In this issue:

Intelligence Networks

CIA Special Activities Center

Zaibatsu Retrogenics

Why Do People Betray Secrets?

And More...

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Table of Contents

From The Editors

Roleplaying games are associated most with fantasy and science fiction, but other genres are almost as old. While D&D dates to 1974 and Metamorphosis Alpha to 1976 (Traveller was a year later), we see other games focused on superheroes (1977), cowboys (1975), horror (1981) and humour (1984), So it should be no surprise that spycraft in the cinematic vein was an early target for RPG publishers, especially if you consider that they were not many years past the 60s craze for spies that was kicked off by Dr. No and The Avengers[1].

To that end this issue of Cepheus Journal is taking a hard look at superspies and espionage. Norton Glover provides a short and punchy set of rules for dealing with intelligence networks, a realistic upgrade for starting your adventures when compared with "So you are in a bar when…", while Ewan Spence outlines how to make characters in the modern CIA's Special Activities Center Special Operations Group, though not including how to remember that euphemistic mouthful. Those of you who game in the relatively near future can look to a passel of gadgets and upgrades that would make Q slightly queasy as Mr. Glover makes his second appearance with Zaibatsu Retrogenics.

Our normal Cepheus Engine focus on SF gaming rounds out the rest of the issue as Joseph Jaquinta brings us a brace of articles on Lagrange points and the humble spaceship door (or portal, or valve). Meanwhile, Timothy Collinson supplies us with some alien cephalopods to come through those doors and Neil Lucock a shuttle to put them on. The first installment of Jo Jaquinta's story "Raider's Lament" acts as the filling on this sandwich. This makes our final spy article, Peter Simon's "Why Do People Betray Secrets They're Supposed to Keep?" into lettuce or mayonnaise, I suppose, and I'm not sure where I'm going with this metaphor, honestly.

I suppose it lets me conclude by saying "Dig in, and bon appetit!"

Paul Drye

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[1] No, the other Avengers…
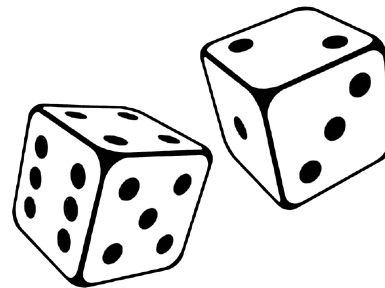
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Beyond the Iris Valve

By Joseph Jaquinta

Overview

We're all familiar with classic starship blueprints. Apertures between rooms have either the "hatch" icon, or the "iris valve" icon. These are wonderful and thematic, and give a great "1950s battleship" feel to interior spaces that is the predominant aesthetic in this sort of role playing game. But this style and atmosphere may not suit all campaigns. And cultures can different within one game setting.

This article looks at a number of alternatives to how rooms are sealed off. It also deals with the special case of moving up and down, which isn't often considered. Finally, it presents a number of adventure seeds where such choices may have relevance.

Between Here and There

When considering doors on starships, there are basically three classes.

The first class is just a partition. It is a mobile barrier between one place and another. I can be opened and closed, and possibly locked. It typically presents a visual barrier, a moderate sound boundary, and forms a climate control boundary.

The major difference in the middle class of doors is that they present a firm airtight atmosphere boundary. The lower class aperture may keep the temperature and humidity secure, but is not rated to prevent air leaking through when there is vacuum on one side! This door can remain stable and operable over a wide variety of pressure gradients such that if the structure is breached on one side, those on the other side are not in danger.

Although a middle class door may suffice to keep atmospheric integrity during an emergency, it is not rated for long term operation. The highest class of door is the equivalent of an external airlock. It can

hold out a vacuum (or water, or other hostile environment) indefinitely, and also has the same rating for protecting against radiation, micro-meteorites, or whatever needs to be guarded against to the same level as the ship's hull or facilities outer boundary.

Doors

The simplest arrangement for the basic barrier between rooms is a solid flat panel hinged on one side. It is possible to vary the shape, but physics makes rectangles the most widely chosen option. On space ships, and other areas where space is a premium, the hinge may be dispensed with in favor of a "pocket door" that slides into a compartment. Although this saves the space of sweeping out an area that a hinged door takes, space has to be allocated in the wall for the door when it is open.

Higher tech options push these boundaries. Starting at tech level 9 or 10 such pocket doors may be hollow and quickly deflate to open up. Or they might be composed of ionized powder held open by a static charge, which retracts when the current is changed. These remove the need for wall space, and

make for interesting scenarios when they are compromised or need maintenance.

There are non-rigid options as well. Beaded curtains, hanging strips of plastic, or magnetically suspended iridescent scales all make for a visual barrier that someone can walk through without a need for opening. They don't form an acoustical barrier and can't be locked, however.

Iris Valves

The classic iris valve is a, usually round, but occasionally rectangular, aperture in a wall across the threshold. The door part itself is made of several triangular pieces that pivot together and apart to make a gap of various circular sizes. These, typically, do not fill the entire door frame, and a passer is required to lift and step to get past them.

Other variants of interior air-tight doors would be more robust versions of simple doors. Thicker, with interlocking edges and reinforcement to withstand pressure.

Often such doors are purely for emergencies and do not serve as general access barriers. A more common motif in this configuration is one that is not as obvious. It may form part of the ceiling, wall or floor and pivot into position when activated. These are usually noticeable if one is looking for them (and often marked) but in situations where presentation is important, they may be

harder to spot. In other cases, they may double as security barriers and be deliberately disguised.

Hatches

The classic exterior hatch is a large metallic circular panel, hinged on one side with a large hand crank in the middle to seal it. If a less submarine aesthetic is desired, the sturdy panels may be motorized and operated by buttons.

As this is as protective as a hull, some heft is expected. It will not be easily breached by accident or intention. At particularly high tech levels a door may be replaced with a force field.

Some hatches may also double as ramps. For person sized hatches, they may fold down into the long, slender, golden age era type ramp. Larger hatches for vehicles would be set up to allow the contained vehicles to ascend or descend.

Up and Down

One thing that is glossed over on classic floor plans is vertical movement. There are circles indicating hatches, a movement point cost, and the details are left to the imagination.

In the submarine aesthetic, vertical movement is done via ladders. Either there are specialized vertical supports, or the rungs protrude directly from the wall. Slanted ladders make more ergonomic

sense, but they are messy to draw so you don't see them on floor plans that often.

Much like pocket doors, at tech level 9 spaceships will have rungs that extrude as needed and retract otherwise. When tech level 11 is reached, protruding rungs become "rung strips", and rungs protrude as a spacing appropriate to the physiology of the climber. Short, tall, child or alien, a "smart ship" will work out who is climbing and produce appropriate rungs. And just past that at tech level 12 the rungs themselves become mobile. Once the climber has started their traverse, the rungs themselves move, much like a vertical escalator, saving them effort. Other arrangements in high traffic areas have one set of rungs going up on one side, and one set going down on the other.

By the time tech level 14 is reached the rungs disappear altogether. Artificial gravity has advanced to the point where local gravitic fields can be adjusted. The climber can just be "wafted" up and down the chute with a simple verbal or visual queue.

Equipment Box

Door Spoofer

Many higher tech doors have sensors to prevent their operation or advise their operator when there are adverse conditions on the other side. Sometimes there are reasons that someone might want to override the choices an automated system makes. Other times they may want to deliberately deceive others. This is what the Door Spoofer is for.

The spoofer is a small, thimble sized suction cup. It is operated by placing it over the door sensor. At tech level 8, the interior can be evacuated to make the device register a vacuum, or it can be pressurized to spoof an atmosphere. At tech level 10, the spoofer can also be supplied with different cartridges to spoof sensors that detect the

type of atmosphere on the other side. At tech level 11, a small radioactive element can mimic more conditions.

Most doors only have a single sensor, and anyone with Engineering skill can quickly spot it. Those without will need to make a simple check as the sensors are often discrete. Particularly secure installations may have more than one sensor per door.

Most spoofers are physical devices that operate mostly mechanically. There are other classes of spoofers though that are entirely electronic and operate by manipulating the sensor through induced currents.

Such devices are seldom for sale in easy to find places. A few Streetwise rolls are often required to find a seller. They can run from Cr100 to Cr200 for a basic disposable model. Higher models are more expensive, and prices vary widely, especially on high law level worlds.

Game Hook

Doors are everywhere, but we seldom give them much thought in a game. And, yet, if an adventure is a series of barriers between the players and their goal, doors can play a part. And, because they are most often "invisible", they can be more of a surprise adversary.

The Artful Spoofer

It all starts in a busy port with players who own a moderately high tech ship. The ship receives an invitation to an art show with a chance to purchase up and coming artists at low prices, with free hors d'oeuvres and live music. You may make a secret Computer check for the player with the best skill (or the computer itself) to notice the Trojan virus that slips in with the message. In any event they are bound to be suspicious when they arrive and find the address only has a down-and-out street artist and busker across from a soup kitchen who know nothing of any art display. (Although they will happily sell anything or perform for pocket change.)

Enter the Artful Spoofer. She presents as female, but her exact gender is up to the referee. She dresses in flamboyant shabby clothes and is prone to flashy dance moves even when she is just moving about. She has an array of devices at her fingertips to spoof all manner of door sensors. Her virus will also compromise the body language recognition system of the ship, allowing her exaggerated gestures to trigger a variety of reactions from the ship's automated system, but at her timing.

She'll happily stroll onto the ship, preferably while the characters are at the non-existent art show, but their presence won't stop her. The doors won't block her or register her passage. Video cameras might, as she considers it beneath her to deal with surveillance.

Her intentions are not overtly criminal. She'll pick up any loose change but is more interested in looting their refrigerator than their arms locker. Mostly she seeks to avoid confrontation, seeking to place obstacles in the path between any players and herself. If she is eventually cornered, she'll surrender, happily holding her wrists out to be cuffed, proclaiming to be curious as to what the station reward is now for her capture. She'll provide a running commentary on whatever restraints they might use, possibly slipping them off to check the model numbers before slipping them back on again. If they physically threaten her, she'll quote them chapter and verse of the starport code about rendering violence to an unresisting prisoner.

Starport authority will respond quickly to any summons about trespassing, as they take that quite seriously. When they arrive and find out who is trespassing, they'll grow less enthusiastic. The Artful Spoofer will greet the officers by name, and request a specific cell, because it has the most challenging security. She'll thank the players and say she looks forward to seeing them in the future.

This is, mostly, a humorous side encounter. But it can serve the purpose of introducing players to the different ways in which their security might be compromised, or how they might compromise other targets. Particularly clever players might even try to befriend the Spoofer, to either get a rundown of the devices she uses, or to pay for training, or to hire her services.
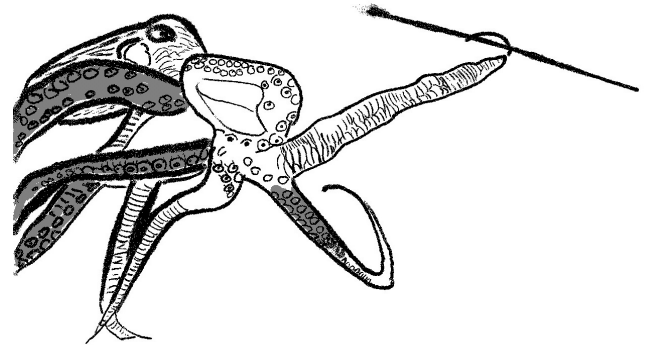
Eroctopi

By Timothy Collinson

Native to Spindrift, D769927-2, second planet out from its primary with a 20 hour day, the eroctopi are a race of intelligent eight-limbed, bilaterally symmetrical cephalopods usually between 1.5m and 2m long. Some older individuals may grow up to 4m long. Life expectancy is around 40 years. By far the largest proportion of the population prefers to live in warm, relatively shallow seas. About 10% of the population are Drifters, a somewhat larger but less intelligent nomadic subspecies who prefer deeper waters. Some 0.1% are Bleachers who like colder, more acidic water and are considered rather sly by the general populace.

Spindrift has, in the last two decades or so, seen humans arrive on the world giving it its name and a small rough and ready starport. Initial scouting expeditions gave way to research teams once the sentience of eroctopi was established. Some communication has been established with difficulty although very few humans have learned the local language and few eroctopi are willing to persevere with the limitations of interspecies dialogue. More recently merchant crews have been looking for trade opportunities and some resource exploitation of the world has begun. Terminology and descriptions below are taken from human researchers' best translations rather than trying to replicate eroctopi language.

Physical Attributes
In all sub-species the tentacles are prehensile and much of the inner surface covered in suckers which are adhesive and allow the manipulation of objects. Eroctopi have two hearts, one of which circulates blood around the body and one of which pumps it through the major gill and two minor gills. Oxygen may also be absorbed through the skin. Eroctopi can survive for up to an hour outside of water although dexterity is reduced by 1D3 under such conditions (not half as per Aquatic alien rules on p.29 of the Cepheus Engine Core Rules).

The mouth of an eroctopi is a chitinous beak (1D damage when used in attacks). Two sacs, close to the anus, inject ink and mucus into the water. The larger sac contains a black ink used defensively and the smaller sac contains coloured ink used in mating rituals.

Teuthologists have found that Eroctopi are not colour blind unlike Terran octopuses. Also, they possess advanced stereognosis and it has been suggested that they might be employed to refine 3D printer output. There is ongoing debate amongst researchers whether the word eroctopodes would be a more accurate designation. The discussion is completely academic to the eroctopi who refer to themselves with gestures that might translate, rather grandly, to <those who marshal the resources of the seas>.

Communication

One of the earliest difficulties the first explorers of Spindrift encountered was the fact that eroctopi communicate via touch and, normally, use all eight tentacles to engage in rubbing, tapping, and grasping gestures. This has been difficult to replicate with just two inflexible human arms and very few have become proficient in communication with eroctopi. It is also relatively unusual for eroctopi to adjust the more limited gestures of humans attempting interspecies dialogue, or perhaps more accurately, interspecies octoarthron.

Reproduction

Eroctopi generally live fairly solitary lives in communities of up 70 or 80. However, they will unite for a year or so to breed. Eroctopi are trioetic and require all three sexes of male, female and hermaphrodite for the fertilization of eggs. This is process is not well understood by humans as it has been little studied. What is known is that it is more complicated still in that several of each sex come together in mating balls which can last for a day or more. The coloured ink that eroctopi can discharge are known to be instrumental in the 'courtship' of acceptance into a mating ball. The female lays strings of up to a thousand eggs some three months later and are these are protected by all three parentals. The eggs hatch a year later at which time they are abandoned and the parentals will separate and go back to their individual lives. The newly hatched eroctopi are easy prey for other sea creatures and few will survive to adulthood; those that do become mature at four years.

Government

Government is perhaps too strong a word for reasonably individualistic creatures who would rather debate and reach a general consensus than impose their will on others. Spindrift might be considered balkanized as there is no overarching "world government" but the various and numerous communities across the planet do in fact keep in touch with each other and their culture, as well as a relatively minimal set of 'laws', are fairly homogenous in the entire population. On a regional level various 'senates' congregate and are formed from any eroctopi who care to participate. These are not fixed locations but will take place wherever seems appropriate at the time. In general, factions will develop around certain issues. Examples are given in the adventure linked below. These factions are amorphous, ill-defined and usually quite transient. For important issues senates can be large assemblages with everyone in loose contact with their neighbours.

Law Level

Law level is relatively high but this is by custom rather than enforcement. In general, eroctopi are community minded and while they can be skilled hunters are seldom prone to violence against other sophonts. Weapons, for example, would almost never been seen in senates and blowdarts are used by those on serious hunts rather than casual meal acquisition. Such enforcement as might be necessary is by a senate sponsored group of eroctopi – perhaps half a dozen – put together for a particular matter of concern. If the matter is larger, more groups would be temporarily assigned.

Disease

Eroctopi can sometimes (1 chance in 36 per year) be infected by trematodes which cause skistosomnamulus, a sleeping disorder. Those affected can sleep up to

fourteen hours a day – although not necessarily in one dormant period. Interval 1D6 weeks.

Statocysts, sac like structures in their bodies, can detect gravity and eroctopi are generally intolerant of space travel unless artificial gravity plates are finely tuned (Engineering, Education, 1D6 kiloseconds, Difficult) and stable. Without this, eroctopi aboard spaceships and starships will experience a grav sickness which causes STR -1, DEX -2 and INT -2 for the duration of the travel or Interval: 1D days at Referee's discretion. However, in zero-g they are able to orient themselves quickly and receive a DEX +2 bonus on top of any characteristic Dexterity bonus.

Technology
Eroctopi technology is barely recognizable to humans. Transport is via "muscle fish" (or "kvart"), 12m long eel-like creatures which several Eroctopi may ride using harnesses attached to fleshy protrusions. Records are kept via quipu-like strands and knots of string seaweed. Lighting is provided by lengths of worms bred to excrete blue-tinged lumichrome compounds. Distant communication is via a pony-express like system of eroctopi who dedicate themselves to the job and are honoured for their role in society.

Costs and weight are notional as eroctopi would typically barter for items and the weight is on land which would rarely be the case.

Blubber
Segments of treated kvart flesh worn like a carapace but bulky and reducing dexterity.

Scales
Armour crafted from large iridescent fish scales that protect the wearer and, in certain light conditions of the shallows, dazzle the attacker.

Shell
Eroctopi can use large discarded mollusc shells as armour and as a way of retreating from combat.

Shell
A simple shell with bulk used for bludgeoning prey or opponents.

Razor shell
A sharp edged shell which may or may not be fitted with sponge or blubber on one side to make handling easier.

Armour and Weapons

Armour	TL	AR	Cost	Wgt	Skill Required
blubber	1	6 (but DEX -1)	Cr100	3kg	--
scales	1	4	Cr200	1kg	--
shell	0	10	--	varies	--

Weapon	TL	Cost	Wgt	Range	Damage	Type	LL
shell	TL0	--	100g	melee (close quarters)	1D3	B	A
razor shell	TL0	Cr50	100g	melee (close quarters)	1D	S	9
long shell	TL0	Cr100	150g	melee (extended reach)	2D	S/P	8
pike	TL1	Cr40	2kg	melee (extended reach)	1D+3	P	8
blowdart	TL2	Cr200	3kg	ranged (blowdart)	2D	P	7

Costs of shells represent the difficulty of finding one more than any intrinsic value.
Dexterity 10+ eroctopi may use two weapons in different tentacles.

Long shell
The bill of a benthic burr used rather like a sword.

Blowdarts
Made from the stiffened intestines of kvarts and loaded with barbed urchin spines. Range underwater 5 m, RoF 1.

Art
Coral art is a popular creative outlet and was how humans first discovered eroctopi were sentient creatures. Artists are adept at causing the right types of algae to grow on the coral in order to release a variety of sugars that produce stunning colouration and patterns. Some efforts to generate human tourism visits to the best examples have been very popular.

There is considerable artistry displayed in the scale armour which skilled artisans create. Blowdart range is a maximum which is only achieved by the finest lacquer layers. A typical 'homemade' blowdart may only have a range of 3-4m.

Eroctopi are very fond of what translate as pithy sayings but endeavour to encapsulate some part of their cultural wisdom. Much history is handed down via storytelling.

Fauna
Assume a vast variety of ocean (shallow, open, deep) flora and fauna. Two examples of the latter:

Benthic Burr
12kg, Pouncer (Carnivore), Deep Ocean Swimmer, 3C11A2, #App: 1
Melee Combat (slashing weapons) 2, Survival 1, Tactics 1, Athletics 0, Recon 0
Sword (2D), Teeth (1D); Scales (1); Speed: 6m

Kvart (or Muscle Fish)
800kg, Filter (Herbivore), Open Ocean Swimmer, KAP088, #App: 4
Athletics 1, Recon 0, Survival 0
Thrashing (3D); Hide (5); Speed: 12m

Character Generation
Adventures on Spindrift with only eroctopi characters are entirely possible. In more standard games, PC eroctopi could be created but some careful consideration by both player and referee should be given to how this would integrate into any typical adventuring group. At the very least some accommodation would be necessary on a starship and even a tank the size of a stateroom would be considered very cramped quarters for a single sophont. Also, see note on artificial gravity and zero-g in the section Disease, above.

Roll characteristics as normal with the following modifiers but a minimum of 1:
Common Eroctopi: STR-1, DEX+2, END-1, INT+1
Drifters: STR+2, DEX+2, INT-2, EDU-2, SOC-2
Bleachers: STR-1, DEX+1, END+1, INT+2

Appropriate skills:
Advocate, Animals, Athletics, Bribery, Carousing, Farming, Gambling, Gun Combat (blowdart), Jack-of-all-Trades, Leadership, Linguistics (but use Arthristics), Liaison, Medicine, Melee Combat, Navigation, Recon, Sciences, Steward, Streetwise (but use Waterwise), Tactics (all common Eroctopi and Bleachers receive this at level 1 and Zero-G. Comms is a skill unique to those who devote themselves to transporting messages or recording history on quipu.

Appropriate careers:
Athlete, Agent (particularly for Bleachers), Barbarian, Colonist, Diplomat, Drifter,

Entertainer, Hunter, Maritime Defence, Merchant, Physician, Scientist, Scout and Technician. More strictly that latter might be a biotechnician or even 'biologist'.

Terms start at age 12. Aging sets in at 24, i.e. the end of the third term.

Adventure Seeds

A trio of egg watching eroctopi who dwell at the outer edges of a community are being predated by a sea creature that is new to the area. They, and perhaps some neighbours, need to locate the creature and either destroy it or find a way of moving it to another area. The creature may not be alone.

A team of eroctopi scouts is put together to explore an unknown region of the ocean as potential for an ever expanding population to dwell in, or for resource exploitation. As well as the flora, fauna and natural events they encounter, they find there is a hitherto unknown subspecies of eroctopi in the area.

A teuthologist has been murdered in its bulb; very unusual in the eroctopi community. Her last communication in a senate was that it was researching cephalopod colour variations and had found an interesting anomaly in an undersea volcano well outside of inhabited areas. A group of eroctopi are tasked with investigating.

A small group of Bleachers have gathered together to try to force the common eroctopi to do their bidding. They plan to set up a more formal government with themselves as leaders naturally. Their justification is a rising population which will soon overwhelm available resources. When their force starts becoming lethal, a senate details off half a dozen eroctopi to first reason with the Bleachers and, if necessary, use retaliatory force to stop them. The players could be eroctopi on either side of this conflict.

For a human adventure using this world and these sophonts, see: https://amber.zone/2021/04/22/amber-zone-spindrift/.
This could in turn be one stopover world in Larshon's quest to find sophont cephalopod life in PoetrySue's The Githiaskio Mystery https://amber.zone/2021/04/19/amber-zone-the-githiaskio-mystery/

Lagrange Rendezvous

By Joseph Jaquinta

Starship navigation usually assumes a ship is in orbit around an object at a certain radius, or
some distance between leaving the orbit of one object and arriving in orbit around another one. Although this is normally true, there are other interesting places in a star system that might form destination points.

Orbits are favored because they are stable. But, as it turns out, for every two large objects, where one is much less massive than the second and is in orbit around it, there are five other points where a much smaller massed object is similarly stable. As this corresponds to the mass arrangement of a star, a planet and a spaceship, they work well for science fiction adventures.

These points are called the Lagrange Points after the mathematician who discovered them. The points themselves are imaginatively named L1, L2, L3, L4, and L5. This is easy to remember, but hard to tell apart. Referees are encouraged to come up with setting specific names for these.
The first three points, L1, L2, and L3 are known as "unstable points", whereas L4 and L5 are "stable points". If an unpowered object is placed in any of these points it will stay there indefinitely. If it is perturbed slightly from a stable point, it will tend to drift back to that point. If, however, it is perturbed from an unstable point, it will tend to drift away and out into a different orbit. Thus, objects in unstable points require more station keeping to remain in that position for long periods of time. Objects in stable points are likely to remain there for decades to millennia.
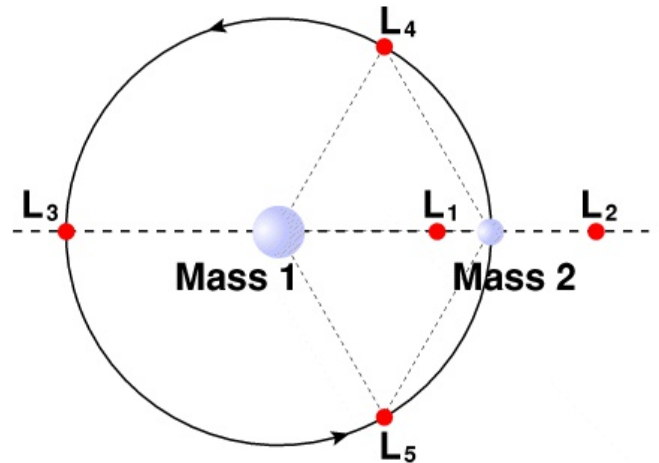
Another element in the mix is that an object does not have to just remain sitting in the exact point. It may orbit that point, much like it would a planet. This "halo orbit" allows for more objects to be in the position without too much crowding.

L1 - Sunward

The L1 point is on the line between the planet and the sun, closer to the sun. Normally this would mean that objects at that point orbit faster than the planet, but if it is at just the right point, the planet's mass slows that down enough to exactly balance out.

Objects in this point have a completely unobstructed view of the planet. It is relatively close, and always sees the planet in full sun. As such it is a good place for vanity projects. Some rich noble's personal vacation spot, a resort hotel, or even a casino. Going in a different direction, it might be a notable place for notorious prisoners, with all eyes of the world watching.

Symbolically, being in full view, it is also a good point to conduct diplomatic relations. A possible location for embassies, a permanent station for

discussions or just a meeting point for ships of conflicting fleets to rendezvous to negotiate.

It is an unstable point, and station keeping is required to keep objects in place. Although in reality, unmaintained objects are most likely to drift off into a stellar orbit, for dramatic purposes such abandoned facilities might threaten a planet if the plot required brave adventurers to reposition, repair or otherwise recover it.

L2 - Spaceward

This point is also on the line between the planet and the sun, but on the opposite side of the planet. In this case the object would tend to orbit slower than the planet, but at exactly the right point, the planet's attraction speeds it up to the point where it exactly matches the planet's orbital period.

Objects here equally have an unobstructed view of the planet, but in this case, it is the night side. Unless the object is in a wide halo orbit, it will be forever in darkness since the planet is exactly between the object and the sun.

This is not nearly as scenic as the L1 point, but only in visible frequencies. The whole planet is observable in other frequencies, and the fact that it is shielded from the sun, removes a rather noisy object that might otherwise interfere. Consequently, this is a great place to put a listening station.

In an oppressive police state or similar situation, this might be to regularly monitor the electromagnetic activities on this side of the planet. That might require underhanded things to be done only during the day. Or it might form a target for terrorist (or freedom fighter) activity to take out the listening station.

In a wider conflict, an opposing space faction might place spy satellites at this point. They might hire adventurers to sneak in and deploy them, or they may have put them there during a retreat, and require risk embracing people to go and retrieve the data on them, or to refuel the station keeping engines.

Another use of such a point is by scouts before contact has been made. It's a great place to observe a planet from and watch its development. It is harder for a primitive planet to spot such activities there.

Finally, looking the other direction, emerging planets wishing to study what is outside of their system, will find it convenient to place observation stations at this point. They are shielded from the noise of the sun and can get much better-quality views of the rest of the universe.

L3 - Hidden

This is the last point along the line between the planet and the sun, but this time on the opposite side of the sun. An object at this point is actually orbiting the average point of gravity (barycenter) between the planet and star, so it has the same orbital period as the planet.

This is often seen as the least popular Lagrange point. It is as far away as you can get from the planet while in the same orbit, you can't even see the planet from there as the sun is in the way, and you don't really get a better view of anything that you can get from any of several more accessible orbits.

However, when adventure comes into it, there are times where you may wish to be out of sight.

"No honest business is ever done at

The L3 point is, easily 100 diameters away from the planet (and likely 100 diameters away from the star), so it is a point that can be jumped into and out of in the system. One that is not directly observable by the planet. Even if your universe has "jump flares" which alert sensors to interstellar transitions, those will likely be masked by the mass of the sun between any observers near the planet. So, if you want to enter or leave the system and have the best chance of not being observed, the L3 point is a good point for doing so.

Being in a place where high quality ground installations cannot observe or record your specific actions makes it a great place to exchange cargo unobserved. Since it is short term stable, the ships exchanging goods don't have to be there at the same time.

L4, L5 - Trojans

These two points, the leading and trailing trojans, are along the orbit of the planet spaced sixty degrees ahead, and behind. As these are stable points, dust and debris can accumulate here naturally. Any system with both a planetoid belt and a gas giant will likely have a considerable number of asteroids in halo orbits around the two trojan points. Because of orbital mechanics there would be more in the leading point than the trailing point.

With the accumulation of natural objects in these positions, they are likely to be targets for asteroid miners. Because of distance they are a little more costly to exploit than main belt asteroids. An interesting background element would be to have a tiered society of belters, with three geographically distinct regions and cultures. The most favored would be in the main belt, those who are less so in the leading trojan, and the remainder trying to make a bare minimum margin in the trailing trojan.

Given the longevity of objects placed near these points, it is also an excellent place to look for artifacts from ancient civilizations. There could be an odd radar echo that leads players here, evidence of past resource exploitation, or crazy belter stories.

All in all, these points add an interesting difference to the normal scope of player interaction. They can be added in (or used by the players) to add some extra novelty to your game design and playing.
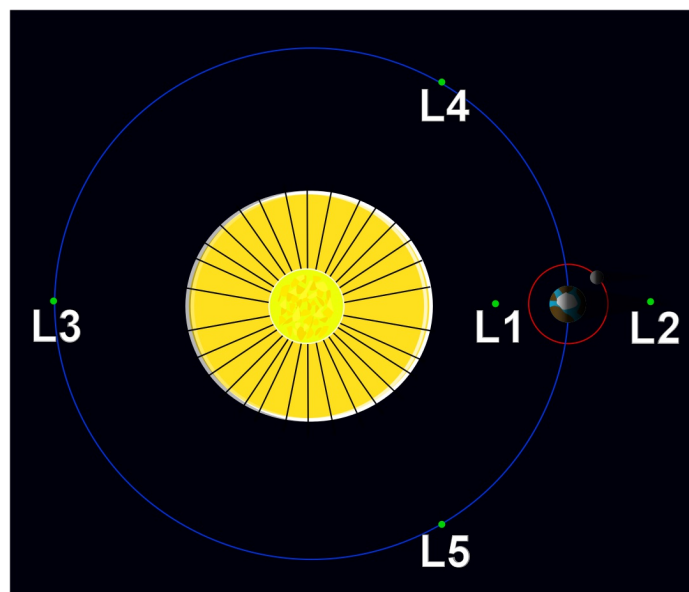
The Raiders Lament

By Jo Jaquinta

Chapter 1

Elise's brown eyes danced and focused to worlds of information far removed from reality. Her peaked military cap held in place a compact array of superconducting magnets that directly stimulated her visual cortex, supplementing the input from her optic nerve under direction of her software commands. With this enhanced vision she looked through the well-furnished walls of the bridge and tracked a figure making its way through the ship. When he walked in monitored areas, she saw him as a tall, thin man, with high cheekbones and a goatee. He wore a crisp uniform, a step more casual than military and carried a cane. When he passed through unmonitored areas his features faded to a general outline.

As the figure began down the final corridor, Elise's chair swiveled soundlessly, her heavy boots met the deck and she arose to an easy attention. With a slight tug and jingle she settled her uniform and brought her gloved hand up in a salute.

The section seal for the bridge whisked open with a slight whisper and a husky voice intoned "Captain on the bridge" over ambient speakers. Captain Seldon stood for a moment in the doorway, one eyebrow raised, leaning on his walking stick, as his eyes slowly roved over the new bridge. Showing no sign of satisfaction or dissatisfaction he took a step from the underlit shaft onto the more muted bridge glow. He punched the door shut with the tip of his cane as he swung it onto his shoulder.
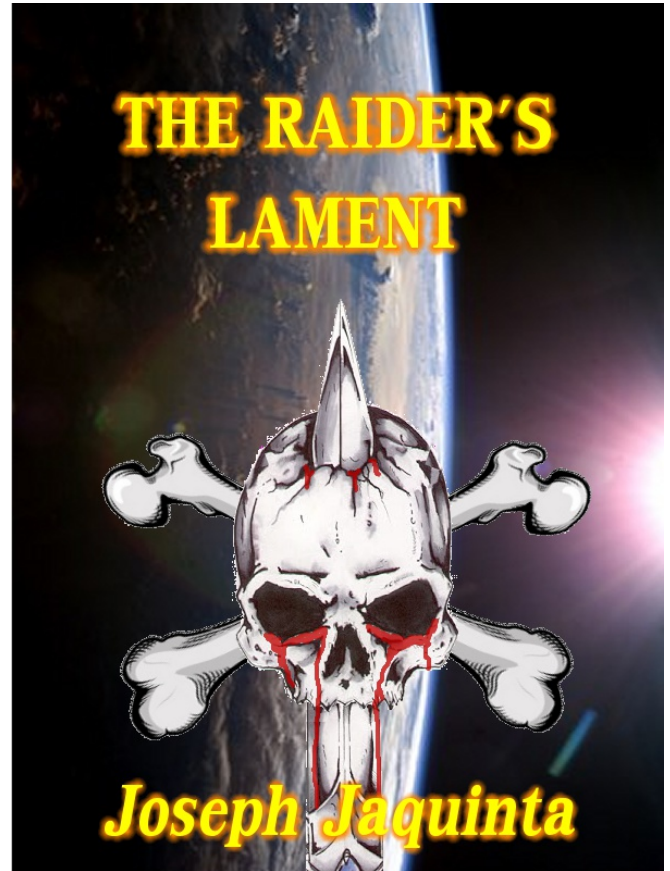
He then surveyed Elise, from boots to cap, taking in the twin silver chastened ammunition belts slung over each shoulder, matched by overlarge silver buttons on her epaulets and coat, and echoed by the highlights of two large barreled sidearms. "Ah, Elise. In your usual military splendor. I'm touched." He acknowledged her salute.

"Sir. Thank you, sir."

"One 'sir' is enough. This is a civilian vessel." She checked herself, and just nodded. "Although I do hope those blunderbusses aren't loaded. I'd hate for an accident to put a nasty hole in this elegantly refitted bridge."

"No sir," she said removing one and showing it to him. "Your orders were quite

clear. All personal weapons on board the ship to be stowed upon entry in the ship's armory. This is all shine, polish and gilt on a compressed fiber core. Totally non-functional. And light."

He leaned over to inspect it but did not take it. "As is your fashion. As is your fashion." He took a few steps around the bridge, tapping the brass railing here, the teak paneling there. "How very, hmmm, nautical. Looks very 880's, or early 900's."

"I assure you, Sir, that I got a good price on the accents. Technology may have made obsolete much of ships from that era, but good quality furnishings only improve with age. And I thought you, being a student of history, would appreciate it appropriately."

He raised the other eyebrow, spun the command chair around with his cane tip and fell into it, hiding his surprise well as it reclined. "I do." Elise did an abbreviated bow. "And if the Chief Financial Officer of Raider's Lament Incorporated approved it I'm sure you've also managed to find a historical restoration grant associated with it as well. Yes? I see. Good."

"As is my fashion, sir" she replied.

He gestured at another vacant chair. "Will my esteemed First Engineer be joining us?"

Elise's eyes focused in the middle distance once more. "I alerted him when you boarded. He should have been here by now but appears enmeshed in his machinery."

Seldon swung the chair down a bit uneasily and examined the console before him. He pointed at a button. "P.A.?" Elise nodded. He swung back, put his feet up on the console, and tapped the button with a precise cane movement. "The Captain requests the presence of the Chief Engineer on the bridge, if it's not too much trouble."

A few moments passed. A small monitor hissed on showing a man in overalls surrounded by small parts. "Seldon, you old bastard! You're here! Why didn't Elise... Oh, that must be what that blinking light was all about. I'll be right up." It clicked off.

"So, I see The Chief has settled in." Seldon said to Elise.

"He arrived this morning. I've hardly had the chance to brief him on the new monitors and display."

"And don't you normally sing the praises of intuitive user interfaces?" he smiled at her.

"It's intuitive to me," she smiled back. "I'm afraid it is just us officers. I'll get the tea" she said as clunking noises came down the shaft.

"You are so kind" said Seldon. The seal whispered open and The Chief dragged himself through the hatch and onto the bridge, wiping grease from his hands onto his overalls.

"Get your lazy ass out of that chair and say hello" he bellowed. Seldon paused,

rose, and bowed. "Sir" added the Chief before engulfing him in his huge arms. He was a bear of a man. Not as tall as Seldon, but much broader. Muscles built up from heavy use rather than heavy training.

He hooked a stool with his foot, dragged it over as he was sitting while Seldon recovered from the hello. Elise produced a small tray of tea from a panel on one side.

"So, speaking of matters military… You had said when we decided to take a sabbatical that you were going to try to reenlist in the Navy for a half term and get involved with that nasty business in the outback?" asked Seldon.

The Chief snorted and drank down his tea. "Damn bureaucrats. They didn't want to let me reenlist. They would have had to pay me more than a recruit because of my seniority. So, I tried to enlist from scratch as a deckhand. Only this refit was going to take less than a full term. They wouldn't cut me a half-term because there was no paperwork for it. Some buddies of mine threw some training my way for a bit but I just wasn't getting through to the recruits. I drilled more into their skulls buying drinks for them in the bar. Easier to hold their attention."

"How frightful." Seldon sipped his tea.

"It wasn't that bad" said the Chief. "Elise has been investing in local taverns while on leave. We have an unlimited tab in each of them!"

"Indeed," said Seldon, tapping his cane against his boots. They all finished their tea. Elise collected the cups and mugs.

"Well" said Seldon, "to business. Elise. I believe you mentioned you had something lined up."

"Yes" she said, gesturing at the main bridge display. "A simple secure package transfer. We are to meet our factor at this world's L3 point, collect the cargo, and deliver it to a destination they will specify within six parsecs. It's 80,000 talents. No questions."

"No honest business is ever conducted at a L3 point" said Seldon.

"They assure me of the cargo's legality" protested Elise. Seldon looked to the Chief.

"I can think of a few hell holes within six parsecs that might warrant hiring a ship of this armament. But nothing we can't handle with the right crew."

"The right crew indeed," said Seldon rising. "Elise, I trust you have checked the availability of our previous crew?"

"Yes sir," she replied. "Vikhagen and Juanita are available and keen to hire on again."

"Great!" said the Chief. "Juanita is one of the best assistants I've had. Vikhagen is mad. But I guess you have to be a bit touched to be a pilot." He looked meaningfully at Seldon, who gave no notice. "But she owes me drinks."
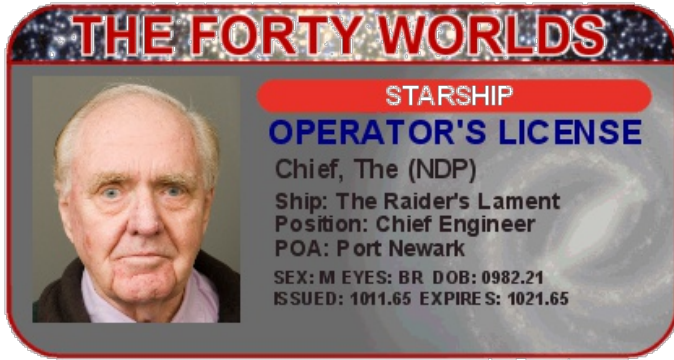
Chapter 2

The Raider's Lament did a slow dance from dockyard to starport escorted, as law required for undermanned ships, by the station's tug at nominal speed. No assistance was needed, and the ship touched down without incident at the berth rented the previous day.

Elise smiled briefly. "The others are unavailable at present. I've made enquires and have two candidates for gunner and navigator. Their dossiers are on your desk."

"Excellent" said Seldon. "I have a mind to sail her from this yard to the port tomorrow morning.   I hope, Chief, you can get whatever you were working on back together as fast as you got it apart."

"Yes, sir."

"Elise, please notify the applicants and crew of our arrival and to report for interviews." He rose and leaned on his cane. "Until then I'll be in my cabin." He paused and bowed, "Thank you both. It's a fine job you've done."

"Our pleasure, Captain" said Elise.

"Oh," said Seldon, turning in the lift. "One more thing. I want you to review our security scanners and protocols." He cracked open his walking cane, slid out a few inches of blade, examined the etched monogram there for a few moments, and snapped it back into place. "I have this feeling there are a few things that aren't being picked up. Hardware and software; this ship had better be secure."

"Aye, aye sir," they both chorused.

Captain Seldon acknowledged the grounding and deactivated the flight controls. "Flight systems off. Engine to idle at the Engineer's discretion."

"Relayed sir" said Elise from the ops position. "All systems monitored display within expected tolerance."

"Indeed" he said, flexing his hands. "Quite responsive." He pressed a few of the command buttons. "Well, Chief. I can find nothing so far to be critical of. Should I let Elise pay the dockyard or do we have some reason to withhold?"

The Chief rubbed his jaw with one large hand on the main monitor. "I hate to make a hasty judgment on such a milk run. We barely ran the power generators above 5% of capability and harsh words would stress the superstructure more than that eggshell landing."

"Unfortunately, our terms call for final payment upon first flight" said Elise. "What's the best risk assessment you can give?"

The chief rubbed a bit of grease from the panel he was using. "The L'Union dockyards do overflow work for the Navy. They've got a good reputation and what I've seen of their work is good. There's no way I can get into everything they've done to check it out without dismantling

the ship, but I probably wouldn't find anything if I did."

Elise turned to Seldon for confirmation. He gestured with one hand. "Elise, please contact the shipyard. Tell them that we've encountered no definitive problems so far with the ship, but that we are not comfortable giving them the remainder of the payment with what we know. Deposit the difference in an escrow account with the stationmaster, pending our return from a shakedown cruise. We'll take The Lament on a one orbit cruise and conduct some more thorough tests. We will either formally lodge a List of Dissatisfaction before docking or else the stationmaster will have leave to transfer the money to them."

Elise smirked. "A shakedown cruise of one orbit? That will, coincidentally, take us through the L3 point on the far side of the Sun."

"Why so it will" said Seldon with mock surprise.

"You're a sly devil" laughed the Chief. "Works for me. Let's get our crew onboard then."

"Our crew, indeed" said Seldon. "Elise, who do we have?"

"All candidates were notified of our docking time yesterday. Let me just check if we have station uplink." Her hands danced in intricate patterns over controls that only she could see. "There we go. On the main monitor." The monitor lit up showing four figures waiting on the dockside outside of their berth. She panned the camera over them and focused in on each. "You remember Juanita, of course."

"With all that gold? It could only be Juanita" said the Chief. A swarthy woman stood talking animatedly to someone off screen. Her dark wiry hair was tied back with gold barrettes, gold eye shadow glinted from her eyelids, and when she smiled gold caps glinted from her teeth.

"She was always a woman who wore her wealth where it could be seen" commented Seldon.

Elise consulted the middle distance. "Her records indicate she spent her sabbatical at a number of nearby vacation spots, and doing some pick up engineering work on in-systemers."

"I can think of some interesting tasks to set her to see what she's learned" said the Chief with wry humor. Elise panned the camera to the next person.

"And that would be Vikhagen" said Seldon. A tall black skinned woman gestured expansively while talking with Juanita. Her hair appeared to be tie died to match the riot of colors that her clothes came in.

"You decorated her during our last tour of duty for volunteering to be bait. She impersonated the radar profile of a merchant with our dory and drew the fire of those commerce raiders" said Elise.

"She's mad" said the Chief. "But she's our sort of mad."

Elise panned the camera down further. A man sat on the dockside, back against the wall, cap pulled down over his eyes, apparently resting. He wore baggy work clothes and slept with his hands wrapped around his duffel. "I believe this is Kwok, the candidate for Gunner" said Elise.

"From Shilla" asked Seldon. Elise nodded. "Ex-army, from what I remember. Didn't have the most respectable ratings."

"He's been hitting the training sims a lot on dockside" said Elise. "I picked him off the high score board."

"Games aren't the same as real life" said the Chief. "You forget that sometime."

Elise gave him a level stare. "Not everyone has the chance for real combat experience. So, it's as good a metric as any to start with."

"Moving right along" prompted Seldon. The camera panned to the limits of its arc. A woman sat quietly on the bench watching the others. She had red hair and red eyes intently following the gestures of the conversation between Juanita and Vikhagen. She wore blue coveralls covered in patches from many starports.

"That's Heleni" said Elise. "Born in space

and very well-traveled. She's got the biggest passport datamap I've ever seen. That's what made her interesting. Her navigation ratings are only average, but she's been to all of the Forty Worlds and beyond."

"Yes, I recall her dossier claimed she spoke all forty dialects. Definitely worth noting" said Seldon.

"Great!" said the Chief. "She can order drinks for us no matter where we go!"

"As long as she can navigate" said Seldon. "A linguist could come in handy, but the berth we have is for a navigator." He stood up. "Very well. Elise, go ahead and escort them in. I'll conduct my interviews on the cargo deck, you can take the galley, and I take it you'll be talking to them in engineering, Chief?"

"As is my way, sir" laughed the Chief.

The Chort

By Neil Lucock

The Chort shuttle is a popular option in the luxury cruise market. In systems near nebulae and with interesting Gas Giants or other attractions, the typical cruise of 5 days allows 20 passengers to enjoy fine food and entertainment while admiring the view from the panoramic windows on the upper deck.

The shuttles divided into two, with the lower deck for the crew and the upper deck for passengers.

On the lower deck, the front the bridge, with the main airlocks on a corridor running across the width of the ship.

Behind this corridor is a lift to the upper deck set in a crew lounge. Crew staterooms runs each side of the main corridor to a second crew area, with a large floor hatch that makes a ramp for loading.

A pressure door leads to the cargo area and then to the power plant. Access to the manoeuvre drives is from the power plant room.

On the upper deck, passengers normally enter via the port airlock. Forward of the airlock corridor is the dining room/lounge with panoramic windows. At the nose of the ship is the galley.

Aft of the airlock corridor is a large open lounge that can be configured for various activities. Passenger staterooms are arranged on either side of the main corridor.

The Chort has 3G performance and fuel for 4 weeks.

The normal service is 5 trips of 5 days. A typical trip starts at the spaceport with a history of the system (many of the passengers will have come from other systems) and a few sightseeing orbits of the planet. The ship then heads for a gas giant, planet or other sight. The details depend on the system.

Although 3 engineers are listed, in practice the ship carries one engineer. The other two positions are entertainers, whether musicians or artists. The passengers enjoy a variety of activities on the ship.

One of the stewards is a medic.

10 tons are assigned to luxuries. This allows fewer stewards or a higher standard of care.

Repayments, maintenance, crew costs and luxury life support costs 493,458 Cr a month. A typical use would be 5 trips of 5 days (with 5 days for servicing and crew training). With 20 passengers, that's 100 people a month, so each passenger has to pay 4,935 to cover costs. So, your minimum, discounted fare might be 5000 Cr per passenger. In practice, charge at least 6,000 as you will have to run an office, pay for baggage handling and docking fees.
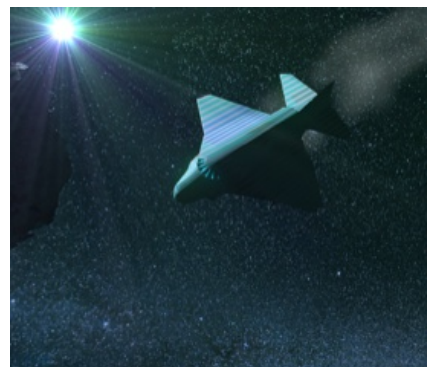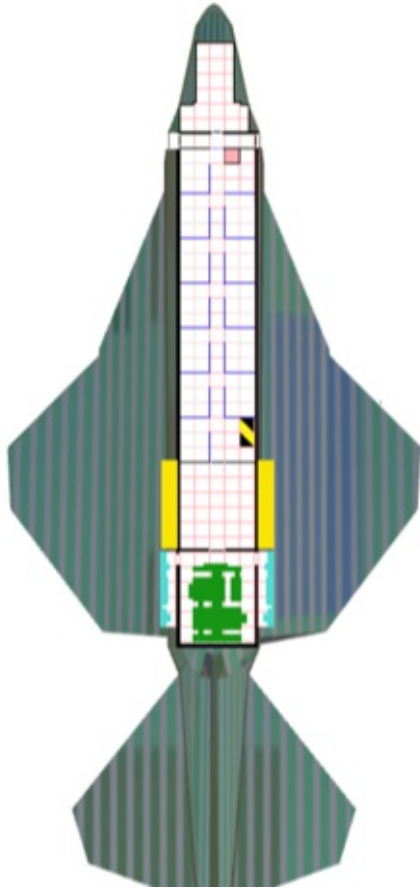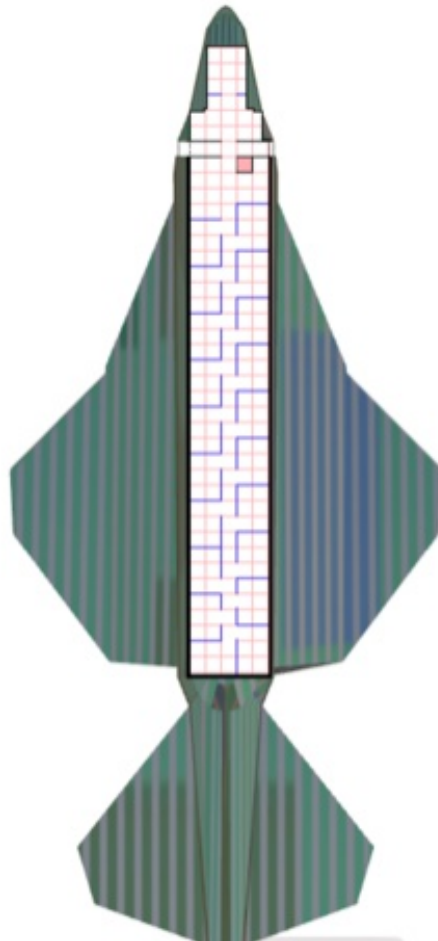
Chort lower deck

Bridge

Airlock
Open lounge with lift to upper
deck

Crew staterooms

Crew lounge, floor hatch for
loading
Cargo area. Hydrogen tanks in
wing roots
Green is power plant. Pale blue
is manoeuvre drive.

Chort Upper Deck

Galley
Lounge and viewing area

Main airlock
Open area. Lift from lower
deck

20 Luxury staterooms

Why Do People Betray Secrets They're Supposed To Keep?

By Peter Simon

Human (or sophant) sources of intel are best

Espionage agencies gather information from a wide variety of sources: libraries, news & social media, eavesdropping on official communications, overhead imagery, and hacking computer systems come to mind. But getting secrets directly from the people (beings of any race in your game setting) trusted to keep them can often provide the best payoff – insight into what your target is thinking and doing.

Recruitment of people willing to part with secrets, setting up and maintaining networks of these sources and developing them per an agency's needs is the bread and butter of most espionage agencies. While imagery or captured comms can paint a momentary picture or suggest avenues of further inquiry, a living source can provide much more depth of information, can provide insight and be directed, and provide both follow-up.

But why would someone let themselves be recruited, and then betray secrets entrusted to them by their nation, their company, or their world?

While some potential "assets" – people who are sources of secret information - are approached forcefully with leverage applied, most are nudged gently to it, and some long-term assets divulge their secrets willingly, some even seeking out recruitment. In a particularly well-run operation, it could even be that the person giving over information doesn't even know they're providing secrets to an intelligence agency, or perhaps believes they're doing so to some other agency besides the one actually doing the collecting.

Why people spy

Some common reasons people divulge secrets include:

Money - often a straightforward motivation, some people sell their secrets for money or other payment and continue to do so as long as the reward flows. It could be they are dissatisfied with their situation, or just greedy, and see selling secrets as lucrative way to benefit from their position of trust.

Contempt for the current regime - a person who sees themselves as a patriot from the old school who disdains what their once-great government has become might give secrets to an adversary as a way of pushing back against the current regime, or under the impression that the agency gathering the secrets might be able to effect change in the current situation. This might also be an alternate form of patriotism, the candidate feeling they are being ultimately true to their government's principles by giving over secrets.

Hunger for adventure - selling secrets, being a "spy" and engaging in risky behavior without getting caught is alluring to some, intoxicating and exciting beyond their ordinary lives. This might be paired with some other reason such as greed or contempt, but some people just do it for the thrill. This probably doesn't scale well over time; to avoid the thrill seeker becoming more and more reckless the handler needs to manage spying activities closely or risk the source being blown – discovered, arrested, or worse.

Admiration - similar to the situation where someone with access to secrets dislikes their government, sometimes a person develops an empathy for an opposing government or agency; they come to see them as "the good ones" or feel the opposition is more deserving of aid.

Revenge – an individual who feels betrayed by their government (or a figurehead within that government) might give secrets to an opposing agency out of a sense of spite. This action could also have nothing to do with the government itself but might just seem the best way to "get back" at someone by undermining that person's efforts or risking destroying their reputation. For example, if an abusive parent is a respected member of the government, and abused spouse might decide the best way to balance the scales is to betray secrets and undermine that person's position or reputation.

Infatuation - sex, allure, and companionship have long been key reasons why someone has given over secrets to an agent from an opposing agency. A lonely individual with access to secrets is approached by a trained agent companion who seduces them, and either boldly or subtly convinces them to give over their secrets. Perhaps this is done willingly, with the implication of continued companionship or a transition to some other enticement such as money. Or it might be a one-time event where once the attraction is consummated the tenor of relationship suddenly changes, and the target is leveraged with threats of blackmail.

Shame - when an opposing agency discovers something culturally shameful about a person who has access to secrets, a decision might be made to apply pressure in the form of threatened blackmail: get these secrets for us, or we'll expose your awful truth. This can be risky, because it makes an assumption that the fear of revelation will be greater than the outrage at being compelled to betray secrets. Use of this technique can vary with the nature of the espionage organization in question.

Guilt - Someone guilty of something heinous might try to set the cosmic scales right by giving over secrets to an opposing agency. They see their actions as an atonement, and a clever handler with use both empathy and guilt to draw out this act.

Desperation – a person in serious need - of money, medical treatment, or extraction from a precarious situation - might willingly give over secrets they're charged with keeping. This is another motive that doesn't usually scale well in the long term; a desperate person wants relief now and might trade secrets to get relief. But once the person is safe and out of their desperate situation, they might not see the need or value in giving over more secrets. Appealing to desperation is perhaps best used to "make a big score" or set up another candidate more suitable for recruitment and long-term delivery of

secrets. Also, the clever handler might in fact have engineered the source of desperation in the first place.

Threatened – the directness of a threat can indeed entice someone to procure secrets: give us what we need, or we'll hurt you, or ruin a family member. But like desperation (and different from blackmail) it doesn't scale well over time. If a person is continually under threat, they might eventually either break or lash back at the source of the threat.

It is possible to apply one of these techniques through someone that can exercise control over the individual who actually has the access to secrets. An analyst with perfect placement in a secret program might be incorruptible, but her religious husband with serious gambling vice is vulnerable and might be leveraged to convince his partner to spy, or to go through her sensitive work computer. It is also common to exploit these opportunities in tandem - appeal to both the greed and sense of adventure or greed of a potential candidate, using a carrot as well as a stick.

An agent looking to recruit a source considers who might have the information being sought, how likely the candidate is to "hold up" during the process of giving over secrets, the cost to the agency in money, time, and exposure, and the imperative of the potential gain. The recruiting agent also decides which of the above methods might work better, or what combination of "the carrot and the stick" should be used. Different cultures follow different broad patterns here. In our real world, Western spy agencies more broadly take the approach that you can catch more flies with honey than vinegar but are

certainly not above applying a little pressure along the way, especially if an ongoing source becomes obstinate or recalcitrant.

In broad terms, if a potential source seems credible and valuable, an agent looking recruit the asset will do some legwork - investigate their situation, follow up on evidence they could be a viable source of secrets, perhaps even talk with the candidate in disguise or overtly, and do what needs doing to bring the recruitment off.

Counterintelligence

Espionage agencies are aware of all of these methods and inciting situations and are quite vigilant in keeping tabs on people with access to secrets to make sure they're neither vulnerable nor undergo some change of heart that makes them more willing to betray sworn confidences.

While an opposing agency is attempting to recruit assets, counterintelligence agents are trying to keep that from happening, often by (most) any means necessary.

Counterintelligence is the effort of thwarting opposing intelligence agencies' efforts to recruit people and gather secrets. This involves keeping an eye on your own people and making sure they don't fall into a situation where they might be leveraged. It's also about investigating instances of leaks, plugging those holes when found, as well as generating "noise" or misleading information the opposing agency might read as valuable intelligence, and inserting moles in an opposing organization that might give warning when your own org is penetrated.

In your game

An espionage-themed game is different from other types; most of the goals must be achieved subtly without the overt use of force and done in a setting where the characters are being observed and pressure to thwart them is continuous.

Contacts and patrons and standard "rules" of operating matter a great deal in an espionage game, and the Referee should encourage and reward original thinking and clever solutions when it comes to recruiting potential assets, maintaining spy networks, and thwarting counterintelligence seeking to foil their schemes. Pressure from their agency/patron to produce valuable intelligence should be constant, and the threat from counterintelligence should feel intense. Along with these ambient pressures, crazy swings of luck and surprising events happen all the time and can shake up the most "routine" of scenarios. A key piece of gear fails, a random bystander exposes an agent, a rival disrupts an ongoing op, a known member of the opposition approaches with a surprise offer of information, and so on.

In game, getting your players to bond with the NPCs they're recruiting, encouraging an empathy or a paternal concern for their assets will make the threat of being discovered feel more intense, the danger of being caught and their asset being arrested or killed more "real," and thus your game more enjoyable.

Zaibatsu Retrogenics

New Bioware - A collection of retrogenics for Zaibatsu
by Norton Glover

23rd Century Tokyo is at the forefront of biotechnology, and new retrogenic procedures are constantly being developed in the labs of the zaibatsu. Here's a collection of the latest modifications available to agents.

Acid Resistant Skin (5)
The user's sweat glands release a coating that will protect the user from up to 10 points of acid damage. It does not protect the mouth or eyes.

Cardiopulmonary Backup System (40)
A small backup heart/lung system implanted just below the brain. In the event of massive damage to the body, it seals off the brain from the rest of the body and continues to provide blood and oxygen to keep the brain alive. The implant also releases drugs to put the brain into a medical coma.

After a user has all three characteristics reduced to zero, the backup heart/lung system will keep the brain alive for 24 hours. If the user (or just their head) can be delivered to an appropriate medical facility, the user can be restored to life. If the body is too damaged to be repaired, it can be replaced with a vat-grown body at extra expense. If the user has sustained a brain injury, the Cardiopulmonary Backup will be destroyed, and no revival is possible.

Assume any damage more than 10 points past the amount that would kill the user, also destroys the body.

The user can subscribe to a service that will recover the body and restore the user to life. There are two levels of service: Standard and VIP.

Standard service costs ¥50,000 per month. The contracted medical facility will attempt to restore the body. If it's too damaged, they will provide a standard vat-grown body for ¥3,000,000. The body will not match the user's previous appearance, and they will lose all retrogenics. The user will be legally indebted to the company that provided the body and will be expected to repay them in money or services.

VIP service costs ¥1,000,000 per month. A vat-grown body matching the user's appearance (perhaps a little better-looking) will be kept on hand at all times.

NOTE: This modification is almost never given to to street agents by zaibatsu. It's usually reserved for corporate executives, important scientists, etc.

Digestive Enhancement (5)
The user can get nutrients and protein from previously indigestible material – wood, grass, paper etc. This will not protect the user against poison.

Electric Hands (10)
Electrogenic cells based on those found in electric eels are implanted in the user's hands and forearms. Each day, the user can generate an electric shock, doing up to 3D damage, to whatever the user touches. The user can divide the three dice into separate shocks. For example,

they can shock three times at 1D each, or once for 3D, or twice - one for 1D and another for 2D.

It can also be used to destroy any electronic device or magnetic media format.

Genetic Chaff (5)

Humans leave skin and hair flakes everywhere they go, leaving genetic evidence that could be used to track them. The Genetic Chaff system was designed to counter this.

The user's skin, throat, and nasal passages are coated with a layer of bio-engineered bacteria that produce and excrete random DNA segments that will confuse any forensics systems. This will also counter the Pheromone Sense modification.

Liver Alcohol Filter (5)

The user can drink any amount of alcohol without impairment. Yakuza gangsters often refuse this modification, and express contempt for those who have it.

Prehensile Tail (5)

A popular retrogenic mod amongst the cosplayers of Japan. It's a 1m-long prehensile tail at the base of the spine. It can manipulate small objects. It can be hidden under clothes, but they must be specially tailored for the tail to be useful.

Reflex Implant (10)

Artificial bundles of nerves are implanted, that provide an artificial muscle memory that improves the efficiency of one simple physical action. The user can choose one physical action to get a +2 bonus or turn a significant action into a free action.

Examples of implants:

Drawing a pistol: For a pistol kept in one specified place (shoulder holster, belt) drawing a weapon becomes a free action.

Punching: For one particular type of punch (jab, uppercut, etc.) the user gets a +2 on the attack roll.

Retinal Chameleon (10)

Vat-grown eyes designed to fool retinal scanners. If a lock has a retinal scan keyed to a certain person, chameleon eyes can warp their shape to match the person's retinal pattern and open the lock. The user will need to get within three meters of a person and have an unobstructed view of their eyes (no sunglasses). The retinal chameleon will detect the retinal pattern and modify themselves accordingly. The eyes can only hold one pattern at a time and cannot call up past patterns.

This will add +3 to Security skill rolls involving a retina lock.

Spitting Poison (10)

The user can spit a stream of poison up to 3m into an attacker's face, from implanted glands in the mouth. The poison is a phospholipase A2 protein based on cobra venom. It does 2D6 damage if an Endurance+2 roll is made and is fatal if the roll is failed. A full mask or face shield will protect a target completely.

The poison sacs hold enough venom for 3 uses a day. The user has an immunity to the poison.

Intelligence Networks

Web of Spies - Intelligence Networks for the Cepheus Engine
By Norton Glover

Spies build intelligence networks to collect information and carry out covert operations. They consist of an organization of handlers, agents, sources, and technical personnel. To simulate this in Cepheus, each network will be treated as a distinct entity with its own characteristics. This is designed to replicate Cold War style intelligence operations, like you'd find in a John le Carré novel.

Intelligence Network Characteristics

The network has characteristics, just like a character. Each characteristic has modifiers that are calculated just like Cepheus modifiers.

Reach: How much access a network has to useful information.

Security: The ability of a network to avoid discovery or surveillance by authorities or enemy organizations.

Resources: How much technology, equipment, and manpower a network can call upon. i.e. forgers, surveillance equipment, vehicles, etc.

Example: The Simms Network
Using a refugee resettlement agency as a cover, the Simms network collects information and recruits sources from the flood of refugees flowing through the Argus-9 space station.
Reach: 10 (+1)
Security: 8 (+0)
Resources: 13 (+2)

Using a network

Players that are part of, or have access to a network can use it to carry out certain tasks.

Getting Information: The player can roll 2d6 + Reach modifier to find out a particular piece of information using the network. The referee can set the difficulty of the roll based on the value of the information.

Example: Getting nuclear launch codes would be Formidable (-6), while finding the schedule for a minor government official would be Easy (+4)

Hiding or Smuggling Stuff: Sometimes people or things need to be transported discreetly. The player can roll 2d6 + Security modifier to successfully hide or transport cargo or people. Difficulty is set by the referee.

Getting equipment or manpower: The player can roll 2D6 + Resources modifier to get any particular piece of equipment. The difficulty of getting the equipment depends on its legality or rarity.
Example: A simple fake ID would be Easy (+4), obtaining advanced plasma weaponry would be Formidable (-6)

Critical Failure: If a roll gets an Exceptional Failure (Effect -6 or lower), the operation automatically fails, and the network takes 1d6 damage (see Taking Damage below).

Improving a Network (Missions)

The characteristics for a network can change over time. This will normally happen when the players carry out a mission to improve a networks effectiveness, or when a failure damages the network. The referee will decide how

much a successful mission will improve a network's characteristics. Normally the amount of improvement is based on the difficulty of the mission.

Example: If the players can infiltrate an exclusive resort, they can collect incriminating information to help blackmail certain high level government officials. The referee rules that, if successful, this mission will increase the network's Reach by 3 points.

Example: If the players can contact and build a relationship with smugglers, they will have access to stolen goods. The referee rules that, if successful, this mission will increase the network's Resources by 1 point.

Taking Damage

If an intelligence operations fails, the network itself can be damaged. Sources can dry up, communication channels can be compromised, and agents can be eliminated. This is represented by the network losing characteristic values. The initial damage will come directly from the Security characteristic. When Security is zero, the player can choose whether any further damage comes from Reach or Resources.

Once one characteristic is zero, there is a -1 DM to all network rolls. If all three characteristics are reduced to zero, the network is defunct.

Burning Networks (optional rule)

If the referee allows, and the situation is desperate, a player can add to a roll by spending characteristic points from the network. The characteristic used, and amount spent is wholly up to the referee.

Example: Under suspicion by the secret police, a player fails his Streetwise roll by 2.

With the referee's blessing, he gives up a valued source to avoid arrest. The network's Reach is reduced by two.

Recovering Damage

Unlike people, intelligence networks do not naturally heal. Damaged stats will need to be replenished by undertaking missions.

Tech levels

Intelligence networks from societies with higher tech levels have an advantage when operating in a lower tech environment. A civilization with nanotechnology would find it quite easy to secretly spy on an industrial-age world. For every TL difference between the network and the society its operating in, add 1 to all rolls.

Example: A spy network from a TL9 civilization gets a +2 on all rolls when operating in a TL7 society.

This also works in reverse - a low tech society will get a minus on all rolls when spying on a higher tech world.

CIA Special Activities Center

Central Intelligence Agency's Special Activities Center Special Operations Group for Modern War by Ewan Spence

The Special Activities Center is the division of the CIA responsible for covert and paramilitary operations and is composed of two separate groups namely the Special Operations Group (SAC/SOG) and the Political Action Group (SAC/PAG). Part of the Directorate of Operations the Special Activities Center has allegedly less than hundred operatives and often supplemented by other members of the US intelligence and special operations community.

The role of the Special Operations Group is to undermine the plans of the United States enemies by the use of sabotage, destabilisation and extraction/rendition missions. In addition, they will often take part in hostage rescue and counter terrorism operations in conjunction with other US Tier One units such as Delta Force and Navy SEALS.

While the Political Action Group is used to effect political change in other countries as part of the foreign policy of the United States using propaganda and other media sources to influence public opinion.

Prior to 2016 it was named the Special Activities Division and has been previously active in Cuba, Vietnam and in recent years Afghanistan and Iraq.

The SAC can trace its lineage back to Office of Strategic Service's (the predecessor of the CIA) Operational Groups that saw action behind enemy lines during WW2 which included sabotage and training of resistance groups.

SAC/SOG Paramilitary Operations Officer Characters

Since the SAC recruits almost exclusively from the US military to create a character for Modern War start by either using an existing Modern War character or creating a character from new using the Operator role from the Modern War book to represent a character from Delta Force, Navy SEALS or Green Berets as well as former members of the 75th Ranger Regiment.

To this character increase the Education stat to 8 if currently less than this to reflect that the character must have at least a bachelor's degree for employment within the SAC.

In addition, the character gains the following skills if they don't already have them to reflect the training given as part of the 18 month long Clandestine Service Trainee programme at Camp Perry in Virginia.

- Demolition-0

- Liaison-0

- Linguistic-2*

- Streetwise-0

- Survival-0

* This will give the character the ability to read and write two different languages and should be appropriate to the campaign setting and time.
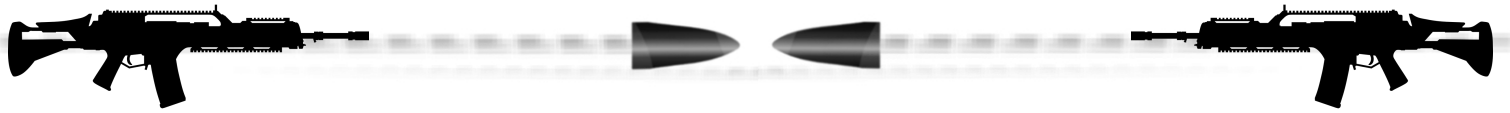
Team Organisation

Depending on the mission the team will comprise of four to six operators with one character being the team leader and the other characters being able to fill other roles such as medic and comms, they are often cross trained to cover multiple roles within the team.

In addition, other members of the US Special Operations Command such as Delta Force or SEALS may be assigned to the team depending on the mission.

Typical Team Weaponry

• MK23 SOCOM Pistol

• M4 SOPMOD Carbine with 40mm UGL

• MK46 LMG

• Heckler & Kock MP5 SMG

While these firearms might be considered the standard layout for a character depending on the mission they could be equipped with any US or allied weaponry.
If operating in hostile territory the characters will be equipped with weaponry that cannot be traced back to the US.

Types of missions for your SAC/SOG character

• Extraction of defector from hostile territory

• Sabotage of enemy infrastructure

• Kidnap enemy officer for interrogation

• Assassination of key enemy commanders

• Training of anti-government militias

• Protection of local pro US politician

From Visby with Love

By P-O Bergstedt

Background

The Victual Brothers occupied the island of Gotland, Sweden, in 1394 and set up their headquarters in Visby. This disrupted trade in the Baltic Sea. The Calmar Union (Denmark, Sweden, and Norway) could not accept this. Visby had been a Hanseatic Town, and Denmark had invaded Gotland in 1361, resulting in a war between Denmark and The Hanseatic League. Now the Calmar Union could not retake Gotland themselves. (It may cause another conflict.) The needed help and decided to ask the State of the Teutonic Order.

An adventure could start in 1397, with a Swedish or Danish noble or military commander (that the PCs meet where they currently are located), that ask them to deliver a message to the Teutonic Knights. The noble cannot use normal channels and couriers for this, since they may be intercepted by the Hansa or the Victual Brothers.

The PCs should deliver the message to Conrad Letzkau in Danczik (Danzig/Gdańsk). They will receive 2 Marks now and 2 Marks when they return.

Conrad

In Danczik the PCs meet Conrad. They must ask for an audience. Their first request may be rejected.

Conrad sees the benefit for the Order of removing the Victual Brothers and taking Gotland. He will talk discuss this with his brothers in the Order. But Conrad needs information. It will not be easy to find the best place to invade the island. The Victual Brothers have scouts everywhere, and their ships are quite fast, faster than the Orders warships. Conrad asks the PCs if they can find any weakness in the defenses and any other important information the Order may use. The PCs will be paid 2 Marks now and 10 Marks if they can return with any useful information.

Visby

The PCs sail their cog to Gotland. Their cog will be intercepted and inspected by the Victual Brothers. If the PCs have any cargo, it will be confiscated. If the PCs behave friendly and pretend that they support the Victual Brothers and want to trade with them, they will be allowed to enter Visby.

In Visby they may meet important Victual Brothers like Gottfried Michaelsen, Hennig Wichmann and Klaus Störtebeker. They may also see defense installations designed by Magister Wigbold (that may be hundreds of years ahead of its time.) The PCs may join the Victual Brothers, or they could leave and report back to Conrad.
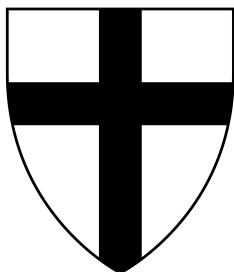
Who Goes There?

By Brett Kruger

Unit Chief Sir Bravan Nickols (Male Human)
9BB98B Age 40
Agent(4)   Cr-2500
Carousing-2, Survival-2, Admin-1, Streetwise-1, Leadership-1, Linguistics-1, Computer-1, Engineering-0, Bribery-0, Rotor Aircraft-0

In his first term in the Agency, Bravan was injured when his cover was blown on an active assignment, resulting in a loss of 1 strength. Due to his bravery Bravan was promoted and half his medical expenses were paid. During his first term he picked up skills in streetwise, carousing and survival.

He second term was pretty ordinary, assigned to a foreign embassy where he picked up skills in admin and linguistics. However, he was promoted again due to his sterling work.

The third term he was promoted to Unit Chief back on home soil, picking up leadership and survival skills. His growing skills in survival lead him to develop an operating camp for wilderness survival.

In his fourth term Bravan returned to his home city, where his got involved in Agency politics, picking up another level in carousing. Term five looked to be starting smoothly for Bravan when another Agency planted evidence and framed him in a crime, leading to four years in prison. Dishonorably discharged and kicked out of the Agency with no benefits, Bravan is now on a mission to find those he framed him and make them pay.

Section Chief John Davies (Male Human)
5AB987 Age 34
Agent(4)   Cr25000, Wheeled Vehicle
Admin-2, Survival-2, Computer-1, Streetwise-1, Leadership-1, Medicine-1, Social Sciences-0, Carousing-0, Bribery-0, Wheeled Vehicle-0

In his first term in the Agency, John picked up skills in streetwise and survival.

In his second term he was promoted, gaining skills in computer and medicine.

In his third term John was promoted again, gaining a skill in leadership.

In term four he was promoted again, picking up skills in admin and survival. At the end of his four term John had had enough of Agency politics, quitting to seek new adventures.

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