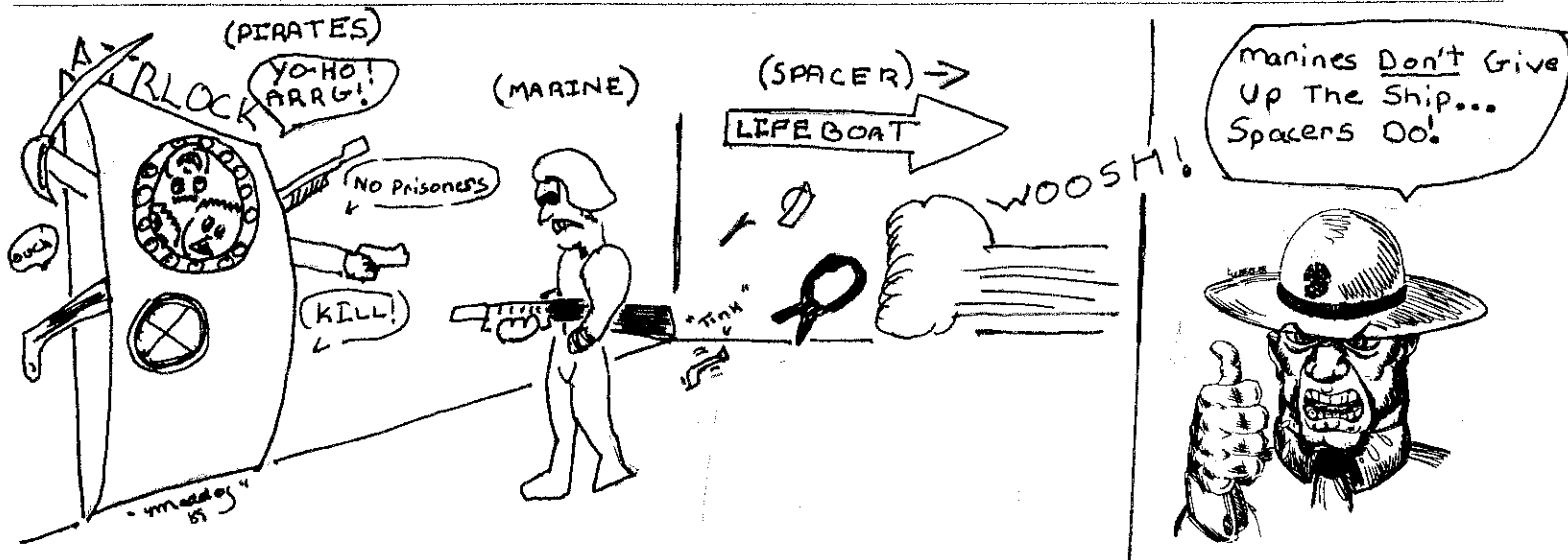


NEWSLINE: 2300



LEGIONS LAND!

KIMANJANO: JAN 02, 2302- After finally driving away all Terran space forces, the Kafers have begun landing operations on this vital world. Sources believe that fighting for Kimanjano will be long and bitter. It is unknown when space forces can return.





TWILIGHT:2000



2300 AD

TAKING CONTROL OF 2300 AD

BY JOHN CRIDER

REALISTIC COMBAT OPTIONS

BY MARK HAYES

As stated last issue, the TWILIGHT:2000 combat system is very simple to use, but can sometimes produce some unrealistic results. To illustrate this, we looked at a typical assault by a typical character, Johnny B. Quick, and his team. Although the illustration was rather contrived, it served to illustrate our point.

Then we looked at some ways to compensate for some of the apparent problems without burdening the system. This month we are going to look at some additional compensations and some ways to give the NPC a fighting chance, again without burdening the system.

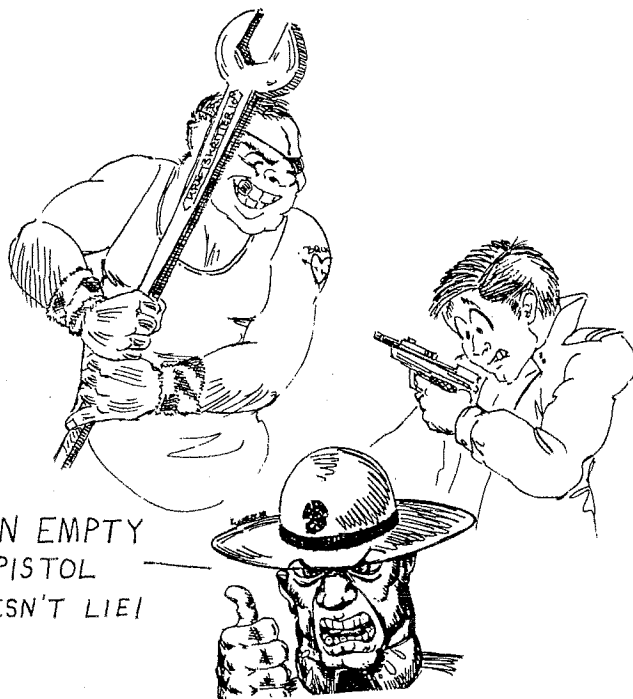
The quick way to determine an NPC's skill (as in the rules) is to assign a rating of 50, 40, 30, or 20 to the needed skill depending on if it is an Elite, Veteran, Experienced, or Novice NPC. To bring some play balance between player characters and NPC's try this: in the case of CRM, the 50, 40, 30, or 20 rating becomes the chance to hit at close range. The should keep the referee from having to rate all his NPC's as elites just to give them a chance against the 80 skill level player character (not to mention its effects on "Rambomania").

However, the most important "modification" that a referee can make is a creative use of existing rules. If a character tries to run on a wounded leg, reduce his movement rate and force him to hesitate immediately after his sprint for cover. If a character tries to pull himself over a wall on a wounded arm, have him roll against his constitution to avoid a long period of "hesitation" due to pain.

Serious wounds anywhere should cause the character to have his chance to hit. The human body naturally resists being subjected to such trials when it is damaged. This is especially true the first time a strenuous activity is attempted after a wound.

A person invariably needs to adjust to his first encounter to intense pain. For example: Johnny received 22 points of damage to his right arm (a light wound for him). At the next available opportunity he fires his M-16. As Johnny is right handed, this causes some pain. The referee tells him to make a difficult roll against his constitution to avoid a hesitation next round. Any subsequent shots by Johnny with this arm would require a successful task roll of Constitution: Average.

These are only a few ideas. A referee can make the session much more realistic and enjoyable by vigorously using his imagination coupled with common sense. And don't ever let your players say, "It's only a light wound. No problem."



AN EMPTY
PISTOL
DOESN'T LIE!

Last issue we discussed various ways of how the referee can take control of his 2300 AD universe. Most of the suggestions can be summarized like this: use the rules, but develop your own background. We also mentioned that this would usually involve a lot of work. This issue we will examine some ways to handle all that work, to let the players in on what is going on, and how to use more of the background but still maintain control.

DOING THE JOB

Like we said, all this can be quite a bit of work. If you can't do it all by yourself, employ some of your players. They will usually enjoy doing part of the work, and will probably enjoy the game more as a result.

Another method is to do only what you immediately need, plus a little more in case the characters get off the beaten track. This method will usually amount to writing up the background history, and doing the few systems where the characters will first adventure.

The referee faced with this work might be inclined to go back to his old game. However if he perseveres, he will be rewarded with a unique role playing environment and the ability to fully use some excellent game systems.

INFORMING THE PLAYERS

If you follow this procedure, you should warn your players that the universe you are running is NOT exactly that published by GDW. That way they will know not to automatically assume what they read in a module is correct. You may want to prepare a handout or small players handbook which outlines the history and lists any rule variants that you might use. That way the players know what their characters should reasonably know, and they know how you as referee plan to run things.

USING THE BACKGROUND

As we saw last issue, GDW did a great deal of work preparing the background for 2300 AD. If you are pressed for time, you might consider actually using the background, but editing out anything that you didn't want in your universe. Many referees find that no editing of the history is required.

However, a number of these same referees will alter the current course of events in order to keep a better control of the game. This method readily lets the players know the universe's history: it's in the book. However, they are kept guessing about what is going to happen next.

Again, you may wish to rework some of the planetary systems to better suit your needs. By using the published background, you can use the planets you want, and rewrite the rest. This works best if you select some of the low key planets to modify. Doing that prevents you from having to alter the history significantly.

Altering or substituting game systems usually has less of an effect than altering histories or planets. A word of caution though, before you alter a gaming system look at ALL of the other systems it might affect to make sure that you don't upset any delicate game balances. For example, a starship combat system usually stands alone, but watch out for how skills affect combat.

CONCLUSION

There are a variety of ways of gaining more control over your 2300 AD universe. Some require a radical departure from the published material, while others do not. Naturally, the further you get the more work is required of you. Yet the rewards are great.

GNS (Cont.)

NAVY NEUTRAL

ZEELAND/DIASPORA: 075-1117: Elements of the Diaspora fleet, which is under the command of Admiral Jessica Nile, stopped a battle between forces of two subsectors today. The combatants ignored radioed orders, each ordering the fleet elements to fight for their side. The task force leader, identified as Captain Stanford Li, refused to obey either side's orders, and fired warning shots at both as they continued fighting. The combatants stopped fighting immediately. The fleet elements remained in system until both combatants had left.

STREPHON STRIKES

PHALN/GUSHMEGE: 181-1118: Fleet elements led by Emperor Strephon attacked fleet elements of Dulinor. After a short engagement, Dulinor's forces had to withdraw.



TWILIGHT:2000

SPECIAL SURGERY

A SCENARIO BY
BY MARK GELINAS

The following is a generic scenario for TWILIGHT:2000. It was designed to allow referees to use it in any area where they are running their campaigns. Referee's are encouraged to take the basic information here and alter or embellish it as necessary to fit in their campaign.

THE OPPORTUNITY

RUMOR

The following rumors are available to the characters:

1. There is a doctor working in a village not to far from where the characters are currently operating.
2. A large violent group of marauders is slowly moving south.

REALITY

1. A field grade medical officer, Dr. Antonio Jones, a qualified surgeon, was moved by the suffering he saw all around and has set up shop to help his adopted village.
2. The marauders are violent, but attrition has reduced their numbers.

REQUEST

Dr. Jones fears for his adopted village because it lies in the probable path of conquest of the marauders. They are now only 50 kilometers away from the village and probably will stay camped for several weeks. Although Dr. Jones is generally opposed to killing, he recognizes that marauders are a cancer on humanity that must be stopped before they cause more suffering. He will offer the characters medical services, a commodity always needed in the Twilight War, in return for a favor. He wants a small group to sabotage the marauders stills and vehicles. Dr. Jones feels that the marauders will move a lot slower or possibly break up without their transportation. Because of his concern for mankind, he will ultimately help the characters whether or not they accept the mission, but don't tell them that.

THE OPPOSITION

ENEMY COMPOSITION

The marauders are a band of 30 effectives with a number of followers. There are 2 elites, 4 veterans, 8 regulars, and 16 green quality troops. For weapons they have an RPK with 20 shots, 3 AK-74's, 5 M-16 (EZ's if in U.S.), and an assortment of handguns and hunting rifles. For vehicles they have 1 Hummer, 3 pick-ups, 2 heavy trucks with their stills, and one full size station wagon.

ENEMY CAMP

The marauder band is currently camped in the remains of their latest conquest. The vehicles are kept in a barn to the east, and the stills are in another outbuilding. They are using the corn from a silo for food and to make alcohol.

CYBERTALK

MORHDON CORPORATION

WORKING WITH
THE BUILDING BLOCKS
OF LIFE



PRODUCT: Bio-Engineering

MAIN OFFICE: Denver, Colorado

REGIONAL OFFICES: San Francisco, California; Houston, Texas; Boston, Massachusetts; Charleston, South Carolina.

STOCK: 123,000 Shares

NAME AND LOCATION OF PRINCIPLE

STOCKHOLDERS: David Menholm, 55%, Denver, Colorado; Oscar Wilson, 15%, San Francisco, California; Deborah Holmes, 10%, Boston, Massachusetts; Robin Withers, 10%, Charleston, S.C.

STOCK AVAILABLE ON MARKET: 12,300

TROOPS: 150 divided into 5 units of 30 each.

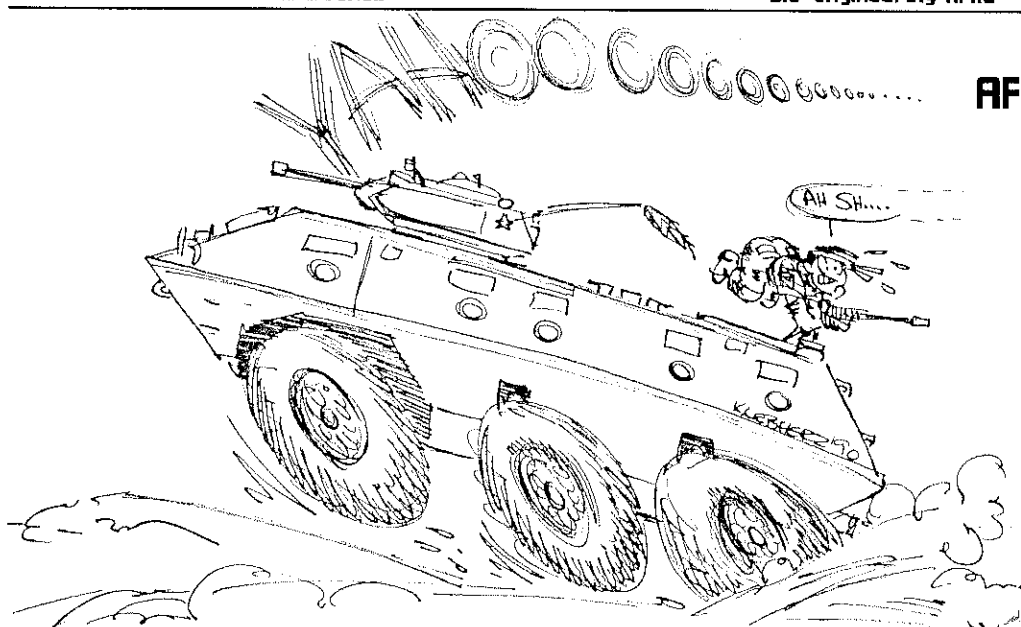
COVERT OPERATIVES: 10 Cybernijas, 20 Covert Operatives, and a Solo Pool of 15

EQUIPMENT AND RESOURCES: Each office has 2 ACU's available to them. Additional equipment includes: 4 roto-wing aircraft, 1 spaceplane, and one orbital workshack.

BACKGROUND: The Mordon Corporation started as an In Vitro fertilization clinic in Denver Colorado. To facilitate their work, they had an extensive genetics lab. As knowledge of genetics increased, practical uses for bio-engineered products increased. Eventually, the demand for bio-engineered products outweighed the fertilization business, so the company dropped that facet and expanded its laboratories and processing plants.

CHARACTER INVOLVEMENT: The characters could be targets of experiments by Morhdon. The characters could be a part of Morhdon's solo pool or covert operative branch. The characters could be working for an individual or group whose plans were contrary to those of Morhdon. The characters could be hired by Morhdon to perform a low profile acquisition. The characters could find themselves caught between Morhdon and a larger bio-engineering firm.

AFV's aren't for
joy rides!





TWILIGHT:2000

THE TEXAN TRAIL PART I REMEMBRANCE

The dream returned. Although the nightmare that was Europe was far across the Atlantic, the dream returned. He was in the woods again, those ancient woods north of Krakow.

He was approaching a position with his team mate "Tex", when several dark figures stepped out of concealment and started firing sporting arms. Tex took a shotgun hit to the head, there was nothing that he could have done for Tex. He barely remembers the blood frenzy that followed, barely remembers hefting Tex's M-60 and continuing the fight.

When the fight was over, and the frenzy had passed, he buried Tex, and against the protests of the rest of the team, the M-60 as well. But he took Tex's dogtags, and made a vow to return them to his parents back in Texas.

Then his group heard the call to return home. They struggled their way across the battered countryside to reach Bremerhaven just in time to depart. The long voyage home with its mixed emotions and days of rough seas did much to erase the memory of those terrible days in Europe.

Now the memories came back, at least in his dreams. Zeke sat up on his cot in the darkness of the barracks. Did these things really happen to him? He pulled his pack out of his locker. It had been stored there only partially unpacked since he returned.

Zeke unlaced the top and rumaged around inside. Something cool and metallic touched his skin. He fished around and extracted the slender beaded chain. A tug and a clank of metal on metal told him his catch was free. Cupping the prize in his hands he walked outside.

In the pale moonlight he read the depressions on the rounded metal rectangles. They were not his. The dreams must be real. He had a mission to accomplish, a vow to keep, one made over a mound of freshly turned Polish earth.

CYBER TALK

PATROL AEROGYRO

BY STEVE KOSTOFF

The Hughes AH-10 Patrol Aerogyro is available to police forces, governments, and corporations. It carries a crew of one, the pilot who also operates the vehicles weapons. The AH-10 is small, fast, and agile. It packs a whole lot of punch with its under mounted autocannon. The pilot has a considerable array of sensors at his disposal, including a VCR for image storage and real time image transmission (via radio). The AH-10 can be modified to accept cybernetic control, giving new meaning to the phrase "fly by wire." The autocannons electronic gunsight can be made Smart, so that pilots can jack-in to the gun. The craft carries 32 minutes of fuel.

2300 AD/EARTH CYBERTECH STATS

TYPE: Patrol Aerogyro
CREW: Pilot
WEIGHT: 2,000 kilograms
ARMOR: 1
ARMAMENT: 25 mm autocannon in swivel nose mount.
SIGNATURE: 0
EVASION: 12
SENSOR RANGE: 5 kilometers
MAX SPEED: 300 kph
CRUISE SPEED: 225 kph
COMBAT MOVEMENT: 600 meters
FUEL CAPACITY: 433 liters
FUEL CONSUMPTION: 800 liters/hour
ENDURANCE: 30 minutes
EQUIPMENT: Searchlight, light amplification, thermograph, image enhancement, VCR, radio (50 kilometer range)
PRICE: LV 84,500

CYBERPUNK STATS

POWERPLANT: One Hughes 6400 gas turbine engine.
PERFORMANCE: Max airspeed 300kph
MAX OPERATING RADIUS: 80 kilometers
STRUCTURAL DAMAGE POINTS: 40
GEAR: Swivel mounted headlight, light amplification, thermograph, image enhancement, VCR, Radio (50 km range), 3-barrel autocannon.

CYBERPUNK, THE ROLEPLAYING GAME, IS PRODUCED BY R. TALSORIAN GAMES, BOX 2288, APTOS, CA 95001-2288, AND IS UNDER COPYRIGHT.



TWILIGHT:2000

THE TEXAN TRAIL

PART II

Muzzle flashes blossomed in the night. Most of the weapons firing at Zeke and his group were only semi-automatic, but a bullet can still kill regardless of how fast the weapon fired it. Zeke's party returned fire, except that most of their weapons fired the quick 3 round burst of the M-16.

When a few of their number lay dead or wounded, the attackers morale broke and they fled. Sgt. Ezekiel Nile then took account of the people who were travelling with him. All were accounted for, relatively unscathed, except Danny, who had been walking point.

"Amateurs," Zeke thought, "firing at the first person they see." He sent Janice out to take point, and shortly they came upon Danny's body. Zeke felt a pang of remorse for letting Danny take the point. The group had heard that this was a relatively safe region, and Danny had little experience, having never made it to Europe.

He was another casualty of a war that no longer had borders or battle lines. Danny had died not on some foreign soil defending democracy, but in America, the land of his birth, torn by the aftermath of a global war.

With guards posted, they buried Danny, saying a few words over the grave before moving on. Texas was still a long ways away.

The trail had been hard, but along it, Zeke had seen plenty of signs that the nation was recovering: communities pooling their resources and manpower to rebuild what the war had ruined. It would still be years before any semblance of normality would be seen.

Yet there were still forces who resisted any return to order. Despots and petty war lords did not want to relinquish the power they gained. Criminals became marauders as law and order collapsed. There were also those who felt violence was the only way to satisfy their needs.

Zeke gathered the group and started them moving again. Frosty took the point. She had survived Europe with Zeke. The marauders would have a hard time getting the drop on them again.

CyberTalk

REPLICANT/BLADERUNNER RULES

NOTE: This article was written primarily for the HARDWIRED supplement of R. Talsorian's CYBERPUNK. However, the information contained within is largely general and therefore useful to most RPG's in the cyberpunk genre.

DISCUSSION: Genetically designed bioreplicants, commonly called replicants, are a use of cloning technology which is of very questionable legality and morality. It consists of the growth of a genetically designed clone body, and the subsequent programming of that body by means of liquid crystal implants. Replicants are not considered human in any current legal sense whatsoever, and are the property of whoever purchased them from the sole "manufacturer" MAAS BIOLABS, LG. (a particularly nasty corporation which appears in COUNT ZERO) (EDITOR'S NOTE: if you do not wish to use MAAS in your campaign, MORHDON CORPORATION, discussed in issue 27, would serve as a good substitute.) MAAS considers the actual replicant technology as its greatest asset, which it is, and is willing to do absolutely everything required to protect it. At first replicants were used extensively on earth and at the orbital stations of the major nations and corporations, but after a small group of replicants ran amok in a small town in Missouri, killing a large number of people, laws outlawing them started to be passed. Now, except in several corporate and military bases, they are illegal on Earth. The media panic and exaggeration following the Missouri incident created a great fear of replicants in most of the population. This paranoia of replicants was used in the international media as their event of the year and eventually most of the world's population was in favor of their total elimination. One side effect of the panic was the change in feelings in a lot of the public over cybernetics. In many rural or backward areas, lack of accurate information concerning replicants caused a confusion between replicants and cybers, which is the reason for the negative reaction cybers experience in many places. This replicantphobia has resulted in the laws which govern the use and employment of replicants on Earth. In order to use a replicant, an organization must be cleared and issued a permit by the Orbital Soviet. In addition, they can only be used in contained security areas, and can have no contact with the general public whatsoever. Their use in orbital facilities is not restricted. All replicants are to bear a large red "R" tattoo on their right hand. In addition, each has a serial number tattooed on the back of their neck, just under the hairline. Another result of the replicant laws was the creation of the Bladerunner organization. Any replicant found outside an authorized facility was subject to termination, called "retirement". Most police agencies gave this "duty" to the original cyberpsycho squads, now commonly called "Bladerunners". Any method which does not injure humans is allowed in retiring renegade replicants. There is a bounty on each replicant retired, based on the individual replicant or group.

PUBLIC KNOWLEDGE: The general public knows of three type of replicants; Workers, who are shown as very strong but stupid; Pleasure Models, who are beautiful, docile, and stupid; and Security Models, used for guard and security type duties, they are shown as quick, strong, of about average intelligence, and hard to stop. The Security, or Combat Models in the media, are the type that is responsible for the Missouri incident. A few rumors have surfaced in the media of an additional type of "superreplicant," but MAAS BIOLABS has dismissed these as yellow journalism, "poppycock", "laughable", and sheer nonsense. All replicants are believed to have emotional responses, but on a vastly reduced level. It is believed that they do not feel pain, and that they act as berserkers when not under control. The media reports that due to a flaw in the manufacturing process all replicants develop one or more mental problems. That, they say, is one of the reasons they are so unstable. While almost all of the population knows that cybers are not replicants, the negative press is hard to live down.



TWILIGHT:2000

THE TEXAN TRAIL

They had a fair idea that they had reached Texas. They had skirted well south of the Ozark mountains, having heard of some troubles there. They knew that Texarkana lay to the southeast of them, and they just crossed a river, probably the Red River. They couldn't be sure, because the destruction and aftermath had removed so many of the road signs, that the American public had grown used to. If the Hampton's, Tex's folks, had lived in El Paso, Zeke and his group would have almost as far to go as they had come already. Fortunately, they lived in one of the more easterly towns. Zeke got the group mounted up in the vehicles they had acquired along the way, two pick-up trucks, and an ancient VW bug they had converted into a scout vehicle. Shortly the group was moving west again, hoping that the outward journey would end soon. On the return trip, they would swing north and drop off some of their team mates who had come from the midwest. One member talked about going home to California, but knew he wouldn't leave the group.

Several hours later, after passing through several ghost towns, and having a brief encounter with some scavengers in one of them, they approached a barricade built across the road. Zeke had the driver stop, and he got out. He could feel Frosty watching the guards on the wall for any false move. Since Zeke's group hadn't come with guns blazing, the town folks were willing to talk, but would only let Zeke into the town, and unarmed at that.

Zeke complied leaving the Steyr AUG he had brought from Europe with Frosty. She didn't like the idea of him going in alone, but Zeke let her know that he had come this far and wouldn't let a little paranoia stop him. So, he trudged on into the town. Frosty refused to take a break with the rest, but kept watching the gate until Zeke emerged again. She swore that his eyes were misted when he came out, but he would never admit to it.

She gave him a questioning look, he simply nodded and headed back to the scout. Their mission was complete, it was time to start the long journey home.

CYBERTARK

REPLICANTS

BY MARK GOODLETT

PART II

TYPES OF REPLICANTS

EDITOR'S NOTE: The attributes for each of these types of replicants is given in general terms. The referee should use the information to create replicants for his particular type of role playing game. He should also adjust the abilities of the replicants to the point where one replicant could challenge an average party of player characters.

LABOR: This is the most common type of replicant and is used extensively by most orbital corporations for menial labor. Workers can perform either simple or repetitive functions with little supervision, but are designed for minimal initiative.

STATISTICS: *Strength:* High, *Agility:* Low, *Intelligence:* Very Low

DISADVANTAGES: About 1 in 4 has some sort of mental problem from simple quirks to major phobias.

SKILLS: Minimal, only as needed to perform function.

LIFESPAN: 8 years.

ENTERTAINMENT: This is the second most common type, also used extensively in orbital installations, in planet based corporate compounds, and on military bases. Designed to satisfy the needs of humans, these replicants are fully functional and are designed in both male and female models. Many of these replicants have direct input jacks installed, which are used to program in whatever variant personality the customer prefers. This is the only use of these jacks normally accept, and this fact is a closely guarded secret.

STATISTICS: *Strength:* Average, *Agility:* High Average, *Intelligence:* Very low, but better than the labor model.

DISADVANTAGES: About four out of ten have a mental problem as above.

SKILLS: Seduction, Singing, Acting, Dancing, Poetry, Style, as appropriate.

LIFESPAN: 5 years

SECURITY: These were designed for security and limited combat duty. This model has some initiative and decision making ability. There are two distinct types, Security and Combat. Used by orbital corporations in non-critical areas. Used extensively by MAAS. The combat models have only seen limited use and have unknown distribution.

STATISTICS: *Strength:* High, *Agility:* High, *Intelligence:* Low Average

DISADVANTAGES: One half have mental problems as above.

SKILLS: Rifle, Pistol, Auto Weapons, Brawling, Knife, Melee Weapon.

LIFESPAN: 4 years.

DARK RIVER DATA SECTOR MAP KEY

SUBSECTORS

A- Cheetham B- La Grone C- Keflin D- Shilleleagh
E- Blue Star F- Thedar Gap G- Efusa Rift H- Trailbreak
I- Trefoil J- Barrier K- Scorpion L- Far Reach
M- Natasha N- Treaty O- Armor P- Tonasea

STELLAR STATES

- 1- Kingdom of RSVC
- 2- Coalition of Andean Worlds
- 3- Kingdom of O'Oka
- 4- Thexin Heirate
- 5- Celan Domain
- 6- Arkaw Colonial Domain
- 7- Mudade Confederation
- 8- Weomaff League
- 9- Lantic Domain
- 10- United Council of Worlds
- 11- Va'can States
- 12- Somahome Domain
- 13- Brotherhood of Karl
- 14- Treaty Zone
- 15- Tonasean Empire

COMMUNICATION ROUTES

— Galaxy Lines Routes
— Stellar State Communication Routes

FULANI FACTS

Battle of Rheinhalt's Inn- The name given to the campaign for control of this world. In 1107, when the Zhodani Consulate engaged in the Fifth Frontier War, the Colonade Administration District, a client state, began a program of expansion of its borders. Colonade included as part of its program a general war against the Pratean Empire, which had long been at odds with them. Rheinhalt's Inn is a key system between Colonade and the rest of the Pratean Empire. The first thrust of the war was into this system. The System was quickly taken by Colonade forces, but pockets of ground troops fought a long and hard campaign on the world's surface. When the Prate eventually drove the Colonade forces from the system, there were still Prate forces left on the world.

Edeehans- The primitive sentient natives of Edeeh/Vanguard. These beings are evolved from carnivore/trapper stock. When their primary source of food changed its habits, the early Edeehans started forming groups which built larger traps based on their own natural traps. This was the beginning of community for these beings. Prate scientists from Zeyu institute are studying this culture which is moving toward a Tech Level of 1. Reports of animal domestication have been made.

Inferno Nebula- A flame shaped nebula in Vanguard subsector of Fulani. The nebula was formed from the remnants of a supernova. The explosion which created the nebula caused a great disturbance in hyperspace. It is not safe for starships to pass through this region in hyperspace. However, an abundance of hydrogen is in normal space so ships traveling through this area drop out of hyperspace, refuel while travelling through the nebula (which takes about 7 days at maneuver 1) then jump for their next destination after passing through the nebula. This made the nebula an important stop when the local technology produced ships only capable of a maximum of jump-3. While jump-4 and higher is available these days, many merchants only have the lower jump capable ships and still use this route.



TWILIGHT:2000

THE PREDATOR

This alien is based upon the being in the movie of the same name. It is described in TWILIGHT:2000 terms, but may not be appropriate for that game. It would, however, fit in a game of MERC:2000 or CADILLACS AND DINOSAURS, if you wanted to add an alien element to those games. It would probably work best in DARK CONSPIRACY with a little twist to the basic plot. The values are intended to represent the average Predator, individuals may vary. The small arms skill levels represent its ability with its own weapons; reduce by 2 if using human weapons. With its weapons, armor, and skills, this is a dangerous being. Nothing from the second movie has been included, referees wishing to use the new weapons can develop the additional stats.

Weight- 110
Initiative- 4

Throw Range- 40
Load- 48

Attributes and Skills

STRENGTH 10

Melee Combat (Armed) 2
Melee Combat (Unarmed) 4
Small Arms (Pistol) 2
Small Arms (Rifle) 4

CONSTITUTION 6

AGILITY 5

Electronics 2
Stealth 5

EDUCATION 5

Computer 3
Medical 3

CHARISMA 4

INTELLIGENCE 5

Foraging 2
Observation 4
Tracking 3

Hit Capacity

Head - 12

Chest- 48

Arms, Legs, & Abdomen- 32

Base Hit Numbers

Skill	Close	Medium	Long	Extreme
Small Arms (Pistol)	4	2	1	1
Small Arms (Rifle)	8	4	2	1
Unarmed Cmbt Dam	4			

Equipment

ARMOR: AV-2, Covers all areas of the body. Head protected on 1-5. Includes the following:

Chameleon Surface- Increases Stealth skill by 1 if running, 2 if walking, and 4 if staying still./I.R. Vision Device- Allows night vision.
/First Aid Kit./Laser Sight- Increases range of aimed shots by 15 meters./Blade- Twin steel blades on right arm of armor.
Damage-106+2./Hand Computer with Recorder and Translator
/Sealed Environment with Breathing Device
Plasma Gun- Ammo: Hydrogen Plasma, Weight: 5 kg, Magazine: 100

WPN	ROF	DAM	PEN	BLK	SS/BRST	RNG
PLASMA GUN	2	8	1-3-Nil	2	2/-	50

Explosive- At the end of the movie, the Predator detonates a powerful explosive. The impression is that it is nuclear in nature, probably a laser detonated thermonuclear device in the .1-.5 kiloton range. The stats listed below are for a .1 kton weapon ground burst is assumed. Crater-12 meters radius, primary blast radius- 50 meters, secondary blast radius- 150 meters, tertiary blast radius- 300 meters. Anything in the primary blast radius is destroyed. Anything in the secondary blast radius takes 10D6 damage to all areas of the body. Anything in the tertiary radius is hit on 6- with a DM +2 if under cover. If hit apply 3D6 to all areas. Of course there is all that radiation to deal with. For the first thirty minutes, out to the tertiary radius gives off 30 Rads per minute. After that the area of induced radiation is reduce to a radius 30 meters. Use this device with care.



GEO'S VARIANTS

This issue brings listings of MEGATRAVELLER weapons for use with the TWILIGHT:2000 2nd Ed combat system.

EDITOR'S NOTE: I derived the statistics for MEGATRAVELLER weapons which have contemporary analogs from TWILIGHT:2000 materials. Vehicles were derived from the DIGEST GROUP PUBLICATIONS product: 101 VEHICLES.

TL WEAPON		ROF	Dam	Pen	Blk	Mag	-Recoil-		Rng
5	Revolver 5mm	DAR	-1	Nil	0	6R	3	-	10
5	Revolver 7mm	DAR	1	Nil	1	6R	3	-	10
4	Revolver 9mm	DAR	1	Nil	1	6R	4	-	12
5	Revolver 9mm Mag	DAR	2	1-Nil	1	6R	4	-	12
8	Snub Pistol								
	HE	DAR	C:2 B:4	Nil	0	6R	2	-	6
	HEAP	DAR	C:2 B:4	3C	0	6R	2	-	6
7	Auto Snub Pistol								
	HE	SA	C:2 B:4	Nil	1	20	2	-	6
	HEAP	SA	C:2 B:4	3C	1	20	2	-	6
8	Body Pistol	SA	-1	Nil	0	6	3	-	7
6	Auto Pistol 7mm	SA	1	Nil	0	7	4	-	8
5	Auto Pistol 9mm	SA	1	Nil	0	15	3	-	12
13	Gauss Pistol 4mm	3	1	1-Nil	1	15	0	1	12
5	Carbine 7mm	SA	2	1-Nil	4	15	4	-	45
4	Bolt Action Rifle	BA	4	2-3-Nil	6	10	5	-	60
5	Rifle 7mm	SA	4	2-3-Nil	5	20	6	-	60
7	Rifle 9mm	SA	5	2-3-6	5	10	7	-	70
5	Hunting Rifle 13mm	BA	7	2-3-5	6	5i	11	-	75
6	Autorifle 7mm	5	4	2-3-Nil	6	20	3	7	75
12	Gauss Rifle 4mm	10	4	1-2-Nil	4	40	2	4	150
4	Shotgun	SA	4	3-4-Nil	5	10	6	-	40
	*Pellets Close	SA	9	Nil					
	Medium	5 X 10	1	Nil					
7	Autoshotgun	5	4	3-4-Nil	6	20	4	11	40
	*Pellets Close	5	9	Nil					
	Medium	5 X 10	1	Nil					
*See Page 200 of TWILIGHT:2000 for details.									
5	SMG 9MM	5	1	Nil	3	30	2	4	30
7	Assault Rifle 5mm	5	3	1-Nil	4	30	4	11	50
7	Assault Rifle 7mm	5	4	2-3-Nil	5	20	6	13	85
9	Accel Rifle 6mm	3	3	2-Nil	4	15	2	4	20
10	Adv Combat Rifle 7mm	5	5	2-3-Nil	4	20	2	5	90
	DS	5	6	1-2-Nil			2	5	100
10	Adv Combat Rifle 9mm	5	6	3-4-Nil	5	20	3	6	95
	DS	5	8	2-3-Nil			3	6	110
	HE	5 C:2 B:4	Nil	4			3	6	95
10	Asslt Rocket Launcher								
	HE	SA C:3 B:12	Nil	6	20	6	-		110
	HEAP	SA C:3 B:12	4C						
8	Lt. Assault Gun								
	HE	SA C:3 B:4	Nil	5	5	11	-		80
	KEAP	SA	16	1-2-3					
	FLECH	SA D:1 B:*	1						
*Use directional mine burst pattern									
5	Medium Machinegun	5	4	2-Nil	6	100B	2	3	60/85
6	Light Machinegun	5	4	2-3-Nil	6	100B	2	6	65/90
6	Heavy Machinegun	5	8	2-3-3	8	100B	4	10	150
	AP	5	8	1-1-2					
7	Gatling Gun 5.5mm	5/50	3	1-Nil	4	2500	2	7	60/90
7	Gatling Gun 7mm	100	4	2-3-Nil	4	2500	Vehicle		90
8	Gatling Gun 5.5mm	50	3	1-Nil	3	5000	Vehicle		100
8	Gatling Gun 7mm	100	4	2-3-Nil	3	5000	Vehicle		110
10	VRF Gauss Gun	100	10	1-1-2	6	30000	Vehicle		250

9	Laser Pistol	EW	8	3	1	50	-	-	80	
8	Laser Carbine	EW	12	2	4	50	-	-	150	
9	Laser Rifle	EW	14	2	5	100	-	-	180	
13	Laser Pistol	EW	10	2	2	200	-	-	100	
13	Laser Carbine	EW	15	1	4	200	-	-	170	
13	Laser Rifle	EW	17	1	5	200	-	-	200	
12	PGMP**	EW	17	C:2	3	4	40	14	-	75
13	PGMP**	EW	20	C:2	2	4	Inf	14	-	150
14	PGMP	EW	20	C:2	2	4	Inf	3	-	150
14	FGMP**	EW	25	C:3	1	4	Inf	14	-	150
15	FGMP	EW	25	C:3	1	3	Inf	3	-	150
16	FGMP	EW	25	C:4	1	3	Inf	2	-	150
16	Plasma Rifle	EW	20	C:4	2	3	Inf	2	-	150

*High Energy weapons attack as a small arm and a high explosion.

All have a burst radius of B:4.

**Requires use of Battle Dress

TL	ARMOR DESCRIPTION	AV	AREAS COVERED
7	Flack Jacket	1	Torso
5	Helmet, Steel	1	Head (1-3)
6	Helmet, Kevlar	1	Head (1-4)
6	Cloth	2	Torso, Limbs
6	Helmet	2	Head (1-4)
10	Reflec	5	Torso, Limbs (vs. Laser Wpns Only)
8	Vacc Suit	2	Head, Torso, Limbs
12	Vacc Suit	3	Head, Torso, Limbs
14	Vacc Suit	3	Head, Torso, Limbs
10	Body Pressure Suit	0	Torso, Limbs
8	Hostile Env Vacc Suit	3	Head, Torso, Limbs
9	Hostile Env Vacc Suit	3	Head, Torso, Limbs
12	Hostile Env Vacc Suit	4	Head, Torso, Limbs
13	Hostile Env Vacc Suit	4	Head, Torso, Limbs
14	Hostile Env Vacc Suit	5	Head, Torso, Limbs
8	Combat Env Suit	3	Torso, Limbs
11	Combat Armor	4	Head, Torso, Limbs
12	Combat Armor	5	Head, Torso, Limbs
14	Combat Armor	10	Head, Torso, Limbs
13	Battle Dress	5	Head, Torso, Limbs
14	Battle Dress	10	Head, Torso, Limbs

NOTES:

EW = Energy Weapons: can shoot one shot per combat round.

To calculate TWILIGHT:2000 (T:2000) values from MEGATRAVELLER (MT):

Head Hit Capacity = END x 1.5 (Drop Fractions)

Chest Hit Capacity = (STR + END) x 2.2 (Drop Fractions)

Others Hit Capacity = (STR + END) x 1.5 (Drop Fractions)

T:2000 Weapons Skill = (MT Skill + DEX Mod)* x 1.25

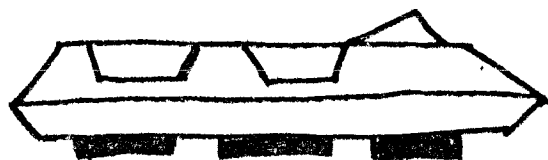
*Note - Max total of MT Skill level added to DEX Modifier is 8.

Throw Range = STR x 5 // Thrown Wpns Skill = (STR + DEX)/3 rnd up.

Unarmed Cmbt Dmg = (Brawling x STR x 1.3)/10 round down (minimum 1).

Initiative - Military 1D6 // Civilian 1D6/2 if both chose one.

Initiative modifier = +1 if more than 1 term as a Marine, Law Enforcer, Pirate, or Rogue. Modifier is not cumulative.



AIR RAFT

A common vehicle on high tech worlds. It is efficient and inexpensive.

Cruise Speed: 90

Com Move: 45

Fuel Capacity: 3,300

Fuel Cons: 2.3

Combat Statistics

Config: Std HF: 1

Susp: Grav HS: 1

HR: 1

TL: 15

Price: CR 275,000

Fuel Type: Hydrogen

Load: 5.6 Tons

Veh Wt: 1.6 Tons

Crew: 1 + 3

Mnt: 2

Sensors: Passive EMS = V.Dist

Active EMS = V.Dist

Radio: Planetary

DAMAGE RECORD

Crew Members: Driver □

Passengers: 1 □ 2 □ 3 □

Sensors: ActEMS □ PassEMS □

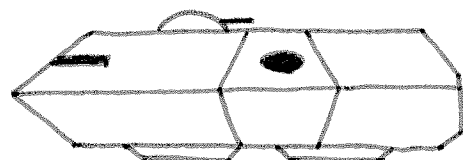
Radio: □

Computers: □ □

Power Plant: □

Fuel (% consumed or destroyed) □ □ □ □ □ □ □ □ □ □

Suspension: Minor Damage □ Immobilized □



G-Carrier

The G-Carrier serves admirably as either a light military APC or as an armored air/raft in paramilitary or civilian applications. When used for non-military purposes, it is unarmed.

Noe: 160

Cruise Speed: 315

Com Move: 80/160

Fuel Capacity: 14,000

Fuel Cons: 39

WEAPON DATA

Weapon	ROF	Dam	Pen	Blk	Mag	SS	Bat	Rng
B.Laser	EW	8	3	4	-	-	-	50

Recoil

DAMAGE RECORD

Crew Members: Driver □ Gunner □

Passengers: 1 □ 2 □ 3 □ 4 □ 5 □ 6 □

7 □ 8 □ 9 □ 10 □ 11 □ 12 □

Sensors: ActEMS □ PassEMS □ NAS

Neut □ Dens □ Headlights □

Radio: □ □

Computers: □ □

Power Plant: □

Smoke: □ □

Aerosol: □ □

Fuel (% consumed or destroyed) □ □ □ □ □ □ □ □ □ □

Suspension: Minor Damage □ Immobilized □

Combat Statistics

Config: Trt TF: 6 HF: 6

Susp: Grav TS: 5 HS: 5

TR: 4 HR: 4

TL: 12

Price: MCr 3.56

RF: +4

Stabilization: Excellent

Armament: Beam Laser

Fuel Type: Hydrogen

Load: 27 Tons Veh Wt: 76 Tons

Crew: 2 + 12 Mnt: 3

Sensors: PassEMS=Dist ActEMS=V.Dist

Neut=1 Mw Dens=1 Km

NAS=V.Long Headlights

Radio: Continental x 2

Player

[illegible]



GEO'S VARIANTS

STARSHIP COMBAT

This is a set of variant starship combat rules designed to incorporate Traveller starships into the Twilight:2000 combat system. These rules are an extension of the vehicle combat rules found in that game. All armor values and penetrations are in Twilight:2000 terms. Some of the text used here is quoted from Twilight:2000.

Please note that these are not intended to be a set of miniature rules, but rather a set of rules for use in role playing. Therefore, some aspects like movement are smoothed and generalized to enhance role playing.

TURN SEQUENCE

INITIATIVE - Players determine which side has the for the current turn.

MOVEMENT - Ships are moved relative to each other.

SENSOR OPERATIONS - Sensors are employed to locate enemy vessels or gain more information about enemy vessels.

ORDNANCE LAUNCH - Missiles or subcraft may be launched.

WEAPONS FIRE - Energy weapons may be fired.

DAMAGE DETERMINATION - Damage is allocated for each hit achieved.

DAMAGE CONTROL - Ship damage control parties may attempt to counter the effects of damage.

INITIATIVE

Each side rolls 1D6 to determine which side has initiative. The side with the most operational vessels gets a DM of +1, and the side with the highest operational maneuver drives gets a DM of +1. All vessels on the one side must have a higher maneuver than the other side to get this bonus.

The side with the highest total gets the initiative. If there is a tie, then neither side has the initiative, and the encounter range remains the same for the turn. If a vessel which has significant structural damage (see structural damage for more details) uses its full maneuver in order to gain the initiative, it is assumed to be operating at that maneuver whether it gains the initiative or not, and will suffer damage accordingly.

The side which gains initiative determines if the encounter will remain at the current range, move one range closer, or move one range further. Combats which are at Extreme range and subsequently moved one range further are disengaged. If the other side wishes to subsequently pursue, the referee determines if or how much time will pass prior to the next encounter.

MOVEMENT

When conducting combat between starships, movement is relative. That is from a given range, ships may move to the next range closer or further away. There is no range closer than Visual or further than System. Change in range is determined by the side which has the initiative. See above for more information.

When conducting combat between a ship and a vehicle, use the combat movement information listed on the Starship Record Sheet. Cruise speed is listed in kilometers per hour through an atmosphere. Combat movement is based on cruise speed and is listed in 8 meter units.

RANGES

There are four ranges for starship combat and a fifth range for sensor operations. The four combat ranges are Visual, Near, Far, and Extreme. The additional sensor range is System.

Visual- Under 50 Kilometers

Near- 50 Kilometers to 50,000 Kilometers

Far- 50,001 Kilometers to 500,000 Kilometers

Extreme- 500,001 Kilometers to 1,000,000 Kilometers

System- Anywhere within the same stellar system as

the ship.

Note: These ranges are listed only as a reference for the referee. Actual distances travelled are not calculated.

INITIAL RANGE - ships entering a system from jump space may encounter other vessels at ranges closer than extreme. The referee should determine the range of initial encounter.

SENSOR OPERATION

Sensors are the information gathering equipment of a ship. Without them, other ships could not be located at ranges beyond Visual, and even at Visual range, ships could not be targeted.

There are four basic starship sensors - Active EMS, Passive EMS, Densitometer, and Neutrino Sensor. Other sensors are available, but their range is far to short to be of an effect in starship combat.

Sensors operate in one of two modes: Active, which sends a beam of energy out and information is gathered from the return signal; and Passive, which gathers information from energy and gravitic influences of the target ship. Active EMS operates in Active mode; Passive EMS, Densitometers, and Neutrino Sensors operate in Passive mode.

Any vessel operating a Active EMS is considered a Strong Source when being sensed by a Passive EMS. Any vessel operating a Transponder or making a Radio Transmission is considered a Moderate Source when being sensed by a Passive EMS.

The ability of a sensor to detect an object is based on three things: sensor strength, target attributes, and range between sensor and target. Sensor strength, for purposes of combat, is categorized from A (strongest) to E (weakest). Target attributes are based on target Size (Small, Average, or Large) and Emission Level (None, Faint, Moderate, Strong Source). Ranges are the same as listed for combat.

ACTIVE EMS makes searches based on target Size. Because Active EMS depends on a return beam, it can not detect objects at System range.

PASSIVE EMS makes searches based on target Emission Level. Targets which are not operating transponders, radios, or Active EMS cannot be located beyond Visual range with Passive EMS. Because Passive EMS also incorporates Visual sensors, it can locate targets at Visual range (use target Size or Emission Level, whichever is greater).

Ships entering or leaving Jumpspace give off a brief radio static signal of Faint strength. However, it is only sufficient to let a sensing vessel know that a ship has entered or left Jump, assuming the signal is detected by the ship.

DENSITOMETERS make searches based on target Size.

NEUTRINO SENSORS make searches based on target Emission Level. If the target does not have an operating fission or fusion power plant, then it has no Emissions. Because a jump drive incorporates a rapid fusion reactor it raises the ships Emission Level by two levels during the turn prior to jump. For example, a ship with No Emission Level preparing for Jump has a Moderate Emission Level during the turn prior to Jump.

When a side wishes to make a sensor search it will begin by telling the referee the type and strength of the sensor being used for the search. The referee determines the attribute of each potential target vessel. He then goes to the Sensor Table for that attribute and cross references the range and sensor strength. He then has the side roll 1D10 for the search. If the roll is less than or equal to the number listed, the referee informs the side it has a contact. (If the table has a "-" then it is not possible to locate the target with that sensor at that range.)

This process is repeated for each additional potential target vessel.

Gaining information from sensor contacts is the job of the Sensor Operator. Getting bearing information is an Easy Sensor Operations task. The referee may wish to eliminate this task and automatically give bearing for each contact acquired.

Getting a sensor lock is a Average Sensor Operations task. A sensor lock is required to gain further information from the contact. Once sensor lock is obtained, certain information is automatically available depending on the sensor used. Refer to the

Sensor Task Table for more information. Certain information is more difficult to determine than others, therefore the task is correspondingly harder.

ORDNANCE LAUNCH PHASE

During this phase ordnance or subcraft may be launched. Ordnance consists of missiles and sand. Missile launches are discussed further in the next section. Sand will remain with a vessel for one turn. If the vessel makes no maneuver the subsequent turn, the sand will remain in place until the vessel does maneuver. Sand reduces the penetration factor of laser weapons to the value listed in the parenthesis.

As ordnance is launched, mark it off on the Starship Record Sheet to keep track of ordnance expended. Deadfall ordnance may also be released this phase, but its use is beyond the scope of these rules.

Releasing a subcraft from external grapple is an Easy Pilot task. Launching a subcraft from an internal bay is an Average Pilot task. If the ship has suffered sufficient structural damage (the first group of boxes all marked out) then the task difficulty increases by one level. The referee should determine tasks required for boarding subcraft to abandon ship.

Jump capsules for jump troops are considered a type of subcraft.

WEAPONS FIRE AND HIT DETERMINATION

Firing weapons is the task of the gunner. The gunner's primary task is to take sensor information and use it to target a enemy vessel. The difficulty of this task varies with the type of weapon and range to the target. Consult the Targeting Table for actual task difficulties.

Missiles require two separate rolls. The first is for the gunner to get a "Missile Lock" on the target vessel. This means that the gunner attempt to make an accurate prediction of target motion based on sensor information and sends it to the missile guidance system.

If only bearing information is available, then the task to get "Missile Lock" is one level easier, but the missile will have a more difficult task to hit the target. Such a missile launch is known as a Bearing Only Launch (BOL).

The missile then uses this information to make its initial approach to the target. Once within range of the target, the second roll, a "Hit" roll is made based upon the missile's targeting sensor as modified by the target's attributes. Refer to the Missile Attack table for specific rolls required.

Because missiles are not moving at light speed, they require time to reach their target.

Missiles launched at targets at VISUAL and NEAR ranges will arrive on the same turn during the weapons fire phase.

Missiles launched at targets at FAR range will arrive during the weapons fire phase of the following turn.

Missile launched at targets at EXTREME range will arrive on the second turn following.

If a targeted vessel at Extreme range closes to Far range on the next turn, the missile will arrive on that turn. If a targeted vessel at Far range opens to Extreme range, the missile will take one turn longer to reach its target. If a vessel which is at Extreme range opens to System range and remains there, the missiles will miss, having run out of fuel before reaching their target.

If there are a number of missiles fired from each side, the referee may need to make some counters and a turn chart to keep track of when missiles will arrive.

DETERMINING DAMAGE

Note: Starship hulls are constructed using Super Dense (SD) metal. All penetrations values are halved before subtracting armor value. Since the starship weapons are normally used only against other starships, their penetration values have already been halved. When determining the penetration of starship weapons against non-Super Dense armor, double the listed values. For example, a TL 9 Pulse Laser has a penetration value of 130 against starships with Super Dense hulls, but has a penetration of 260 against vehicles without Super Dense armor.

For each weapon which hits the target vessel, damage must be determined.

For all types of weapons, roll 2D6 and add it to the listed penetration value for a final penetration value. Subtract the armor value of the target from the final penetration and consult the Vehicle Damage Resolution Table. If the result is zero or a negative number, the shot has no effect. If it is a positive number, read the result from the chart. The result will read out as from one to three damage results and will indicate whether these results are minor or major.

DAMAGE IMPLEMENTATION

Locate the correct damage section (minor or major) and roll 1D6 once for each damage result.

Note also that some damage results convert the damage into a different type. For example, a 6 rolled on the Minor Damage Table converts to a Major Damage Result. A 6 rolled on the Major Damage Table converts to a Critical Damage result. There is no possibility of any alteration of a Critical Damage.

Also, for each hit resulting in Major Damage, the ship also takes one hit of Structural Damage. If the weapon producing the damage is a double energy weapon, the ship takes two hits of Structural Damage. If the weapon producing the damage is a triple energy weapon, the ship takes three hits of Structural Damage.

These increases in Structural Damage due to double or triple turreted weapons are per hit not per major damage result. For example if a triple beam laser hit and produced two major damage results, it would also incur three Structural Damage hits - one for each weapon in the turret.

Double and triple turreted energy weapons increase the damage done to a vessel. A dual turret increases the damage 1 level on the Vehicle Damage Resolution Table, and a triple turret increases the damage 2 levels on the same table.

For example, if a beam laser's final penetration was 75 (the target was protected by sand) then 75 (penetration) minus 70 (target armor value) would yield a 5 which is 1 minor damage result on the Table. If two weapons were mounted in the same turret, the damage level would be increased by one to 2 minor damage results. If three weapons were mounted in the same turret, the damage level would be increased by two to 1 major damage result.

If the hit was caused by a nuclear weapon or a particle accelerator roll 1D6 on the Radiation Damage table and implement the result.

SENSOR: One of the ship's sensors is destroyed.

COMMO: One of the ship's communication equipments is destroyed.

TURRET: The first hit renders the turret inoperative, which may be repaired with an Average mechanic task. A second hit destroys the turret and all weapons in it. If the turret is manned, the gunner suffers 1D6 hits each of which does 1D6 damage.

AUX EQUIPMENT: The ship's auxiliary equipment includes Life Support, Gravitics, Inertial Compensators, Fuel Purification Plant, Air Locks, Staterooms and Low Passage Berths. The referee selects a piece of auxiliary equipment which is rendered inoperative until repaired.

CARGO/SUBCRAFT: A portion of the ship's cargo is destroyed, or a subcraft is damaged. The referee will have to determine the extent of damage.

STRUCTURAL DAMAGE: Each vessel has three groups of boxes on its structural damage record. As long as boxes remain in the first group, it can function normally.

When all the first group is marked out it functions at a reduced capability. This means that it cannot maneuver more than one half of its total rated maneuverability or jump more than one half its rated jump. If the vessel is rated at maneuver 1 then it can still move at 1/2 G acceleration. If it is rated at Jump 1, then it cannot perform a jump.

When all the boxes in the second group are marked out then the ship should not maneuver and cannot jump. If the ship does maneuver it will take one additional structural damage per turn of maneuver for each G of acceleration used due to stress on an extremely damaged hull. The ship cannot jump because the ship's jump grid has been broken in too many places. If a ship attempts to jump in this condition it will explode.

When all of the Hull Structure boxes have been marked out, the ship breaks up. Any crew or passengers remaining with the ship at this point take 1D6 hits of 1D6 each.

Damage to the hull can be repaired by an Average

Mechanic task. One hour of work will repair one block of damage. Repairs made in this manner will eventually allow the ship to move at its full maneuver (assuming the drives are still functional). However, if the Hull Structure was reduced to the last section of blocks, the ship cannot jump until its jump grid is repaired at a Class A, B, or C starport. (If a suitable starport is not available, and a supply of Lanthanum wire is available, a field repair may be attempted. This is a Difficult Power Plant Operations task. It increases the possibility of misjump and is only good for one jump [good luck].)

JUMP DRIVE: Mark off a box in the jump drive section of the starship damage record. If a jump drive has any of its boxes marked off, the ship cannot perform a jump of that extent. Some vessels' jump drives can sustain several hits before being destroyed. The ship's engineer can repair damage to the jump drives. This is a Difficult Power Plant Operations task. The risk of a misjump is increased until permanent repairs are made at a starport. Drives which have been destroyed (all boxes marked off) cannot be repaired.

MANEUVER DRIVE: Mark off a box in the maneuver drive section of the starship damage record. If a maneuver drive has any of its boxes marked off, the ship cannot perform a maneuver of that extent. Some vessels' maneuver drives can sustain several hits before being destroyed. The ship's engineer can repair damage to the maneuver drives. This requires two tasks - an Average Mechanic and a Difficult Electronics. Drives which have been destroyed (all boxes marked off) cannot be repaired.

POWER PLANT: Mark off a box in the power plant section of the starship damage record. When half of the boxes have been marked off, the power plant can only operate at one half its rated level - no energy weapon fire is allowed. When all boxes are marked off, the power plant has been destroyed and the ship may not maneuver or fire. The ship's engineer can repair damage to the power plant. This is a Difficult Power Plant Operations task. Power plants which have been destroyed cannot be repaired.

COMPUTER: One of the ship's computers has been destroyed. Once all computers have been destroyed, the ship may not maneuver, jump, or fire weapons. If this damage result is from radiation and the ship has a fiber optic computer (Fib) then ignore this result.

FUEL: Ten percent of the ship's fuel has been lost. On the ship damage record, each box represents five percent of the ship's fuel capacity. Therefore for each fuel hit, two boxes would be marked off. The owning player determines where the fuel is lost, from maneuver fuel or jump fuel. If any jump fuel is missing, the ship may not perform a jump of that level. For example the scout ship has eight jump fuel boxes. If one of the Jump-2 boxes were marked off, it could perform a Jump-1, but not a Jump-2. If a ship does not have eight days of maneuver fuel left, it cannot jump - it would run out of fuel before it reentered normal space and the power plant would shut down. Fuel can be shifted from jump to maneuver sections. For example say in the example above, the scout had 20 days of maneuver fuel left (8 boxes) and wanted to make a Jump-2. The pilot could shift 2.5 days (1 box) of fuel from maneuver to jump giving the jump fuel the full eight boxes of fuel needed to make a Jump-2. Note that the fuel for jump is expended at the beginning of the jump.

BRIDGE DESTROYED: The ship's primary controls have been destroyed and all personnel on the bridge suffer 1D6 hits of 1D6 each. Until control is transferred to a different location, the ship cannot maneuver or jump. If a computer is still operational, control can be transferred to engineering and maneuver or jump can be performed from there. Transfer takes one turn to complete. Planetary landings are not recommended without a bridge.

FIRE CONTROL: The ship's central fire control equipment has been overloaded and damaged. If the ship's turrets can be manned, fire control can be transferred to the individual turret. Transfer takes one turn. If the ship has no central control then one turret has been destroyed as above. If the turrets cannot be manned, the ship cannot fire until fire control has been repaired. Repair of fire control is a Very Difficult (Gunnery + Electronics)/2 task.

FUEL TANK RUPTURE: The ship's fuel tankage has been ruptured and all fuel has been lost. The power plant will shut down at the end of the next turn and cannot be restarted until the ship is refueled.

POWER SHUTDOWN: An overload in the ship's circuitry has

caused the power plant to go into a safety shutdown. The ship's engineer can restart the power plant during the next turn (with power available the turn after). This is a Average Power Plant Operations task.

JUMP DESTROYED: The ship's jump drive has been completely destroyed. The ship cannot jump until it has been replaced.

STRUCTURAL FAILURE: A combination of structural damage and stress factors causes the ship to break apart. Mark off all remaining hull structure boxes. Crew and passengers remaining on board suffer 1D6 hits of 1D6 each.

WEAPON: One turret worth of weapons has been destroyed.

DAMAGE CONTROL

During the Damage Control phase, each ship's crew may attempt to repair one damaged system. See above for specifics on which systems can be repaired during combat and tasks required to perform those repairs.

ENGINEERING OPERATIONS

JUMP: In order to perform a Jump, a vessel must have a functional Jump drive, sufficient fuel for the Jump desired, a functional computer, and be a minimum of 100 diameters from a planetary mass.

To successfully Jump is an Average Astrogation task. Simple failure indicates a rough entry or exit to or from Jumpspace. Critical failure indicates a misjump.

Operating with a jury rigged Jump grid, with unrefined fuel, or inside 100 diameters increases the task to Difficult. Failure at this task is an automatic misjump. Critical failure indicates a misjump and the jump drive is destroyed upon leaving Jumpspace.

Attempting to Jump within 10 planetary diameters increases the task to Very Difficult. Failure indicates a misjump and destroyed jump drive. Critical failure means the ship rips itself apart (not a pretty sight).

If a ship desires to Jump, it must commit to the Jump during the Movement phase. It cannot fire energy weapons during the turn it is preparing to Jump. Unless the Captain aborts the Jump the ship will enter Jump space on the Initiative Phase of the following turn. When preparing for a Jump, all fuel required for that Jump is expended in that phase. Therefore a Captain should only abort in dire circumstances, or he may be left in a hostile encounter without any fuel for escape.

POWERING DOWN: Ships may reduce their power plant output to avoid detection. When a ship is only operating the power plant to provide energy for life support, its Emission Level becomes Faint. If it is already Faint, then it has No emission level.

To bring the power plant back up to full operating power is an Average Power Plant Operations task and is performed during the Movement phase. Full power will be available in the initiative phase of the following turn.

EDITOR'S NOTE ON SKILLS

The skills referred to in this article are based on a variant character generation system which will appear in the next issue of the TIMES.

Briefly, the skill of Engineering has been changed to Power Plant Operations. The Engineer is responsible for operating and maintaining the ship's Fusion power plant. He can also repair the ship's Jump Power Plant which is nothing more than a high output fusion power plant. Engineers should also be fairly proficient in Mechanics and Electronics to repair other engineering equipment.

The old skill of Pilot has been broken down into two skills: Astrogation - which allows the "Pilot" to plot and execute movement between world in a system and/or between two different systems (Jump). This skill incorporates the old "Navigation" skill and also includes operating (not maintaining) the jump drive.

Pilot (Interface) - Is the plotting and execution of movement around a planet, primarily between orbit and the surface of the world. A "Pilot" who must go from world surface to world surface will be fairly proficient in both skills. A "Pilot" who goes from orbit to orbit will concentrate on Astrogation, and leave the atmospheric stuff to the "Shuttle Jockeys".

STARHIP COMBAT TABLES

SENSOR OPERATIONS

TABLE 1

LARGE OBJECTS / STRONG SOURCES

SENSOR	RANGE					SYSTEM
STRENGTH	VISUAL	NEAR	FAR	EXTREME		
A	10	10	10	9	5	
B	10	10	9	7	3	
C	10	9	7	5	1	
D	9	7	5	3	-	
E	7	5	3	1	-	

TABLE 2

AVERAGE OBJECTS / MOD SOURCES

SENSOR	RANGE					SYSTEM
STRENGTH	VISUAL	NEAR	FAR	EXTREME		
A	10	10	9	7	3	
B	10	9	7	5	1	
C	9	7	5	3	-	
D	7	5	3	1	-	
E	5	3	1	-	-	

TABLE 3

SMALL OBJECTS / FAINT SOURCES

SENSOR	RANGE					SYSTEM
STRENGTH	VISUAL	NEAR	FAR	EXTREME		
A	10	9	7	5	1	
B	9	7	5	3	-	
C	7	5	3	1	-	
D	5	3	1	-	-	
E	3	1	-	-	-	

SENSOR INTERPRETATION

TASK	A.EMS	P.EMS	NEUT	DENS
EASY	Bearing	Bearing	Bearing	Bearing
AVERAGE	Range Disp Tons	Elec/ Mag Signature	P.Plant Capacity	Range Veh Wt.
DIFFICULT	Config	Range	Range	Deck Layout

SENSOR STRENGTHS

SENSOR	SENSOR TYPE AND RATING			
STRENGTH	EMS ACT	EMS PASS	NEUTRINO	DENS
A	-	Inter Steller	10Kw	1Km
B	Far Orbit	Sub Steller	100Kw	250M
C	Planetary	Inter Planet	1Mw	100M
D	Continental	Far Orbit	10Mw	50M
E	Regional	Planetary	1Gw	1M

GUNNERY TASKS

RANGE

WEAPON	VISUAL	NEAR	FAR	EXT
LASER	EASY	AVE	DIFF	V.DIFF
MSL LOCK	DIFF	AVE	EASY	AVE
ENERGY WPN	EASY	AVE	- - -	- - -
P. ACC	AVE	AVE	DIFF	V.DIFF
DM + TARGET COMPUTER MODIFIER				
DM - TARGET SIZE MODIFIER				

MODIFIERS

COMPUTER	TARGET SIZE		
COMPUTER MODEL	DM	TARGET SIZE	DM
Q, 1, 1 Bis, 2	+1	1 - 49	-0
2 Bis, 3, 4	+2	50 - 99	-1
5, 6	+3	100 - 499	-2
7, 8	+4	500 - 999	-3
9	+5	1000+	-4

MISSILE ATTACK TABLE

NOTE: Rolls to hit are based on the missile's guidance system. In all cases, if the launch was made with only bearing information, then DM +2.

IR SEEKERS

MISSILE	TARGET	STELLER	TECH LEVEL	
TECH LVL	Pre-	Early	Ave	High
Pre	5	3	1	1
Early	7	5	3	1
Ave	9	7	5	3
High	9	9	7	5

RADAR HOMING

OBJECT SIZE	SMALL	AVE	LARGE	
	6	7	9	
				DM +2 Tgt Basic ECM
				DM +4 Tgt Adv ECM
				DM +6 Tgt Radar Jam

RADIATION SEEKERS

EM LEVEL	NONE	FAINT	MOD	STRONG	
	0	2	4	6	
					DM - 1 If Tgt using Radio/Transponder
					DM - 2 If Tgt using Any Jammer

NOTE: Targets using Active EMS are Strong Sources

NEUTRINO SEEKERS

EM LEVEL	NONE	FAINT	MOD	STRONG
	-	5	7	9

DENSITOMETER

OBJECT SIZE	SMALL	AVE	LARGE
	5	7	9

ROBOTIC

TL	MOD	HIT
13	I	4
14	II	6
15	III	8

STARSHIP COMBAT TABLES

STARSHIP WEAPONRY

TL	WEAPON	PEN	AVAIL
8	Missile	70C	(C/ V)
8	Pulse Laser	130(65)	(V/ V)
8	Beam Laser	140(70)	(C/ V)
10	Missile	85C	(S/ C)
10	Plasma Gun	105	(S/ V)
11	Plasma Gun	110	(S/ C)
12	Plasma Gun	115	(R/ C)
12	Fusion Gun	120	(R/ C)
13	Missile	95C	(S/ C)
13	Pulse Laser	150(100)	(S/ C)
13	Beam Laser	160(110)	(R/ C)
14	Fusion Gun	150	(- / S)
14	Particle Acc Brb	85CR	(- / R)
15	Missile	105C	(R/ S)
--	Nuclear Missile	115CR	(- / -)
--	Sand	--	(V/ V)

Notes:

1. Penetrations in brackets are laser penetrations through sand.
2. Availability codes are for civilians without/ with contacts.
3. Missiles launchers and lasers may be mounted in single, double, or triple turrets.
4. Plasma and fusion weapons may be mounted in single or double turrets.
5. Particle accelerators are in single large turrets known as bar bettes.

TARGET IDENTIFICATION

SENSOR INFORMATION TASK LVL

Disp Tons + Config + Pwr Plant Cap	EASY
Electro- Magnetic Signature	AVERAGE
Power Plant Capacity + Veh Weight	AVERAGE
Disp Tons + (Config or P.Plant Cap)	AVERAGE
Displacement Tons	DIFFICULT
Power Plant Capacity	DIFFICULT

All Tasks are Computer Operations.
Add Computer Modifier to Skill before modifying for task difficulty.

STARSHIP DAMAGE TABLES

VEHICLE	DAMAGE	RESOLUTION
P- AV	RESULT	
0 or less	No effect	
1 to 10	1 minor damage result	
11 to 20	2 minor damage results	
21 to 40	1 major damage result	
41 to 60	2 major damage results	
61+	3 major damage results	

P- AV: Penetration minus
Dual energy weapons
increase damage by 1 level.
Triple energy weapons
increase damage by 2 levels.

MINOR DAMAGE

1. SENSOR
2. COMMO
3. TURRET
4. AUX EQUIPMENT
5. CARGO/ SUBCRAFT
6. MAJOR DAMAGE

MAJOR DAMAGE*

1. JUMP DRIVE
2. MAN DRIVE
3. POWER PLANT
4. COMPUTER
5. FUEL
6. CRITICAL

* 1 Structural Hit

CRITICAL DAMAGE

1. BRIDGE DESTROYED
2. FIRE CONTROL
3. FUEL TANK RUPTURE
4. POWER SHUTDOWN
5. JUMP DESTROYED
6. STRUCTURAL FAILURE

RAD DAMAGE

1. COMPUTER
2. COMPUTER
3. CREW
4. CREW
5. WEAPON
6. WEAPON

TYPE S SCOUT

The Type S Scout is a common small ship in the Imperium. Many retired vessels find their way into civilian use.

TL: 15
PRICE: MCr 28.938 (C/ V)
ARMAMENT: Triple Turret
Beam Laser, Msl Rack, Sandcaster
CARGO: 40 cubic meters
SUBCRAFT: Air Raft

Atm. Cruise Speed:750 KPH
 Combat Movement:100
 Fuel Capacity:515 Kltr
 M-Fuel Cons/Day: 10.3 Kltr
 J-Fuel Cons/Jump 102 Kltr

DAMAGE RECORD

SENSORS: EMS PASSIVE ☐
 EMS ACTIVE ☐
 DENSITOMETER ☐
 NEUTRINO ☐

COMMO: RADIO ☐

COMPUTERS: ☐ ☐ ☐

TURRETS: 1 ☐

POWER PLANT: HALF POWER ☐

864 Mw DESTROYED ☐

DRIVES: MANEUVER M-1 ☐ M-2 ☐

JUMP J-1 ☐ J-2 ☐

FUEL:% Used or consumed(each box=5%)

MANEUVER ☐ ☐ ☐ ☐ ☐ ☐ 2.5 days

☐ ☐ ☐ ☐ ☐ ☐ per box

JUMP ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

JUMP-1 JUMP-2

HULL STRUCTURE:

[illegible][illegible]

Break Up □ □ □ □ □ □ □ □ □ □

COMBAT STATISTICS

```
Armor: 70 SD      Config: Wedge
Obj Size Ave      EM Level Faint
```

Fuel Type:Hyd Agility: 0

Maneuver: 2 Jump: 2

Vehicle Weight 840 Tons

Crew: Min - 1 Opt - 3

Pilot (Engineer, Gunner)

4 Staterooms

Computer Model:1 Bis

Sensors: EMS Active- Far Orbit (B)
EMS Passive- Intstellar (A)
Densitometer- 1 Km (A)
Neutrino- 10 Kw (A)

Commo: Radio- System

Streamlining: Streamlined

Fuel Scoops: Yes

Fuel Purification: 12 Hours

WEAPON DATA

WEAPON	PEN	LOCATION
--------	-----	----------

TL 13 B. Laser 160(110) Turret 1

Missile Lchr As Msl Turret 1

MAGAZINE: All Missiles are Pen 95C

[illegible][illegible]

Sand □ □ □ □ □ □ □ □ □ □

FAR TRADER

This small vessel is frequently by the independent merchant. Similar to the Free Trader, this version sacrifices some cargo capacity for a longer jump. The vessel comes unarmed, but most owners eventually arm their vessels.

TL: 15
PRICE: MCr 41
ARMAMENT: Two Turrets
B.Laser/Sandcaster, Dual Missile Launchers
CARGO: 824 Cubic Meters
SUBCRAFT: Air Raft

DAMAGE RECORD

SENSORS: EMS PASSIVE ☐
EMS ACTIVE ☐

COMMO: RADIO ☐

COMPUTERS: ☐ ☐ ☐

TURRETS: 1 ☐ 2 ☐

POWER PLANT: HALF POWER ☐
738 Mw DESTROYED ☐

DRIVES: MANEUVER M-1 ☐
JUMP J-1 ☐ J-2 ☐

FUEL:% Used or consumed(each box=5%)

MANEUVER ☐ ☐ ☐ ☐ 3.75 days
☐ ☐ ☐ ☐ per box

JUMP J-1 ☐ ☐ ☐ ☐ ☐ ☐

[illegible]

HULL STRUCTURE:

Full Speed ☐ ☐ ☒ ☐ ☐ ☐ ☐

Red. Cap. ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

Break Up ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

Atm. Cruise Speed: 750 Kph
 Combat Movement: 100
 Fuel Capacity: 671 KLtrs
 M-Fuel Cons/Day: 8.9 KLtr
 J-Fuel Cons/Jump 203 KLtr

COMBAT STATISTICS:

Armor: 70 SD	Config: Box
Obj Size:Ave	EM Level:Faint
Fuel Type:Hyd	Agility: 0
Maneuver: 1	Jump: 2
Vehicle Weight	1180 Tons
Crew: Min-2 Opt-5	Pilot, Engineer
	(Stwd, Gunners x 2)
	Staterooms - 10

Computer Model: 1 Bis
Sensors: EMS Active-Far Orbit (B)
EMS Passive-IntStillr (A)

Commo: Radio- System
Streamlining: Streamlined
Fuel Scoops: Yes
Fuel Purification: 24 Hours

WEAPON DATA

WEAPON	PEN	LOCATION
TL-8 B.Laser	130(65)	Turret 1
Msl Lchr x 2	As Msl	Turret 2

MAGAZINE: All MsIs Pen 85C

[illegible]



COMING EVENTS

GEO CON IX- July 3-5- Held in Raleigh, North Carolina. This Science Fiction Gaming convention is a continuation of a tradition of GEO CON's held in the past. Sponsored by the TIMES.

HISTORICON- July 23 - 26- A miniatures event held in Lancaster, Pennsylvania. While primarily historical, some modern and occasional futuristic games will be played.

GENCON/ORIGINS- August 20- 23- THE gaming convention of the summer. Once every few summers, ORIGINS combines with GENCON and is held at GENCON's site in Milwaukee, Wisconsin. GDW plans to release STAR VIKING at this convention, and historically, many other big releases come out then.

CON-SPIRACY- August 28 - 30- A science fiction and fantasy convention held in Durham, North Carolina, with a strong emphasis on gaming. The staff of the TIMES will be sponsoring events and sitting on panels. For more information write to: Con-Spiracy, c/o Kate Lebherz Gelinas, 5007 Wickham, Raleigh, NC 27606.

EVENT HORIZON CURRENT AND FUTURE RELEASES

The reader is advised that these are tentative dates. Any number of factors could delay a project, or even cause it to be cancelled.

FROM THE WORKSHOP: JANUARY: HEAVY WEAPONS HANDBOOK for TWILIGHT:2000 and HELL'S GATE for DARK CONSPIRACY. FEBRUARY: (DIASPORA SOURCEBOOK on hold) DARK CONSPIRACY T-Shirts, and 3 - Sixteen Page Adventure Folios, two for DARK CONSPIRACY and one for TWILIGHT:2000. MARCH: A MEGATRAVELLER Adventure Folio. MINION HUNTERS board game, TROUBLED WATERS, and DARK RACES for DARK CONSPIRACY. CHALLENGE continues on a monthly schedule.

SEEKER: Producer of deck plans for MEGATRAVELLER. For catalog send SASE to Box 519, Mountain Home, ID 83647.

HIWG: History of the Imperium Working Group. An association of referees and players discussing the future history of MEGATRAVELLER's Shattered Imperium. Annual membership is \$12.00. Membership includes a subscription to TIFFANY STAR, HIWG's newsletter. Send to Ed Edwards, 1410 E. Boyd, Norman, OK 73071. Join HIWG and discuss the future of the Shattered Imperium.

PARAGON SOFTWARE: This company now has four titles related to GDW games. There are ZHODANI CONSPIRACY and SEARCH FOR THE ANCIENTS, based on the MEGATRAVELLER system. Another is based on the SPACE 1889 system, which is selling for \$10.00 at BABBAGE's, and a game based on TWILIGHT:2000. Look for them in your nearest software store.

ACKNOWLEDGMENTS

TRAVELLER is a registered trademark and 2300 AD, TWILIGHT:2000, MEGATRAVELLER, SPACE 1889, CADILLACS AND DINOSAURS, and DARK CONSPIRACY are trademarks of GDW and are used by permission.

NEW ADDRESS FOR THE TIMES

TERRA TRAVELLER TIMES

C/O Mark Gelinas

Box 39163 Northbridge Station

Charleston, SC 29407-5035

TERRA TRAVELLER TIMES

The TIMES is a newsletter supporting GDW's role playing games with an emphasis on MEGATRAVELLER. Submissions of artwork or articles are accepted subject to Editorial approval, and cannot be returned without a SASE. Subscriptions are \$6.00 for six issues.

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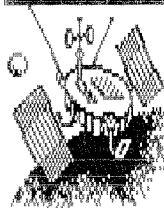
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BACK ISSUES

Back issues of the TIMES are no longer available. Reprints can be done by special request at \$.75 per issue. For postage, please include \$.25 for one issue and \$.20 for each additional issue ordered. Please allow at least 6 weeks for your order to be processed. An intervening sea tour could make this longer.

AD RATES

Ad space per issue costs as follows: 1/8 page- \$1.00, 1/4 page- \$2.00; 1/2 page- \$4.00; and full page- \$8.00.



"AD ASTRA"

Terra Traveller TIMES

BOX 39163, NORTHBRIDGE STATION
CHARLESTON, SC 29407-5035



GUIDELINE FOR CREATING NEW CAREERS

This article is intended for the creation of new character careers for the TWILIGHT family of games including: TWILIGHT-2000, MERC-2000, DARK CONSPIRACY, and will probably apply to TRAVELLER: THE NEW ERA. These guidelines can be used to a lesser extent for CADILLACS AND DINOSAURS.

Since this article is intended for the TWILIGHT family of games, it will primarily give numbers for the 1D10 task system. Numbers for the 1D20 task system will appear in brackets. To illustrate the process, a new career for TRAVELLER: THE NEW ERA will be created.

When creating a new character career, you must first address several questions.

First, is a new career type even necessary. That is to ask can the career you are proposing be covered under some other currently available career. It may be that only a note or two, or the addition of a skill to a current career can make it useful for the career you propose without the trouble of creating a whole new career path.

Second, is the career one which players will select for their characters. While sanitation engineer might be a unique career, not many, if any, players would select it for their characters. You need not create a whole new career path just to create NPC's. Just write down what skills you think they should have and let it be.

Third, is the career interesting. The answer to this largely depend on the audience for which it is intended. If it is only intended for your local group, then the group's consensus is all you need. If it is intended for a larger audience, for example for publication, then it should be interesting enough to appeal to a wide variety of players. If the answer to all these questions is satisfactory, then you should proceed. For our example, we have decided that the people who maintain life support systems for cities would be in demand and offer some role playing possibilities.

TITLE

The first thing to consider is what to call the career. The name should be general in nature to cover apply to a wide variety of situations. While IMPERIAL SCOUT would adequately describe a scout in service to the Imperium, other human interstellar governments probably have similar services, so SCOUT would be more general and appropriate. For our example, we have chosen the title, SYSTEMS ENGINEER.

ENTRY

This section lists the prerequisites for the particular career. If it is a career anyone can enter then list "No prerequisites". Prerequisites are usually of four kinds.

The first is a requirement based on the character's attributes. While this is ordinarily a physical attribute (STRENGTH, CONSTITUTION, or AGILITY), there are instances when the other attributes (INTELLIGENCE, EDUCATION, or CHARISMA) may apply. Remember that the average character will have a value of 5 [10] in an attribute. Therefore, unless the career requires a minimum of 5 [10] then you should not list attribute requirements of 5 or below.

The second type of requirement is one of education. Determine if the career is one that would ordinarily require secondary education. If so, then list the type and level of education required.

The third type of requirement is one of skills. This requirement is usually for those careers which would ordinarily follow a different career. For example, a security guard would require small arms skill which would usually be obtained in a military career, but could be obtained through a secondary activity.

The final type of requirement is one of prior service in some type of career. For example the Mercenary career in DARK CONSPIRACY requires some prior military experience. Usually a prior career requirement is for that type of experience which could not be obtained otherwise. While small arms could be learned outside a military career, combat experience usually can not. For our example, we have determined that a SYSTEM ENGINEER requires an Undergraduate degree.

SKILLS

At this point, I will digress momentarily and discuss number of skills. On the average, the TWILIGHT-2000 character will receive 5 [10] skills per term. DARK CONSPIRACY, with its more cinematic nature, award its characters with an average of 7 [14] skills per term.

Usually 1 [2] of these skills are from secondary activities, but careers which could allow more outside activities can provide 2 [4] skills in secondary activities. You might also consider the higher secondary activity award if the career only offers a limited number of skills. This tends to make the career a little more inviting.

One other note on skills, you should work with the skill list of the game for which you are writing the career. Be careful about adding or creating new skills.

FIRST TERM SKILLS

This is where the career designer lists those skills which the character in the first term at this career should obtain. There is a lot of judgement call involved in this portion. First you must determine what are the minimum basic skills required to accomplish the job. Then you must determine which are the most important.

A person completing their first term of a career should be reasonably competent at their jobs, which means they should have skill levels of 3 - 4 [6 - 8] in their skills. Of course if the career has a number of basic skills, you will probably have to reduce the level to 1 - 2 [2 - 4]. [With the higher number of levels available with a 1D20 system you have a little more flexibility.]

It may be that there is only one or two basic skills required. Then you may want to award moderate levels in those skills and offer a choice between a number of other skills, perhaps representing a specialty within the chosen career.

It is possible to violate the normal skill level awards for the first term in a career and award more skill levels. However, you should use this with caution as players may tend to have their characters jump from career to career to gain the maximum possible skills without regard to character concept.

Another option to consider is eliminating secondary activity awards for the first term and using those skill levels for the first term. You should, however, justify this by explaining what the character is doing that will prevent him from pursuing secondary activities. For example a first term Doctor receives no secondary activity award, but that is because of many hours spent in intern and residency.

For our example we determine that the SYSTEM ENGINEER should receive CHEMISTRY 1 [2], COMPUTER 2 [4], ELECTRONICS 2 [4], and MECHANICS 1 [2] in his first term. This is 6 [12] skill levels, which, with the secondary level[s] makes 7 [14] for the term. While some of these levels are rather low, I have taken into account two factors - the character probably received some COMPUTER skill as a background skill, and some of the other skills during his undergraduate education. Also, I reasoned that a first term SYSTEM ENGINEER would probably be working under supervision, and therefore not require as high a level as a person who would be working on his own.

SUBSEQUENT TERM SKILLS

Here you will be tempted to list just about every skill that there is, rationalizing that the skill COULD be used in the career. A rule of thumb that I have used that 16 to 20 different skills is a reasonable number. Some careers may offer fewer, but if you list more than 20, take a hard look at what you have listed and see if all those skills really need to be there.

You can usually eliminate skills by asking two questions. Is this skill routinely used in this career? Is this skill ordinarily taught by this career? If the answer to both is yes, then consider keeping the skill. You will find that the first question is answered "yes" more often than the second.

If you have gone through your list and you still have too many, then take a second look. Which skills are used the most often? Which skills can be picked up through secondary activities? If they are infrequently used and are available through secondary activities, then you can safely eliminate them.

Sometimes you may find that you have just the opposite problem, too few skills. If you have less than 10 skill offerings, go back and add some skills which may be infrequently used or which relate to other skills that you have listed.

One other consideration, the skills listed for first term skills should normally be included in subsequent term skills unless the first term is the only time that training is offered.

For the SYSTEM ENGINEER'S Subsequent Term Skills we have: ADMIN, COMPUTER OPS, ELECTRONICS, JACK-OF-TRADES, MECHANICS, POWER PLANT OPS, SCIENCE, SENSOR OPS, VACC SUIT, and ZERO-G ENVIRON. Since this is only 10, and we reason that the SYSTEM ENGINEER would have adequate spare time, we will allow that career only 5 [10] subsequent term skills but 2 [4] secondary activities.

CONTACTS

The career should always have a minimum of one contact per term. Careers which have more public exposure or more travelling may gain an additional contact. Adding a third contact is one way to spice up what could otherwise be a lackluster career. However, you should be able to justify how the character could meet that many contacts.

Another thing to consider is the "foreign" contact. This could mean a person from another "country" or one with an unusual background or skill. For TRAVELLER, it could also refer to an alien contact. If the character is unlikely to come in contact with a "foreigner" then set the level at 10+ [19+]. The more likely a character is to come in contact with a "foreigner", the lower the roll should be, but 7+ [13+] should be normally be the lowest.

To determine the type of contacts, refer to other careers of the particular game for which you are designing the career. That should give you a list of different types of contacts. Select the ones which you feel would be appropriate for the career. 2 - 3 contacts different types is a good number for a career. Careers more limited in scope might have as few as 1.

In our example, we determine that the SYSTEM ENGINEER can have one contact per term, Specialist (System Engineer) or Government. The contact is foreign on a 1D10 roll of 10+ [1D20 roll of 19+].

SPECIAL

The special is a catch-all heading for any special circumstances involved with the career. Usually this category will list the number of secondary activities allowed, if different than 1 [2]; any variance on starting money, i.e. no money for the term, double money for term or basing money on a different attribute or skill.

Special can also include any mandatory follow on careers, benefits received upon the career's end, initiative bonuses, or even the possibility of being wounded or going to jail. The items here are not the limit of the special category, but rather a description of the more common ones.

For our example, the SYSTEM ENGINEER is allowed 2 [4] secondary activities per term. Since his job is important to the community, we will also double his starting money. This also makes the career a little more attractive.

Some game systems include a little story just after the title which summarizes the job and gets the player involved into the role. I have not used any for the careers I have created, but I get the impression that TRAVELLER: THE NEW ERA will include them.

That about completes the process, the final step is to put it into a readily usable form using standard phraseology. For that refer to the game system for which you are creating the career. Give it a try, and send me a copy of the careers you come up with. If I have room, I will print some of the best in the next issue of the TIMES.

SYSTEM ENGINEER

ENTRY: Undergraduate Degree

FIRST TERM SKILLS: CHEMISTRY 1 [2], COMPUTER 2 [4], ELECTRONICS 2 [4], MECHANICS 1 [2]

SUBSEQUENT TERM SKILLS: A total of 5 [10] skill levels from one or more of the following:
ADMIN, COMPUTER OPS, ELECTRONICS, JACK-OF-TRADES, MECHANICS, POWER PLANT OPS, SCIENCE, SENSOR OPS, VACC SUIT, ZERO-G ENVIRON

CONTACTS: One per term, Specialist (System Engineer) or Government. On a 1D10 roll of 10+ [1D20 roll of 19+] the contact is foreign.

SPECIAL: SYSTEM ENGINEERS may select two secondary activities/ characteristics per term. When calculating starting money, each term as a SYSTEM ENGINEER counts as double.

DARK RIVER DATA

In this issue, I present the major corporations of the Tonaean Empire.

BIOSYNTHETICS AND GENETICS

INTERSTELLAR BIOSYNTHETICS (IBIS), LIC

CEO: Denise Rhowe; Primary Products: Geneering; Home Office: Lam; Production Centers: Lam, Gotahol, Kopel

MORHDON CORPORATION, INC

CEO: Lawrence Liirs; Primary Products: Pharmaceuticals, Geneering; Home Office: Lociad; Production Centers: Lociad, Pabuse, Raya, Sayofak

COMPUTERS

COMPUDYNE, INC

CEO: Sharon Ghia; Primary Products: Vehicle Computers; Home Office: Raya; Production Centers: Ite, Raya

TONESEAN BUSINESS MACHINES (TBM), LIC

CEO: Tyrone Brakal; Primary Products: Business and Home Computers; Home Office: Ite; Production Centers: Ite, Raya

DRIVES

ASHTON GRAVITICS AND DRIVES, INC

CEO: Frank Ashton; Primary Products: Maneuver Drives, Anti-Grav's; Home Office: Jiwe; Production Centers: Gotahol, Jiwe, Nisami

PHAHEM DRIVE CORPORATION, LIC

CEO: Jonathan Goodwin; Primary Products: Maneuver Drives, Jump Drives; Home Office: Phahem; Production Centers: Phahem, Raya

FOODSTUFFS

EMPIRE PROVISION CORPORATION (EMPROCO), LIC

CEO: Francis Keyes; Primary Products: General Foodstuffs; Home Office: Xylawar; Production Centers: Esotess, Ite, Lam, Lohor, Odi, Sit, Sodak, Xylawar

IMPERIAL FOODS, LIC

CEO: Mordecai Jones; Primary Products: General Foodstuffs; Home Office: Banateth; Production Centers: Banateth, Beso, Ethydia, Jamayopass, Klonono, Lociad

SEALAN FOODS, ICC

CEO: Germaine Sealan; Primary Products: Seafood and Ocean Produce; Home Office: Seatatot; Production Centers: Seatatot

MANUFACTURING

DYNASTAR EQUIPMENT, LIC

CEO: Naomi Dash; Primary Products: Appliances, Machinery, and Tools; Home Office: Hize; Production Centers: Hize, Pabuse

LORING PRODUCTS, INC

CEO: Theresa Loring; Primary Products: Appliances, Electronics, and Machinery; Home Office: Raya; Production Centers: Jiwe, Raya

SAYOFK MANUFACTURING, LIC

CEO: Herman With; Primary Products: Electronics, Machinery, and Tools; Home Office: Sayofak; Production Centers: Jiwe, Sayofak

MINING

IMPERIAL MINING & METALS, ICC

CEO: Armstrong Shoen; Primary Products: Metals and Alloys; Home Office: Izuro; Production Centers: Ispan, Izuro, Jif, Pabuse, Sodak

INGALL MINES, INC

CEO: Kurt Ingall; Primary Products: Metals and Alloys; Home Office: Kopel; Production Centers: Kendarhe, Kopel, Sat, Sayofak

(CONTINUED ON NEXT PAGE)

TWILIGHT 2000

W M R E

SYNOPSIS - The characters are asked to help repair a civilian radio station and get it back on the air. Besides the challenge of repairing the station itself, there are those who are not anxious to have it back in operation, and there is at least one group who wants an operational station for themselves.

LOCATION - This scenario can take place anywhere where there could be a mass market FM Stereo radio station. North America and Europe are good choices.

THE PATRON - The patron is one Sean Macintyre, who once worked as a disk jockey. While serving his time in the war, he came across this station. When things fell apart, he found his way back to this area with a vision of making this station operational again to get information out to people.

Sean Macintyre - Trained NPC

Entertainer/Army Infantry

NPC Motivation: Spade Ace - Charismatic, Heart Queen - Loving.

REQUIRED REPAIRS - Besides general house-keeping and minor repairs to the station structure, the station needs the following to become functional:

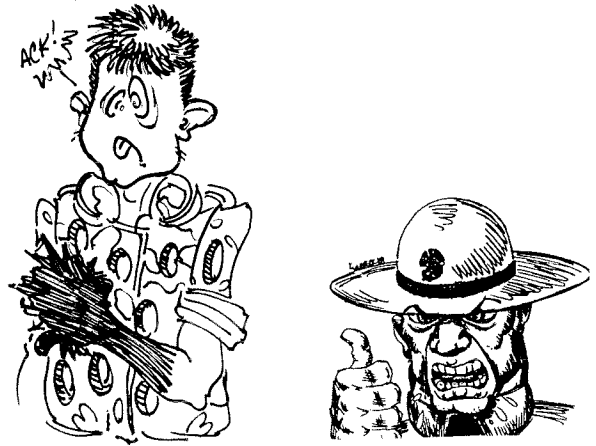
ANTENNA - The antenna has several damaged segments that need to be removed and replaced with salvaged metal. Then the antenna needs to be set upright again.

GENERATOR - A 5000 watt generator needs to be moved from a remote site and brought to the station. Building a shelter for it would be a good idea, but is not necessary to make the station operational. The generator requires some minor mechanical repairs and adjustment to burn whatever fuel is available.

TRANSMISSION EQUIPMENT - There is significant damage to the transmission equipment. However, because it was a stereo station, enough can be salvaged to make a mono transmitter.

FUEL - A regular supply of fuel must be obtained.

OPPOSITION - There are several small groups of marauders in the area who will harass or attack the characters when they are away from the station site (which is somewhat protected by the local militia. The greater challenge is a local warlord who has



GUNNEY GRUNTWORTH GROWLS:

A GRENADE WITH A PULLED
PIN DOESN'T BLUFF.

several APC's and delusions of expanding his "empire" with the aid of an operational radio station.

REWARDS - Some characters may go for this adventure just for the sake of a job well done or helping restore a bit of civilization to the world. Most will not, so the referee will have offer something that the group will work for.

ORIGINS REPORT (Continued from Page 5) negative one. Even though TNE will include things like cybernetic body parts, these will not be presented in away to suggest a cyberpunk genre.

STUTTERWARP & TRAVELLER

GDW is seriously considering including TWO faster-than-light stardrives in the Imperial setting, traditional jump drive and stutterwarp from 2300 AD. Frank Chadwick and Lester Smith favor this because stutterwarp makes for a very interesting space combat system.

This will be the only real discontinuity between MT and TNE that GDW will consider. If used, TNE will assume that stutterwarpe existed and was actively employed through all the Imperiums despite lack of mention in MT and classic TRAVELLER.

The GDW panel took a voice census during the seminar to get a feel for public reaction. There was strong support for both sides. GDW is still undecided at this time, so it might be worthwhile for people to send their opinions to Dave Nilsen, the TRAVELLER line manager at GDW.