

Expanding the Frontier

Exploring new worlds in the STAR FRONTIERS® universe



by William Tracy

One of the most exciting challenges in the STAR FRONTIERS® game comes with the exploration of an uncharted planet, facing dozens of unexpected dangers. This can be a great source of adventure, and there is a chance that the characters will make a pretty good profit – if they survive.

Of course, the characters will need a

spaceship to get to the planet. If they don't own one, there are still some ways to get one legally. The PCs might buy or get a starship on loan, if they have enough money. If they don't, their financial backers will purchase or rent a ship for them. In any case, if a starship is rented, all characters concerned will be required to accept a tracer implant (p. 41, Knight Hawks Campaign Book). The procedure for renting a spaceship

getting a financial backing is the same as that for getting a loan (pp. 40-42, Campaign Book).

An expedition team to an unexplored planet must contain at least one character who has Environmental skills. But if the characters are financially backed by someone else, the character with Environmental skills must have a skill level of at least 4, or the backer will refuse to finance the expedition. If this happens,

the characters will have to employ an NPC with the proper qualifications, who should then receive an equal share in the profits.

Financial backing

It takes a relatively large amount of money to finance such an expedition. If the characters are not able to support such an expedition themselves, they can be financed by a corporation, government, or a group of private citizens. The *Eleanor Moraes* (from the "Beyond the Frontier" module series, SFKH 2 through SFKH 4) was financed by the United Planetary Federation, with a little megacorporation assistance.

If the characters have their own ship, they still might want to find a backer who can pay for the special equipment needed to explore a planet. The backer can also pay for any special modifications to the characters' ship that are needed to explore planets. A backer always requires that the characters accept a tracer implant.

Characters will often be granted funds for exploration work by a megacorporation. Corporations are usually on the lookout for planets with valuable commodities, such as mineral ores, new types of drugs or food delicacies, or habitable land. Of all the corporations, the Cassidine Development Company backs the largest number of expeditions to unexplored planets, since this is the company's specialty and main source of income. Pan-Galactic Corporation also sponsors a number of trans-Frontier expeditions to new worlds, and a generally friendly rivalry has developed between agents of the two companies.

The UPF, as noted in module SFKH 2, has become more aggressive about exploring newly-discovered planets since the Sathar Wars. Worlds with colonization potential and those with potential (or existing) Sathar bases are of special concern. The Planetary Survey Administration was created to govern the exploration of such new worlds, but the PSA is rumored to have been infiltrated by agents of PGC and CDC, who funnel off selected information for use by their megacorporations.

Planetary governments, eager for colonies which can supply them with new resources (as was Pale in "The Volturus Connection," in DRAGON® issue #98), also finance certain exploration missions. However, such missions are almost always crewed by members of that world's space navy and armed forces, and are considered to be exten-

sions of the government's space fleet.

Sometimes a group of private citizens might back an expedition. They are generally interested in establishing a special political, religious, or anti-establishment colony with their pooled resources, and hire the characters to find a suitable planet for them. Such groups are usually called "pilgrims."

Joining an expedition

Sometimes characters are hired by a ship captain who needs a crew for a planetary expedition. They are promised an equal share in the profits. Unfortunately, this does not happen often. The competition is tough to win a berth on such an expedition, since such trips have been known to enable a character to permanently retire on his earnings. A character must have at least one skill level of 4 before he or she can even be considered for the position.

The type of ship used for such expeditions are called exploration ships (p. 8, Campaign Book). Occasionally different types of ships are used; the *Eleanor Moraes* was a modified exploration ship that resembled an assault scout ship. Referees may invent new starships and deck plans as they desire.

A variety of special exploration equipment can be found on pp. 21-22, in the Campaign Book. Some of this equipment can be rented, but some of it (like atmoprobos) must be purchased outright, as they are one-use-only devices. Any rental equipment that is destroyed must be paid for by the characters, unless prior arrangements are made by the persons backing the expedition. Anyone renting equipment must accept a tracer implant, if the equipment costs more than 100,000 Cr.

To explore a star system and its planets efficiently, three new pieces of equipment need to be introduced. These new items are the Radar Mapper (RM), the Planetary Scanning System (PSS), and a special Planetary and Star System Exploration (PSSE) computer program.

The RM package contains both a special attachment for a ship's radar system and a special computer program. The whole package costs 15,000 Cr., and it cannot be rented. The computer program is considered to be level 2 and takes up 12 function points. The RM package produces an accurate relief map of a planet's surface, using the ship's computer and special program. It takes $1d10 + 5$ GST days to produce this map while the ship orbits a given

world. Pilot expertise may speed things along; subtract the pilot's skill rating from the number of days needed to make the map. It always takes a minimum of three days of checking and rechecking to map a world accurately.

The PSS package consists of a special sensor attached to the outside of the ship's hull and a special computer program. The sensor itself is too small to affect a ship's ADF or MR. The computer program is level 3 and takes up 25 function points. The whole package costs 50,000 Cr., and it cannot be rented. Like the MR system, the PSS is used while the ship is in orbit.

The sensor scans and photographs the planet, feeding the data into the computer. The special computer program uses the data to forecast the planet's climate and general weather patterns, and to pinpoint areas where one is likely to find deposits of mineral ore. Colonization sites may be located, and evidence of existing civilizations may be found. Natural hazards, such as volcanoes, fault lines, geysers, swamps, waterfalls, landslide zones, and so forth may also be detected. Energy sources such as natural radioactive ores and artificial power stations may be found, too.

To find out how many days of orbiting it takes to get a complete scan of the planet, roll $2d10 + 8$. This roll cannot be reduced by the pilot's skill level, as bad weather (obscuring details of the ground) is beyond his control.

The Planetary and Star System Exploration (PSSE) computer program is considered to be level 3 and takes up 35 function points. This special program data-links the computer to all the equipment used to explore and classify star systems and their planets. This includes the geoscanners, vaporscanners, bioscanners, the RM and PSS components, atmoprobos, laboratory equipment, landing drones, remote probes, energy sensors, and any special information typed in by the characters. The program correlates all the data from these sources and organizes it into a hard-copy Star System and Planetary File. The characters must have this information for ground exploration they perform.

Exploration procedure

Upon entering a new system, an exploration team follows a general basic procedure. Each planet in the system is orbited long enough for the Planetary Scanner System and the Radar Mapper to do a complete job. Atmoprobos are

then launched at each planet, and other standard observations are made.

Meanwhile, the pilot and astrogator make navigational observations and feed them into the computer. This includes information such as the jump program to the system, descriptions of the astronomical bodies in the system, and the stellar type and nature of background radiation (as it applies to communications and radio interference) — in other words, all the astronomical information that an astrogator and pilot need to travel to and through this system.

Any planets indicated by scanning that are capable of supporting life must be explored further by a landing party. Remember that only ships with a hull size of 3 or less can land on a planet with an atmosphere. If an exploration ship is not able to land on a planet, the characters must use a shuttle or lifeboat to descend, or they must use landing drones or remote probes to explore the planet's surface.

The expedition's environmentalist must land on several different regions of the planet so that a total view of the planet's eco-system can be obtained. To find out the number of different regions the character must visit, roll 2d10 and subtract the skill level of the chief environmentalist. At least two different regions must be visited. To find out if the character has successfully analyzed the ecosystem in each region, see pp. 15-16 of the STAR FRONTIERS Expanded Rules Book. Be sure to add all the bonuses due to mechanical aid, especially if the character has a laboratory.

If the planet has a previously undiscovered intelligent species living on it, the PCs have their work cut out for them. They are responsible for making first contact (and making sure the contact is peaceful and positive), and their actions could literally make or break all future contact with that culture. The UPF emphasizes to its research crews that one thing the Frontier *doesn't* need is another enemy race like the Sathar to fight. Megacorporations emphasize the loss in profits taken when a potential customer and ally turns into a threat.

A character with a Psycho-Social skill of at least 4th level is required to study the species adequately. The character must study the species for 10d10 days to develop a first impression of the race and to establish minimal contact with them, if such is desired. At the end of the time period, the character must roll his Logic score or less. If he succeeds, the character is able to give a complete

description of the race, including all relevant customs and superstitions. If he fails, he has the impression that he hasn't missed anything important, but (of course) at least one thing of critical and vital importance might have escaped his notice (e.g., Dralasites are spitting images of the local beings' most beloved deity, and all Humans appear to be "demons" from ancient mythology, bent on destroying the world).

After receiving all the data, the computer prints a complete System Brief, Alien Creature Update File, Alien Culture Background Reports, and maps of the planet. An incomplete report results in a deduction in the character's profits, as well as possibly causing terrible problems later on for other research crews.

Planetary types

The variety of planetary types is endless, but very few planets are capable of supporting carbon-based life-forms. Of course, planets unable to support carbon-based life might support a new type of life form, such as silicon- or fluorine-based life. On such strange planets, the characters may have to wear spacesuits in order to survive. Even if a planet isn't habitable, it might still have large deposits of valuable ores which can be mined by enclosed colonies or by robots.

Planets that can support carbon-based life-forms possess many types of terrain. Occasionally, a planet is discovered that is almost completely covered by one type of terrain, such as water, desert, swamp, forest, or jungle, but this is very rarely seen. Referees should map out these new worlds before the PCs arrive, and should have detailed descriptions of each planet's particular features. Global maps may be patterned after those used for Alcazzar in SF 4, *Mission to Alcazzar*. More detailed surface maps may be generated of particular features that the referee believes the PCs may want to investigate (such as alien ruins).

The peculiar nature of each planet dictates the sort of special equipment needed by exploratory crews. High-gravity worlds require the use of exoskeleton suits; all-water worlds obviously require scuba gear or the like. Certain other pieces of equipment may need modification, as desired by the referee.

Hazards of exploration

Many dangers face the explorers on strange planets. Characters have to deal

with carnivorous or annoying animal and plant life, geophysical disasters (volcanoes, earthquakes, hurricanes, etc.), astrophysical disasters (solar flares, meteorite strikes, radiation increases from various sources, etc.), and even new alien races and cultures. The planet might already be inhabited by Sathar and their agents, or it might be used as a base by pirates, Mechanons, Zuraqqor, or other unfriendly forces. Crews can mutiny, equipment can break down, and ships and vehicles can run out of fuel or spare parts.

Even after leaving the planet, the characters might still face unusual threats. Their financial backer might try to get rid of them after getting their report. A rival of the characters' backer might try to bribe or steal the report from the characters. If the characters try to hold an open auction, any of the participants might try to steal the report. If the characters attempt to cheat their backer, a price may be put on their heads. (Remember the tracer implant?)

Rewards and pay

The final payment for a System Report, including the coordinates and the calculations for the jump route to the world, varies a great deal. There is no set formula for figuring out the price because of a variety of factors. On the average, a complete System Report (noting the location of valuable ore deposits and a habitable planet) goes for 250,000 Cr.

This sum can be modified according to the situation, due to a variety of factors. The amount of valuable ores that can be safely mined, the presence of pirates, Sathar, or other hostile races in the system, the completeness of the report, and the presence of dangerous life forms (of the unintelligent sort, including bacteria and viruses) that would inhibit colonization are all taken into consideration.

If the characters hold an open auction for the report, they can usually get a 1-10% increase in the price. If the characters work for the Cassidine Development Corporation, add 15% to the character's final profit. Future sources of income from the report might even include being hired to transport equipment and people to the new planet. And if the characters gain a monopoly on transport to the world, they may be able to set themselves up for life.