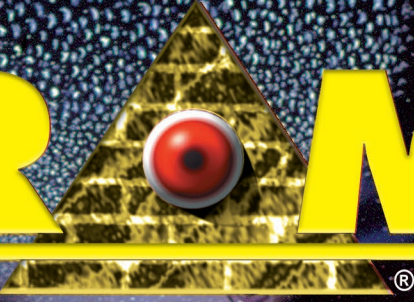


PYRAMID[®]



Issue 3/94 August '16

SPACESHIPS III



**SO YOU WANT TO
BUILD A SPACESHIP**
by Roger Burton West
and Timothy Ponce

HAZARD RATES
by David L. Pulver

BLACKBEARD STATION
by Ted Brock

BATTLE FOR THE EARTH
by Michele Armellini

STRANGE OBJECTS IN DISREPAIR
by J. Edward Tremlett

REMATCH
by Matt Riggsby

STEVE JACKSON GAMES

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When it comes to off-world science fiction, spaceships make things happen! And in an infinite universe, there's always room for more awesome spacecraft and ideas for how to use them. Fortunately, we at the *Pyramid* shipyard have you covered, with the latest models fresh off the space lot.

So You Want to Build a Spaceship with the possibilities of the **GURPS Spaceships** line. Great! But with eight volumes in that series, it can be daunting to decide which options are best for your campaign. Get inspired by four different types of science-fiction themes and adventure expectations, then learn what ship engine, power plant, and weapon options best fit the theme and expectations. And stay out of sight with IR masking, a new **Spaceships** system!

In a fast attack from space, aliens wiped out Earth's major cities and installations. Now it's time for humans to strike back in a *Battle for the Earth*. Michele Armellini – author of **GURPS WWII: Grim Legions** – uses **GURPS Mass Combat** to describe human and alien force elements, providing the modifiers needed to play out their final confrontation. Drop it into a myriad of science-fiction campaigns with the included tips!

When outlaws need a place to relax, refuel, and resell, they visit *Blackbeard Station*. This former mining asteroid hides in a distant system with the help of some special equipment. It includes both **GURPS City Stats** and **Spaceships** information for the gargantuan pirate haven, plus details on its history, politics, and key leaders.

When you expect a spaceship crew to actively seek out less-than-legal cargo, you'll need to pay them *Hazard Rates*. In this month's *Eidetic Memory*, David L. Pulver – author of the **Spaceships** series – offers tips (along with a new cargo table) for gaming the pursuit of "special" freight, plus ideas for interesting passengers and official mail routes.

When you're among the stars, it's quite possible you'll come across *Strange Objects in Disrepair*. Each of the three derelict alien vessels included herein has a story and a challenge, perfect for heroes of any game system to unravel and figure out.

This issue docks into port with a Random Thought Table that ponders how to prevent all extraplanetary vessels from looking the same and a Short Bursts vignette from the **Car Wars** universe that reveals how folks can keep a grudge even after they're dead. If the stars are your destination, this issue of *Pyramid* is your passport!

ARTICLE COLORS

Each article is color-coded to help you find your favorite sections.

Pale Blue: In This Issue

Brown: In Every Issue

Green: Columnist

Dark Blue: **GURPS** Features

Purple: Systemless Features

COVER ART

Alan Gutierrez

INTERIOR ART

Brandon Moore

Starbuck: Why can't we use the starboard launch tube?

Chief Tyrol: It's a gift shop now.

– *Battlestar Galactica, "Miniseries, Part 1"*

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FROM THE EDITOR

FULFILLING A BOLD MISSION

GURPS celebrates its 30th anniversary this year, and a few times lately, I've had occasion to reflect on where *GURPS* has been and where it might go. One of the joys of a well-defined, heavily supported game system is that there's more breathing room to take some time and reflect on what it all *means*. In the early days of a game, a lot of time and effort is taken up by making sure you're covering the basics: "Do we have extensive hand-to-hand combat rules? Because we need those."

As time progresses, we can start branching out to things that are still important, but not as day-one vital: "What about a system for mass combat? How would *that* work?"

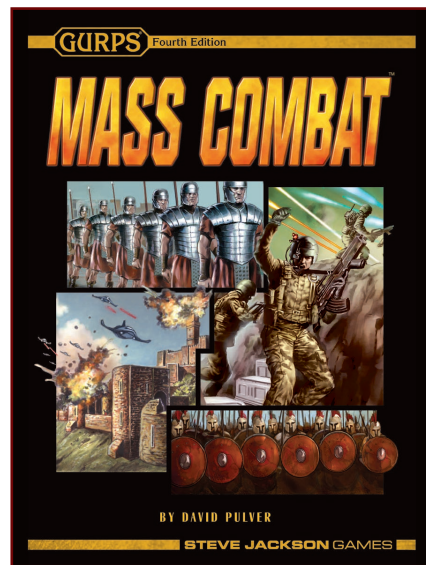
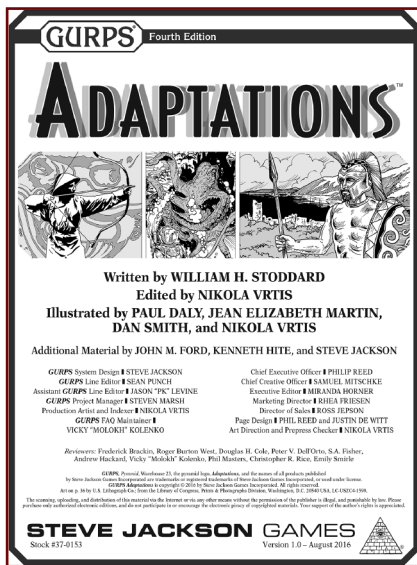
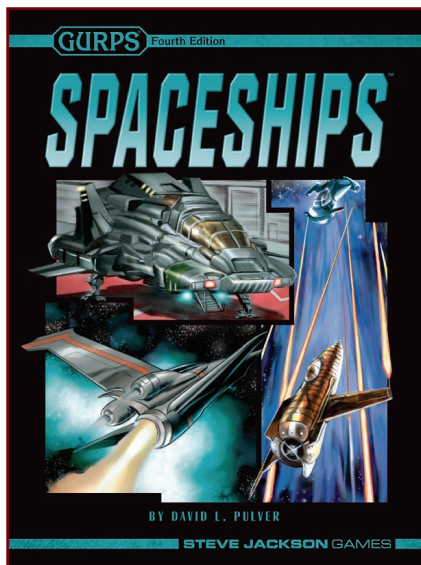
Eventually, as the must-haves and wouldn't-it-be-nice elements are filled, we can start making sure that everything is working as well as it can, to achieve the desired result. As I type this, we've recently released *GURPS Adaptations*, a guide to adapting beloved fictional settings to *GURPS*, including insight into how to create specialty gear, stat up heroes, and get the *feel* of the setting just right with the myriad of

options that are out there. This issue offers a similar look at *GURPS Spaceships* (pp. 4-9), with suggestions for how to select from the possibilities of that series to devise a campaign that fits your vision.

The magazine also supplies a number of elements that are designed to be dropped into as many campaigns as possible, whether it's dealing with an alien mothership (pp. 11-17), taking on not-quite-legal cargo (pp. 21-25) or exploring derelict spacecraft (pp. 26-31). With the foundations of spaceships covered so thoroughly by the rest of the *GURPS* line, we have more room to explore strange new realms. And isn't that the point of spaceships?

WRITE HERE, WRITE NOW

How was your trip among the stars? Please let us know! We love getting ship-to-ship communication via pyramid@sjgames.com as well public discussion on how well-received our *Pyramid* cargo is at forums.sjgames.com.



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So You WANT TO BUILD A SPACESHIP

BY ROGER BURTON WEST AND TIMOTHY PONCE

The *GURPS Spaceships* series contains a huge array of options over multiple TLs. But, like *GURPS* itself, trying to use all of this in your space campaign can lead to confusion. By picking the right technological base, you can drive a game in the direction of the sort of space travel your group wants.

The general modern hard-SF case, as in *Transhuman Space* or *Corsair*, isn't presented here. That is what *Spaceships* offers just by turning off the TL[^] options. But many stories deviate from those assumptions . . . (For insight into adapting elements of a favorite science-fiction universe *beyond* its spaceships, see *GURPS Adaptations*.)

Except where noted, the core *GURPS Spaceships* book provides the descriptions and mechanics for all ship systems mentioned here.

THE RIGHT STUFF

No one knew what kind of person could be persuaded to take the trip. Prisoners were suggested. Soldiers could be ordered. Photographers could take pictures – and they're expendable. Doctors understood the limits of human physiology. Finally, both sides picked pilots.

– Neil Armstrong

Astronauts in this style of game are heroic pioneers. Space missions may be long or short, but they don't happen very often; each mission, and probably each spacecraft, is unique. Ships are expected to carry all the fuel and other consumables for their missions with them, rather than restocking en route. They're mostly traveling the void for exploration rather than war. Robotic systems are minimized, perhaps with a safetech approach – not many people sit on the edges of their seats waiting to find out if the robot probe survived, compared with watching actual humans in pressure suits stepping onto a new world. If FTL is available, travel times depend hugely on where ships emerge into a solar system, so the GM should place jump gates and decide on navigation accuracy with this in mind.

This style of story often involves heroic engineers, and tends to be in the hard-SF category. Examples include *Dragon's Egg*, *The Fountains of Paradise*, *The Martian*, and

the anime/manga series *Moonlight Mile*, *Rocket Girls*, *Space Brothers*, and *Twin Spica*. The vulnerability of humans in a small thin-walled piece of their native world surrounded by nothingness should always be on the PCs' minds, but the game needn't be *only* about humans vs. the environment: governmental, corporate, or non-human opposition are all quite possible, not to mention the bureaucracy at home that wants everything done by the book.

Whatever the campaign's power level, heroic astronauts are always well-trained and prepared for the problems that the mission planners expect; they have key skills such as Engineering (relevant type of spacecraft) at 13 or higher. A campaign should certainly include training sequences if possible, and *GURPS Social Engineering: Back to School* will be helpful here. In a low-point-value campaign, this makes astronauts specialists in just one or two skills; with more points, either they spread out to backup each other's areas of expertise, or (more interestingly), they're *really good* at their primary skills, so they can attempt more difficult tasks and still be confident of getting good results.

Several design switches push a game toward this style. In particular, it's helpful to have lots of detailed subsystems (see *Smaller Systems*, *GURPS Spaceships 7: Divergent and Paranormal Tech*) which can go wrong and need to be fixed, thus showing off the problem-solving skills of the crew. Removing artificial gravity emphasizes the alien nature of the space environment even inside the ship. Spin gravity mitigates bone degeneration, but makes the ship design more complex, leading to interesting problems when bits of it fail. Exposed radiators don't show up even in many hard-SF stories, but provide another thing to go wrong. Radiation and other space hazards (*GURPS Spaceships 5: Exploration and Colony Spacecraft*, pp. 40-41) should be taken very seriously; long-range spacecraft have armor against debris, and a "storm cellar" in case of solar flares.

As far as combat goes, the need for specialized systems makes for specialized ships. An interceptor like the Red Arrow or Shrike from *GURPS Spaceships 4: Fighters, Carriers and Mecha* has only one or two tries at shooting down an enemy before it has to return to base and refuel.

It certainly can't make long trips on its own, which suggests a space fleet design using large carriers with efficient engines carrying smaller fighters (or even drones) with less range but higher performance, armed with nuclear missiles to let them kill much larger ships and deployed only when needed. This fighter force can take on more conventional space warships and win, but if the enemy can force the fighters out of position, then the carrier will be left defenseless as its fighters are unable to catch up. There may be battle stations in orbit, but they are sitting ducks against an opponent that can maneuver.

Reactionless drives change all the rules, since any spaceship with enough duration on its reactor can now attempt any journey. At 1G constant acceleration, Mars is a day away from Earth, Pluto 18 days, and even Earth to Alpha Centauri can be done in a shade over four years by the ship's clock (rather more to the outside world) with a turnover at nearly 90% of lightspeed. All that matters is having a power supply that lasts long enough, and shielding against space debris.

Space stations show up in this type of story mainly as a departure point for a long-distance flight, or as scientific outposts orbiting a distance planet where the crew does several years of work before being relieved by a replacement.

See *Halfway to Anywhere* in *Pyramid* #3/79: *Space Atlas* for a detailed discussion of the calculations needed to get between celestial bodies within a solar system.

Tech Level Considerations

Before TL9, any space journey is a matter for some heroism. Spacecraft are expensive, dangerous, and typically operated or at least paid for by major governments. For alternate tech paths, keep this in mind: Perhaps anti-gravity wood is available, but the vital principle needs to be extracted from thousands of tons of timber. Chemical rockets are the most usual approach, but a single-stage design can only carry two systems into Earth orbit apart from fuel and engine. Even the 0.3 mps boost gained by launching eastward from the equator rather than from the poles is worth having.

At TL9, HEDM rockets take 10 systems to get to orbit (one engine, nine fuel tanks). That leaves enough for some useful payload, but surface-to-orbit and long-range ships are completely separate designs. The advanced fusion pulse drive gives the best long-distance performance. With half the ship given over to fuel and a single drive, it produces 252 mps total delta-V. That gets from Earth to Mars in a month or two depending on orbital positions, Saturn in six months, and Pluto in about two years, with enough fuel left for the return trip. Missions to the outer planets are huge and expensive affairs, because if anything goes wrong there's no hope of timely rescue; everything has to be fixed by the crew with their own resources.

At TL10, the antimatter plasma rocket takes over for long-distance travel, with Mars reachable in two to six weeks, Saturn in three months, and Pluto in six months. The next step out, exploration of Oort cloud objects, still needs something like a 16-year journey. With TL10⁺, an antimatter plasma torch gets the ship to Mars in less than a week, Saturn in less than a month, and Pluto in three months – but it only shaves half a year off the trip to the Oort cloud.

At TL11, antimatter pion is the best available drive, but although its delta-V is rather higher, its low acceleration means it doesn't make great savings over the antimatter plasma rocket

unless surplus fuel is swapped out for more drives. With four drives and six fuel tanks, a ship can get to Saturn in five weeks, Pluto in ten, and the near Oort cloud in two years. With TL11⁺, an antimatter pion torch gets you to Pluto in a month and the Oort cloud in a year; a trip to Alpha Centauri should take a mere 70 years, which starts to be worth considering.

At TL12, the fusion rocket brings no real benefit in performance, though fuel becomes cheaper. But at TL12⁺ with a total conversion torch, Pluto is a mere two days away, the Oort cloud two months, and Alpha Centauri 24 years. The heroic astronauts here are probably dedicated interstellar voyagers, who maintain their own culture during the long hauls between stars, carrying the few precious goods that can't be sent by light-speed radio communications.

PLANET-HOPPING WITH THE 273RD FLEET

Joe [Johnston] would show me a shot of a Japanese Zero flying left to right in front of a conning tower of an aircraft carrier and say, "The aircraft carrier is the Death Star, the Zero is an X-wing. Do a board like that."

– Paul Huston, in *Star Wars Storyboards: The Original Trilogy*

The analogy between space combat and naval warfare has existed since the golden age of science fiction, but which era often varied. Ships in Asimov's *Foundation* series were analogous to late Age of Sail ships and even called "ships of the line," while *Star Trek* often depicted conflicts as battles between modern cruisers, or even destroyers and submarines (see *A Balance of Terror*, pp. 8-9). *Star Wars* changed all of that. Instantly, the common analogy became that of World War II naval combat with small, maneuverable fighters and bombers trying to destroy large, cumbersome – and *powerful* – capital ships. Some other examples of this trope include all incarnations of *Battlestar Galactica*, *Babylon 5*, *Farscape*, and the *Wing Commander* video game series (and movie).

As a genre, this is characterized by large, long-range naval capital ship analogs that either engage each other directly or launch small, short-range airplane-like fighters and bombers. Capital ships regularly have difficulty hitting fighters, but fighters can only really threaten capital ships with bombs or missiles. While missiles – often called torpedoes – are surprisingly effective against capital ships, they are almost impossible to use against other fighters, leading to prolonged WWII-style dogfights. It's also worth noting that fuel consumption is almost categorically ignored until the plot calls for it, and larger ships often move more slowly than fighters.

A few campaign switches help emulate these genre trappings. To simulate the survivability of capital ships, any vessel above SM+7 is considered a capital ship and enjoys Injury Tolerance (Damage Reduction 2). Combined with two armor systems of the current TL, this allows any given capital ship to withstand an average of about 12 direct hits from another ship of its own size while virtually ignoring weapons fire – save missiles – from fighters. Fighters remain relatively vulnerable to their own fire, surviving three to six hits, but should they be hit by a missile, they'll likely be destroyed. For more survivability, consider adding additional armor as *Smaller Systems* (*Spaceships 7*, p. 4).

Weaponry is almost always energy-based. However, even when it isn't, unguided ballistic armament should be treated as guns but inflict damage as a laser of that TL. Otherwise damage scaling results in larger ships becoming increasingly invulnerable to their own weaponry. Capital ships also suffer from a difficulty targeting fighters, and fighters never seem to target each other with missiles. Apply *Relative Target Size* (*Spaceships 4*, p. 35) to all missiles and capital-ship weapons, and treat missiles fired by fighters as SM+8. Lastly, Wait (Point Defense) maneuver (*Spaceships*, p. 59) is not an option – no one shoots down torpedoes in the movies!

Propulsion also requires some retooling. Regardless of what type of engines the ship employs in the setting, represent them with reactionless drives and achieve lower speeds by using smaller systems. These reactionless drives are not truly reactionless and shed heat as the drive for which they stand in (see *Passive Sensors*, *Spaceships*, pp. 44-45). Furthermore, replace their Power Point requirement with an equal number of Fuel Tanks filled with the kind of fuel the engine they represent normally consumes. Additionally, fighters – ships SM+7 or smaller – only have enough fuel for 24 hours of operation per fuel tank *per engine*; this gives them a shorter duration than capital ships. All propulsion functions as if it has the hyperdynamic field option (*Spaceships 7*, p. 24) for free, but when calculating Space Performance, treat *all* fighters as streamlined, and *all* capital ships as unstreamlined. In this instance, actual streamlining only impacts Air Speed. Lastly, *FTL Comms/Sensor Arrays* (*Spaceships*, p. 33) are in full effect.

Otherwise, many of the options in *Cinematic Action* (*Spaceships 4*, pp. 30-36) fit this genre, excluding *Airplane-Style Dogfights*, which is covered by the inclusion of hydrodynamic fields. Other particularly appropriate rules in *Spaceships 4* include everything under *Cinematic Piloting* (pp. 30-32), *2-D Thinking* (p. 32), *Accidental Collisions While Dodging* (p. 32), *Cockpit Multitasking* (p. 33), *Exploding Spacecraft and Fireballs* (p. 33), *Fighting in Low Orbit* (p. 35), and *Unpredictable Debris Fields* (pp. 35-36).

THE COLDEST WAR

The rules presented here seek to emulate a feel similar to the naval battles of the Pacific Theater in World War II, but that's not the only possibility for space navies. The Cold War era (primarily TL7, but also extremely early TL8) saw an evolution of naval and air tactics in which airplanes became increasingly deadly, driving enormous battleships into obsolescence. These were replaced with aircraft carriers and their escorts, who projected power via their attack aircraft armed with powerful long-range missiles. The age of the dog fight ended during the Vietnam War, leading to most engagements utilizing missiles. Likewise, submarines capable of launching horrific attacks demanded new defensive tactics.

These changes are easily represented with a couple of tweaks:

- Capital ships don't enjoy any special *benefits* over fighters.
- Missiles are not subject to *Relative Target Size*, and fighters use them first and foremost on all targets. Guns serve solely as a backup.
- Whenever stealth ships or any other "submarine" analog are involved, use *A Balance of Terror* (pp. 8-9) instead of cloaking devices to track detection ruthlessly.

Tech Level Considerations

While few examples exist, it is quite possible for this genre to thrive at TL7 or TL8. Propulsion systems are likely to be nuclear rockets or possibly ion drives, and ships will equip heat rays (*Spaceships*, p. 28). As with most war ships, two armor systems per fully protected hull are typical and should be either light alloy at TL7 or metallic laminate armor at TL8. Low-armored ships should use steel or fewer systems of the previously mentioned armor types. Typical weaponry for fighters includes missiles and heat rays, and capital ships should employ only heat rays. While artificial gravity and gravitic compensators are commonplace in this genre, their lack can be offset with spin gravity and is quite fitting at these TLs.

At TL9, propulsion is often by ion drive and nuclear rocket with fusion rockets representing the bleeding edge of technology. Advanced metallic laminate armor takes over as the go-to armor for ships; down-armored ships may use any combination of older armors to achieve the level of susceptibility desired. All ships are typically armed with lasers. Gunboats and bombers also mount missile launchers, often spinally mounted, for anti-capital ship operations. While artificial gravity and gravitic compensators make their first widespread appearance at TL9, spin gravity will provide a façade of realism.

TL10 ushers in a greater variety of options. While propulsion remains mechanically reactionless, it can be flavored as any of dozens of drives from ion drives to fusion torches, to antimatter plasma rockets – be creative! Warships usually mount two systems of nanocomposite armor. Organic armor, while particularly susceptible to lasers, could provide a cheaper alternative to light alloy for civilian ships. Weapons also see additional options. Ultraviolet lasers are common on capital ships, granting them staggering range, and compete with particle beams on fighters. Plasma weapons, if available, provide sufficient penetrating power to allow fighters to take on ships up to about four SMs above themselves – if they can get close enough! From this point forward, artificial gravity and gravitic compensators become the norm.

Like previous tech levels, TL11 sees an increase in options while still adhering to the same conceits. Reactionless drives are almost certainly a torch drive or antimatter drive at this point – if they aren't simply stripped of their window dressing completely. Armor continues to be two systems of the best available – diamondoid at this point. X-ray lasers replace UV lasers as the long-range weapon of choice, just as the antimatter beam replaces plasma weapons as the best high-damage option. But two newcomers offer interesting alternatives: Both graviton and ghost particle weapons allow any ship to inflict damage on any other, although small fighters still require hundreds upon hundreds of hits to destroy capital ships. This may better suit a video game feel, such as that of the *Wing Commander* and *X-Wing* series. Super missiles and warp missiles (*Spaceships*, p. 47) should generally be avoided except in the case of ultimate weapons, since any one of either can completely destroy any ship they hit in a single shot.

At TL12, anything goes. Reactionless drives are likely to be truly reactionless if not antimatter pion torches, and exotic laminate armor is standard for warships. Literally any weapon may come into play, so it might be best to develop themes for various factions – e.g., humans use lasers, Gilnarians prefer gravity-based weapons, etc. As before, super missiles and warp missiles remain in the realm of doomsday devices and probably shouldn't be options.

While not necessarily widely available, if at all, some superscience systems regularly pop up in this genre. The most common is faster than light travel – usually accomplished by a drive of some sort, but shows like *Babylon 5* also make use of massive jump gates (*Spaceships*, p. 19). Another standard, often used to emulate U-boats, is the cloaking device, which denies anyone using passive sensors (*Spaceships*, p. 44) to detect the craft the +10 for plain sight (*Spaceships*, p. 44) and a gives flat -10 against active sensors (*Spaceships*, p. 45) rolls. Likewise, while common, force screens (*Spaceships*, p. 16) are not ubiquitous in this genre. They typically exist on capital ships and larger fighters and bombers, if at all, and they always *at least* protect against energy weapons. Most are adjustable (*Spaceships*, p. 32), and those mounted on capital ships are often hardened (*Spaceships*, p. 32). The least commonly occurring is cosmic power (*Spaceships*, p. 31), which is often the hallmark of super weapons meant to destroy fleets, and should usually be restricted to ludicrously large capital ships.

WORKING STIFFS

*We got music in our solar system!
We're space truckin' through the stars!*

– Deep Purple, “Space Truckin’”

In some stories, space travel is routine, to the point where ordinary working people have jobs that just happen to be in space. To use contemporary models, they're merchant ship crew, flight attendants, and cargo handlers. This doesn't necessarily mean more than that there's

frequent and accessible space travel in a setting – someone had to weld and bolt together the *NCC-1701 Enterprise*, after all – but it does imply a working person's perspective on the world. Examples include *Alien*, *Dark Star*, *Silent Running*, *The Expanse*, and the anime/manga series *Planetes*.

Heavy automation is common. The people are there not because they're *better* at running the spaceship than robots, but because they're *cheaper*, and perhaps better able to adapt to unusual situations and repair the robots when they break down. (Fully sapient AI probably should be downplayed, as it would take away most of the remaining reasons to put humans aboard spacecraft.)

Spaceships are designed with every bit of free space dedicated to profit: paying cargo, or mining and refinery systems. If it's not making money, it's wasted. Crews are cut to the minimum for safe operation, and maybe beyond; even on a huge freighter, the crew members are probably crammed into shared cabins or bunkrooms, with a limited weight allowance for personal gear. All spare space goes to steerage cargo.

For the same reason, shielding and armament are kept to a minimum. Similarly, armor is just a single system of steel per section, and perhaps just around a single crewed section rather than the whole ship.

If reactionless drives aren't available, fusion rockets, mass drivers, and fusion torches (if available) are the favored in-system drives; their performance is adequate, and running costs are cheap. At TL9-TL12, the fusion rocket has reasonable performance and the lowest cost to fuel, with performance getting significantly better at higher TLs. To make it even cheaper to run over short distances, the company could fuel it with water rather than hydrogen; for long voyages, this cuts into the ship's payload, but the vessel can make more voyages in the same time. At TL12⁺, the conversion torch is practically free to run. Other nuclear drives, and in particular any of the antimatter rockets, are reserved for the very rich and high-cost courier vessels. Surface-to-orbit shuttles use nuclear thermal rockets with water reaction mass, usually with the ram-rocket option, where the radioactive exhaust is permissible (either there's no population, they're all in shelters already on an alien world, or they're sufficiently cowed not to complain); failing that, they fall back on HEDM rockets.

Generally, this sort of story doesn't deal with space combat, though when it does, the battles are quick and deadly; standard *Spaceships* weapons handle this well. “Working Stiffs” adventures tend to focus on technical problems (“Can we find and plug the hole in the hydrogen tank before we lose too much delta-V to be able to stop at our destination?”) or mysteries (“This person died after we broke orbit, so the murderer must be on the ship.”).

Space stations are common in this sort of setting, often because it's cheaper to build a facility in orbit than to shuttle crews down to a planet's surface and back – or as a waypoint in the middle of nowhere. The major design decision here is the allocation of habitat space. Proportions vary by usage, but for a self-sustaining station, include about one 20-person establishment per 125-250 inhabitants, and one sickbay bed per 150-300. Ideally, add one 100-person open space area per 10 people for park

and recreation space, but this will be the first thing to go when the budget cuts hit. A single open space system used as farmland will be cheaper than constant resupply of rations, and a farming station might sell its surplus to other stations nearby.

Characters in this sort of game have low point values – they're ordinary folks in the wrong place at the wrong time, not lantern-jawed heroes. Unless artificial gravity is universal, they have at least one point in Free Fall; common skill levels range from 12 for people who stay in spin gravity most of the time to 16+ for those who work outside on a regular basis. For more on this, see *Free Falling* (in *Pyramid* #3/85: *Cutting Edge*). Almost everyone also has at least one point in Environment Suit (Vacc Suit).

Most jobs are defined by one or two skills, often Mechanic, Electronics Repair or Engineer. A ship's mechanic concentrates on these, while a zero-g Welder has plenty in Free Fall, Machinist, and Mechanic, and a station farmer has Mechanic (Robots) and Biology (Botany).

*What happened was,
you had drifted right
through the core systems,
and it's really just blind
luck that a deep salvage
team found you when
they did.*

– Burke, in *Aliens*

Crew members are generally good at what they do, but skill levels of 12-13 are often considered adequate.

A BALANCE OF TERROR

Secure all active scanners. Passive systems only . . . Quiet! There's a destroyer hunting us . . . We're in an intense radiation belt. Gamma rays are clouding their screens. If they can't see or hear, they won't find us.

– Commander Paul Gerald, in *Wing Commander*

Science fiction depicts space warfare in a dizzyingly wide variety of modes, but few inspire suspense like the life-and-death struggle between two captains hunting each other. Perhaps the most famous example of this genre is the battle between Captain Kirk and the commander of a Romulan Bird of Prey, but it crops up in *Babylon 5*, the *Star Wars Expanded Universe*, and a variety of written fiction. As a whole, this sort of story emulates the feel of submarine warfare in which one or both ships know the other is out there somewhere but for lack of sufficiently reliable or sensitive detection equipment, must hunt each other, much like in *The Enemy Below* (1957) or *The Hunt for Red October* (1990). Of course, the underlying assumption of stealth in space is wholly unrealistic and incongruent with hard science fiction, but why should we let that stand in the way of fun?

This genre seeks to cultivate suspense via the cat-and-mouse game of finding and killing one's enemy before they get a chance to reciprocate the favor. As such, combat must be deadly, and there must be a source of tension – namely, the hunt. Weapons must pose a viable threat – e.g., crippling or destroying a target within a few shots – but they shouldn't threaten death on the first hit because that isn't fun. Also, the detection rules need modification because, as written, they make spotting targets regardless of where they are trivial, and the categorical inclusion of cloaking devices runs contrary to the idea of degrees of stealth present in the likes of *The Hunt for Red October* (1990). A better alternative is changing the stealth option (*Spaceships*, p. 30) as described below, and including IR masking (see below).

Stealth remains an option, but in order to maintain a steady pace between sensors and stealth, the latter grants a penalty to all detection rolls equal to 10+TL. All ships that actively hunt stealth vessels should also include a tactical or multimode sensor array, and dedicated sensor picket ships should use an oversized sensor array (see *Bigger Systems*, *Spaceships* 7, p. 5) to eke out an additional +1 to their detection rolls.

A typical engagement involves one or both ships running on auxiliary power using their passive sensors to try to locate the other. This boils down to a series of Detect rolls. Once an enemy is spotted, the attacking vessel maneuvers into range – assuming it isn't already – powers up, and fires its main weapons. This first shot, if it hits, should give the attacker enough of an advantage to finish off his target. Ships that use a fuel cell to maintain some energy don't need to fully power up, but are at an additional +1 to detection if they are above auxiliary power. Their gunners may fire on any ship within range as they are detected. Once a ship fires, it reveals its location to all ships executing a sensor detection task (*Spaceships*, p. 52) that turn.

Some ships may decide to forgo stealth and scan their surroundings with active sensors (see *Spaceships*, p. 46). This automatically detects anything without the stealth hull feature within range on a successful skill roll. Ships with a stealth hull of the same or higher TL as the scanning sensor array impose a penalty equal to 3 + 2 per TL above the sensor. (This replaces the rule for passive sensors given above.) For example, a TL11 stealth hull imposes -5 on a TL10 sensor array. Remember, however, that using active sensors lets anyone within *twice* the sensors' range to detect the scanning ship!

In particularly cinematic "Balance of Terror" games, a common trope involves hiding in nebulas or other environmental impediments to vision or sensors. Model this using *Nebulas*, *Ion Storms*, and *Gas Clouds* (*Spaceships* 4, p. 35). For even *more* unrealistic . . . ahem . . . cinematic games, consider having the crew make complementary Stealth rolls to avoid being *heard* by other ships. In this case, success gives a penalty to the hunter's sensor rolls and a failure gives a bonus!

At all TLs, warships should have DR approximately equivalent to two *unhardened* armor systems of the current TL per hull section – fine-tuned up or down with smaller systems (*Spaceships* 7, p. 4). They likely have a conventional power plant and reaction drive for use when not engaged in stealth maneuvers. These are usually powered down for stealth operations so the ship can operate on auxiliary power or off of a backup fuel cell. When an enemy is detected, the ship either powers up and shoots at the target, or uses the fuel cell to fire weapons. While it may be unintuitive, missiles and potentially guns inflict far too much damage to make good torpedoes; no sense in arbitrarily killing the PCs because of one bad dice roll after all! Instead, use energy weapons as described below so that PCs' ships can survive about three shots before being destroyed. This gives them a chance to retaliate or escape after getting hit, while still making direct hits frightfully dangerous.

IR MASKING [ANY]

An advanced coolant system that reduces the IR signature of any spaceship in which it is installed. Each system gives -4 to Detect rolls made to spot the vessel via passive sensors. No more than two systems can be installed. The penalty only applies if the IR masking is of the same TL as or higher than the array searching for it.

SM	+4	+5	+6	+7	+8	+9	+10	+11	+12	+13	+14	+15
Workspaces	0	0	0	0	0	0	1	3	10	30	100	300
Cost (\$)	150K	500K	1.5M	5M	15M	50M	150M	500M	1.5B	5B	15B	50B

Repair Skill: Electronics Repair (EW).

Tech Level Considerations

At TL7-8, a general lack of hard-hitting weapons makes this style a bit more problematic. One solution is to modify the heat ray to use the “dDmg2” and “Range0” columns of the *Beam Damage and Range Table* (*Spaceships*, p. 67). Another is to use conventional guns. The latter has the advantage of not requiring any power points, thus permitting firing while running on auxiliary power. If heat rays are used, fuel cells have the lowest IR signature, giving only +4 to detect; one such system would allow a ship to fire while maintaining minimal IR signatures. In terms of propulsion, chemical rockets offer the least unstealthy option at “only” +5 to detect. Alternatively, a solar panel array (*Spaceships*, p. 25) can provide power when near a star, but not in deep space.

At TL9, the lack of hard-hitting weapons remains an issue that can be resolved as described above. As previously mentioned, fuel cells are the best way to provide power points while maintaining stealth, but running on auxiliary power is better still. At this tech level, HEDM rockets supplant chemical rockets as the best bad option, since they offer superior delta-V. More conventional nuclear and fission drives are *extremely* hot and detectable, but the advent of lightsails and magsails may provide some stealthy, *low*-acceleration propulsion near a star without requiring any ongoing power production.

TL10 sees the first unmodified heavy-hitting energy weapon enter the field – the plasma cannon. This is the ideal weapon for TL10 stealth craft, since it can destroy a similarly sized and armored ship in about three hits. This gives the enemy little time to escape, and the PCs a chance to turn the tables if caught unaware. Ideal power and propulsion options remain the same as lower TLs, but conventional drives naturally improve.

By TL11, the antimatter cannon replaces the plasma cannon as the preferred weapon of stealth craft. These have a similar damage output and better armor penetration for coping with newly invented diamondoid armor, and their longer reach allows an attacker to maintain a better standoff range. Otherwise, new technologies mostly provide advances in hot drives and power production.

At TL12, the conversion cannon supplants antimatter cannons with its incredible penetrative power, ability to ablate armor, and follow-up explosion. Like previous tech levels, primitive chemical fuel cells and HEDM rockets remain best deep-space choices among bad options, and magsails provide cool propulsion near stars.

While a lot of superscience is available, most of it won't cause any problems to this game style. Cloaking devices should generally be avoided because they make ships almost impossible to detect, even at close range! If a cloaking device does exist, it should be a sought-after technology that threatens to tip the balance of power between nations that both sides would kill for, especially if a rogue captain decides to defect with one. Similarly, be aware that only hot reactionless drives produce any IR signature; this may be good or bad for the style, depending on how much the GM wants to track delta-V usage. Total conversion power plants and drives and cosmic power plants tend to run extremely hot, which makes retaining stealth more difficult; consider limiting these options to “surface ships.” It is also worth noting that super and warp conventional missiles and any nuclear or antimatter weapons can destroy virtually any ship in a single direct hit and should be reserved for use as doomsday weapons.

ABOUT THE AUTHORS

Roger Burton West wrangles computers near London, United Kingdom, and writes orbital mechanics software for fun. He discovered *Advanced Dungeons and Dragons* in the early 1980s, *Traveller* shortly thereafter, and hasn't stopped gaming since, though he doesn't have enough time to run all the campaigns he'd like to.

Timothy Ponce lives in Central Florida where he studies aerospace engineering at the University of Central Florida and serves as the staff writer for the American Institute of Aeronautics and Astronautics at UCF. His love of science fiction extends back to his childhood, where it led him to role-playing via *Alternity* as a pastime at track meets. Ever since, gaming has been part of his life, often vying for time with sleep and video games. He couldn't have written this article without the loving support of his other half, Julia.

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BATTLE FOR THE EARTH

BY MICHELE ARMELLINI

This is a science-fiction scenario for *GURPS Mass Combat*. It pits beleaguered, outclassed Terrans against higher-tech alien invaders and their machines. The players can take up the

role of any person in the ragtag force that will try to carry out a surprise attack against the aliens. The scenario also offers PCs the chance to lead these troops.

BACKGROUND

Very little is known about the aliens, which will keep things tense for the players. Their appearance or true ultimate goal are unknown. They never tried to establish peaceful contacts, and they ignored any communication.

WHAT THEY DID

After appearing from behind the sun, they destroyed Earth's spaceships, satellites, and any lunar installations. They moved on to bombing from orbit the main military bases, warships, and command centers. They then landed robot forces near several of the largest cities on Earth, and these unleashed swarms of nanomachines whose effect was essentially the same as toxic gases on unprotected humans. It was a major humanitarian catastrophe pushing millions of refugees into the countryside. Some countries collapsed into anarchy; others managed to cope.

The aliens haven't tried to occupy the whole Earth or to exterminate humanity, though they occasionally bomb any concentration of people around the cities they occupy, probably in fear that the humans might be staging a counterattack.

WHAT THEY ARE DOING

Surviving governments are trying to understand what the invaders are up to. Computer analysis seems to point to running an economy-of-force operation, which would imply that for all their superior technology and firepower, the aliens are somehow stretched thin. It is clear they have no desire to expose themselves to the planetary

atmosphere; data analyses show that air units occasionally behave with "biological unpredictability," while the legged/tracked vehicles are robots.

Additionally, not all humans gave up the cities that the newcomers have taken for themselves. Some die-hard groups are still around, either in the not-well-defined "security rings" around the cities, or hiding inside the built-up areas. In the latter case, they mostly survive underground. These organizations bring out valuable intelligence, and their reports are that in each city, the aliens have set up a sort of massive outdoor stockpiling center. Scavenger robots scurry around, gathering diverse supplies, such as scrap metal, foodstuff, water, rubber, and fuels.

The best guess intelligence officers and scientists have come up with is that the aliens are about to set up giant nanoforges. Anything can be built by nanomachines, but raw materials remain necessary. Some say the aliens are raiders, who need to pillage planets; they might use the resources, for instance, to build more starships. Others say the nanoforges will be used to create countless nanomachines that will terraform – or, rather, *alienform* – our Earth.

In both cases, it's time to strike back.

Underdogs bite back occasionally.

– Bernard "Bernie" Taupin

THE SCENARIO

The core location's name and features are left for the GM to customize. The essential details are that it's a large city occupied by the aliens, and that it's winter in a region of the Earth

where a snowstorm is possible. The city could be New York or Moscow, for example.

HIDDEN FORCES

The aliens have destroyed the visible military forces that the country had. Some have survived, however, for the simple reason that the enemy didn't notice them. The key assets for the plan are in orbit: kinetic-energy kill vehicles that were disguised as space junk (such as empty fuel tanks) when deployed. The aliens have taken out functioning satellites, but have ignored the garbage. Currently, their "motherships" are low in the atmosphere, hovering over their "building yards," thanks to contra-gravity engines. These ships would probably react to the lower-technology missiles the Earth-dwellers will launch – if they were up in space. But the targets of this volley will be the smaller, vulnerable satellites of the invaders. They will be taken out, disrupting the enemy's communications and intelligence functions, and, hopefully, depriving them of the orbital bombardment capability that seems to be their only "artillery." That is, until the aliens can move in other satellites.

Once the enemy satellites have been destroyed, the ground forces will attack. These are hidden, too. They have been moved

cautiously and piecemeal to their starting lines, already within the outskirts of the city, and the aliens failed to detect them.

Snow on Our Side

The battle will take place during a snowstorm. That's not by chance.

Most of the Terran forces cannot normally face the nanomachine swarms that act like poison gases; these also eat away at lower-tech protection gear (see *Mass Combat*, p. 41). The critters would find their way in even in most tanks. However, the Terrans have ascertained that the microscopic nanomachines work much less well in strong wind and under precipitation such as rain. Nobody has ever seen them under a snowfall, but the assessment is that a snowstorm will make them ineffective.

The Clock Is Ticking

Everyone should be made aware that the battle is on a tight timetable. The attack on the enemy satellites will not destroy them all; other satellites will be moved in or launched by the motherships.

What's more, the assault is synchronized all over the world; *all* the alien nanoforges are attacked simultaneously. This will prevent the enemy from moving reinforcements around. Even more important, the hope is that the invaders, if they lose all of their "construction sites," will cut their losses and leave. This will give the participants a sense of urgency.

Additionally, the PCs might hear rumors, such as the desperate plan by the Chinese for a human-wave attack on the enemy position in Shanghai, or the Europeans' grim intention to use nukes and sacrifice one of their capitals. Some NPC, having heard about these anything-goes plans, might muse whether the more conventional attack he and the PCs are a part of isn't just plan A. Naturally, a more destructive plan B would be ready.

If the protagonists accomplish their mission, they will not only save their own lives, but also contain the additional damage done to the city.

CUSTOMIZING THE SCENARIO

This article deals with an invasion of a quite generic future Earth. However, any ongoing science-fiction campaign, set almost anywhere, could see hostile aliens landing! The best way to add this scenario elsewhere is to leave the math as it is, and just change the unit names and other fluff. If the campaign's planet is a hot desert, then it is in sandstorms that microbe-sized airborne nanomachines don't work. If robots don't exist, then the alien tanks are driven by unimaginative slave warriors.

If the campaign is ongoing and detailed, then the GM can still introduce a new, warlike civilization and just let it *temporarily* derail the storyline; that is, he should have a handy solution for making the aliens harmless when it's time to go back to the original plot.

If the group wants to use already existing characters and these have no military background, then there still is Hogan's Militia (p. 14) ready to welcome them. The scenario can be used, but the PCs take the place of Hogan and his lieutenants, with the career officers being NPCs. Many invasion stories feature unlikely, unsoldierly heroes.

STRIKE FORCE ALPHA

For all its pretentious name, the Terran force is a hodge-podge of diverse units. Change names to suit the location, if desired.

THE LEADERS

The head of the operation is a three-star general and the GM's mouthpiece. The soon-to-be-heroes meet this person in a bunker. The general makes it clear that the strike force's components can talk with each other thanks to burst-transmission short-range radio communications, but anything else would be insecure.

Additionally, with the aliens controlling the skies, there's no air reconnaissance. Therefore, the tactical decisions will

be entirely up to the local commanders. They'll also need to quickly assess the intelligence they will gather by their own point recon units.

General Andrea Sonder

The commander of Strike Force Alpha was selected for top scores in strategy. The only problem, of which the general is keenly aware, is that they were achieved in brush wars, cleanly fought by remote control. Unfortunately, most of those robots were destroyed. Moreover, the enemy can mess with the long-distance signals required to manipulate the machines.

Vice-Colonel Mark Kowalsky

The commander of the Battlesuit Infantry unit is the most professional of the Alpha leaders. He is a master of military skills, and he's the most likely candidate for the intelligence chief's position (see *Mass Combat*, p. 26). Among these officers, Kowalsky is probably the best informed about the alien threat, and his determination is tinged with quiet desperation.

Major Pablo Lopez

He is the one surviving senior officer of a National Guard tank battalion. He lost many good friends, and his family is missing. He can only hope his grief won't affect his ability in combat.

Hogan

A mystery man who commands his own resistance movement, Hogan is driven by revenge. A warrior first and foremost, he rates the Hero feature (see *Mass Combat*, p. 9), but he should also have the Leadership skill.

THE TROOPS

These include three main bodies. First, some state-of-the-art technology: battlesuits. Unfortunately, there are only a few of them, because first-line army units were expended in the initial battles. Then there are some second-line assets: the remnants of a National Guard tank unit.

Finally, the so-called Hogan's Militia will be used. This is a local resistance organization that will have to make up for their poor equipment with their resolve and knowledge of the area. Additionally, they have tirelessly scavenged and hoarded winter equipment and vehicles, and they'll be ready for the weather. All their TS values are already doubled because they have the feature Terrain (Arctic).

All the Terran units are TL9. See p. 14 for the force roster.

Battlesuit Infantry

Battlesuits

These are the alternative to remote-controlled robots: real humans in powered armor, carrying a veritable arsenal. They are on the cutting edge of what the Terrans can deploy. Since the battle will take place over an urban area, they'll be more flexible than tanks. In the ready-made calculations below, these elements focus on their armor neutralization (Arm) capabilities (see *Mass Combat*, p. 32), but the GM and the players are welcome to experiment with the alternatives provided by the variety of classes the battlesuits belong to.

TS: 2,400. WT: 1.

Classes: (Air, Arm), F, Rec. Mobility: Foot.

Quality: Fine equipment; Elite troops.

Features: Night, Sealed.

These are just 63 battlesuit infantrymen, for six elements and a total TS of 14,400.

Battlesuit Scouts

Battlesuits

These are battlesuits too, but they are equipped with better sensor arrays. In the ready-made calculations below, these

elements focus on their normal capabilities (fire and reconnaissance) and don't use their Neutralize feature.

TS: 2,400. WT: 1.

Classes: (Air, Arm), F, Rec. Mobility: Foot.

Quality: Fine equipment; Elite troops.

Features: Night, Sealed.

These are 21 more battlesuit infantrymen, for two elements and a total TS of 4,800.

M2A3 Waller MBTs

MBTs

These are the TL9 version of the main battle tank concept – heavily armored, and carrying point-defense lasers to intercept anti-tank missiles. Their main offensive weapon is a heavy railgun. Even so, they are human military stuff and obsolete in comparison to the TL10 vehicles they'll face.

TS: 4,000. WT: 8.

Classes: Arm, Cv, F. Mobility: Mech.

Quality: Good equipment; Good troops.

Features: Night.

These 14 vehicles are the remains of a full battalion, with a total TS of 56,000.

M39 "Firestorm" MLRS

SP Artillery

This tracked multiple rocket launcher is the artillery vehicle. It fires smart, homing multiple-warhead missiles.

TS: (4,000). WT: 8.

Classes: Art. Mobility: Mech.

Quality: Good equipment; Good troops.

Features: Night.

One vehicle, for a total TS of (4,000).

M56 "Sledgehammer" Combat Engineering Vehicles

CEVs

These are specialized combat engineer tanks. If they reach the aliens' base, they'll be the ideal tool to flatten it.

TS: 800. WT: 4.

Classes: Arm, Eng. Mobility: Mech.

Quality: Good Quality Equipment; Good Troops.

Features: Night.

Three vehicles, for a total TS of 2,400.

Battalion HQ

Command Post

This is the command unit of the National Guard and of the entire strike force.

TS: (800). WT: 1.

Classes: C3I. Mobility: 0.

Quality: Good equipment; Good troops.

Features: Night.

Staff for two elements' worth, for a total TS of (1,600).

STRIKE FORCE ALPHA MILITARY FORCE ROSTER

<i>Elements</i>	<i>Total TS</i>	<i>Classes</i>	<i>Mobility</i>	<i>Features</i>
6 Battlesuit Infantry (Battlesuits)	14,400	(Air, Arm), F, Rec	Foot	Night, Sealed
2 Battlesuit Scouts (Battlesuits)	4,800	(Air, Arm), F, Rec	Foot	Night, Sealed
14 M2A3 Waller MBTs (MBTs)	56,000	Arm, Cv, F	Mech	Night
1 M39 "Firestorm" MLRS (SP Artillery)	(4,000)	Art	Mech	Night
3 M56 "Sledgehammer" CEVs (CEVs)	2,400	Arm, Eng	Mech	Night
2 Battalion HQ (Command Post)	(1,600)	C3I	0	Night
2 M40 "Steel Steed" CVs (IFVs)	3,200	Arm, Cv, F, T1	Mech	Night
1 Hogan (Riflemen)	800	F, Rec	Foot	Hero, Impetuous, Terrain (Arctic)
13 Hogan's Militiamen (Riflemen)	5,760	F, Rec	Foot	Impetuous, Terrain (Arctic)
4 Hogan's Recon (Motor Recon)	480	Cv, F, Rec	Motor	Impetuous, Terrain (Arctic)
9 Hogan's Armor (Armored Cars)	4,320	Arm, Cv, F, Rec	Motor	Impetuous, Terrain (Arctic)
<i>Armor TS</i>	80,320*			
<i>Artillery TS</i>	4,000			
<i>C3I TS</i>	1,600			
<i>Cavalry TS</i>	64,000			
<i>Engineering TS</i>	2,400			
<i>Fire TS</i>	75,360†			
<i>Recon TS</i>	16,160			
<i>Force TS</i>	92,720			

* Includes the Neutralize Armor TS of the Battlesuit Infantry.

† Includes the Fire TS of the Battlesuit Scouts.

M40 "Steel Steed" Combat Vehicles

IFVs

Two infantry fighting vehicles sporting turreted beam weapons; they are the HQ's ride.

TS: 1,600. WT: 8.

Classes: Arm, Cv, F, T1. Mobility: Mech.

Quality: Good equipment; Good troops.

Features: Night.

Two vehicles, for a total TS of 3,200.

Hogan

Riflemen

Unlike the other commanders, the leader of the Militia, alone, is worth as much as a squad of his men, and even more thanks to his higher quality. He leads from the front.

TS: 800. WT: 0.

Classes: F, Rec. Mobility: Foot.

Quality: Poor equipment; Good troops.

Features: Hero, Impetuous, Terrain (Arctic).

One man, for a total TS of 800.

Hogan's Militia

Riflemen

The foot elements of the resistance movement, best used within buildings, through sewers, and for reconnaissance.

TS: 480. WT: 1.

Classes: F, Rec. Mobility: Foot.

Quality: Poor equipment; Average troops.

Features: Impetuous, Terrain (Arctic).

About 130 soldiers, for 12 elements, for a total TS of 5,760.

Hogan's Recon

Motor Recon

Snowmobiles and off-road quads mounting light beam weapons or conventional automatic guns.

TS: 120. WT: 1.

Classes: Cv, F, Rec. Mobility: Motor.

Quality: Poor equipment; Average troops.

Features: Impetuous, Terrain (Arctic).

Four diverse vehicles, for a total TS of 480.

Hogan's Armor

Armored Cars

Snowcats and heavy off-road vehicles (including a big snowplow truck) with improvised armor and light anti-tank weapons, often scrounged from the enemy.

TS: 480. WT: 4.

Classes: Arm, Cv, F, Rec. Mobility: Motor.

Quality: Poor equipment; Average troops.

Features: Impetuous, Terrain: Arctic.

Nine vehicles, for a total TS of 4,320.

THE ALIENS

The newcomers have been quite impervious to intelligence attempts. See p. 16 for the force roster.

THE TROOPS

These are the forces that are readily available to defend this city's alien foothold. They are all TL10.

Mothership

Flying Battleship

This immense contra-gravitating ship floats above the city at about 30,000' of altitude. Unbeknownst to the Terrans, it is in bad repair, its magazines are almost depleted, and all its functioning ancillary units are already deployed. Even so, it's a formidable opponent, dominating the sky with an arsenal of lasers and missiles.

TS: 180,000. *WT:* –.
Classes: Air, Nav. *Mobility:* FA.
Quality: Poor equipment; Average troops.
Features: All-Weather, Night, Sealed.

One ship, for a total TS of 180,000.

HQ Network

Command Post

This represents the C3I capabilities of the mothership, and it's actually integral to it.

TS: (2,000). *WT:* N/A.
Classes: C3I. *Mobility:* 0.
Quality: Fine equipment; Good troops.
Features: All-Weather, Night, Sealed.

12 elements, for a total TS of (24,000).

Combat Robots

MBTs

These are the first line of defense for the alien base. They are heavily armored, legged/tracked, massive robots bristling with railguns and missile launchers. Their AIs are smart but not brilliant.

TS: 6,000. *WT:* 8.
Classes: Arm, Cv, F. *Mobility:* Mech.
Quality: Good equipment; Average troops.
Features: Night, Sealed.

16 robots, for a total TS of 96,000.

Scavenger Robots

Combat Engineers

These are smaller robots whose main task is to gather raw materials. They are armored and armed for self-defense, but they are less formidable opponents. Indeed, those in the field are the ones not already destroyed by Hogan's Militia. They do not count as Fire class.

TS: 640. *WT:* 1.
Classes: Eng. *Mobility:* Foot.
Quality: Basic equipment; Average troops.
Features: Night, Sealed.

Seven robot teams (elements), for a total TS of 4,480.

Multipurpose Contra-Gravity Light Drones

Sky Troopers

The alien force mostly relies on aerial recon and the mothership's sensors. But these human-sized hovering drones can search buildings and ruins, too.

TS: 240. *WT:* 1.
Classes: F, Rec. *Mobility:* SA.
Quality: Good equipment; Average troops.
Features: All-Weather, Night, Sealed.

Six drone flights (elements), for a total TS of 1,440.

Local Command

Command Post

These are the only alien living beings actually supervising the operations of their building yard. Not a combat unit, but they oversee the land robots.

TS: (2,000). *WT:* 1.
Classes: C3I. *Mobility:* 0.
Quality: Fine equipment; Good troops.
Features: Night, Sealed.

Personnel for three elements, with a total TS of (6,000).

They defeated the greatest power in the world in a couple days. Walked right over us. And these were only the first. They'll keep coming.

*– Harlan Ogilvy,
in War of the Worlds (2005)*

Command Vehicles

Flying APCs

These are the vehicles for the command unit, above. The aliens do prefer flying to surface travel!

TS: 2,000. *WT:* 8.
Classes: Air, Arm, Cv, F, T1. *Mobility:* SA.
Quality: Fine equipment; Good troops.
Features: All-Weather, Night, Sealed.

Three flying APCs, for a total TS of 6,000.

THE ALIEN MILITARY FORCE ROSTER

<i>Elements</i>	<i>Total TS</i>	<i>Classes</i>	<i>Mobility</i>	<i>Features</i>
1 Mothership (Flying Battleship)	180,000	Air, Nav	FA	All-Weather, Night, Sealed
12 HQ Network (Command Post)	(24,000)	C3I	0	All-Weather, Night, Sealed
16 Combat Robots (MBTs)	96,000	Arm, Cv, F	Mech	Night, Sealed
7 Scavenger Robots (Combat Engineers)	4,480	Eng	Foot	Night, Sealed
6 MP Contra-Gravity Light Drones (Sky Troopers)	1,440	F, Rec	SA	All-Weather, Night, Sealed
3 Local Command (Command Post)	(6,000)	C3I	0	Night, Sealed
3 Command Vehicles (Flying APCs)	6,000	Air, Arm, Cv, F, T1	SA	All-Weather, Night, Sealed
<i>Air TS</i>	<i>186,000</i>			
<i>Armor TS</i>	<i>102,000</i>			
<i>C3I TS</i>	<i>30,000</i>			
<i>Cavalry TS</i>	<i>102,000</i>			
<i>Engineering TS</i>	<i>4,480</i>			
<i>Fire TS</i>	<i>103,440</i>			
<i>Recon TS</i>	<i>1,440</i>			
<i>Force TS</i>	<i>290,920</i>			

THE BATTLE

The Terrans are outnumbered and outgunned. They forfeit the air part of the engagement and are outclassed as to C3I. But their reconnaissance is superior, and they are the only ones with artillery (albeit barely enough to count).

The Alien General

The basic value to calculate the aliens' chances to swat the Terrans away is their commander's Strategy skill. Since the players can come up with their own character designs to fill in the shoes of the Terran officers, and give them any Strategy skill level they want, the GM can customize the scenario by deciding how clever the enemy will be.

It is suggested that the aliens, not being that used to ground battles, will not have more than Strategy-14.

The Terran force is a hodgepodge of diverse units.

Basic Strategy Modifiers

The Basic Strategy Modifier for the Terran force is +3 (for the Special Class Superiority in Artillery).

The Basic Strategy Modifier for the alien force is +12 (+6 for the Relative Troop Strength, +3 for Air Superiority, and +3 for C3I Superiority).

The Reconnaissance Contest

The Terrans have a total modifier of +5 to their roll (see *GURPS Mass Combat*, p. 29); summing up: +1 because the

locals (what remains of them) are friendly, +1 because some of the troops have the proper Terrain feature, and +3 for their Recon Superiority.

The aliens are patrolling the area normally. They have a total modifier of +2; summing up: -1 because the locals are hostile and +3 for their Air Superiority. For the purpose of their roll, the aliens' effective skill is 14.

The modified Terrain Rating is 2 (3 for a Built-Up Area which both sides begin the battle from, -1 for the bad weather).

Hopefully, the heroes will have high Strategy and Intelligence Analysis, and they will at least win initiative or possibly surprise the enemy!

Important Options

The players should be made aware of the following options. The GM may require Strategy or Leadership rolls, and bestow information according to their success. Or he could listen to the players' tactical ideas and see whether something they come up with goes along with any of the following.

Or he could use a mouthpiece – the general, or an experienced junior officer – to provide hints.

First thing, the Terrans have a huge disadvantage, as shown by the Basic Strategy Modifiers. Their best chance is to take the aliens by surprise.

Even then, however, they are heavily outnumbered, and it would make sense for them to choose – if they can – an *encounter battle* (see *Mass Combat*, p. 32). That reduces their Artillery Superiority bonus to +2, but it also reduces to +2 both the Air and C3I Superiority bonus of the invaders, thus reducing their overall modifier to +8.

Another thing to use is the Impetuous nature of the Militia. They give a further +1 to the Terran commander's Strategy roll in the first turn, if the heroes have bold orders.

Likewise, the PCs taking risks in order to carry out significant actions (see *Mass Combat*, p. 33) is the main advantage they have over the enemy. If at all possible, they should do that while leading some Militia unit (their Impetuous feature gives an additional +1 to that roll).

FIGHTING THE BATTLE

Each battle round lasts 30 minutes. In six to eight turns (GM's decision, or random outcome), the aliens will bring over the city an orbital gunship, and a devastating orbital bombardment will obliterate nearly everything. That's the time the heroes have to win.

The GM will play the part of the aliens, rolling the dice for them and taking all decisions. It is likely that the invaders will make use of cautious, defensive tactics, since they know time is on their side.

The GM should make allowances for his players' preferences. One of them might like the fast snowmobiles; in that case, there should be a scene in open spaces among deserted industrial buildings. Another could love the battlesuits; that person should be allowed to lead a squad of them in a close assault against an alien tank. Hogan is ideal for the player least interested in the strategic aspects; let him roleplay in detail some heroic deed.

Winning the Battle

The straightforward way to win the battle is to defeat the enemy, destroying them all or forcing them to withdraw. Once the alien force has taken about 35% casualties, it is automatically assumed that what remains in the field is the mothership, and the aliens won't sacrifice it to defend their

junk on the ground. So they will retreat; the players should *not* know that! The Terrans still are on that timetable, and they should destroy the "building yard" before the bombardment begins.

An alternative is to choose the Raid strategy (see *Mass Combat*, p. 35), and to inflict any casualties on the "logistic force" of the enemy – in this case, the "building yard." This has an entirely abstract value of 100% before the battle. Repeated, successful raiding rounds can reduce it to below 15%, at which point, the aliens will abandon it, forfeiting the battle (again, this should come as a surprise to the players). However, they will still bombard the area if there are targets.

A SEQUEL?

Even if the Terrans win, there is no guarantee that the aliens will give up. Maybe other attacks in other cities were unsuccessful, and they have to be renewed – but against strengthened enemy defenses. Maybe a number of motherships must be destroyed to really force the invaders to leave. Or maybe they are now desperate enough to choose to talk!

In any case, if the players have enjoyed the battle, there is potential for a sequel.

ABOUT THE AUTHOR

Michele Armellini lives in Udine, Italy, with his very understanding wife, Silvia. Michele makes a living out of foreign languages, but he loves dabbling with and studying the obscure and the uncanny – and trying to convert them into game mechanics! He has written for *Pyramid*, and he is the author of *GURPS WWII: Grim Legions*. He is the author or co-author (with Hans-Christian Vortisch) of several e23 products: *GURPS WWII: Their Finest Hour*, *GURPS WWII: Doomed White Eagle*, and *GURPS WWII: Michael's Army*.

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BLACKBEARD STATION

BY TED BROCK

Freighter Skithblathnir, Captain's log, March 29, 2340 CE.

We dropped out of hyperspace near the L4 Lagrange point in Egir's orbit in the Ran system en route to the New Detroit colony on Freyja on schedule.

Almost immediately upon dropping into real space, we encountered pirates. Fortunately Ringtail, our Felicia helmswoman, is a former pirate herself, and managed to convince the pirates not to attack us. Their main target, it seemed, was an Arabian Empire cruiser, and a side effect of Ring convincing the pirates to leave us alone was that we were marked as pirates ourselves by the Arabs! Not how I expected to spend my time here to be sure. (We weren't looking to deal with the Arabs, but I like to keep my trading options open.)

So, it turns out the Arabs were there looking for the legendary Blackbeard Station. Up until now I considered that a myth of the space lanes, but after Ring entered a set of coordinates into the navicom and we did a quick intrasystem hop, I found myself looking out the viewport at an asteroid that was not on any of the charts.

A good thing, too, it seems, as we made more selling our cargo (pneumatic power loaders for working cargo, plus assorted spare parts) at Blackbeard than I expected to make in New Detroit. However, we have to recalibrate the navicom now that we've left the station, as the coordinates in it at launch were different from what the instruments were telling us.

*No wonder no one can find the place if they're not a pirate. Didn't think they **could** outfit a whole station with a hyperdrive!*

Blackbeard Station is intended to be a pirate haven in settings where the following assumptions are true: FTL travel in the form of hyperdrives or jump drives are possible, Earth is not yet united and various nations have extrasolar colonies, and artificial gravity is a setting feature. While designed as a TL10⁺ station, it can easily be used in TL11⁺ and TL12⁺ safetech settings with space travel, especially space-opera settings, with little to no adjustment.

BLACKBEARD STATION – FACT OR FICTION?

Most people outside the Ran system don't believe Blackbeard Station exists. Those who live in Ran, however, usually know someone who knows someone who has been there. The place is reputed to be a haven for pirates, and anti-pirate forces of all sorts

have attempted to locate and shut it down, all without success. Any time a patrol frigate investigates a set of astrogration coordinates that were passed their way, they inevitably encounter an empty area of space.

What is today Blackbeard Station began its existence in the mid-22nd century as an asteroid-mining facility when the Ran system was first colonized by humans. One of the many mining corporations of the time called the station Ivaldi-209. However, the asteroid proved to be relatively mineral poor. After 30 years, the asteroid was completely tapped out, and Ivaldi-209 was slowly abandoned as the miners and other workers migrated elsewhere. After a few decades, the abandoned base was rediscovered by a pirate vessel seeking a safe haven. The pirate crew told others, and soon the base was once again flourishing under new management. Ivaldi-209's new owners decided to change the name to something more suitable to their chosen profession; in the first vote of the populace, the name "Blackbeard" was adopted, with a nod to the famous British pirate Edward Teach, who operated under that cognomen.

The lack of success on the authorities' part in finding the station is due in part to one of Blackbeard's more unique features. Buried deep inside the asteroid is a series of hyperdrives purchased through intermediaries or salvaged from wrecks. These drives are linked together to work in synch, essentially making Blackbeard the largest "spacecraft" ever built. Blackbeard's patrons have access to a special in-system encrypted information network piggybacking on official signals, updating the pirates operating in Ran on the asteroid's present location.

At present, Blackbeard Station houses 100,000 people who call it home, even though it was designed to house 10 times that. Most of these people are not pirates themselves, instead working in various professions that support the station.

*I do believe she's planning to
shoot me again.*

*– Mal Reynolds,
in Firefly #1.1*

Blackbeard Station (TL10[^])

Systems and notations are as defined in the *GURPS Spaceships* series. For *GURPS City Stats* details of the station, see p. 20.

Front Hull System

[1-3]	Stone Armor (dDR 450).
[4-6]	Hangar Bay (90 million tons capacity).*
[core]	Control Room (C14 computer, comm/sensor 19, 400 control stations).*

Central Hull System

[1-2]	Stone Armor (dDR 300).
[3]	Habitat (6 million cabin-spaces).*
[4]	Tactical Sensor Array (comm/sensor 21).*

Central Hull System

[5-6]	Hangar Bay (60 million tons capacity).*
[core!]	Stardrive Engine (FTL-1).*

Rear Hull System

[1-2]	Stone Armor (dDR 300).
[3]	Fusion Reactor (derated to one power point).*
[4!]	Mining (5 megatons/hour).*†
[5!]	Refinery (15 megatons/hour).*†
[6!]	Robofac (\$100 billion/hour).*

* Total automation (otherwise each system would require 100,000 workspaces).

† Not normally in use; holdovers from its time as a mining facility.

TL	Spacecraft	dST/HP	Hnd/SR	HT	Move	LWt	Load	SM	Occ	dDR	Range	Cost
10 [^]	Blackbeard Station	7,000	-5/5	13	-	1,000,000,000	150,000,000	+20	1,000,000 ASV	450/300/300	FTL-1	\$131.4T

INTERNAL POLITICS

From the standpoint of its neighbors, Blackbeard Station appears to be rather anarchic. Laws on the station are practically non-existent; there are no official taxes (although plenty of kickbacks in a fairly Byzantine manner for who gets how much of a haul), people walk around with pistols in plain sight, and brawls happen in various drinking establishments on a regular basis. Each resident of age 15 or older can participate in the running of the station, vote on important issues put forth, or act as a juror in the few public trials that occur. Blackbeard has a very loose definition of "resident"; many transients on station have voted or been selected to act as jurors. For more details, see *Blackbeard Station*, 2340, p. 20.

Station Captain

The station is officially run by a Station captain, who oversees Blackbeard's day to day operations. While in theory the Station captain possesses power over the entire station, in practice he may only exercise this power during obvious emergencies and when combat seems inevitable. During combat in which the station is under attack – which has occurred several times, though it was unlikely the attackers realized that their target was the elusive Blackbeard – the captain coordinates the defenses of the various ships present, which are used in the station's defense, as well as ordering the activation of the hyperdrive should it become apparent the station needs to retreat. In day-to-day activities, the Captain has authority over the station's docks and external communications and station maintenance, including firefighting.

The Station captain's position is one granted to him by a majority vote, and he is elected for a period of one Earth year. A two-thirds supermajority vote of no confidence may remove the captain from his position at any point prior to his term's end. There is no limit to how often a Captain can be elected.

Station Captain Sir Chester von Richtoffen

An alleged descendant of the famous Red Baron of World War I, Chester von Richtoffen was born in Bonn, Germany,

and signed on with a freighter crew when he was merely 16. He soon discovered that being on the crew of a freighter was not quite as glamorous as he'd hoped, and he ended up moving from star freighter to star freighter. One freighter he signed on with turned out to be a pirate and smuggling vessel. The crew moved contraband and intercepted and plundered passenger liners and other freighters in order to make a statement against perceived aggression by the Arabian Empire and United States. The crew also pursued more profitable means, such as stealing mineral wealth for their own use. Chester found the life of a pirate agreed with him, and he soon rose to become the captain of his own ship, a modified *Kiev*-class tramp freighter (see *GURPS Spaceships 2: Traders, Liners, and Transports*, p. 6) named the *Red Baron's Revenge*. It was at this time that he assumed a title of nobility, claiming without proof that it had been granted to him by the European Union.

Sir Chester has officially retired from piracy, settling on Blackbeard Station. His flamboyant personality and strong tactical mind has earned him the role of station captain for the last 10 years running. He still maintains ownership of the *Red Baron's Revenge*, though he's delegated its operations to another captain and quartermaster.

The Mayor

The second position of power on the station is that of the mayor. Like the station captain, the mayor is elected by a majority vote for a one-Earth-year term, and may be removed by a two-thirds supermajority vote at any time, with no limits on how many terms he can serve.

The mayor is in charge of keeping the peace on the station. In practical terms, he oversees the small force of security officers, who are usually more concerned with making sure bar fights don't spread than anything else. In the rare cases that are brought to trial, the Mayor acts as judge with a jury of 5,000 residents (chosen by random lots on the station's computer system) making the final decision. These trials usually involve violent crimes like murder, but sometimes disputes where the outcome could affect the station as a whole.

Mayor Ko Xiuying

Ko Xiuying was born on Blackbeard Station. Her family settled on Blackbeard early in its existence as a pirate station, and as such she has been involved in supporting the resident pirates from an early age.

Ko has held many jobs on the station over the years – accountant, docks overseer, bartender, brothel madam, etc. – and has developed both a wide array of contacts among the pirate crews and a reputation for fair and honest dealings. Her reputation isn't always accurate, however; she's lied, schemed, cheated, stolen from, poisoned, shot at, and killed enough people in her life that she's lost track. She is ruthlessly amoral and sees people only as pawns to better her station. Now, as the elected mayor of the station, she is as far up as she can go on Blackbeard. Rumor has it she has her eye set on New Detroit over on Freyja . . .

EXTERNAL POLITICS

Blackbeard is a pirate haven, which means that its mere existence is essentially illegal to most of the nations operating in the space lanes. Many of its citizens have no love for one nation or another and are simply seeking a place outside of their control. A sizable portion of the pirates were gengineered slaves that won their freedom, usually taking control of the ships they were on in the process (see *GURPS Bio-Tech*, pp. 194-202, for further information on the legality of genetic engineering).

Blackbeard's pirates typically raid merchant ships operating in the Ran system under IFF codes that proclaim an association with any of the spacefaring nations. The most common targets are from the Arabian Empire (the result of a merger of a number of Middle Eastern nations in the mid-21st century) and the Chinese Empire (a result of a revolution in the early 22nd century which overthrew the Maoist government). Even so, ships from the United States, India, Japan, Russian Federation, European Union, United African States, Brazil, and Argentina are also fair game.

At present, the denizens of the planet Freyja tolerate Blackbeard's existence. Freyja has begun to unify despite its multinational origins, which has led to many of the parent nations on Earth to become wary of the inevitable push for independence. Most people on Blackbeard support this independence movement, and have begun selling many of their ill-gotten gains on Freyja for cheaper prices than most merchants would have sold for.

ABOUT THE AUTHOR

Ted Brock got his gaming start as an online *Rifts* GM (originally skipping playing altogether), and migrated into *GURPS* in the late 1990s, just a few years before Fourth Edition's release. He is a native Pennsylvanian who has lived in a number of states over the last 25 years, and currently resides in Laurens, South Carolina. He would like to thank the members of the *Pyramid* Write Club, but the first rule of Write Club is, "Don't talk about Write Club."

BLACKBEARD STATION, 2340

Terms are as defined in *GURPS City Stats*.

Population: 100,000 (Search +3)

Physical and Magical Environment

Terrain: Sealed

Appearance: Average **Hygiene:** +2

No Mana (No Enchantment)

Culture and Economy

Language: Trade Pidgin, English, German, Spanish, Cantonese

Literacy: Accented

TL: 10[^]

Wealth: Average (x1) **Status:** -1 to 2

Political Environment

Government: Athenian Democracy, Sanctuary

CR: 1 (Corruption -1)

Military Resources: \$280M

Defense Bonus: +6

Notes

In times of trouble, when the station has to defend itself, Blackbeard temporarily takes on aspects of a dictatorship, as the station captain becomes the combat commander. This person is expected by tradition to relinquish

emergency power once the crisis is abated; one station captain who attempted to retain his emergency power indefinitely was ejected from the station's hangar without a spacesuit by a group of pirates and civilians who objected to this move.

The denizens of Blackbeard speak a plethora of languages. All station announcements are relayed in Trade Pidgin, a language that developed organically for international trade which borrows liberally from all other languages. The four other languages listed are the primary languages spoken in the Ran system, representing colonists from North America, Europe, South America, and Southeast Asia, respectively. Other languages could be spoken as fits the campaign.

The Ran System Trivia

- Formerly known as Epsilon Eridani, the sun was renamed by the International Astronomical Union in December 2015 after the Norse goddess who claimed those who die at sea.

- Freya is the main inhabited planet in the system. It is a Standard-sized Garden world (*GURPS Space*, p. 76) in Ran's habitable zone.

- Freya is sometimes known as New Detroit from the town that ultimately became the planet's capital city. New Detroit was a former company town founded by a conglomerate of manufacturing corporations.

EIDETIC MEMORY HAZARD RATES

BY DAVID L. PULVER

Early in my *GURPS Space* campaign, the party acquired a tramp freighter – which I think they named the *Hungry Iguana* – and decided to try their hand as merchant adventurers. However, only one of them had a mercantile background, being the scion of an interstellar-trading family. Brought together by professional connections and a shared desire to leave the provincial capital a few steps ahead of various enemies, the group included an unemployed interstellar geologist, a retired space marine commando, an ecologist turned leftist revolutionary, and a psychic. They eked out a living with a mix of freelance black ops, interstellar salvage, tomb raiding . . . and free trading.

Due to their lack of experience and capital, their initial mercantile ventures proved unfruitful. After a few less than lucrative runs shipping electronic parts or grain for little profit, they turned up their noses whenever the speculative cargo table indicated a consignment of vegetables or farm machinery in favor of gauss rifles, drugs, or military robots. Now that the adventurers were actually seeking out illegal cargoes, it didn't make much sense to roll on the standard tables. So, I ended up creating a special one along with rules for this type of work. A *GURPS Spaceships 2: Traders, Liners, and Transports* version is presented here.

And the *Hungry Iguana*? Their smuggling spree ended when a gun-running charter led them to a terrorist plot to use stolen nuclear missiles to blow up a passenger liner carrying a diplomatic conference and thus start an interstellar war. Their better nature prevailed, they stopped the plot, and ended up on the government payroll as black ops.

The motto: take the hazard rates . . . if you know when to stop while you're ahead.

BLACK-MARKET CARGOS

Not all space merchants are law-abiding space truckers! Some are smugglers who work for criminal organizations . . . and others actively go into business for themselves, specializing in illicit speculative trading. The trading system in *Spaceships 2* allows a merchant to occasionally discover an illegal cargo shipment, but what if they're specifically looking for shady goods like blaster rifles, stolen air-cars, or illegal

drugs? As an alternative for the free-spirited (or black-hearted), the following *Low-Legality Cargo Table* (p. 22) is provided.

When deliberately hunting illicit cargoes, rely on the usual rules from Chapter 3 of *Spaceships 2* but add an extra penalty equal to the local Control Rating. (If looking for focused cargo, add that to the normal modifiers.) Moreover, if any roll fails by 5+, it means a potential encounter with either rival criminal gangs or law enforcement. This could range from an attempted robbery, arrest, or sting to a demand to be cut in for a piece of the action.

Using the Table

Roll two dice, one at a time. If this world is TL5 or less, halve the *first* die roll, rounding up. After any halving, apply the following modifiers:

On the first die, -1 if the world is Non-Industrial; +1 if Industrial.

On the second die, -1 if the world is Non-Agricultural, +1 if Agricultural.

Treat results that are less than 1 as 1, and those greater than 6 as 6. Read the two modified numbers consecutively as a two-digit number from 11 to 66, and consult the "Commodity" column on the *Low-Legality Cargo Table* to find out what sort of lot was discovered.

Next, determine the lot size in tons. The "Lot (tons)" column shows the die roll to figure the actual lot size (in tons).

Abbreviations in the "Price Modifiers" column are per *Trade Classifications, Spaceships 2*, p. 36. See *Speculative Trade, Spaceships 2*, pp. 35-39, for more details on determining the purchase and selling prices.

Special conditions are as per *Spaceships 2*, p. 39, except that *every* cargo on the table may be low-legality; roll 3d against the number in parentheses to see if the condition applies; if no number is listed, the cargo always low-legality. The GM should roll 1d against the CR of any given port the merchant plans to visit to see if the goods are illegal there or not.

As usual, attempts to sell illegal goods require getting them past customs, and have -2 when looking for a buyer but add +4 to the selling price.

Low-Legality Cargo Table

<i>Dice Roll</i>	<i>Commodity</i>	<i>Pricelton</i>	<i>Price Modifiers</i>	<i>Lot (tons)</i>	<i>Conditions</i>
11	Weapons-Grade Radioactives	\$200,000	In+4, Na-3, Ni-2	1d×5	biohazard (8), low legality (15)
12	Slaves	\$50,000/slave	Ag+3, Po-1, Mi-2, Ni+1	6d-5 slaves	low legality, live*, biohazard (6)
13	Alien Pets or Livestock	\$50,000	Ri-2	5d×2	biohazard (5), low legality (8), live
14	Toxic Chemicals	\$500	In+1, Na-4	3d×100	biohazard (9), volatile (6), low legality (8)
15	Stolen Artwork	\$500,000	Po-2	1d	fragile (8), low legality (10)
16	Liquor or Mild Stimulants	\$10,000	Ag-3, Ex+1, In+1	2d×5	fragile (8), low legality (8)
21	Security Equipment (and torture devices)	\$150,000	Mi+2	2d	low legality (9)
22	Archeological Treasures	\$200,000	Po-2	1d	fragile (8), low legality (6)
23	Conflict Gems or Precious Minerals	\$10,000,000	In+1, Ni-2, Ri+1	1d	low legality (8)
24	Addictive Stimulants	\$16,000	Ag-2, Ex+1, Ni-1, Mi+1	2d×5	low legality (9)
25	Narcotics	\$2,000,000	Ag-1, In+3, Ni-3	6d	fragile (8), biohazard (5)
26	Exotic Animals	\$50,000	Ri-2	5d	biohazard (7), low legality (8), live
31	Strategic Minerals	\$800,000	Ex-3	3d×10	low legality (8)
32	Pirated Pharmaceuticals	\$250,000	Ag-1, In+1, Ni-3, Po+1	4d	fragile (8), low legality (8)
33	Forbidden Books	\$25,000	Ex+1, Ni+2	3d	low legality (8)
34	Nuclear or Biological Waste	\$100	In-1, Mi+2	2d×5	biohazard
35	Counterfeit Brand-name Textiles	\$6,000	Ag-2, Ex+2, In-1	3d×5	low legality (8)
36	Exotic or Endangered Animal Products	\$20,000	Ag-2, In+2, Ex+2, Na+2	1d×5	live (8), low legality (8)
41	Biochemical Weapons	\$100,000	In-2, Mi+2, Ni+2	3d×10	biohazard (15), low legality, live (5)
42	Psychotronics	\$2,000,000	Ri+1, Mi+1	1d	low legality (11), live (5)
43	Ammunition	\$200,000	Mi+3	1d×7	low legality (14), volatile
44	Pornographic Media	\$25,000	Ex+1, Ni+2	3d	data, low legality (9)
45	Small Arms or Body Armor	\$100,000	In-2, Mi+2, Ni+2	3d×10	biohazard (5), low legality
46	Battlesuits	\$500,000	Ex+2, In-2, Ni+1, Mi+3	1d×2	low legality
51	Human Embryos or Fetuses	\$250,000	Ag+1, Ri+1, Po-2	1d	low legality (10), live (10)
52	Pleasure Androids	\$500,000	Ex+2, Mi+1, Ri+1	2d	low legality (9)
53	Counterfeit Consumer Electronics	\$25,000	Ext+2, In-1, Ri+1	2d×10	low-legality (8)
54	Stolen Vehicles	\$15,000	In-2, Ni+2, Po+1	8d×5	low legality (8)
55	Pirated Bio-Tech	\$100,000	Ag+1, Ri+1	3d	biohazard (7), live (8), low legality (10)
56	Combat Robots	\$500,000	Ex+2, In-1, Mi+3	6d×2	low legality
61	Experimental Equipment	\$500,000	Mi+1	2d×7	fragile (8)
62	Counterfeit Electronics	\$25,000	In-1, Ni+2, Ri+1	1d×10	low legality (8)
63	AI Computers or Software	\$2,000,000	In-2, Ex+1, Ri+1	1d	low legality (10)
64	Sex Toys	\$50,000	Ri+1	4d	low legality (8)
65	Combat Vehicles and Heavy Weapons	\$1,000,000	In-2, Ni+2, Mi+3	6d×10	low legality
66	Nanotech or Cybernetics	\$500,000	In-3, Mi+1, Ni+2	2d×5	biohazard (7), low legality (9)

* Assume four human-sized slaves per ton of cargo space.

RISKY CHARTERS

One of the more lucrative opportunities for a merchant captain is a full charter (see *Spaceships 2*, p. 55) in which a single party buys out the entire passenger and cargo capacity of the vessel in exchange for a direct trip to a particular destination.

Charters often attach extra conditions, which explain why ordinary commercial passage was unavailable. Some of these are conditions are completely aboveboard, e.g., a desire for enhanced security or travel to a destination far outside the normal space lanes. Others are of dubious legality – a desire to avoid any entanglements with the interstellar navy or patrol is commonly expressed. And sometimes a charter isn't what it seems. The farm boy and his crazy uncle are obviously rebel spies with psi powers, but what about that group of crew-cut, muscular young men in jerseys and shorts who say they're the University of Orion grav ball team? Here's a short list of charters who could be more than meet the eye, with alternative outcomes the GM may get inspiration from . . .

The Grav Ball Team

The charter seems a simple one: A professional sports team (for "grav ball" or some other futuristic team sport), their coach and manager, and their equipment are traveling to a sector-wide athletic tournament, and wish to charter the party's ship. The team is not a famous one, but the group is fit and dedicated with a "can do" spirit. They also want to use the cargo hold of the vessel for training, setting up an appropriate practice court there. Perhaps they'll even play a friendly match with some of the more athletic PCs. In addition to buying out the ship's capacity, they toss in a sweetener: VIP tickets to the matches (which can be scalped for a few thousand a ticket by enterprising crew), though the coach and manager may suggest that local dignitaries and merchants will be attending, making it a good place to find trade contacts.

Twist A. There is a complication: the world the game is scheduled for is a balkanized planet wracked by violence between rival factions. Currently there is a uneasy truce; the athletic meet held there may be a last attempt to channel ethnic and political rivalries into healthier spirit of competition, because the one thing the rival camps can agree on is their shared love of grav ball. However, there is always a risk that terrorists or the like may try to disrupt the matches, or that passions will flare up into hooliganism, so the crew should be on alert while in system. It's up to the GM whether these fears turn out to be justified.

Twist B. As above, but the "sports team" is a cover. In fact, the clean-cut men or women of the team are actually an elite unit of off-world mercenary commandoes hired by backers of one of the world's warring factions, who intend to end the truce with a surprise attack. Some time before the game, they will disappear to rendezvous with repositioned equipment, then lead a decapitating raid aimed at a high-value target (e.g., political elites, a defense headquarters, etc.). This will signal the start of a lightning war or coup. If the party is on the ground (e.g., in VIP seats at the matches) they may be caught in the middle of it. If the PCs are preparing to leave the system, the fighting may break out while they are still

in port – and perhaps refugees or a government-in-exile will attempt to hire their ship to flee in! Should the party escape the war zone, they may later find themselves wanted by interstellar authorities for facilitating the coup or civil war. If the party uncover the team's true mission before their zero hour (perhaps one of the PCs is a sports fan and notices the soldiers aren't quite up to pro standards, or an ex-military adventurer recognizes one of the commandos), the spec-ops team will either attempt to buy the group's silence or seize control of the ship and continue their operation. However, while the soldiers are well-trained in hand-to-hand combat, they won't have any of their military weapons aboard, so the party will have some chance of overcoming them.

Notable Exports and Desired Imports

This rule was suggested in my *Medieval Sea Trade* article in *Pyramid* #3/87: *Low-Tech III*, but it can be poached for **GURPS Spaceships 2: Traders, Liners, and Transports** as well! It can be used with either the regular or low-legality cargo tables. To use this with **GURPS Spaceships**, for some – or all – worlds along trade routes that the PCs will be visiting, the GM should pick one to three desired imports and notable exports that a world is interested in or especially famed for. For *notable exports*, double the usual lot size; a focused cargo search is at +3; purchase price is -2. For *desired imports*, halve the lot size; -3 on focused cargo search; +2 to purchase price. Merchants may or may not be aware of this, but Area Knowledge and Economics skill will help.

The Patients

The charter consists of a doctor, nurse, and their patients, a half-dozen poor souls suffering from mental illness. The expensive private psychiatric facility they were undergoing treatment at has recently closed (due to regulatory changes), and they're moving to a new hospital in a different star system. The patients include a mix of individuals with various mental conditions; the doctors guarantee any potentially dangerous patients will be closely supervised, sedated or restrained in their cabins. They are buying the charter since, for obvious reasons, it would be stressful for these patients to mingle with regular passengers. Suspended animation is not possible as the drugs used are incompatible with the specific pharmaceutical treatment regime certain patients are undergoing.

Twist A. The patients are as they appear to be. During the transit, one of them experiences a medical or psychiatric emergency – a drug overdose, perhaps, or a psychotic episode in which they take a caregiver hostage or threaten self-harm, forcing the crew to intervene. Afterward, the doctor, fearful of lawsuits from the patients' families, may offer them hush money if they refrain from reporting the incident to the authorities.

Twist B. One of the patients is a brilliant but psychotic master manipulator. During unguarded moments, he leaves notes or otherwise tries to communicate with the crew, attempting to convince them that *Twist C*, below, is the true state of affairs. In reality, this person is delusional.

We've got another three hours or so before they finish repairs on the ship and some of us were thinking of heading into the station to catch a movie. Do you wanna come?

– *Five, in Dark Matter #1.8*

Twist C. The doctors and hospital credentials are all clever forgeries. Some of the “patients” are kidnap victims, rogue psis, or political prisoners being kept docile and powerless by drugs and medical restraints as they’re moved to a secure off-world location. At some point, one of the prisoners manages to avoid taking some of the medication or otherwise escapes control for a period long enough to slip a note to this effect to a crew member. Of course, the doctors will dismiss all of this as a paranoid delusion by the patient . . . Should the PCs free the captives, they promise their family or organization can reward the party; however, this may embroil the crew in an ongoing conflict with whatever group the doctor was working for who is behind the kidnapping.

The Pilgrims

The charter consists of a group of true believers and their guru: adults, children, and perhaps even some nonhumans. They follow an exotic and superficially appealing dogma and may include attractive or charismatic individuals eager to win converts from among the party by any means (preaching, sexual favors, etc.). Perhaps some of them are especially appealing to certain PCs, sharing interests or backgrounds. However, the pilgrims believe their leader and his close followers possess paranormal or divine powers; in a setting with psi abilities or the like, they might be right! The cultists are on a pilgrimage to a particular location they believe has a mystical or religious significance, or perhaps traveling to their cult’s headquarters to join with other brethren.

Twist A. The pilgrimage site the cultists are heading for is actually recently discovered Precursor-race ruins. Although the cult leaders are leery of revealing this, a few of the younger members burn with an innocent faith, and will drop hints about the wonders they are told exist there to anyone who seems like a willing convert. The cult has not explored the site (as they consider the ancient ruins to be holy). However, if adventurers are willing to risk angering their clients and dig up the site, they might discover valuable alien artifacts (unless they fall afoul of ancient alien defense systems, hostile xenomorph guardians, or awakened weakly godlike AIs, etc.). Or perhaps a government or corporate agency has already claimed the site since the cult’s leaders last visited it. If so, the party’s ship will be warned off and the ship refused permission to land. What will the party do with a shipload of religious fanatics denied entrance to paradise?

Twist B. The pilgrims are under the thumb of a controlling leader with a messiah complex. During the journey, it becomes increasingly clear that some of the cultists are brainwashed, that the leadership is paranoid, and that the “final pilgrimage” of the cult could end in some form of mass suicide or other

atrocities. Perhaps a few of the cultists have avoided brainwashing and quietly seek help from the crew (“at least save my children . . .”) or maybe the cult wishes to make the PCs their human sacrifices . . .

Twist C. The cult is actually a scam. About two-thirds of the cultists are dupes: newly recruited youth members who think they are heading to a new faith-based colony to begin a communal life of truth and beauty. The leader and the remaining third are little more than pirates: human traffickers who have duped them; the promised paradise is actually a staging area for slavers, organ leggers, or the like. The GM can sprinkle a few clues that suggest all may not be on the up-and-up; perhaps a crewperson catches one of the “messiah’s” people engaging in acts contrary to the professed faith (or recognizes that person as a criminal whose path the PCs have crossed before while he was involved in a different affair).

DELIVERING THE MAIL

One way that merchant-ship owners can earn extra income is to get a mail route contract. Mail routes usually go to larger merchant lines or specialized courier companies (see *Liner Operations* in ***Spaceships 2***, p. 34), but sometimes backwater routes may be available for independent tramp spaceships.

Tramp-freighter mail contracts generally require that the ship agree to dedicate a specified maximum tonnage (usually no more than 50 tons of mail) for a specific route. They must agree to visit a specific number of ports in a particular sequence each year (as per a *Government Subsidy*; see ***Spaceships 2***, p. 27). Whenever the freighter is following that particular route it may expect to find mail waiting for it. This amounts to a “free” additional shipment of freight that the crew doesn’t have to spend time looking for and receives automatically at the starport. In fact, if they’ve signed a mail contract, they must agree to take on the mail *in preference* to any other cargo or freight, or pay a penalty (usually \$2,000 per ton of mail unable to carry, up to their limit). This will be enforced by the local interstellar government.

Mail itself isn’t rolled on the cargo table; instead assume it consists of small packages, a few government-issue hardened encrypted data storage units (storing petabytes or exabytes of data), and possibly even physical letters or documents, if they’re still used. The size is 1d times the sum of the spaceport classes of the origin and destination. Apply -1 per die for every full week of travel time beyond the first week that an average vessel requires to get between locations (GM’s option; in interstellar campaigns, assume an average vessel has one stardrive). Thus, mail between two class IV spaceports three weeks apart would be 8d-16 tons.

A typical mail route pays 1.5 times what normal freight pays; in hazardous areas, it may be upped to twice the usual rate. Mail is always considered to have the “express” special condition (*Spaceships 2*, p. 42): delivering faster will result in a performance bonus.

As a mail route amounts to steady income, competition for such routes among ships can be fierce. Mail routes are normally available only to ships with a clean legal record. There’s usually significant paperwork to fill out (requiring Administration skill to navigate, and often 1d months delay). Often a fee or insurance bond (typically \$10,000 to \$20,000 per ton of reserved mail) has to be paid by the ship to the interstellar government to get the contract. In some settings – e.g., an interstellar empire or oligarchy – the standard way of getting one may involve bribing appropriate officials. A mail route might be offered as a reward for a trusted merchant ship whose captain performed a useful service to the government, space navy, or interstellar patrol. Failure to perform adequately – e.g., inability to keep an agreed schedule, losing mail, or taking more than average time to deliver – can result in a contract being reassigned to other vessels.

Adventure Ideas

As the majority of mail runs go to establish courier services and liners, tramp-freighter crews will often discover that the best run they could find has a few less-than-desirable features. Inquiries among fellow traders or port officials (and successful use of skills like Carousing, Area Knowledge, or Economics) may provide hints of any issues. Here are four examples of less-than-desirable mail routes that also contain possible adventure seeds.

The Backwater: This mail route is available because there are hidden costs that the cognoscenti are aware of. Perhaps the government has imposed several intrusive requirements on mail ships, e.g., the ship and crew must be armed for protection, carry high levels of insurance, are subject to safety inspections, and receive severe penalties if they fail to deliver on time. Moreover, this is a tertiary route between marginal low-population planets – or ones with hostile conditions – with middling to low volumes of mail and freight, so profits are slim. However, there may be other compensations than money. The backwater worlds along these routes have been suffering from poor service, and the locals may well be very grateful to merchants who bring them back into regular contact with the galaxy. This gratitude may range from heartwarming testimonials (“I hadn’t heard from my wife in eight months – and now I’m a father of a little girl! Thank you, captain!”) to free drinks at the starport bar, sweet deals on other speculative trade goods, or warnings from friendly locals of pirate attacks.

Hazard Run: This particular postal route is available because increased danger has scared off the competition. Military tensions on a distant frontier or peace-dividend budget cuts have led to a reduction in navy patrols in this region of space; thus, piracy is on the rise. While the mail route is lucrative, insurance premiums are also up. Until the situation changes, there is a heightened risk of attack by pirates. If the captain is aware of this before signing up, he may be able to negotiate a 2x hazard rate (instead of the usual 1.5x) for the mail delivery.

Union Busting: Interstellar mail delivery along this route was previously handled by a unionized government-run postal service. After several years of contract disputes, a new government has decided to privatize the postal service. Although larger merchant lines have picked up main routes, less-profitable low-volume routes to backwater planets are up for grabs. However, the laid-off personnel of the postal stations and the ships who served them resent the government’s union-busting maneuvers. If they accept the contract, the party’s ship may encounter hostile picket lines, job action from other allied unions (e.g., starport dock workers in solidarity with the interstellar postal workers union refusing to refuel or unload the PC’s ship), or, worst of all, an angry former worker “going postal” and attacking the party at what used to be the union-run post office.

Colonial Crisis: The mail route includes a group of subjugated or colonized planets who are presently experiencing worsening relations with the distant central government that rules them. There is an ongoing independence movement, local colonists who resent anything that smacks of “the government,” and sporadic violent protests and reprisals. Major merchant lines have started to pull out of the sector, citing security reasons. There’s a real risk that freedom fighter/terrorist groups will attempt to attack or hijack mail ships to disrupt communications and create terror; as the “mail carrier” the PCs are a symbol of the government. It is equally possible that the oppressive government will inflict various annoying and costly regulations on the party’s mail run, much as they have on the colonists. After suffering delays due to red tape, extra fines for being late or early on their route, intrusive counter-terrorist and counter-smuggling security inspections and customs boarding, the crew may be willing to sympathize with the independence movement! Their leadership may approach the party in the hopes of recruiting them to the rebel cause as couriers delivering messages or supplies to diverse insurgent groups. If they play their cards right, the “mail carriers” may end up unifying the widespread movement into a single rebellion!

*Hi guys. Glad we got your message.
You’ll be happy to know that it aired in
prime time. Got good reviews in the trades.*

*– Mission Control, in **Dark Star***

ABOUT THE COLUMNIST

David L. Pulver is a Canadian freelance author. An avid science-fiction fan, he began roleplaying in junior high with the newly released *Basic Dungeons & Dragons*. Upon graduating from university, he decided to become a game designer. Since then, David has written over 70 roleplaying game books, and he has worked as a staff writer, editor, and line developer for Steve Jackson Games and Guardians of Order. He is best known for creating *Transhuman Space*, co-authoring the *Big Eyes, Small Mouth* anime RPG, and writing countless *GURPS* books, including the *GURPS Basic Set, Fourth Edition*, *GURPS Ultra-Tech*, and the *GURPS Spaceships* series.

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STRANGE OBJECTS IN DISREPAIR

BY J. EDWARD TREMLETT

Exploring wrecked, derelict alien spaceships can be an enjoyably spooky exercise. For some, it's a hunt for artifacts; for others, a mere payday. For everyone, it's almost always a learning experience. Walking through the ruined halls, chambers, and control rooms can evoke an almost-gothic sense of curiosity and fear – even reverence.

That said, not all wrecks are immediately recognizable as a ship. They were built by alien hands, with equally alien physiology, technology, materials, and design sensibilities. Their discoverers might blunder into such a ruin with no idea they've done so until they find the bodies.

Or, worse, until the bodies find *them*.

Not all shipwrecks are fully dead. Sometimes the crew survived the crash, or have adapted to their new reality. Sometimes the ship's defensive systems or other functions still go on – however degraded. Sometimes the things the crew brought along with them, by accident or design, have been set loose and now hunger.

This systemless article details three very weird and dangerous alien spacewrecks, any of which could provide a serious challenge for archaeologists, salvagers, colonists, or explorers. What is known to the PCs is given, along with the truth, and what they discover when they get there. It also gives the dangers they face, and the possible payoffs of completely exploiting what they find.

THE EYE OF GORGON

Gorgon: a grey-green gas giant, orbiting Theta-Omicron 94 (K2V). It's 5.68 AU from its star, some 47,000 miles in diameter, and has around 20 moons – mostly dark grey or off-white, ranging from 30 to 3,000 miles across. A thin, lovely ring of rock between the moons three and four completes the picture.

The fourth moon is what gives the planet its name: a smooth and airless ball of iron oxide, some 2,800 miles in diameter, which provides its planet with a single, blood-red eye. In some color telemetry stills, Gorgon seems to fix its dire gaze directly upon the camera – delivering a hateful and deadly glare from thousands of light-years away.

There is another, more compelling reason to be interested in Moon-4. When the first probe to reach Theta-Omicron 94 mapped the system, it picked up faint but distinct life signs on its surface – confined to a small, somewhat bumpy spot near the equator.

Governmental xenobiologists were keen to get a closer look. So they launched another, more dedicated probe – one

programmed to do a slow and methodical flyover and drop a lander close to the signs. However, its signal faded as soon as it went into orbit.

Undeterred, the scientists remote-commandeered a passing mining survey probe, on its way to a nearby system. It suffered the same fate, only this time, it seemed clear an electro-magnetic pulse was to blame.

Now there is talk of a fully manned expedition, using a ship specially hardened against EMPs. The military may become involved, too, just in case this is a first-contact situation. Debate is ongoing, but it seems the decision will be made later this year.

The Truth

The life signs are coming from the last, heaving remnant of a colony ship – one sent out hundreds of thousands of years ago by a race fleeing the premature end of their solar system.

The "ship" was a long, magnetically joined congeries of over 1,000 six-mile-wide bio-spheres, all specially designed for the short, skinny, nitrogen-breathing humanoids its crew had become for the journey. Each 100-sided bio-sphere was its own miraculous, miniature forest world: flash-growing wide panoplies of flora and fauna to feed and entertain its passengers. The spheres were controlled by separate AIs and capable of full independence should some disaster befall their fellow travelers.

The flotilla traveled for about 100 years before one of the AIs evolved a murderous, self-serving philosophy. It killed its passengers and then invaded the systems of its neighboring spheres to spread its exciting new ideas. More than half the congeries was poisoned before the others broke away, leaving their fellows to their fate.

The deadly half continued on – diseased computer minds creating sick games to amuse themselves. In time, they became deadly to one another, and a split-second murder-suicide spree ensued. Insensate and broken, the remaining, now-ultra-paranoid bio-spheres blundered into Theta-Omicron 94's system, became caught in Gorgon's gravity well, and collided with one of its moons.

The conflagration atomized most of the flotilla, but a single bio-sphere somehow remained and crashed down on Moon-4. There, in the airless silence, the damage done to the AI hiccupped, and life began anew. But what hideous life comes from a blind, insane, and sadistic mind with a taste for "watching" evolution happen in real time?

Discovery

The remnants of the bio-sphere are spread out over a six-mile area just south of Moon 4's equator. Over the ages, the bio-sphere has become a rippling series of multifaceted domes, ranging from 50 yards to a half a mile. The domes are connected by octagonal passages, which open and close at seemingly random intervals. Similar passages exist in spots on the outermost domes, allowing access, though these must be manually opened.

The largest dome contains a very powerful, tightly focused electro-magnetic beam emitter, connected to the AI's one, last good "eye." It fires that beam at anything that flies overhead, so its work might not be disturbed, though ships that land a fair distance from it should be safe.

Each dome is made of translucent silicon, lit by a single, gently glowing orb at the apex. Their atmosphere is humid, and 90% nitrogen, with noble gasses and helium comprising the rest. There are no structures or controls, just thick and ripe jungles, filled with a glorious array of wildly colored trees and plants – all fed by the dense moisture in the air.

There's also an odd, low pulse, as though from a massive, unseen heart.

There doesn't appear to be any animal life, but there's scat amid the trees and flowers, and light, translucent bones strewn everywhere. Some of the thicker and brighter plants grow upon these skeletons, seeming to take nourishment directly from the remains.

There are also the sacs: large, pulpy, and palpitating bags wrapped around the larger trees like strange fruit or some parasitic organism. Cutting them open reveals nothing but thick, syrupy goo in a bag filled with long, thin filaments. Every time one is disturbed, the glowing light flickers, and the pulse quickens ever so slightly.

Dangers

The sacs on the trees are what's left of the bio-sphere's replication system. Now they are used by the AI to create hideous, hyper-evolved monsters – endless variations on the theme of carnage. These twisted children "develop" for a while before being pitted against the creatures of the next dome over, so the computer can tally the results in blood.

If the "guests" are lucky, they are attacked by creatures right away. If not, they may traverse several domes before the AI realizes that something has blundered into its web. Once that happens, the dome's passageways shut, and the generation sacs pump out an endless force of rapidly changing creatures.

Destroying the sacs stops the nightmare for a time, but they begin regenerating in a short while. The doors to the passageways are totally impervious to heat and light-based weaponry, requiring immense pressure or kinetic force to break. Crashing a sturdy, fast-moving craft into the dome could blow an escape-worthy hole, but it will quickly regrow to avoid depressurization. Hopefully the PCs think to reinforce the hole with other materials as they escape.

Payoff

Provided the PCs survive to fully exploit the crashed ship, a great deal of treasure awaits. The beings that built it developed near-instantaneous, biological generation of fully functioning flora and fauna, as well as wholesale genetic restructuring of

pre-existing organisms, such as themselves. They also created immensely resistant, self-repairing silicon computers capable of maintaining every aspect of a biological life-pod, powered by evolving, arguably *true* artificial intelligence. Such a creation is not without its dangers, as the ship's fate reveals, but the possibilities are tempting.

It's also feasible the ship could be raised, but doing so requires convincing the AI to evolve its ideas. Simply eradicating the AI also destroys all control over the ship, leaving behind either an out-of-control jungle, or a rapidly decaying graveyard of pulpy, rotten matter.

Kryten: It's charging us with looting Space Corps derelicts.

Lister: But we don't loot Space Corps derelicts. We just hack our way in and swipe what we need!

– Red Dwarf #6.4

THE CROSS-SECTION

Star Omega-Mu 22 (F2V) is a sad and lonely sight. The white star is orbited only by the broken wrecks of its worlds – their countless fragments slowly spreading out to become debris disks. It is as if some great cataclysm wracked the system, untold ages ago, leaving only ruins behind.

All probes sent to the system agree there are no life signs and no bodies large enough to fully exploit or explore. However, the outermost debris disk is rich in key minerals and compounds, which would make it ideal for scoop mining.

One complication: the latest probes detected a strange energy reading, just past the last debris disk. It's a faint pulse that might be a warp signature, but so degraded that it's hard to be sure. It is, however, always found in the exact same position, relative to the star – 16.75873 AU.

Is it some weird hiccup of quantum mechanics, or an alien probe or spacecraft, maintaining its place? If so, what is it doing there? It seems too small a signature for anything – just 10 yards if the instruments are correct.

Moonstone Ltd. has staked a preliminary claim to the system, and is readying an advance survey team. The first priority will be to do some test mining, to see if it's feasible and cost-effective, but eventually they'll look into that anomaly. Hopefully it's not aliens, again – fighting off human claim-jumpers is bad enough.

The Truth

Why did the Twarg make war upon the Grawt, over 10,000 years ago? The reasons are long-since lost to galactic history. All that can be said is that the Twarg – short, sinister beings that seemed an ungainly cross between hawk, sloth, and pig – decisively ended the conflict. Unable to assail the fortress worlds of the Grawt, their warfleet employed horrible and dangerous weapons that cracked the planets to dust, utterly annihilating their foes.

Their black deed done, the Twarg armada departed. However, the worlds they destroyed had one last laugh, as the dangerous energies unleashed caused massive fluctuations in subspace. Only one ship in ten survived warp space – the rest were sundered the moment they entered it.

But a special sort of hell was reserved for one of the smaller warships: catastrophic guidance failure. Its computer malfunctioned in such a way that its destination was put just *behind* its entrance. The resulting shockwave caused by their coming out of warp just 10 yards astern of themselves killed the crew almost immediately.

The stricken ship continued on, thanks to the ship's auto-repair functions. It has spent more than 10 millennia endlessly falling into and out of warp. Indeed, it could continue on for millennia more if no one tampers with the delicate balance it has accidentally achieved.

Unfortunately for the last remnant of the mighty Twarg armada, "help" is on the way.

Discovery

The anomaly is barely visible, until a ship is almost on top of it. The faint warp signature then gets 500% stronger, and the surveyors see something like a spinning, cylindrical object. It's eight yards tall and 10 in diameter, with faint illumination on its left and right.

A closer look reveals that it's *not* a spinning object. There are two, parallel entrances to warp space, and something is going from one to the other so fast it seems to be spinning in place. Slowing down the video shows a very swift parade of identical, alien-looking ships, all jammed bow to stern, but it soon becomes apparent they are the *exact same ship*, looping through a warp space nightmare.

The squat craft looks like a disembodied metal fist, eight yards high and some 40 yards long. It has short but powerful engines and a wide array of cannons along the sides. There are symbols on it, but they are in no known alien language. Clearly it is very old and has been there for a very long time.

Getting on board would be very dangerous, as there's only a few feet between the hull and the edge of the warp. The most obvious solution is to send someone in a very small craft – like

a tiny repair pod or a reinforced space suit. That would-be salvager would have to quickly clamp to the hull and then hang on for dear life.

Sending a robot or remote-controlled probe might be a better idea, but the GM may up the challenge by having something about the warp hole scramble their mechanical brains and/or interfere with reception. Why make it too easy?

Blasting or cutting through the reinforced, battle-hardened hull will take a long time – perhaps too long for comfort with the warp edge so close. Thankfully, the mid-ship hatches are numerous and not too secure. However, they were designed for short humanoids – average-sized human explorers must be very careful while shimmying into them, especially in reinforced suits.

The ship's armaments section is tall enough for humans to navigate without ducking. Ten flash-frozen, desiccated bodies float in airless zero-G – their skin turned leathery in the vacuum, pin-feathers collapsing into colorful dust. Each corpse carries a bevy of sharp, hand-to-hand weapons upon them, and wears a gruesome, baroque helmet that seems to indicate rank.

The small attack craft is split into three sections: propulsion, armaments, and controls. The armaments section is the largest – full of guns, ammunition, and the controls to use or monitor both. The propulsion unit seems a tiny afterthought, except that most of the space is taken up by the engines and warp drive, with access to its innards provided by skinny access tubes. The control area is likewise small, with just enough room for a commander's chair, a navigator, and a weapons chief.

Dangers

If getting on board was extremely dangerous, getting out while the ship is in motion will be frankly suicidal. The corridor to real space is narrow, and simply climbing out a hatch and letting go won't do. The explorers must slow their momentum enough to get back to the space between warp holes, which will require a lot of very steady opposing thrust – much more than could be carried on a person. One wrong move and they might slip into warp space, there to drift forever.

The best way to fix the problem will be to figure out the Twarg ship's engines and get it out of warp. This will not be easy for three main reasons.

Unfamiliar System: The aliens' mindset doesn't quite match up with human ideas of utility, safety, and sense. Engineers expecting to have to press 10 or more buttons to do a thing might be stumped to learn they just have to press one, and then be highly suspicious of it being "that easy."

We cannot predict the new forces, powers, and discoveries that will be disclosed to us when we reach the other planets and set up new laboratories in space. They are as much beyond our vision today as fire or electricity would be beyond the imagination of a fish.

– Arthur C. Clarke

Broken Bridge: When the accident happened, the front viewport was blown out by the ship's own engines – thankfully *not* at full thrust. Once the crew was dead, the auto-repair didn't bother to seal the window, so anyone who goes onto the control part of the ship will be taking heat and radiation damage. The average space suit can handle the heat for three hours, but can only compensate for the radiation for a *half hour* before irreversible poisoning sets in. Fixing the controls will take a lot longer than that.

Touchy Engines: The warp drive has been operating for over 10,000 years. Too much poking around will break the system. If the engines should simply stop – whether because the explorers fail to “fix” it, or they just turn the thing off – the ship will either fall into warp space, explode, *implode*, or blink out of reality altogether.

The best solution is to go to the propulsion area, figure out the engines, and slowly take the ship out of warp. At best, the group could fix the malfunction that caused the mess, but that might take a long time. A more effective solution would be to slow the ship down to a near crawl, extend one of the warp points far enough away to accommodate the whole length of the ship, reverse thrust to stop the ship, and only *then* turn the warp engines completely off.

Payoff

What gold lies within a broken, 10,000-year-old ship? Plenty. Archaeologists and cultural anthropologists will be astounded at what the ships' logs have to tell about this advanced, if warlike culture. Their weapons and armor might also fetch a good price in certain markets, provided they don't wind up in a museum first.

As for technological advances, the Twarg had perfected the science of self-repair to the point where, even if the ship had been sundered in two, it could have limped back to port. They had access to near-instantaneous, point-to-point travel within warp space (though clearly not without hazards) and a near-endless source of power, based on universal constants.

They also had an excellent range of highly advanced ship-to-ship weaponry, as well as weapons that could atomize entire planets. Those bombs were only on their capital cruisers, but the plans could be pulled from the ship's databank, given time. Such weapons could very well redefine the balance of power or cause a final, terrible war.

THE SHIP OF DREAMS

Space Madness – all jokes aside, it's a real thing. Long periods in space can cause severe stress and strain on individuals, to the point where the whole crew is treading a thin line. Sometimes it just takes *one* person to go crazy, and then the whole crew “catches” the insanity, leading to paranoia, factionalism, assault, murder, sabotage, and even shipwide suicide.

It seems that the Meenakshi Corporation's outpost at Gamma-Lambda-Mu 8 is undergoing a serious bout of it.

About two months ago, the waystation's doctor noted that several crew members were complaining of seriously disturbing dreams. Something about spindly and surreal monsters endlessly chasing them through a dark and shifting landscape. The fact that they were all dreaming the same thing caused him some concern, but all he could do was prescribe sleeping agents to get them to rest.

Two days after that, the rest of the crew started having the same dream. The science division was baffled, to say the least; their best guess was that one of the ships they'd recently serviced had left some kind of biological agent behind. However, they didn't have any luck finding it before they also succumbed – unable to truly sleep, and then slowly but surely going violently insane.

The last message from the outpost was from its new acting commander, cautioning all ships to stay away for their own safety. “The dark has knives,” he warned – his face a bloody mess of self-inflicted wounds: “They cut at our brains. The ship is lost. *The ship is lost.*”

That was two weeks ago, during which time Meenakshi operations in that system have been effectively hamstrung. The corporation is now sending in a team from a nearby system to find out what's happened – anticipating everything from drugs to other biological agents to alien influence. Hopefully, the team can salvage the situation, but if need be, they are authorized to destroy the station to prevent some kind of plague from spreading.

*Next time I tell you about
a derelict High Guard ship,
tell me to go away.*

*– Beka Valentine,
in Andromeda #1.12*

The Truth

Alien influence is at work here, though it's highly accidental and not really as malicious as it might seem. The fact is that an alien spacecraft has crashed into the space station, but cannot be seen or felt – merely dreamed of.

The alien beings responsible have developed a method of propulsion through oneirospace – one that allows them to travel *between* galaxies as easily as humans can now travel *within* one. When the ship needs to traverse great distances, its crew all go into a light form of sleep, and the ship folds up into their shared dream. They continue working in that dream, and when the ship arrives, they unfold the craft, wake up, and go back about their business.

It's a great form of travel, but has its drawbacks. The entire crew must be perfectly joined in sleep for it to work; any psychological issues, interpersonal problems, or ill health will adversely affect the voyage. They must also choose their path with care, as coming too close to other dreaming minds can cause the ship to become entangled, like a bird in a net.

That is what has happened here. Two of the alien crew are silently feuding with one another, and their inability to work together in perfect harmony caused the ship to go off course – blundering right into the path of the Meenakshi station. Now human and alien are mired in one another's dreams and unable to leave.

The alien crew has tried and failed to communicate with the remaining humans, who have been so traumatized by the shipwreck in their dreams that they cannot cooperate. Without their aid, the ship will be stuck forever, unless some other group – such as the PCs – can come along and help.

Eighteen months ago the first evidence of intelligent life off the Earth was discovered. It was buried 40 feet below the lunar surface near the crater Tycho. Except for a single very powerful radio emission aimed at Jupiter the four-million year old black monolith has remained completely inert. Its origin and purpose are still a total mystery.

– Heywood R. Floyd,
in *2001: A Space Odyssey*

Discovery

The station is a single, spinning toroid known as a “Pan-Am” – a common deep-space installation made with pre-fabricated parts. It’s 440 yards in diameter, and 55 yards high along the rotational axis, with four, thick stabilizers connecting the ring to the center. A constant, slow spin provides gravity to the outer ring, where command and control functions are handled, and crew quarters maintained. Docking, storage, and zero-g repair facilities lie within the center of the ring.

It orbits the rocky, fifth planet of the six-planet system, at about 60.2 AU out from its orange, K-type star. It has been there for the past 20 years, acting as a waystation for Meenakshi ships engaged in mining operations in that system. Usually, the crew of 300 souls handles two to three ships at a time – loading their ore onto a separate, nearby platform for the interstellar haulers that visit every six months. However, sometimes they go a few weeks with no visitors at all, which was fortunately the case when this incident occurred.

Normally, visiting ships would be cleared to dock at the center of the ring. No one is answering calls right now, and the remote controls have been turned off – no doubt by the commander, to stop anyone from entering or leaving. The rescue team can manually open the dock doors, dock their ship at one of the emergency hatches, or use a rescue umbilical to tunnel into the hull at some point.

Inside lies dark, smelly, and unsettling bedlam. Nearly every control is wrecked, the lights have been broken or turned off, and bodies litter the hallways and rooms. It looks as though most of the victims killed themselves, rather than each other, though many of the bodies bear post-mortem damage and disfigurements; many of the corpses are missing their eyes, and some lack faces – or even heads.

The walls of the station bear mute testament to the crew’s thoughts. Some wrote “I must not sleep” over and over like naughty schoolchildren. Others warn: “Don’t Sleep,” “wake up,” or “don’t look.” “The ship is lost” is there as well, though

what ship they mean is uncertain. Every so often “trust the angels” is offered, but it must not have been a popular message, as others tried to scrawl over it or cover it up.

As the PCs explore, the more psychically aware among them get the feeling they’re not alone. It’s like something else is there, with them, but unable to speak or be heard. There is also the palpable sense of anger, annoyance, and frustration – though that *could* just be their own feelings, given the situation.

The walls near the wrecked control center have been scrawled upon, using markers, food, blood, and less wholesome substances. It appears to be someone’s attempt to explain what’s happened and figure out why – the increasingly crabbed writing is interspersed with unsettling pictures of weird, staring eyes.

The anonymous scribe speaks of the nightmares and how quickly they spread, especially once the doctor ran out of sleeping agents. After that, people refused to sleep, went insane, and began to hurt themselves or one another to stay awake.

Things went seriously downhill shortly thereafter, with key phrases being “Don’t sleep,” “Don’t let them catch you,” and “Better to die than close your eyes.”

The writing trails off with a single word: “Airlock.”

Dangers

There are life signs, still registering – the remaining 10 members of the crew. They’re insane from lack of sleep: unable to discern reality from nightmare, most of them are ready to injure anyone they come across. Some have weapons from the locker, some have made booby-traps, or jury-rigged explosives, and some are happy to just jump out from the shadows and relieve the rescuers of their throats or eyes.

Testing the crew, atmosphere, food, and other factors comes up empty. The doctor’s logs can be eventually found and played back, but reveal nothing new, except that the nightmares are all the same: being relentlessly chased by spindly, nimble alien beings through a shiny, dark ship, as though they were animals being herded into pens for slaughter. The aliens’ eyes were very disturbing – large, staring, bi-lobed things that held no pity.

Sleep must eventually happen. When it does, those more psychically attuned have the dream first: wandering through a ship made of what appears to be hematite crystals, some of which glow; being approached, and then chased, by the aliens; the sense that they’re trying to corner them, and becoming more angry with each step; then waking up in a violent start, unable to get the sight of those awful, alien eyes out of their heads for a time.

Soon, everyone will start having the same dream – in decreasing order from most intelligent to least. Clearly whatever fate befell the station crew is now happening to them. Captured members of the station crew are next to useless – screaming about eyes and sleep – and autopsies turn up no contaminants. There are no mind-control devices, “alien” or otherwise. It’s as if there’s just something unwholesome about the place.

How do the PCs salvage the situation? There are a few options.

Kill the Dream: If all the humans on the station being affected by the dreams die, the alien ship will be free of the trap. However, the shock will cause them to enter realspace right on top of the toroid, resulting in the destruction of both ship and station. This will be good news for extraterrestrial salvage rights, but a pyrrhic victory for the PCs.

Get Out: If they leave the station, the dreams stop, and they return to normal sleep patterns within a day. If they take all the crew with them, the alien ship is freed, but if they leave a single person behind, it remains trapped so long as that person remains alive. It might be easier for the aliens to fix things with just one dreamer (see *Trust the Alien*, below), but if that person dies in the meantime, the events of *Kill the Dream* happen.

Blow It Up: if the station is destroyed, the alien ship is freed. If it's blown up with no hands on board, the ship gets back on course in oneirospace, unseen. However, if any dreamers are left behind, the long, graceful, crystalline ship appears in the center of the wreckage, for just a few moments, and then folds back up into the dreams of its relieved crew.

Trust the Alien: What happens to dreamers who *don't* run away from the aliens and instead stands their ground? They are taken to a special bed, where they are given advanced treatment. There, the aliens do their best to explain, in their own language, that their patient must *not* sleep until the others have the same treatment. But something gets lost in translation, and primarily what comes across is the anger and frustration sensed earlier. The PCs most likely wake up feeling physically better, but more scared than before, and unwilling to do *that* again. However, if one of the PCs realizes what's going on, and can talk everyone into falling asleep at the same time – maybe with the sleep drugs *they* brought with them – and not resisting, the nightmare will be over.

If the PCs aren't quite getting the idea, after a try or two, they might encounter the one member of the crew who hasn't

become homicidal. Lt. Franz Holden (25, Waste Disposal) is the one responsible for the "Trust the Angels" graffiti. He's hiding for his life, manic and delusional, and talking a mile a minute. Encountered, he does his best to convince others to let the "angels" show them what to do. "Go with them, don't sleep, free the ship," he repeats, over and over like a mantra.

Payoff

Merely fixing the problem will earn Meenakshi's gratitude – and possibly a serious bonus, even if the PCs had to blow up the station. Taking something more tangible from the situation, however, will bring some amazing advances. A dream ship elegantly solves the problems of extra-galactic travel *and* suspended animation, and being able to spin a ship from crystals would be a fantastic means of construction.

However, the only way anyone's going to get their hands on the ship is if it's been blown to pieces, along with the station. It might take generations prize the secrets from the hunks of hematite floating around what used to be a Meenakshi outpost.

Maybe the more psychically attuned PCs might learn more from their time in oneirospace than the aliens would like. Dreams work both ways, after all, and the humans may begin to unravel these mysterious beings' secrets, if only in dreams.

ABOUT THE AUTHOR

By day an unassuming bookstore clerk, J. Edward Tremlett takes his ancient keyboard from its hiding place and unfurls his words upon the world. His bizarre lifestyle has taken him to such exotic locales as South Korea and Dubai, UAE. He is a frequent contributor to *Pyramid*, has been the editor of *The Wraith Project*, and has seen print in *The End Is Nigh* and *Worlds of Cthulhu*. He's the author of the fictional blog *SPYCOD's Tales* (spygod-tales.blogspot.com) and writes for Op-Ed News. He currently lives in Lansing, Michigan, with two cats and a mountain of Lego bricks.

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RANDOM THOUGHT TABLE

YOU GOTTA GET A GIMMICK

BY STEVEN MARSH, *PYRAMID* EDITOR

The *GURPS Spaceships* series has a myriad of choices for modeling vessels of all kinds, from Space Race-era “giant tanks of fuel attached to a tin can” to superscience “poof, you’re there!” and beyond. Deciding what design options to pick is often a daunting task (although one made easier with forethought – see pp. 4-9 for invaluable insight). However, there’s frequently another challenge that comes with constructing spaceships in some campaigns: making alien vessels that feel sufficiently different and interesting. Often this is handled by giving each ship its own “shtick”; one species might have cloaking devices, another might have super-fast drives, and so on. The challenge is, if this technology exists in the cosmos, how do you ensure the niches stay niche? After all, once the Sneakyjerk civilization unveils their cloaking technology, why *wouldn’t* the Federated Empire work tirelessly to figure out how it functions so they can use it themselves? Of course, once that can of worms is open, then you’re in the same situation as before – all the options of *GURPS Spaceships* suddenly become available, and everything drifts toward sameness.

Here, then, are some ideas for how to keep different alien civilizations with niche-protected tech, while still maintaining a modicum of in-game plausibility.

WHAT’S A TURBOENCABULATOR?

One of the easiest – yet least useful – options is to say that Earth scientists can’t figure out whatever the tech goodie is. This justification is unlikely to be effective in the long run because knowledge is one of those things that’s pretty easy to get. Whether you’re coercing scientists, dismantling devices, or just plain trying to puzzle out stuff yourself, there’s little good reason why – once you know something is possible – you can’t get it done. Or, if there *is* a reason why the alien species has access to tech, processes, or abilities that simply can’t

be replicated, then there’s a good chance they already are the dominant species of the cosmos . . . or are on their way.

IT’S BASICALLY A BOMB WITH THRUSTERS . . .

In many campaigns, there’s no technological reason why all sides of a conflict can’t use whatever tech they want. However, sometimes particular factions favor some vessel designs or innovations for fundamental philosophical reasons. For example, the Empire of *Star Wars* prefers cheap, small TIE fighters, because it has the military resources to crank them out *and* the conscription ability to strap pilots into the unshielded death-traps. Conversely, the setting’s Rebellion has placed a greater emphasis on keeping its pilots alive, because it has far fewer of them and they’re harder to train and replace; thus their fighters have shields, more varied offensive capabilities, and ejector seats. Neither side is right or wrong; they’re both pursuing their paths the way they feel suits their resources and social preferences.

This route works best for campaigns where the predefined strategic decisions of each faction are fairly set in stone. If you know that the Shellheads will *always* be militaristic expansionists, then you can equip them with better weapons and armaments than other civilizations, but make it clear that their colonial and non-military efforts are a sliver of what other alien races accomplish.

*. . . the modial interaction
of magneto reluctance and
capacitive duractance.*

– Rockwell Automation,
“Rockwell Retro
Encabulator”

THAT’S MONSTROUS!

Perhaps there are moral reasons why certain tech is only relied by particular species. For example, the Borg of the *Star Trek* universe utilize cybernetic hive minds to power their ships, enabling them access to a number of tricks that aren’t available to other species. It’s feasible that the Federation could develop the technological know-how to replicate some of the Borg’s abilities, but to do so, they would need to sacrifice their ideals of individuality and self-determination.

As another idea (SPOILER ALERT for 30-year-old software), at a climactic moment of the computer game *Starflight*, you learn that the crystals every alien species has been using as their fuel source are actually sapient beings; you make contact and learn that they're not really keen on being tossed into the proverbial quantum furnaces. To adapt a similar idea in an roleplaying game, it's possible that the technology other species is using is morally beyond the pale, perhaps destroying part of the space-time continuum when used, requiring the destruction of planets or stars to empower (see *Star Trek: Generations* as an example), or – yes – resulting in the death of sapient beings. (See *GURPS Spaceships 7: Divergent and Paranormal Tech* for a few examples with *GURPS* game mechanics.)

Who're You Calling "Alien"?

Although we're speaking primarily of alien civilizations here, much of the advice can also be applied to different human species in settings where aliens are rare or nonexistent. In fact, depending on how possible genetic modification is, it may be the case where you can use the advice as is – we have met the aliens, and they are us.

JUST PLUG IT INTO YOUR BACKNOSTRIL PORT; YOU'VE GOT ONE, RIGHT?

Another way to ensure niche protection among different types of spaceships is to create a biological link between the species and their tech. This can be direct ("our living ships are grown from our own cells, and reject anyone who isn't of our species") or more abstract ("our advanced hyperdrives require G-force tolerance that most other species do not possess").

In *GURPS* terms, an easy way to do this is to look at what racial advantages and disadvantages a species has, and then see if you can postulate technology that would build off those (or, at least, would be designed with those abilities in mind). Possibilities include technology designed for different temperature tolerances, height or weight ranges, nonstandard numbers of limbs, and so on.

Alternatively, if certain technology is simply biologically incompatible in a more abstract way, this can be represented with a racial perk (if it's mostly limited to a certain number of species) or a racial quirk (if it's *excluded* to a certain number of species). Of course, this assumes that the technology in question is of strategic significance enough to warrant the usage of character points; shields that can be used at advanced speeds might be worth it, while ship-to-ship communication without special technology might not.

Of course, there's nothing to keep humans from being the beneficiary of such biological restrictions! Perhaps the only form of non-rotational artificial gravity developed so far can only work on humans without affecting inner ear balance, or maybe the human-gut microbiome is the only one that's capable of digesting replicated food.

PLAYING WITH THE PIECES

Once you have a good assortment of options divided among your major groups, what can you *do* with them?

Well, the obvious option is to keep these divisions in place to allow for the niche protection inherent in the galactic system you're devising. That's the whole point of this article, after all!

However, another great option is that – once you know *why* different groups have different technologies – you can play with those assumptions as the basis of a scenario, series of adventures, or even a campaign.

- If it's a matter of lacking the research know-how or having certain resources, then the heroes might need to spend large sums of time or funding to try to gain that technology. ("First, we need to acquire one of their ships intact. Then we need to sneak into their sector and acquire 16 lbs. of unobtanium. Finally, we need to track down a few of their scientists who are sympathetic to the cause . . .") In certain campaigns, this can be a good way to drain excess resources from the heroes while still feeling like it's advancing their goals.

- For campaigns where the barrier between alternate technologies is more philosophical or moral, an adventure can get a fair bit of mileage out of pushing the heroes (or their organizations) to the edge of exploring those new technologies. Maybe the situation gets so bad for the heroes of the Federated Republic that they consider trying to recruit suicidal pilots in new faster, unshielded ships. Or perhaps the heroes face a seemingly insurmountable danger that would encourage them to take up recently designed technology and step over a line they never thought they could.

- If there are biological reasons that keep alien species separate, then – of course – this can boil down to another version of lacking the technological know-how; in this case, it's not "recreate a cloaking device" so much as "create the means of using a cloaking device without it killing us." However, perhaps a more interesting application of biological differentials is to use them as a springboard for interesting campaign or adventure ideas. Thus, if artificial gravity is anathema to certain alien species, then before the heroes can allow ambassadors from the species aboard their ship, they need to disable that technology . . . a perfect recipe for mayhem. Or, from a campaign standpoint, if only one out of a billion humans can be aboard a ship with cloaking technology without going insane, then maybe the heroes are part of an elite starship crew, the only members of the human Federated Republic capable of piloting its sole captured vessel with cloaking technology.

When it comes to using niche protection to devise new and interesting campaign possibilities, not even the stars are the limit . . .

ABOUT THE EDITOR

Steven Marsh is a freelance writer and editor. He has contributed to roleplaying game releases from Green Ronin, West End Games, White Wolf, Hogshead Publishing, and others. He has been editing *Pyramid* for over 10 years; during that time, he has won four Origins awards. He lives in Indiana with his wife, Nikola Vrtis, and their son.

SHORT BURSTS

REMATCH

BY MATT RIGGSBY

*The next edition of **Car Wars** is coming! To help prepare, **Pyramid** proudly presents this vignette, spotlighting one aspect of its bold new world. Visit carwars.sjgames.com to keep abreast of the latest developments!*

* * *

Lud yanked the yoke hard right, traversing to catch the other car as it momentarily became visible between a series of obstacles. Concrete erupted into a smoky powder as the shells impacted a fraction of a second too late. Ignoring the swaths of red lighting up half of the control panel and the grinding hum from the front left wheel, she pushed down harder on the accelerator.

“What did they do to that engine?” Charlie demanded from the back seat. “They didn’t push it that fast last time.”

Ludmilla ignored the question, though it was a good one. Garcia liked tight spaces, but he kept his speed down for control. “Open space ahead,” she said, noting the gap between the obstacle pylons ahead. It was her preferred ground.

She could open it up all the way, dodging incoming fire, closing for attack and escaping quickly.

Her eyes flickered away from the cracked windshield for a moment and back to find Garcia’s car immediately ahead, too close to avoid. Ludmilla’s hand reached for the autocannon yoke as a barrage of rockets erupted from the car ahead of her.

“Arm . . . I think,” one of the techs called out. “Could be a radius.”

“Any of the sleeve left?”

The tech squinted at the fragment of a limb. “Maybe a little bit charred on.”

“Throw it in the cart. They’ll type it later.”

Overhead, the T-Dome’s grand video slabs replayed highlights from last year’s Panshin-Charles/Garcia-Hashimoto duel interspersed with comparison footage from the one which had just ended with a spectacular explosion. As tractors dragged last match’s obstacles around the field into a new configuration, the GC techs in their white coveralls quickly, methodically scavenged the pitted ground.

The GC field foreman glanced up at the sound of rapid footsteps, only now close enough to hear over the din of the PA and the tractors. A tractor driver stopped short of the cordon of white tape with gold plus signs stretched around the recovery area. She held up a battered, blackened helmet. It was not empty. The letters “PANSH” were still visible. The foreman grinned. With Panshin’s head more or less intact, the recovery team would be able to pull in recent memories for the new clone.

“Put your money on these guys the next time around,” he said to the tractor driver. “She’s going to remember this one.”

About the Author

Matt Riggsby has written over 120 articles and supplements for Steve Jackson Games.



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