# Bright Future

Sourcebook 1

By Donna and Edwin Millheim

HERO PLUS ™

Bright Future

Sourcebook 1

By Donna and Edwin Millheim

Developed for Hero Plus™ by: Edwin & Donna Millheim

Published by:

Hero Plus™
P.O. Box 699
Aptos, CA 95001-0699
herogames@aol.com

Visit our Web Site at http://www.herogames.com

Bright Future

Sourcebook 1

By Donna and Edwin Millheim
*Based on the **Bright Future** Comic created by Edwin Anthony Millheim*

Table of Contents

DEDICATIONS AND THANKS

Introduction

Welcome to the **Hero Plus System Sourcebook**, **Bright Future Edition**. Many of you know of the comic book and comic strip **Bright Future**, and many readers have expressed interest, in a role playing sense, towards the **Bright Future** world. Thanks to **Hero Games**, we have put together notes and outlines for the **Bright Future** world. With these notes, a gamemaster can run an adventure in the **Bright Future** setting, or take parts of **the Bright Future** world and drop them into an existing game of **Star Hero**. **Bright Future**, as you will soon see, can encompass a great many different arenas of play. The focus of the **Bright Future** comic is following the adventures of Joann Lee Danns, an International Police officer. Players in a **Bright Future** game are able to play any of a number of character types, including International Police officers, Iron Bloods (mobsters), and space beings, to name just three. Future information and game supplements, such as information on organizations, new equipment, characters and their backgrounds, will be made available in future products.

So come and join in the forging of history. After all, the future is bright, isn't it? Your only limit is your imagination.

Edwin Millheim
Bright Future Designer
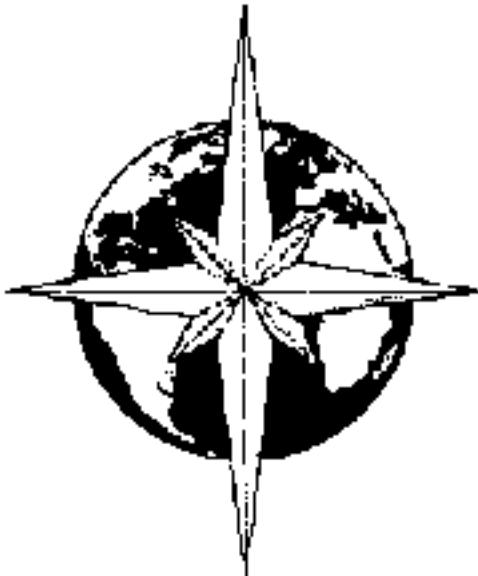
1: The World At A Glance

The sea has risen to claim her own, and effects on the world range from moderate to outright destructive. Low-lying lands were struck the hardest, and areas like the state of Florida are submerged so that getting around by boat is the only means. Higher altitudes have not fared much better. Ground saturation has washed most roads out, and the few that have survived are in such a state that repairs cannot be kept up with, so four-wheel vehicles are dominant in these areas. Soon after the rash of weather changes started, many of the countries of the world united for the better of mankind. This union formed The United World Powers, now better known as UWP.

The United World Powers title can be misleading. While nations both great and small have united, there are still those few areas (including the continent of Africa and the countries New Zealand and India) that have kept to themselves, uniting with no one. While these countries have turned away from what is the new order, The United World Powers has not condemned them for this decision. Tensions have risen in some respects, such as disagreements over borders and no-fly zone intrusions as in the days of old, but the only real military war in recent history was between China and Thailand: border skirmishes that later ended up resolved.

Still, military posturing continues on the high seas, and anything can happen. Merchant ships have been attacked and sunk when suspected of carrying cargo to an embargoed country, but diplomatic relations to those countries remain open nonetheless. One instance—which caused a great outcry amongst the councils—was an attack on a merchant ship by VTOL craft and torpedo boats of unknown country origin. The attack lasted close to two hours, killing more than 30 members of the merchant crew and wounding 96 others. The calls for help went out over radio frequencies, and when rescue craft at last arrived, the merchant ship was listing to one side and obviously sinking. The attack craft that had been harassing the vessel were nowhere in sight. From then on, the military has been ordered to patrol for what are deemed terrorists and pirates. Any contact with other nations has to be done with care, as no one wants a full scale war.

Even with the problematic situations that can arise, trade relations are open in hopes that other countries will join the UWP. While standard trade still exists, items such as military hardware are carefully moderated and tracked. Weapons and vehicles traded and/or sold to countries not in the UWP are not top-of-the-line, and therefore offer little threat to The United World Powers.

Criminal Elements

Many criminal organizations take advantage of the world's attitude toward the separatist countries. These criminal organizations—as well as freelance mercenary groups, and terrorists searching for causes close to their own—have worked covertly for those countries. Such criminal operations attempt to gain monopolistic control over certain types of criminal enterprises. Take the marketing of illegal drugs, for example, which is capable of generating huge profits. These organizations will often use the funds gained by criminal activities to take over legitimate businesses, and they routinely employ force and violence to maintain internal and external control. The organizations' enormous wealth has tended to protect their members from the law. As the ozone layer continued to dissipate, these crime lords offered fake living space on space stations. In truth, they had a slave-trade going, and many people were never seen again. Crime organizations are a dangerous thing to cross paths with, and any who do so find this out the hard way. The more prominent organizations are listed here, and a game runner is sure to garner many ideas from the

listing for gang-land adventures.

The Seas

Undersea exploration and harvesting have become very important. Organizations have sprung up to fill the demand, involved with simple fishing, fish and kelp farming, underwater research, and exploration of the deep trenches. So far, two undersea cities have been built—marvels of technology—and sea city life is something thousands of people have come to know. The different way of living has an overall effect on many. People tend to have different ways of thinking and reacting after living under the seas for long periods of time. Characters visiting an undersea city or even one of the trench facilities will have more than a few surprises. A seemingly non-offensive comment or action may in fact be very offensive. GameMasters please refer to the Undersea section for more in-depth information.

> "The general skill for piloting watercraft is Transport Familiarity—Boats; the one for aircraft is Transport Familiarity—Planes (covers Propeller and Jet aircraft) and Transport Familiarity—Other Air Vehicles (covers Balloons, Gliders, and Airships)."

Weather

World weather has been affected to the extreme as well. Most places now receive rain at least weekly, and there are the few unlucky places that have rain storms almost daily, keeping the ground permanently saturated. Prevailing winds and belts of high and low pressure, once the major controllers of climate, have changed. The low pressure belt, that inter-tropical convergence zone that lies along the equator, has shifted and fluctuated. This affects the high pressure centers that lay over the oceans. The weather patterns over the oceans are almost supernatural, and their sudden and sometimes violent outbreaks pose an extreme danger to the unwary.

Cloud-cover, now much heavier than it used to be, keeps the temperature from rising by reducing the amount of heat that gets to the planet. On the other half of that same coin, they also keep the temperature from dropping lower than it otherwise would in the cold seasons.

Variations in climate also tend to shape the lands. Rain fall, being an erosional force, tends to round off land contours; more arid areas (rare in these times) tend to have more jagged and angular shaping.

The weather and climate greatly affect everyday life. Though the seas are now a mainstay of food production, great enclosed domes called "farm domes" have been built for the more important land crops and graze animals. These are immense enclosed domes as large as football stadiums, raised off the ground (or water).

The harsh weather conditions also affect transportation. Frequent storms, fog, frozen water, ice floes and snow interrupt and/or slow down transportation. Improvements on navigational equipment, and on ice breakers and cutters (ships), are on the rise and can deal with some of the strange weather conditions.

Thunderstorms and Windstorms

Thunderstorms are a severe localized weather disturbance that can lead to lightning, high winds and rain. Though most thunderstorms tend to be short, some can be rather violent. The ones that may last for hours are, in truth, one storm dying out and another one springing up from the dying one's strong down-drafts striking the ground and spreading out. The spreading pushes the warm moist surface air back up, giving way to another thunderstorm. A severe thunderstorm with winds and rain can cause vehicle movement to be hazardous. Even the most skilled pilots of air- and sea-craft may want to avoid operations in heavy thunderstorms. A character with skill in water craft or piloting of some types of aircraft will have a chance to decide whether it is safe to proceed in a current weather condition.

Many storms nowadays include high winds. A player with skill related to weather reading or skills in weather-reading instruments will know that a true windstorm will start at wind speeds of 65 knots (73 mph). This will make air travel an extreme danger at best, and suicidal for most. A gamemaster should keep in mind problems such as a sudden gust of higher-speed winds.

The general skill for piloting watercraft is Transport Familiarity—Boats; the one for aircraft is Transport Familiarity—Planes (covers Propeller and Jet aircraft) and Transport Familiarity—Other Air Vehicles (covers Balloons, Gliders, and Airships). They

are defined as allowing characters to Òdrive or pilot vehicles under routine conditions, and allows a person with any of those skills to make an 8- roll to successfully make a dangerous maneuver (such as navigating a storm). A character with these skills, while in the appropriate vehicle, will automatically know whether or not they can drive/fly through a given bad weather system. If they choose to pilot through even when they know it to be beyond their real skill, then the 8- roll applies.

Players may also have the Combat Driving or Combat Piloting skills. These skills will allow a much better chance of driving or piloting a vehicle under difficult conditions. Characters with these skills may make their skill roll at a penalty decided by the GameMaster and based on the severity of the weather. We suggest the following penalties: -1 for a fairly weak thunderstorm with choppy seas; -3 for a severe thunderstorm with large swells, heavy winds and lightning; -5 for a wind storm with swells of over 6 feet; and -8 or more for a hurricane with super strong winds and tidal surges.

> "A player with a skill related to weather reading or skills in weather reading instruments will know that a true windstorm will start at wind speeds of 65 knots (73 mph)."

This is the skill Science: Meteorology. A character with this skill and the proper equipment (radar/satellite images, barometers, anemometers, etc.) can make reasonably accurate weather predictions for the current day. Predicting weather patterns further into the future is more difficult (just like in real life), and the character will have a penalty of -1 for every day further into the future he wants to try to predict. Lacking the proper equipment, or having only rudimentary gear on hand, will incur an additional penalty of -1 to -5 (GM decision). Conversely, having superior equipment or several days of prior weather data will give a bonus to the roll (+1 to +3, again a GM call).

Typhoons, Hurricanes and Tornadoes

Cyclonic storms can cover several thousands of square miles, and can swat an aircraft from the sky. A cyclonic storm is born when winds blow towards the center of an area that is of low pressure, the spiral caused by the deflection effect of the Earth's rotation—counterclockwise in the northern hemisphere and clockwise in the southern hemisphere. These types of storms start over an ocean and will move across warm water areas, the source of the storm's energy. In the Atlantic, such storms are called hurricanes; in the Pacific, they are known as typhoons. Storms originating in the Pacific are generally stronger and deadlier than those coming from the Atlantic. This is because the Pacific is much larger than the Atlantic, and it gives the storm more time to develop and get stronger before striking land. Upon landfall, the storm will start to dissipate as it is taken away from its source of power, the open waters. Ships and craft will do well to stay out of an area with a cyclonic storm, and any character should be able to have a chance of deducing that the dangers of going into such an area can result in death.

Tornadoes are a deadly manifestation of the powers of nature, and are sprung into being when the conditions of a thunderstorm are very violent. The winds will blow in opposing directions and a strong updraft starts a narrow violent whirling effect. As a re-

sult, centrifugal forces throw the air away from the center, leaving a core of low pressure. The low pressure results in a partial vacuum, tearing roofs off buildings and worse. At the edges of the whirl, wind speeds can reach 300 mph. At the start of the tornado, the funnel is a whitish color because is is composed of droplets of water. On touching down, the funnel becomes dark as it sucks up trees, rocks, and even parts of buildings and other items. When the edge crashes into something like a building, the debris whirling around the edges act as a chain saw, cutting a swath through anything in its path. It should be very obvious that a tornado is a deadly weather effect, and a gamemaster should take care when using them.

> "…any character should be able to have a chance of deducing that the dangers of going into such an area can result in death."

Given the generally harsh climate and difficulty of survival overall, the skill Survival has been included as an Everyman Skill (one that every character in the game possesses at no cost, with an 8-roll), as noted on the previous page. Players who make their Survival skill roll will know better than to go out into such severe weather. Naturally, players may buy the full-blown skill for the standard 3-point cost at any time, giving them a regular base roll of 11-.

The Truth

It's a vast expanse out there. Beings—some much like humans in many ways, and still others that go well past any human imagination—survive in other solar systems. From Earth, scientists viewed it as a star dying, but little did they know. The power and devastation of such as this battle had never been seen before. Three galactic races had taken up arms against each other for the ultimate bid of power: domination over all in a vast region of space. The reasons had not been noble, nor had they been for self defense. All of the combatants had one thing in common: they launched strikes before they believed any other side had attacked first. In the battles that took place, each had quickly stretched its planetary resources to the limits. A new resource had to be found if anyone would truly come out on top. Probe ships were sent out all over that galaxy and into other neighboring galaxies. A jewel in the far reaches of another galaxy had been found by one—known to its inhabitants as Earth. Earth was a planet rich in resources they could exploit. The somewhat intelligent population of Earth beings was another problem, and so a plan was put in motion by one of the three alien races to destroy the humans. A machine was placed at each pole that would shift Earth's orbit. It was certainly enough to cause widespread flooding, increase cloud cover, and change weather severely. Another race used direct contact and manipulation of the humans to counter this, but not before the planet had been changed drastically, causing the United World Powers to reason that perhaps the only hope for the human race was to migrate to another planet.

The true war is always ever so close, and it is set to draw the human race into the light of Truth. When that does happen, whose side will the human race fight for? How far is anyone willing to go for a cause?
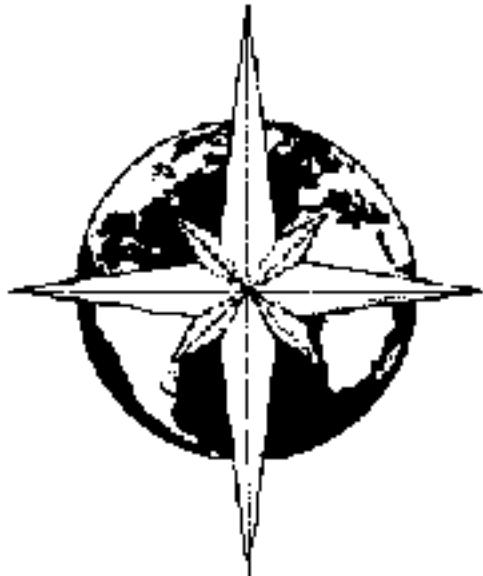
2: Character Archetypes

Choosing Who You Are

Most often, the character will be agreed upon between the arbitrator and the player. Your character's identity is very important. Remember, the world of Bright Future is multinational, and spans into other worlds. Your character can be from almost anywhere.

Next, decide age. It's advisable that no character be less than 20 years old. Then, decide the sex of the character. This again is player choice.

A background on the character is now needed. Though it may take some time for a player to come up with one, it will be groundwork for great role-playing in the game. What did the character do before getting into the International Police force, United World Power forces, or other group?

Past professions can come up in game play. If a skill falls within a profession the character has learned in the past, then that skill's level should be considered by the arbitrator for each year involved in that certain profession and using that skill.

Spend a bit of time between arbitrator and player, talking about the character and what things the arbitrator may like the player to include. What was the character's family life like? Were there any past problems before involvement with the group? Were there any run-ins with criminal elements? Perhaps the character was a criminal not so many years back?

Writing a background should include what profession the character was in before now. In this case, the arbitrator may decide that there are skills already applicable. For instance, a police officer would be skilled in driving, surveillance, sidearms, reports and files. The arbitrator and the player will want to go over possible skills for the character, taking background into consideration. Then, the player can add more skills from the skills list.

On the other side of this, other players are expected to role-play and react to your character. They may enjoy hearing a bit about the character, around a table in a bar, before going out into the field.

You may like to have a personality in mind for your character. It may be difficult to remember the character's personality if it varies from your own. It can help to keep a reference sheet with key notes on a character's general personality traits. For example: Does he fidget? Does she play with a favorite knife? How does he react to certain situations? Does he have an accent? How about a phrase or word such as "Gosh" or "Oh swell"? All of these can be played well and are just a few suggestions. Try to be as realistic as you can. Playing the character to an extreme can help others believe in the character that much more.

Finally, careful recordkeeping can be a great asset to both player and arbitrator. Also, in most role-playing games it has become accepted practice that the arbitrator's word is accepted, even if wrong. Try not to point any fingers until after the game. When you point out what you considered a wrong call, your arbitrator may have been unaware of or overlooked a rule. There may be a circumstance that the player was unaware of, and the arbitrator may bring you up to date on the situation in question. It pays to have an open mind.

Arbitrators And New Players

Be patient with new players; not everyone learns at the same speed. If your explanation isn't understood one way, try another. Be prepared; it helps to have a basic explanation written up as a hand-out for your game. Be responsive; try to answer questions as best you can. If in the middle of a game, invite the new player or players to stay after the game to go over a few things. You might set up another time to go over the rules and the premise of the game you are running. Be as thorough as you can. "Because I said so" should not be something to fall back on, as it can leave a person feeling cheated.

Logical explanations for your replies can help to explain game mechanics as well. Most game calls in this game will end up being based on the arbitrator's judgment. When you are running a game and a string of events happens, take into consideration as many factors as you can. That, coupled with the dice rolls, should be more than enough to help you along. Keep in mind that the reason most people get into role playing games is to have fun. Noth-

ing should ever overshadow this fact. Players will be playing on the edge of life and death in many events. Whether they come through it without a scratch or they barely make it, the thrill of going against the odds and winning is a grand one. On the other hand, sooner or later a character will get killed in this type of game. It is a very real possibility.

The character's quirks or psychological problems may come up. These can be considered weaknesses, and any idiosyncrasy can cause a distraction at the most awkward time. The arbitrator will be the one to decide when and if a problem arises due to such an idiosyncrasy. The character will then need to make a willpower roll to avoid becoming taken over by the idiosyncrasy. If the roll is a fail, the arbitrator decides just how distracted or affected the character is, and if they will be able to perform tasks without any penalty.

What idiosyncrasies does the character have? Drinks to much at times? Greedy? Plays with knives, or fire? A sample list is provided. With this knowledge, the player now can role-play that much better, and the arbitrator now has a few angles that may not have been considered before, thanks to the character's background.

Hint And Tips For Playing Or Running A Game

You can never tell friend from enemy in the Bright Future game world. If characters are in an organization privy to the United World Power Security dealings, they will know that we have never been alone. They will know that private agendas are ever in motion, adding a high-tension atmosphere to any adventure. The obvious plot is often a veil hiding an intricate web of subplots and other agendas that may spill over into future game sessions. It's a never ending fight to expose or stop the plans of other organizations and companies.

The formula used in many of the Bright Future games played by testers had a common formula used by the game masters: treating game sessions like high-adventure, Saturday morning action theater (with episodic pace) works well. A game master may have a simple introduction sequence to start things off, which does not always have to do with the main adventure at hand, but which serves to get the players into game mode. Some of the mini-adventures can be ripe for a teaser, or the game master can expand on them and create a full blown adventure.

An introductory teaser works well to get things started. In this example, the characters are all members of the International Police Force and have pulled the duty of serving a warrant and picking up the offender who has skipped a court date for retail theft. No extra information was given to the characters when they searched for the man's file, because the Legal Change Department had a new law that made anything over three years old unobtainable. Nothing is known about the man they have been sent to serve and arrest, other than the basics of age, gender, other basic facts and the reason for the warrant arrest.

There are four player-run characters on the team. When they get to the man's fifth floor apartment and knock on the man's door, he is very agitated and will not open the door. He is screaming that he knows they have been sent to kill him. The screaming prompts three of the players to step to the sides of the hallway, away from the door. One character, doing most of the talking, did not do so. He lucks out: the shotgun blast splinters parts of the door; three pellets hit him in the right leg, and he is peppered with splinters. The simple pickup has turned into a full-scale barricade stand off. Now the characters all want to bring this man in, find out what he is talking about, and who he thinks is trying to kill him.

All four characters retreat out of the line of fire, drawing weapons. One character decides to head outside to cover the window of the apartment, while the others try to handle things from the hall. In the ongoing exchange, the man begins throwing plates and other items out the large hole in the door. One of the characters is getting agitated and advances to a doorway closer to the man's apartment. More stuff comes flying out of the hole in the man's door, some falling at the now-advancing character's feet. So angry is he that he picks some of the stuff up and throws it back through the hole in the door. A few seconds later, the door explodes outward in a shower of debris. The man in the apartment is blown out the window to his death.

The shaken characters call it in and start to search the now-destroyed apartment. The character who had been advancing smiles. He slipped a grenade into the debris he had been throwing back; his job is done. His target is eliminated and the other characters are none the wiser.

This serves to show that even if characters are from the same organization, they may not all be working toward the same goals. Organizations within organizations may be pulling the strings in different directions. The real trick is to get the job done without the rest of the group finding out.

Characters who are part of law enforcement will of course want to do their jobs. Some of them may have the underlying goal of exposing as much as they can of some of the inner cells of organizations that eat away at the insides of the United World Powers.

The real fun begins when one of the players is running a character who is not what he or she seems to be. Perhaps they are really freelancer or mercenary, or perhaps they are working for a cell organization that placed them to keep track of interests of the hidden organization. Characters in this category will do everything short of killing the others to complete goals. Most of all, for success of the character, keep it secret that they are working for someone else.

Further For The Game Master

The world of Bright Future is a large place, but much of it is based on everyday happenings even if science-fiction based. Most of the laws of physics apply, as does common sense. The Bright Future world is a place of high intrigue and behind-the-scenes happenings, both political and just plain old power plays by large corporations. As the game master, you must consider that NPCs will have their company's or employer's interests in mind. Second, they will have their own interests in mind.

Some such characters would be willing to sell others out for Credits on their CredIdent cards, or they will be more than happy to have the character or characters owe them a favor. This could be a bargaining chip in the big game. The game master should keep notes about the NPCs encountered, and about who owes who. Some day down the line, that NPC will come back and want to cash in on that favor. This, of course, can lead into adventures

unto themselves.

As the game master, your job is to run a balanced game and give the characters what they need to solve things for themselves. Of course, sometimes clues or informants will come in handy to steer the wayward characters back on the right track. On the same token, while you don't want to smother the characters in a "You must do this" scenario, it would be wise to provide consequences for characters that insist on heading off and leaving the problem at hand to brew. Remember, no matter what the characters are doing, time marches on and so do the plans and actions of the world and NPCs around them.

The suggested basic formula for running a game of Bright Future is as follows:

Opening Teaser or Ice Breaker: A scenario that gets the players into the right mind-set for the coming events. The opening teaser does not always have to be full of adventure. The character can be on leisure time and spot something on the public eye (Vid Television) that launches them into the next adventure. Or they can stumble into something that has nothing to do with the main game but serves as an ice breaker.

The Background: Once the players are into the game, one of two things can happen. If the Ice Breaker has nothing to do with the main game, then soon after the wrap-up of the Ice Breaker one or more of the characters gets word of events that will launch them into the new adventure. The background serves to give the information of who, where, what and when. The characters should also be given motivation for why they should get involved. If they are law enforcement, they can be assigned to the case. If they are Mercenaries then Credits on the CredIdent cards are good motivation. Alternately, something involving the case might affect a personal friend or family member of one of the characters.

The Adventure: One episode to the next leads the characters along a path of plot twists and turns. During this time, the characters might utilize any contacts they may have, or establish contacts if they are just starting out. These contacts can be useful in other adventures; just how useful will be up to the game master.

As the players are running their characters during the adventure, make them work for clues and information. Nothing should drop into the characters' laps. During this time, the game master may want to work in subplots and plots that will come into play in later adventures. If this is the characters' first adventure, it's a good time to make enemies, and get their own personal villain.

As the adventure draws to a close, some game masters may want to utilize an open-ended style. In other words, once in awhile the adventure can come up with no true resolution. The villain or perp is still on the loose or, worse yet, someone in Legal Change fixes the case so that certain evidence is not permitted and the villain gets off scott-free. I urge the game master to use the non-resolution ending sparingly, as it will tend to frustrate players if episodes keep coming up with no resolution.

Idiosyncrasy List

These are just a few suggestions. An arbitrator can add to the list as they see fit.

Fear of insects
Fear of heights
Fear of open spaces
Fear of germs
Drug dependence (pain killers, etc.)
Alcohol Dependence
Enjoys pain
Enjoys giving pain
Plays with fire
Plays with knives
Revenge

Players can choose to be a number of different character types, and the types expand as you take the game off the Earth and into the vast expanse.

Characters in the game are Talented Normals, built on 50 base points and with up to 50 points in Disadvantages. Characters must have the Normal Characteristic Maxima disadvantage, worth no points. Characters may buy any skills and/or Talents (subject to GM permission for Stop Sign and Magnifying Glass Talents). Powers are not allowed, except through items (e.g., guns, grenades, kevlar vests or jackets, motorcycles, etc.) and vehicles the character buys with money. How much money a player starts with is up to the GameMaster.

Undersea Citizens replace Climbing with +1" of Swimming, and Transport Familiarity: Automobiles with Transport Familiarity: SCUBA. In addition, Undersea Citizens have 1 point (8-roll) with Area Knowledge: Ocean Environment.

All players (except Undersea Citizens) have the following Everyman Skills:

Climbing
Computer Programming
Concealment
Conversation
Paramedic
Survival
Transport Familiarity: Automobiles
4 points (Native Fluency) with his or her home language
1 point (8- roll) with Area Knowledge: Character's Home Area
1 point (8- roll) with one Professional Skill of the player's choice

---

Archetypes

International Police Officer

Skills:

    Weapon Familiarity: Pistols (1)

    KS: International Criminal Law 11- (2)

    KS: International Civil Law 11- (2)

    Perk: Weapon Permit (1)

    Perk: Worldwide Passport (2)

    Perk: International Police Powers (5)

    Any 3 of the following: Bureaucratics, Combat Driving, Combat Piloting, Criminology, Demolitions, Forensic Medicine, Shadowing, Streetwise (9)

Disadvantages:

    Distinctive Features: Police Officer, easily concealable, noticed & recognizable (5)

    Watched by United World Powers, more powerful, 11- (10)

International Police Officers are charged to uphold the laws in a true international realm, and would be in any number of divisions. Some skilled officers are even cross-trained in other areas of investigative and police work. Familiarity with laws and international ordinances are two skills that any officer should have. Law enforcement techniques and side arm (handgun) handling and care are also basic training that a police officer would receive. International police officers are just like any real people. The stress of the job can become a problem, and when dealing with such a wide jurisdiction, there is sure to be some major stress involved. This type of character will earn promotions and work up to a higher rank such as detective, but on the other hand some gamemasters may start players out as detectives. Detectives have many different types of jobs, from investigating simple robberies to murders. Other divisions include floater patrol (boats and other water craft patrol), skycraft patrol (Bumblebee and the various blimp craft), and bomb unit (explosives experts and bomb disposal).

Spy

Skills:

    Weapon Familiarity: Small Arms (2)

    Any 2 of the following: KS: Rival Spies/Spy Organizations 11-, KS: Major Corporations 11-, KS: Military Organizations 11-, KS: Terrorist Groups 11-, KS: World Governments 11-, AK: Country of Character's Choice 11-, CK: City of Character's Choice 11- (4)

    Acting (3)

    Disguise (3)

    Any 4 of the following: Bribery, Bugging, Computer Programming, Concealment, Conversation, Demolitions, Electronics, Forgery, High Society, Lockpicking, Persuasion, Security Systems, Seduction, Shadowing, Stealth, Streetwise (12)

Disadvantages

    Hunted by a prior target group or individual (player choice), harshly punish, 8- (10)

    Watched by Spy Organization/Current Employer, More Powerful 11- (10)

Other skills that spies may have in their natural arsenal are such things as knowledge of many languages, or several contacts within other organizations. These contacts or even other persons may owe the spy a favor or two. Depending on the background of the spy, the character may also have knowledge of some form of Martial Arts (as described in the Ultimate Martial Artist), depending on background and prior training. Such skills as Interrogation both passive and direct and even Acting can be an asset to a well rounded spy.

The secret war rages on, no matter what They may tell you. Your character, as a spy, may work for any given organization. He or she would perhaps work for the highest paying cause, or might be sympathetic to the cause, with CredIdent accounts not a motivation. The spy character may in fact be working for some organization from the start, quite at home in the work. The spy character will be a master actor, able to use a multitude of different personalities to play for the public. Sometimes they may wish to keep attention away from themselves and thus take on the persona of a meek person who is hardly worth any notice. They will be a Jack or Jane of many trades, having skills in any number of things, including guns, other type weapons, explosives, lockpicking and safecracking. Most spy characters will be fit, for the rigors of the profession demand good health.

As an Alien Spy, your main goals are cut and dry: scout information on the planet Earth and its United World Powers. This means getting into a position to do so, disguised as one of the humans, perhaps a law officer of some kind. You hope not to draw undo attention as you dig for information and investigate as you go. The game master will be sure to give you other assignments which you must keep secret from the other players. This can range from obtaining files to assassination. If two or more players opt for this, they should be from different alien races and keep that secret from each other. Part of the job is to keep other alien races from gaining a higher degree of information than your own.

Gang Enforcer

Skills

Weapon Familiarity: Small Arms (2)

+1 OCV w/Small Arms (3)

+1 with all Hand-to-Hand combat (5)

2 Appropriate Knowledge Skills of the character's choice at 11- (4)

1 Professional Skill of the character's choice at 11- (for maintaining cover) (2)

Disguise (3)

Forgery (3)

Any 3 of the following: Concealment, Interrogation, Lockpicking, Shadowing, Stealth, Streetwise (9)

Disadvantages

Psychological Limitation: Do whatever it takes to finish the job, common, strong (15)

Watched by Gang Leaders, more powerful, 11- (10)

Given the highly combat-oriented role of a Gang Enforcer, most such characters will have several Combat Skill Levels above and beyond those in the Package Deal, spread out among Hand-to-hand combat and a weapon group of their choice (most often the Small Arms group every Enforcer starts with, but possibly a different group, depending on the character's personal preferences). As with spies, Martial Arts would not be unusual, given their usefulness in places that make the use of normal weapons difficult or overly risky. In fact, Martial Arts may well be more common among these individuals than among spies, although this obviously depends on how your world is built (note that in Hero, "Dirty Infighting" is considered a martial art). Other skills an Enforcer might have would be things like Bribery or Conversation (for gleaning information about that hard-to-find "client") and Acting (for better changing identities). Clearly, there's a lot of overlap between Spies and Gang Enforcers in terms of their basic skill sets. The real difference between them is in their motivations and personal goals.

The Gang Enforcer is a underworld title that will cause most criminals to keep an eye on the shadows around them. The Gang Enforcer is called in for the most severe of attitude adjustments, or out-and-out extermination of the target subject. This type of character works for one thing and one thing only: the pay in the CredIdent Account. Keeping many identities helps keep the Gang Enforcer safe while still getting paid. This type of character may join forces with other character types to meet his or her own goals, but the moment the other characters seek to hinder the ultimate goal of the Gang Enforcer, the Enforcer will do everything he can to get to the target and get the job done. This includes killing or putting other characters out of the action.

Alien Races

The are two alien races known to exist in the world of Bright Future, although that knowledge is limited to a few groups in the UWP. The races are called Intrentia and Homala, and they are to be used as NPCs only. Other alien races the GM chooses to design may be player characters at the GM's discretion (see the section further on about creating other alien races).

Intrentia

The Intrentia are small tree-dwelling beings. They have hairless bodies and elongated limbs ending in three powerful digits well suited to climbing and traversing their tree habitat. They are better at climbing than any other living creature on their home world. Their long limbs allow them to run faster than normal humans, and their senses are more keen as well. Because they are tree dwellers and use both hands equally, they are naturally ambidextrous. They are truly tiny, with the largest adult size of a normal human six year-old and the smallest individual no larger than a two year-old. Their small size and natural agility make them difficult targets in combat, something that has helped them greatly in their unwanted fight against the Homala.

They are a nonaggressive race for the most part, preferring to live in peaceful coexistence with others and at one with the nature of their world. This may soon change, however, for many young Intrentia have grown angry and resentful at what the Homala have visited upon them.

Intrentia are built using 75 points base, with up to 75 points in Disadvantages. Below is the racial package deal that all members of the race start off with.

Skill:

Increased CHAR Maxima

DEX 23 (9)

INT 23 (3)

EGO 21 (2)

+4 DEX (base DEX 14) (12)

+3 INT (base INT 13) (3)

Climbing (3)

Talent: Ambidexterity (3)

Enhanced Senses: +1 with all PER (3)

+2" Running (base running 8") (4) [1/5"]

1 Level of Shrinking (1m height, 12.5 kg mass, -2 to PER Roll Against, +2 DCV), 0 END Persistent, Always On (7)

Disadvantages:

Decreased CHAR Maxima

STR 14 (3)

CON 16 (4)

BODY 16 (4)

Distinctive Features:

Small hairless humanoid, fingers with 3 digits, concealable, major reaction (15)

Psychological Limitation:

Pacifistic, common, strong (10)

Homala

The Homala (singular Homalo) are a drastically different race from the Intrentia. They are insectoid in appearance, standing on two legs and having four arms which can act independently of one another. They have large compound eyes which give them a wide field of view, making them difficult to surprise. Much of their features are hidden, however, by the suit of heavy armor that all Homala wear. This armor is extremely tough, capable of stopping a .22 caliber bullet. When outside their armor (an infrequent event), they resemble humanoid insects, vaguely ant-like in appearance. While no human has seen one outside its armor, their insectoid appearance cannot be hidden (the armor has large form-fitting eye pieces in the helmet and an extra pair of arms) and it is speculated by some that they actually evolved from ants, or an ant-like species.

They are quite intelligent and very fast learners, quickly able to pick up the rudiments of any language they are exposed to. Their own language is a mixture of speech (mainly clicks and whistling noises) and scent, making use of pheromones to convey certain basic messages and also personal identity. When they speak a language such as English or another human language, their "voices" sound oddly breathy and raspy. This is because they are not speaking from lungs and through voice boxes as we do, but rather through their spicules (a series of breathing holes along the sides of their bodies).

Much like the insects they resemble, Homala are abnormally strong—the weakest among them is as strong as a human who exercises intensely on a regular basis. They are capable of sensing ground vibrations all around them, making them nearly impossible to surprise. In addition, some warriors are equipped with stingers that contain a powerful neurotoxin similar to that in some earth species of ant, only much stronger. This poison causes excruciating pain and slows the victim's reflexes, eventually causing unconsciousness.

The few humans who have dealt with these creatures have half-joked that they must have evolved from army ants, for they are a very aggressive race that takes insult easily. Among their kind, displays of force are accepted and even respected, and any sign of weakness in one they are dealing with can very well be taken as an insult. Reactions to this could range from simple disdain on the part of the offended Homalo to an outright attack. When truly angered and roused for battle, they are a fearsome sight, for then nothing short of their own death or the death of their opponent will stop them.

The Homala have been trading small pieces of technology to the UWP. In return, the United World Powers have taken the Homala up on the target planet they have suggested, and are now helping the Homala in the relocation of the Intrentia to another planet (see The Truth, for more information).

Homala are built on a base of 100 points, with up to 100 points in Disadvantages (note that much of their 100 point base is taken up by their Racial Package Deal, described below).

Skill

Increased CHAR Maxima (20)
    STR 25
    CON 23
    PRE 25
    PD 10
    ED 10
+5 STR (Base STR 15) (5)
+5 PRE (Base PRE 15) (5)
+6 PD/+6 ED Armor, OIF (Armor Suit), Independent, Real Armor, 1/2 Mass (4)
Enhanced Senses: +2 to Sight PER (4)
Enhanced Senses: Discriminatory Scent (5)
Enhanced Senses: Detect Vibrations (touch-based), Sense, Ranged, Discriminatory, Targeting Sense, 360 Degree Sensing (45)
Extra Limbs (2 extra arms) (5)

Disadvantages

Reduced CHAR Maxima
    COM 8 (4)
Reduced CHAR Base Values
    -10 COM (Base COM 0) (5)
Distinctive Features:
    Insectoid appearance, not concealable, extreme reaction (25)
Enraged by
    Threats to the hive or outright insults, uncommon, 14- to be enraged, 11- to recover (10)
Psychological Limitation:
    Aggressive nature, dislikes shows of weakness, common, moderate (10)

Alien races are outlined elsewhere in this book. A gamemaster who feels up to the task can speak with a player and come up with new alien races as they see fit. It should be noted that a character playing an alien will, in fact, be playing a spy in a sense as well—alien characters will be in disguise so as not to arouse the paranoid suspicions of humans. An alien character could be on Earth for many different reasons. They could be a group of advance scouts looking the Earth over for the potential of exploiting its resources for war. They could be exploring the possibility of approaching the Earth's leaders (in this case, the UWP) in hopes of letting the character's race build a jump station in the Earth's orbit for use for any number of reasons. The character may also be an advance spy for his race with the task of searching out and eliminating any plans made by other alien spies in the humans' midst. The possibilities are endless.

United Military Personnel

Skills
> Weapon Familiarity: Small Arms (2)
>
> Transport Familiarity: Vehicle Group of Player's Choice(in accord with service branch) (1)
>
> KS: Military Chain of Command 11- (2)
>
> KS: Military Terminology/Phrasing 11- (2)
>
> PS: Career Military Officer 11- (2)
>
> Climbing (3)
>
> Stealth (3)
>
> Survival (3)

Disadvantages
> Professional Rivalry with Other Military Branches (5)
>
> Watched by Superior Officers, more powerful, 11- (10)

Notice that listed here you will find the "basic training" package that all military personnel of the different branches of military service would likely receive. From this point, players are free to add whatever skills they feel appropriate to reflect a particular branch of the service as well as any specialized training they may have received to enhance the individual character.

Military personnel are some of the best-trained people in the world. Navy, Army, and the Air Force all answer to one section, though pride from one service to another shines, and rivalry does still take place. These rivalries are always good-natured, and at least once a year there are wargames, with the top scoring unit taking home a trophy. Military characters can be part of a special operations unit. Military is called on to deal with pirates, and occasionally a large terrorist cell. These types of characters are trained in a wide range of skills. Speaking with the gamemaster when working up this type of character can take time, but the end product can prove to be worthwhile in the form of a very well-rounded character.

Iron Blood

There are two Package Deals for Iron Bloods, depending on whether they are the Henchman sort or the Mastermind variety. Each has different strengths, and both should be considered as viable options.

Henchman Package
Skills
> Weapon Fam: One weapon type from the Small Arms Group (1)
>
> Well-Traveled (3)
>
> 2 City Knowledges of the Player's choice at 11- (2)
>
> 2 Area Knowledges of the Player's choice at 11- (2)
>
> Streetwise at +1 (5)
>
> Two of the following skills: Bribery, Demolitions, Forgery, Lockpicking, Security Systems, Sleight of Hand, Stealth (6)
>
> Perk: 2 Contacts at 11- (4)

Disadvantages
> Hunted by City police, want to imprison, 8- (15)
>
> Reputation: Convicted criminal with a police record, 8- (5)

Note: This package was built based on their roaming nature (the City Knowledges and Area Knowledges) and their initially small set of contacts (these ARE beginning characters after all, and shouldn't have the kind of contact base that a well established one with a big rep would have). The other skills are to reflect a small degree of specialization by the criminal—these can be expanded on as the player sees fit.

Mastermind Package
Skills
> Three Knowledge Skills of the Player's choice at 11- (6)
>
> Conversation (3)
>
> Persuasion (3)
>
> Streetwise at +1 (5)
>
> Three of the following: Bribery, Bugging, Computer Programming, Deduction, Gambling, High Society, Interrogation, Seduction (9)
>
> Well Connected (3)
>
> Perk: 4 Contacts at 11- (4)

Disadvantages
> Hunted by City police, want to imprison, 8- (15)
>
> Psychological Limitation: Superiority complex, common, moderate (10)

This package is based on a Mastermind whose power base comes from having extensive knowledge about the area he lives in and the people who live in it, and the skills in the package are intended to reflect those that would help in that goal. A player more interested in playing a wealthy Mastermind with more of a financial

bent could substitute the Well Connected skill enhancer and two of the Contacts for the Perk "Well Off." The remaining contacts could be his or her stock broker and lawyer, or anything else that makes sense. Obviously, other possibilities exist for a Mastermind's power base, but the above two packages are designed for the sort most suitable to a Bright Future campaign.

An Iron Blood is a habitual criminal, or career criminal. These characters will have contacts in the underworld, strength depending on how well known they may be. Some Iron Bloods are little more than cronies, or henchmen: the kind that don't mind doing the dirty work. These types keep track of their strike points (points on one's arrest record), and when it gets close to trench time they travel to another city or country. After a year, they are often able to go back to the city they had fled. Another type of Iron Blood, the Mastermind, is one who feels above most others in one way or another. They have resources to draw from—such as wealth or compromising information on key political figures—and use this as a lever to get the things they want. However you put it, the key to it all is power. Most criminals want to move up in the underworld, and become powers that be.

Cause Terrorist

Skills

> Weapon Familiarity: One class from the Small Arms Group (1)
> KS: Organization of Terrorist Group 11- (2)
> KS: Propaganda about the Cause 11- (2)
> Two other Knowledge Skills or Sciences of the Player's choice at 11- (4)
> Three appropriate Skills of the Player's Choice (9)

Disadvantages

> Psychological Limitation: Devoted to the cause, common, strong (15)

Because a person from this Archetype can come from virtually any background, there are few skills that can truly be called "common" to a Cause Terrorist, including the specific cause itself. Since the characters who answer this calling are diverse, "player's choice" skill selections make up the bulk of this Package Deal. The Cause Terrorist, which came to be during the 2070s, is a participant of social revolt among people of all walks of life. They represent opposition to the new world order; opposition to a society that could uncritically pursue such operations as the unprovoked takeover of another planet, and the fight against other secret operations that sometimes come to light. The Cause Terrorist groups show both political and cultural facets in the argument between right and wrong, and they fight for what they feel is right, regardless of the costs. Participants in the revolt against UWP holdings are considered terrorists. The movements, in design, seek to publicize the failures of the existing UWP system, and expose the unjust plans of the United World Powers Security Forces. People in such a group, originating in all walks of life, have a mix of skills to draw from. These thorns in the side of the UWP range from simple everyday cooks to chemists and ex-security specialists, and include men and women of all ages.

UWP Security Agent

Skill

> Weapon Fam: Small Arms Group (2)
> KS: UWP Law and Security Books 11- (2)
> KS: International Criminal Law 11- (2)
> Three of the following: Bugging, Computer Programming, Conversation, Cryptography, Persuasion, Shadowing, Stealth, Streetwise (9)
> Perk: Concealed Weapon Permit (2)
> Perk: Worldwide Passport (2)
> Perk: International Police Powers (5)

Disadvantages

> Distinctive Features: Security Agent, easily concealed, noticed & recognizable (5)
> Reputation: UWP security agent, 8- (5)
> Watched by Superiors in UWP, 11- (10)

There is not much difference here between the International Police Officer and the Security Agent. The main difference is in the "player's choice" section of the package, where the agent has more espionage- or security-related skills, while the officer has more investigative and combat-related skills. The security agent's world is less defined when it comes to trusting what, or who is in front of them. With uncountable subgroups and teams in the security agencies, the lines become nonexistent. "Trust no one." That's the saying of a good United World Power Security Agent.

Working for the main powers, United World Powers Security Personnel are in charge of secret intelligence. They are also charged with the responsibility of protecting the United World Powers organizations all over the world. United World Powers security also works to counter terrorist or other non-World Power organizations, using counterintelligence and espionage as necessary. Since the UWP is such a vast organization, there are a few splinter groups with other agenda that crop up once in a while. These groups often do not care what they must do to achieve their objective. These people can be deadly, and will eliminate anyone standing in their way. There are many in the UWP who are on the level, just doing a job, but many times it seems that the splinter groups outnumber the others. A UWP agent will try to use the law to his or her advantage, speaking in terms of sections in the UWP law and security books. At the same time, they travel the gray areas during an investigation to get what they want.

Undersea Citizen

No package deal is necessary for this group, as they are essentially no different from other people (apart from the fact that they live in an undersea colony). Undersea Citizen characters can belong to any of the other Archetypes, although they are most often members of the Miner, Undersea Soldier, Undersea Nomad, or Trencher Archetypes. The only difference between an Undersea Citizen and a regular citizen is in the Everyman Skills possessed by these individuals.

The Undersea Citizen is someone who, for one reason or another, has taken advantage of the Undersea Colonization Act of 2026 and made his or her residence in one of the two current undersea cities: New Cozumel or Atlantis Colony. These people

are independent and skillful; typically looking for a new life or a chance to begin again. Possible undersea citizens encountered include Merchants, Tourists, Tour Operators, Residents, an occasional Oceanographer, as well as a wide variety of others. Possible locales include New Cozumel, Atlantis Colony, and various research ships and platforms.

Miner

Skill

> Science: Geology 11- (2)
> KS: Mining 11- (2)
> KS: Undersea Mining Equipment 11- (2)
> AK: One undersea installation of the player's choice at 11- (2)
> One of the following Professional Skills at 11-: Miner, Foreman, Operations Manager, Vehicle Operator (2)
> Three Knowledge Skills appropriate to the Professional Skill, at 11- (6)
> Mechanics 11- (3)

Disadvantages

> Psychological Limitation:
> > Loyal to cadre, uncommon, strong (10)
> > Fiercely independent, uncommon, moderate (5)

Note that, because Miners are by default Undersea Citizens, they automatically start off with Transport Familiarity: SCUBA as an Everyman Skill, and do not need to purchase it as part of the package.

The Miner is the working-class citizen of the Undersea. Where the Undersea Citizen plans out expansion, maps out new canyons, and introduces new legislation; the Miner makes it all happen. Miners build new platforms, mine raw materials from existing platforms, herd Trenchers to do deep-sea mining, and even run the vehicles that bore the mining tunnels.

Miners are as independent and self-sufficient as they come. Most are "hard cases," closed emotionally, and only intent on getting the job done and out of the way. Miners are very proud of what they do and build, and groups of them (called cadres), often compete on a friendly level to see who can extract the most raw ore from the undersea mines.

The Miner's cadre is the closest thing to a family most Miners have ever had. The cadre forms after years of hazardous working conditions, helpful advice from more seasoned miners to beginners, and general familiarity between its members. This results in an organization that mines more effectively, more efficiently, and without nearly the accident ratios that non-cadre platforms face. Despite the visible advantages of official cadres, subsidiaries such as Deep Core Systems refuse to allow cadres on their platforms.

Miners can have a wide variety of training, but every Miner will have a working knowledge of all suit classes, will usually know one of the undersea installations inside and out, will have a working knowledge of undersea equipment, and will have an unsurpassed level of knowledge concerning mining techniques and rock formations. Foremen, Operations Managers, and Vehicle Opera-

tors will all have specific knowledge pertaining to their area of expertise.

The average Miner will be physically fit, of average intelligence, and have a vicious independent streak. Cadre loyalty is everything to them, and they will protect their own. Miners lead an extremely rough life with little recognition. A cadre's initials etched into the steel girders and rock mines ensure that other Miners will always know who was first.

Possible jobs include Miner, Foreman, Operations Manager, and Vehicle Operator. They can be found most often on Mining Platforms and "Trencher" Platforms.

Strategic Undersea Command (SUNC) Soldier

Skill

> Weapon Familiarity: Small Arms (2)
> KS: Military Procedures and Policies 11- (2)
> KS: Undersea Combat 11- (2)
> KS: Undersea equipment 11- (2)
> One of the following Professional Skills at 11-: Platform Security, Marine, Sub Crewmember, Undersea Engineer, or other appropriate skill of Player's choice (2)
> Transport Familiarity: Submarines (1)
> Three of the following skills (Training): Combat Driving, Concealment, Electronics, Mechanics, Navigation, Security Systems, Survival, Systems Operation, Tactics (9)
> +1 Skill Level with any skill in the Training Set (3)

Disadvantages

> Reputation: SUNC troop, 8- (5)
> Watched by Superior officers, 11- (10)

Whether a Marine grunt, an officer, or a member of the Corps of Engineers, members of Strategic Undersea Command (SUNC) have a very clear mission: keep the peace, expand the boundaries, and make sure no one stops the flow of cargo vessels into and out of undersea cities and platforms. SUNC is responsible for everything external to the cities and platforms, such as piloting cargo and military subs. It is also responsible for the secure operation of undersea docks, platforms, and even herding Trenchers back to their holding areas.

Organization is cut-and-dry military style. Four men make up a squad, four squads make up a quad, four quads make up a company, four companies make up a regiment, and so on. Members of the SUNC are all hardened veterans, often pulled from other parts of the military to serve under the waves. Occasionally, undersea duty will be used as a form of punishment (such as assignment to a Trencher Platform), but not often. As assignments go, undersea duty is by far the quickest way to speed through the ranks.

All soldiers have basic infantry training in addition to basic undersea combat training. Marines and Platform security have advanced forms of combat training, and have an unsurpassed knowledge of undersea personal weapons, suits, and military equipment. They can use all undersea equipment effectively, and

can typically make field repairs on weapons and suits. Sub crews will have intensive training in navigation, ship's systems, and will then specialize further into their area (helm, weapons control, etc.). They have a basic understanding of suits and can effectively use both suits and the equipment onboard. They have undersea survival training, and can use makeshift vehicles in order to escape to the surface.

Undersea engineers specialize in design and materials, with an unsurpassed level of expertise. They have basic suit operations knowledge, but have a deep understanding of onboard equipment, and how to repair or modify it. Due to military physical requirements, all SUNC soldiers are in top physical condition. SUNC soldiers have also passed such endurance tests as treading water for two days, swimming two miles in the North Pacific's frigid temperatures, and swimming, without any pressurized suits, at excessive depths for short spans of time.

Possible jobs include Platform Security, the Marine, Sub Crew, and Undersea Engineer. Possible places to find soldiers include Research facilities, Mining or Military Platforms, "Trencher" Platforms, Cargo or Military subs, and the docking areas of Atlantis Colony and New Cozumel.

Undersea Nomads (and Trenchers)

Nomads and Trenchers have no specific Package Deal, due to the widely variable nature of their background. Given their extremely limited mobility and even more limited options, Trenchers and their supervisors are typically NPCs. A player wishing to be a Nomad (or a GM designing a Trencher NPC) should first take one of the other existing Package Deals, then replace the Professional Skill for that Package with one appropriate to the new archetype.

Undersea Nomads are drifters, moving with the current from one stop to the next. Most Nomads are harmless, seeking only to make a living collecting nodes for resale. Other more unscrupulous types seek to make a living the easy way—by taking it from someone else, as the pirates do, or by perhaps moving ore and precious metals without paying the tariffs and taxes that keep much of the undersea community going. Either way, Nomads are loosely grouped in alliances and families, often walking a fine line between success and failure.

Node collectors, nicknamed "Bottom Feeders" because of their specialized collection tools, are either commissioned by the Underwater Council to collect nodes, or are paid on a per-node basis. These nodes, made of valuable ores, are the easiest way to make up for material shortages when the miners are running below quota. Node collectors lead a very hectic life onboard huge "farm" submarines. These giant metal beasts house anywhere from twelve to twenty-four families in cramped but reasonably comfortable living conditions. The subs also hold collection equipment and have many sectioned holding areas for collected nodes. Because the threat of pirates and the occasional smuggler is very real, farm subs are dotted with weapons blisters that house crude but effective weapons similar to oversized spear guns.

Smugglers and pirates are the criminals of the undersea community. Most are iron bloods who escaped through the dragnets to make a living by smuggling nodes, ores, and other specialties of the deep. If they don't take up smuggling, they become parasites on the community—pirates. These gangs of iron bloods are

feared everywhere because of their lack of humanity and greed for money, ores, and even ships. Pirates are rarely seen on the continental shelf or in "Hot" areas because of the presence of SUNC patrols. Many pirates also have ties to the military establishment, and often form mercenary units hired by countries, or corporations, that wish for a platform or sub to simply "disappear".

Skills vary as widely as the people you'll find. Some are ex-professionals who wanted to get away from civilization, others are hard core criminals, and still others are ex-SUNC soldiers who went AWOL. Node collectors will typically have skills similar to Miners, Smugglers will have skills similar to the average Citizen, and Pirates will have skills similar to SUNC Soldiers or Miners. Nomads are typically physically fit due to the rigors of the job. They are usually unkempt, and are often considered the savages of the undersea.

Possible jobs encountered include Node Collectors, Smugglers, Pirates, and Freelance Cargo Haulers. They can be found anywhere under the waves.

Trencher

Trenchers are iron bloods who have been assigned to vast undersea prisons cut into the sides of deep trenches. They have no contact with the outside world, and have been condemned to finish out their lives mining, farming kelp, or exploring the areas of the ocean that even the military won't touch. Assignment to a trencher platform for any of the other archetypes is the worst kind of punishment, and those that do come back from a trencher platform intact are never quite the same.

Trencher society has several levels. Each platform has its own warden. Typically a member of SUNC, they have stepped on the wrong toes, and ended up in their current predicament. The warden is supplemented with a staff of ten to twenty SUNC logistics officers, whose sole duty is to watch the farming and mining units and to deactivate any dive suits before the trenchers try to kill one another or worse. Miners looking to make a quick buck are paid double wages to be foremen for trencher miners, and finish out the administration of a trencher platform.

Unlike many prisons, trenchers do not secretly run things, nor do they even have a system of ranks within their own structure. This has happened because of an enforcement edict that any prisoner attempting to create a society within the platform will be shut down in the field one day and left to suffocate.

All trencher suits have a built-in remote administration module which ties into the life-support and power circuits. The RAdMode, as it is known, is controlled by the logistics people on the platform. At any time, the RAdMode may be activated, which causes an immediate loss of power and life-support in the suit. Only the warden may reactivate a suit that has been shut down. Advocates of the trencher platforms have pointed out that watching a fellow prisoner suffocate is a very persuasive deterrent—and so far they've been right.

The RAdMode may also be activated automatically if a suit is taken past a certain radio beacon boundary. This ensures that even if a trencher should escape past a foreman, they will die a slow painful death if they pass the perimeter beacons. Escape from a trencher platform is mathematically impossible, but that doesn't stop most trenchers from hoping.

Occasionally, if a trencher shows exceptional work and a real intent to reform, the case will go to the warden. If approved, the prisoner must work an additional five years as a foreman, and is then free to either return to the surface or continue work on a mining platform. This has only happened five times during the last ten years. Trenchers come from all walks of life for any number of first degree crimes. Professionals, soldiers, or the lowliest street dregs can wind up working the trenches.

Possible trencher jobs include Kelp farming, Mining, and Exploration.
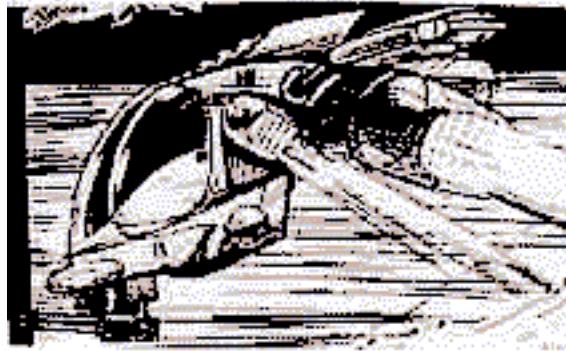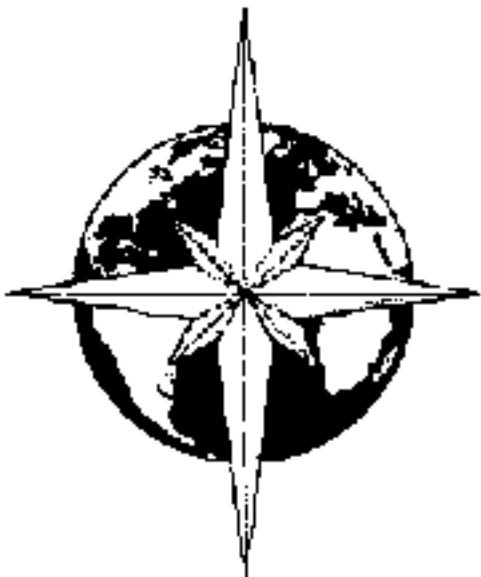
3: Example Characters

Following is a group of characters who have appeared in Bright Future stories, including brief write-ups on each character. Gamemasters can use the characters when players need a bit of help or hindrance. These characters can be used as models for characters of your own, or as Non-Player run characters.

Intermixed with these are additional NPCs the players might encounter. These characters are essentially "filler" or "bit" roles, and as a result have a bare-bones write-up, simply giving their name, important skills, and background. You can use these characters as inspiration for additional minor NPCs as you see fit

Joann Lee Danns

Occupation: International Police Detective

Skills: Hand Gun Combat, Investigation, Piloting

Motivation: The Occupation

Weaknesses: Bull-Headedness

Val	CHA	Cost	Roll	Notes
13	STR	3	12-	150 kg; 2 1/2d6 [3]
14	DEX	12	12-	OCV: 5/DCV: 5
13	CON	6	12-	
11	BODY	2	11-	
14	INT	4	12-	PER Roll 12-
14	EGO	8	12-	ECV: 5
15	PRE	5	12-	PRE Attack 3d6
14	COM	2	12-	
4	PD	1		Total: 4 PD
4	ED	1		Total: 4 ED
3	SPD	6		Phases: 4, 8, 12
6	REC	0		
26	END	0		
24	STUN	0		

Total Characteristics Cost: 50

Movement:	Running: 6"/12"
	Swimming: 2"/4"

Powers & Skills

Combat Training:
  Combat Skill Levels: +1 OCV with Pistols (3)
  Range Skill Levels: +2 with Pistols (4)

International Police Officer Training:
  Combat Piloting (Planes) 12- (3)
  Criminology 12- (3)
  KS: International Criminal Law 11- (2)
  KS: International Civil Law 11- (2)
  Shadowing 11- (3)
  Weapon Familiarity: Pistols (1)
  Perk: Weapon Permit (1)
  Perk: Worldwide Passport (2)
  Perk: International Police Powers (5)

Investigative Training:
  Conversation 12- (3)
  Deduction 12- (3)
  PS: Detective 11- (2)
  Skill Levels: +1 with Conversation, Criminology, or Shadowing (tight group) (3)

Pilot Training:
  KS: Fighter Planes 11- (2)
  KS: Transport Planes 11- (2)
  Perk: Licensed Pilot (1)

Total Powers & Skills Cost: 45

Total Character Cost: 95

Disadvantages: 50+

Distinctive Features:
  Police Officer, easily concealable, noticed & recognizable (5)

Psychological Limitation:
  Detached and unemotional around people, common, strong (15)
  Becomes reckless when faced with moral or ethical decisions, uncommon, strong (10)
  Headstrong & stubborn, uncommon, moderate (0)

Reputation:
  Tough but fair cop, 8- (5)

Watched by
  United World Powers, more powerful, 11- (10)

Total Disadvantage Points: 95

Background/History: Joann is the daughter of Douglas Lee Danns, a shipping contractor for the United World Powers sea farming firm, which builds ships and subs for the cultivation of the world's seas. Her mother, Marie Danns, died from a fall down a flight of stairs when Joann was 15. Joann left home at nineteen, and was always a very independent person. She still keeps in touch with her father, but not as much as he would like. Her father's second wife, Jiana, does not get along well with Joann. At age 28 Joann married but it didn't last; he was too engrossed in work and when she joined the International Police forces and did not want her to continue as an officer. Though they found time to have a child, his throwing himself into his computer work drove them apart. The divorce was a rocky one and Joann lost custody of the child, and now pays child support. As a result, she won't talk about her ex-husband or her child. Joann, in many ways, can be very detached from everyone; she does not like getting close to people for fear of losing her edge. She is more than happy to talk shop and tactics but will shy away from revealing anything about herself. Very efficient in her work, she tries to be unemotional; but sometimes she is overcome by bouts of sentimentality when it comes to her values of right and wrong. This leads to her performing reckless actions that no sane person would try. There are times when what she has been told is right just does not feel right, and this shows just how human she can be. She is not above doing the wrong thing for the right reason, but this is rare and the situation has to be unique. When angered, or if there is something that, in her mind, is wrong, she will not drop pursuing the problem. When angered, she stays that way for a long while. She is headstrong when it comes to proving she can do the job. Because history shows that over many centuries women have been used and abused by men, she wants to be equal—but on her terms. As of now she is 33 years old.

Personality/Motivation: Showing that a woman can get the job done just as well as a man.

Quote: "The writing's on the wall; it just says different things to different people."

Quote when she's angry: "Bad Move on your part!"

Powers/Tactics: Joann will be armed with a Sig-Sauer of one type or another, always a 9mm. She enhances the weapon with a laser sight once in a while, but will always use night sights of one type or another. She will always be with at least two extra clips for her weapon. A backup gun is carried once in a while in a pancake holster at her back above the right hip. This too is a 9mm. She also likes to wear a ballistic coat that provides protection against rounds of up to 357, and moderate protection against .44 magnum and shotgun. She has learned boxing and is quite good at it, but Joann is more of a street brawler than anything else.

Appearance: Joann is a tall woman, with good muscle tone. Her eyes are a striking blue with the slightest hint of green around the iris. Her hair is black in color and shoulder length when she wears it down. While she is considered to be a plain Jane, she has a womanly charm that peeks past. She could pass for the woman next door.

Gary Bergenson

Occupation: International Police Patrol Detective

Skills: Piloting, Jury Rigging, Communications, Firearms (shotguns, rifles, handguns)

Motivations: Family

Weaknesses: None

Val	CHA	Cost	Roll	Notes
14	STR	4	12-	150 kg; 2 1/2d6 [3]
18	DEX	24	13-	OCV: 6/DCV: 6
13	CON	6	12-	
10	BODY	2	11-	
13	INT	3	12-	PER Roll 12-
11	EGO	2	11-	ECV: 4
13	PRE	3	12-	PRE Attack 2 1/2d6
12	COM	1	11-	
3	PD	0		Total: 3 PD
3	ED	0		Total: 3 ED
3	SPD	2		Phases: 4, 8, 12
6	REC	0		
26	END	0		
24	STUN	0		

Total Characteristics Cost: 47

Movement: Running: 6"/12"
Swimming: 2"/4"

Powers & Skills

Combat Training:
Combat Skill Levels: +1 OCV with all Ranged Combat (5)
Range Skill Levels: +1 with Ranged Combat (3)

Firearms Training:
Weapon Familiarity: Rifles (1)
Weapon Familiarity: Shotguns (1)

International Police Officer Training:
Combat Piloting (Planes) 14- (5)
KS: International Criminal Law 11- (2)
KS: International Civil Law 11- (2)
Shadowing 11- (3)
Streetwise 12- (3)
Weapon Familiarity: Pistols (1)
Perk: Weapon Permit (1)
Perk: Worldwide Passport (2)
Perk: International Police Powers (5)

Pilot Training:
KS: Fighter Planes 11- (2)
KS: Transport Planes 11- (2)
Mechanics 12- (5)
Navigation 11- (3)
Systems Operation 13- (5)
Weapon Familiarity: Vehicle Weapons (1)
Perk: Licensed Pilot (1)

Total Powers & Skills Cost: 53

Total Character Cost: 100

Disadvantages: 50+

Distinctive Features:
Police Officer, easily concealable, noticed & recognizable (5)
Uses hands a lot when speaking, concealable with effort, noticed & recognizable (10)

DNPC:
Becky Ann Bergenson (wife), Normal, 8- (10)

Psychological Limitation:
Hatred of drug dealers, uncommon, strong (10)

Reputation:
Very skilled and capable pilot, 8- (5)

Watched by
United World Powers, more powerful, 11- (10)

Total Disadvantage Points: 100

be a dangerous foe to come against. Gary is now 35 years old and is partnered most times with Joann Lee Danns in a patrol Bumblebee, their unit being designated Stinger 5. Gary also is hooked on Toaster Buddies, a pastry breakfast food.

Personality/Motivation: Catching the bad guys. Putting them off of the street so they don't harm the innocent.

Quote: "One of the Highest police casualty rates is associated with a search warrant entry, dealing with iron bloods—particularly those dealing with narcotics warrants. People tend to show the worst side when a cop's around. It's hard sometimes to get them to realize we are the good guys."

Powers/Tactics: Gary likes the punch of the .44 or 357 magnum and uses the Desert Eagle automatic in one of these calibers. A backup gun is also carried, an older model snubnosed revolver, a Smith and Wesson 38 Bodyguard. Gary is very skilled in the Judo arts as described in the Ultimate Martial Artist. He will often use joint locks and throws to take an opponent down to be cuffed.

Appearance: Gary looks like a jock, right down to his buzz cut. Gary is a 5'10" medium build, and muscular. His eyes can carry the hint of mischief or the piercing stare of promised danger.

Background/History: Since the age of 15 Gary loved flying, but during his teens he also had a love for trouble, and it landed him in a youth gang in New Miami. One night went all wrong, resulting in Gary being arrested. His one-parent home did not help matters, for his father not only refused to help him, but packed up in the night and left for parts unknown. The City of Miami ended up as legal guardian of Gary Bergenson. A police officer named Phil Johnson was part of a old program teaming parentless kids together with an adult friend, in hopes of giving children a role model. In Gary's case, it worked very well. Phil fostered Gary's love of flying, even to the point of arranging for rides in a new patrol craft called the Bumblebee. By this time Gary was just turning 20, and was of age to join the police academy. With Phil's help, Gary made it in and was soon qualified as a Bumblebee pilot. It took Gary ten years to make detective, all the while working in a patrol Bumblebee. Gary soon became known as one of the best pilots in the sector. Sometime during Gary's fifth year as an International Police Officer, his friend Phil was killed in an arrest gone very wrong. Two other police officers had been crooked and had been going into the drug business. At the end of the investigation, as Phil and six other police officers moved in to make the arrest, the crooked cops opened fire. Phil was killed, and one other officer was wounded before they had been taken down and arrested. As a result of this, Gary has a deep rooted hate for drug dealers. A year later, he met a young woman who helped ease his pain and doubt, and they were married after another eighteen months. Becky Ann and Gary have one son named Ron. As Ron got older, he had a falling out with his father, so they don't get along very well now, nor does Ron live at home. Gary, most times, is an easygoing man, usually brushing tense situations off with his lighthearted manner. Gary is a very animated speaker, using his hands a lot to emphasize his words. It takes a great deal to get his temper over the point of anger, but when this happens he can

Becky Ann Bergenson

Occupation: Housewife

Skills: Cooking, Negotiation, awareness

Motivations: Life

Weaknesses: After an accident she had become dependent on pain killers. She has overcome this for now.

Skills: Cooking; Persuasion

Background/History: Living in what was farm country, Becky's family had to learn new forms of farming when the floods started. They worked with rice and were lucky enough to start what turned into a large catfish farm. With contracts to the military, Becky's father, Samuel Donalds, did well for his family. When Becky became old enough for college, she packed up and went off to what was left of Florida for schooling. While still in school she met a young man who was a International Police Officer, but they soon drifted apart. At a police function she then met Gary who she later fell in love with and married. They had one child, Ron. Becky, being from a close-knit family, found it difficult to deal with the falling out her son and husband later had. Becky does not hide the fact that she hopes the two of them will patch things up and become friends and father and son again. She had almost gotten her wish when after an accident she became addicted to pain killers. Becky welcomed the chance to hide from the emotional pains of the world with the aid of drugs. With Gary's help, she soon went into rehab, and kicked the habit that had gripped her totally at one time. Becky is an easygoing woman, and being from the country she has a motherly manner with almost everyone. She is a good listener, and sometimes can offer insight to things she has nothing to do with.

Quote: "A good stew has to have all the right spices."

Powers/Tactics: Becky is not a fighter; she will try to reason her way out of most situations.

Appearance: Medium build, Becky is a beautiful woman with deep gray eyes and hair she likes to keep in a tight style most of the time.

Jon T. Blackburn

Occupation: International Police Captain

Skills: Investigation, Courtroom Manner, Public Relations, Scuba Diving, Knife Fighting, Small Weapons (handguns, machine guns), Infiltration, Survival

Motivations: Protecting the innocent

Weaknesses: Skeleton in his closet

Val	CHA	Cost	Roll	Notes
15	STR	5	12-	200 kg; 3d6 [3]
14	DEX	12	12-	OCV: 5/DCV: 5
15	CON	10	12-	
11	BODY	2	11-	
13	INT	3	12-	PER Roll 12-
10	EGO	0	11-	ECV: 3
18	PRE	8	13-	PRE Attack 3 1/2d6
10	COM	0	11-	
3	PD	0		Total: 3 PD
3	ED	0		Total: 3 ED
3	SPD	6		Phases: 4, 8, 12
6	REC	0		
30	END	0		
28	STUN	0		

Total Characteristics Cost: 47

Movement:	Running: 6"/12"
	Swimming: 4"/8"

Powers & Skills

Combat Training:
Combat Skill Levels: +1 Level with Knives (3)

Military Training:
Climbing 12- (3)
KS: Military Chain of Command 11- (2)
KS: Military Terminology/Phrasing 11- (2)
PS: Military Officer 11- (2)
Stealth 12- (3)
Survival 12- (3)
Transport Familiarity: Ships (1)
Weapon Familiarity: Small Arms Group (2)

Special Forces (SEAL) Training:
Concealment 12- (3)
PS: Navy SEAL 11- (2)
Swimming: +2" (4" total) (2) [1/5"]
Tactics 12- (3)
Transport Familiarity: SCUBA (1)
Weapon Familiarity: Knives (1)

International Police Officer Training:
Bureaucratics 13- (3)
KS: International Criminal Law 11- (2)
KS: International Civil Law 11- (2)
Shadowing 11- (3)
Streetwise 12- (3)
Perk: Weapon Permit (1)
Perk: Worldwide Passport (2)
Perk: International Police Powers (5)

Total Powers & Skills Cost: 53

Total Character Cost: 100

Disadvantages: 50+
Distinctive Features:
    Police Officer, easily concealable, noticed & recognizable (5)
Psychological Limitation:
    Only uses violence when all other options are exhausted, common, moderate (10)
    Active dislike for the military, uncommon, strong (10)
    Secretive about his past, uncommon, moderate (5)
Watched by
    United World Powers, more powerful, 11- (10)
    United World Powers Security, more powerful, non-combat influence, 8- (10)
Total Disadvantage Points: 100

Background/History: Jon Blackburn is a cop from the old school, working hard and upholding the laws of the UWP. Blackburn is a hard man at times with others around him. He can be a very good friend, but he never lets friendship get in the way of work. Blackburn is the kind of man who will use violence only when it is the last resort, or if others are in danger. He had spent seven years in a special forces unit for a branch of the UWP. On one mission to the Arctic his team was wiped out; Blackburn and two others were the only survivors. It was an anti-terrorist mission; a secret base had been found and the team was to go in, take down any persons on the base, and bring back any unknown equipment. What they found was nothing of this world. The interstellar beings set off charges in the fighting and escaped. The strange machines that had been in the underground base were damaged. As a result, Earth's ecosystem has begun to repair itself. (The machines had been placed at the poles to destroy the Earth's ecosystem. (see The Truth .) The team was supposed to secure any items that could be used in Operation Blue Book (the use of Alien equipment to further our own military and space travel technology). Blackburn was a good soldier, and one that never asked questions about any order given to him, until one day when the team did a strike on what was supposed to be a sea plane full of weapons, which turned out to be civilians. Sickened with the murders he had been part of, Blackburn left the military. Getting into police work was almost too easy, and Blackburn climbed the ladder to his captain position in eleven years. He is a good man to have on your side, but very secretive of his past. Personality/Motivation: Paying back the debt of the murders—a debt that can never be paid.

Quote: Sometimes you have to make a judgment call; it's the spirit of the law and not the letter.

Powers/Tactics: Blackburn makes use of a Smith and Wesson model 6904 in 9mm in a special hot load for best performance and accuracy. When in the field he will also wear a ballistic jacket for protection against rounds of up to 357 magnum and marginally against shotgun. Blackburn is a sharp shooter with a pistol and has been known to carry two spare clips of ammo. Other than standard street brawling he has some skills in Judo from his military days.

Appearance: 5'10 1/2 Blackburn has the looks of someone's father, not of a cop. He has thinning hair, balding at the top.

Beth Ann Davis

Occupation: Floater Patrol Officer/International Police Officer

Skills: Boat Pilot, Handguns, Investigations, Computers

Motivations: A command of her own one day

Weakness: Attractive females

14	STR	16	DEX	13	CON	12	BODY	14	INT
11	EGO	13	PRE	14	COM	3	PD	3	ED
3	SPD	6	REC	28	END	26	STUN		

Powers and Skills: AK: Ocean/bays around New Miami 12-; Bureaucratics 12-; Combat Driving 14-; Computer Programming 14-; Criminology 12-; Shadowing 11-; KS: New Miami Criminal Database 12-; KS: International Criminal Law 11-; KS: International Civil Law 11-; Oratory 12-; Perk Weapon Permit; Perk: Worldwide Passport; Perk: International Police Powers; Weapon Familiarity: Pistols +1 with Hand-to-Hand; +2 w/ Pistols

Disadvantages: Distinctive Features (Police Officer); Distinctive Features (British Accent); Distinctive Features (Lesbian); Psychological Limitation (Attracted to Joann Lee Danns); Psychological Limitation (Driven to be a Hard Worker); Watched by UWP

Background/History: Beth Ann Davis was originally a police officer in England's Area 15, London Area. Having become bored with the life of a police officer in England, Beth longed to travel and transfer to what she termed a more interesting post. After watching more about the other sectors, she longed to make it to New Miami, or New York, for police work in London was slow compared to the things she saw on the vidnews about police work in other sectors. Being part of the International organization, she put in for a transfer. After three months of waiting, she got what she considered the dream assignment: New Miami. Beth found the change to be everything she hoped for, except for a few things she did not expect. In England, the mood towards her attraction for the same sex, while not overly respected, was accepted for the most part. She has found that here, in her new posting, people can be cruel and unthinking. She now goes out of the way to keep that side of her life out of her job. It would be easy to keep this secret, but she finds herself attracted to Joann Lee Danns. Beth has tried her best to keep these feelings in check, but she hopes to one day work up the nerve to talk to Joann about it. She knows Joann is easy going, but she is afraid that she would lose Joann as a friend if the other woman reacted badly to the news of her attraction. Beth works in the police station most of the time, doing computer checks on suspects and running down other files. When she is needed, she also works crowd control at crime scenes. Beth has a desire that one day she will be in command of a section, so she works very hard at her job, no matter how small the task. Her aim is to shine and have it on the record that she is a hard worker. Three days a week, she works boat patrol in a Manta fast patrol water craft. She is a top-rated boat pilot.

Personality/Motivation: Beth has her sights set on command one day, and will work hard to get to that point.

Quote: When there are food and good times you have friends; when there's trouble you find out who they really are.

Powers/Tactics: Beth will try using her negotiating skills before using force, but she will not place herself or others in danger. She can and will use her sidearm if she has to. Her choice of weapon is the HK VP70, a mammoth of a 9mm weapon that she handles with ease.

Appearance: Beth is medium build; her blue eyes are framed by long blonde hair that she wears in a pony tail most of the time. She could pass for a model from some yuppie catalog if you had no idea she was an International Police officer.

Beth Ann Davis

Danny James

Danny James

Occupation: Career Criminal

Skills: Handguns, Rifles, Shotguns, Lockpicking, Observation, Electronics

Motivations: Greed, Revenge

Weakness: Temper

12	STR	14	DEX	14	CON	11	BODY	10	INT

12 STR 14 DEX 14 CON 11 BODY 10 INT
13 EGO 16 PRE 10 COM 4 PD 3 ED
3 SPD 5 REC 28 END 24 STUN

Powers and Skills: AK: Southern Florida 11-; AK: Central California 11-; CK: Los Angeles 11-; CK: New Miami 11-; Concealment 12-; Electronics 12-; Lockpicking 13-; Stealth 12-; Streetwise 12-; Weapon Familiarity: Pistols; Weapon Familiarity: Rifles; Weapon Familiarity: Shotguns; +2 with Ranged Combat; Well Traveled; 2 Contacts at 11- (Legal Change Department, at GameMaster's discretion)

Disadvantages: Hunted by City Police; Psychological Limitation (Greedy); Psychological Limitation (Vengeful); Reputation as a Convicted Felon.

Background/History: Danny James grew up in a bad way, so it is no wonder that he should turn out to be a criminal. Born in Los Angeles, California before the great quakes, James at the age of 15 had already started his criminal actions: a fellow student paid James to carry out a killing. The student was upset with another student and paid Danny James to kill someone else's pet hamster. After this, James started shoplifting and stealing lunch money from other students from time to time. When the great sinkings started, James and his parents moved to Florida. The family did modest work at different food stores and lived well. As he reached 20, James started to get into other types of crime. His repertoire included robbery and theft, to name a few, and after a time he fell in with a group of people working freelance for a mob family doing strong arm work tactics. One evening, James and four others hit a store for protection money. Wearing dark hoods for intimidation purposes, they entered the store and demanded the money that was owed to their employer. Little did James know that his parents had been working in this store for extra money. Before Danny James could stop his father, his father pulled a gun and shot at him. James pulled his weapon and gunned down his own father, for 480 CredIdent cards from the cash register. From that day forth, Danny's mind snapped. It did not matter that his father was defending himself, it did not matter that his father could not see who it was under the hood that he was firing at. James felt betrayed. James is now prone to excessive violence, and once he is angry at someone he contemplates revenge, no matter what the cost.

Personality/Motivation: It's him against the world—as simple as that. Do what you gotta do to survive.

Quote: "Damn cops, need to stop messing with my life."

Powers/Tactics: James is a brawler. He is at home with a club, or a broken bottle as a weapon. When he does use a gun, he is prone to using semiautomatic rifles. If in a fight he does not hesitate unless he feels he has the full advantage.

Appearance: James fancies himself a stud and keeps his dark hair slicked down and his mustache very thin. He is a heavier build with muscle that he puts to good use.

Tina Wu

Occupation: International Police Detective/Bomb Tech

Skills: Explosives, Computers, Investigation, Martial Arts, Small Firearms

Motivations: Doing well in her family's eyes

Weakness: None

Val	CHA	Cost	Roll	Notes
13	STR	3	12-	150 kg; 2 1/2d6 [3]
14	DEX	12	12-	OCV: 5/DCV: 5
14	CON	8	12-	
10	BODY	0	11-	
16	INT	6	12-	PER Roll 12-
11	EGO	0	11-	ECV: 4
14	PRE	4	13-	PRE Attack 2 1/2d6
12	COM	1	11-	
3	PD	0		Total: 3 PD
3	ED	0		Total: 3 ED
3	SPD	6		Phases: 4, 8, 12
6	REC	0		
28	END	0		
24	STUN	0		

Total Characteristics Cost: 40

Movement: Running: 6"/12" Swimming: 2"/4"

Powers & Skills

Combat Training:
   Combat Skill Levels: +2 Levels with Kung Fu (tight group) (6)
   Martial Arts—Kung Fu (Dragon and Snake Styles) (16)

Maneuver	OCV	DCV	Damage
Block	+2	+2	Block, Abort
Joint Lock	-1	-1	STR 23 Grab
Kick	-2	+1	6 1/2d6
Punch	+0	+2	4 1/2d6

International Police Officer Training:
   Criminology 12- (3)
   Demolitions 13- (7)
   KS: International Criminal Law 11- (2)
   KS: International Civil Law 11- (2)
   Shadowing 11- (3)
   Weapon Familiarity: Pistols (1)
   Perk: Weapon Permit (1)
   Perk: Worldwide Passport (2)
   Perk: International Police Powers (5)

Bomb Squad Training:
   Science: Chemistry 11- (2)
   KS: Explosives 11- (2)
   Mechanics 11- (3)
   PS: Cutter 11- (2)

Background Skills:
   Computer Programming 12- (3)

Total Powers & Skills Cost: 60

Total Character Cost: 100

Disadvantages: 50+

Distinctive Features:
   Police Officer, easily concealable, noticed & recognizable (5)
   "Party girl" after hours, easily concealable, noticed & recognizable (5)

Psychological Limitation:
   Driven to do well in her family's eyes, common, moderate (10)
   Angered by disregard for honor, common, moderate (10)

Reputation:
   Very skilled bomb tech, 11- (10)

Watched by
   United World Powers, more powerful, 11- (10)

Total Disadvantage Points: 100

Background/History: Tina grew up in Hong Kong, the city of junks. When the great floods took the world, Hong Kong fared no better than most seaside cities. Now it is made up of a vast city of junks, lashed together by docks and walkways. Tina was an achiever, striving high in her classes and surpassing everyone's expectations. Even at a young age, she knew that she wanted to be a police officer, and she knew early on exactly what line she wanted to enter into. Tina had been witness to a bomb tech working on an unexploded bomb dropped from a Thailand war aircraft. The man had been the bravest, most unselfish person she had ever seen. As she saw the faces of the frightened people turn into elation, as the bomb was disarmed, she knew that she would strive to be a bomb tech. The short two-and-a-half month border war had made her grow up far faster than she had wanted to. She is now one of the top explosives techs on the police force in her sector.

At the age of 16, with the insistence of her uncle, she took up the old ways and learned the Five Family style of Wushu. She enjoyed the snake and dragon styles the most, and is now a very good martial artist, someone who can handle herself in most situations. Tina gained a reputation in the police force when she was the main instigator for a large scale arrest of members of a weapons pipeline. The weapons were being used in the large scale gang wars tearing up much of the seaside Hong Kong area. It had been around this time that a D.A. Shelanskey of the lower Florida area (New Miami to be exact) took notice of her. Shelanskey arranged for her to be transferred. For him it was more for show than anything else—for it was getting close to re-election time, and he wanted to look good for the voters. Tina again gained recognition when she helped Joann Lee Danns expose the D.A. as being part of the mob element.

Tina is very open and perky. She is a lady who was held back in many ways while growing up, so she is set to make up for it. Tina can be the best friend anyone could want, as it takes a lot to anger her in any way. One thing that gets her angry is any disregard for honor. While off duty, she would be considered a party girl, going to the club scenes and unwinding. It is her way of staying sane after dealing with such a deadly job all day. While on duty she is almost overly serious, a vast walking encyclopedia of explosives and how to work with them.

Personality/Motivation: As noted, Tina is a very serious person when it comes to dealing with her job. Her drive comes from wanting to learn all she can about explosives and ways to disarm them.

Quote: "No one ever hears a dead bang. It's the one that gets you, the one you never knew happened. You make a mistake, something goes wrong. BANG! Then nothing."

Powers/Tactics: Tina is fond of using the Glock 22 in .40 caliber with replaced sights, a tritium sight in place of the original to guard against wear due to friction. Two extra clips in carry holsters are also carried for her main weapon. For a backup gun, she uses an Intratec CAT-9 with a seven round 9mm capacity. The small CAT-9 is only 5 3/4 inches long and about 18 ounces unloaded. For the 9mm, Tina likes to use 147 grain subsonic Full Metal Jacket ammo. She is almost never without her mini tool kit. The set is much like the mini tools used in computer repair, but these tools are used in her bomb work. Tina has also been known to carry a single flash bang that she would use in the most dire of situations.

Appearance: Tina, a beautiful woman by anyone's standards, has all the exotic features that comes from being Chinese. She is 5'7" and is light of build, she practices her Wushu and works out in other ways and it shows. Her hair is black and shoulder length, and her eyes are brown.

Gerald Ross

Occupation: Agent for United World Powers Security

Skills: Hand-to-Hand Combat, Small Firearms, Leadership, Computers

Motivations: Protect the world at any cost

Weaknesses: Paranoia

Val	CHA	Cost	Roll	Notes
13	STR	3	12-	150 kg; 2 1/2d6 [3]
12	DEX	6	11-	OCV: 4/DCV: 4
11	CON	2	11-	
10	BODY	2	11-	
18	INT	8	13-	PER Roll 13-
12	EGO	4	11-	ECV: 4
18	PRE	8	13-	PRE Attack 3 1/2d6
12	COM	1	11-	
3	PD	0		Total: 3 PD
2	ED	0		Total: 2 ED
3	SPD	8		Phases: 4, 8, 12
5	REC	0		
22	END	0		
23	STUN	0		

Total Characteristics Cost: 42

Movement: Running: 6"/12" Swimming: 4"/8"

Powers & Skills

Combat Training:
Combat Skill Levels: +1 with Hand-to-Hand Combat (5)
Combat Skill Levels: +1 with Pistols (3)

Security Training:
Computer Programming 13- (3)
Conversation 13- (3)
KS: UWP Law and Security Books 11- (2)
KS: International Criminal Law 11- (2)
Persuasion 13- (3)
Weapon Familiarity: Small Arms Group (2)
Perk: Concealed Weapon Permit (2)
Perk: Worldwide Passport (2)
Perk: International Police Powers (5)

Investigative Skills:
Bugging 13- (3)
Bureaucratics 13- (3)
Deduction 13- (3)
KS: Operations Blue Book and Black Book 8- (1)
KS: Operation Scour 8- (1)
KS: UWP Splinter Groups 11- (2)
Perk: 2 Contacts in Operation Blue Book, both 8- (2)
Perk: 1 Contact in Operation Black Book, 8- (1)
Perk: 1 Contact in Operation Scour, 8- (1)
Perk: 2 Contacts in UWP senior staff, both 11- (4)
Perk: 5 Favors among various UWP agents and senior staff (5)

Total Powers & Skills Cost: 58

Total Character Cost: 90

Disadvantages: 50+

Distinctive Features:
Becomes edgy when aliens are mentioned, concealable, noticed & recognizable (10)

Psychological Limitation:
Driven to be the best at anything he does, common, strong (15)
Paranoid about earth enslavement by aliens, uncommon, strong (10)

Reputation:
UWP Security Agent, 8- (5)

Watched by
Superiors in United World Powers Security, more powerful, 11- (10)

Total Disadvantage Points: 40

Background/History: Gerald Ross grew up in the shadow of a small town in Nebraska. He was always a top student, striving to be better than any of the other kids in class. This was a trait that he would always carry with him, for he did this all the way to college. During a special talk by a United World Powers Security agent given at his campus, he was inspired and approached the speaker after the speech. The agent was so taken by the sharpness of this young man that he connected Gerald Ross with a training center for the UWP forces. Again, Gerald Ross strove to be better than anyone in his class. After the training period Ross graduated at the top of his class, then starting as a field agent. Many cases concerning subversives have been plucked to light by agent Ross. During an investigation, certain things came to his attention that should not have, concerning Operations Blue Book and Black Book. He learned that aliens did indeed exist and that key factions of the UWP services knew about it, and had been making deals with these beings for some time. Ross knew something had to be done, and he took it on himself to create a splinter group to work on a different agenda altogether. After learning about Operation Scour, Ross worked to get assigned to this operation. Using his clout, he strove to learn more about the alien lifeforms of the target planet, and about the aliens the UWP had been making deals with. As time went on, Ross became more and more paranoid. For some reason, he felt that the aliens would enslave the Earth one day, and he could not allow that. Anyone coming between him and his goal would have to die, and he took steps to carry this out, including unsanctioned operations that had been designed for intelligence gathering. During one of these operations, Ross had a run-in with Detective Joann Lee Danns. Ross, afraid of compromise the operations had been placed in by the Detective's probing, placed orders for Danns and Bergenson to be killed. He was himself killed in a last confrontation with Detective Danns.

Personality/Motivation: Ross has slipped to the point that everyone is or can turn against him and be a danger to the Earth. His motivation is a bit misguided: security and protection for the United World Powers and the Earth at any cost.

Quote: I know people. I know what they will do, how they will react.

Powers/Tactics: Ross has some minor training in a form of Karate but will only use this in a last line of defense or offense. He would much prefer to use a club, or better yet let someone else handle the bone breaking. Ross' skill with small firearms extends into speed loading, and weapons clearing. (Weapons clearing is the act of clearing a jammed weapon in the middle of combat.) Most times he prefers to carry a .45 caliber weapon.

Appearance: If the United World Powers had a cookie cutter image of the stereotypical government man, it would be Ross. Dressing in dark suits, well groomed, dark hair cut to a short trim, Ross is 6' and of medium build.

Gerald Ross

Roberta Faith

Roberta Faith

Occupation: Police Officer

Skills: Handguns, Shotguns, Investigations, Psychology, Electronics

Motivations: Action

Weaknesses: Married Men

10	STR	15	DEX	12	CON	10	BODY	16	INT
14	EGO	17	PRE	16	COM	3	PD	3	ED
3	SPD	4	REC	24	END	21	STUN		

Powers and Skills: Conversation 12-; Criminology 12-; Deduction 12-; Electronics 11-; KS: International Criminal Law 11-; KS: International Civil Law 11-; Perk Weapon Permit; Perk: Worldwide Passport; Perk: International Police Powers; Persuasion 13-; Science: Psychology 11-; Shadowing 11-; Seduction 12-; Streetwise 12-; Weapon Familiarity: Pistols; Weapon Familiarity: Shotguns; +2 with Pistols

Disadvantages: Distinctive Features (Police Officer); Distinctive Features (Very Short Hair); Psychological Limitation (Manipulative); Psychological Limitation (Mildly Obsessed with Seducing Married Men); Psychological Limitation (Determined to See Any Task Through); Watched by UWP

Background/History: Roberta is a beautiful woman who is accustomed to getting what she wants. She found that men seemed to be easy to manipulate in ways that got her what she wanted. Sex, to her, was more an act of pleasure than a show of love, and she exalted in the act. At 20, she had a professor tutor her until she was able to pass his class and get the credits she needed. She could have convinced him to just pass her, by way of her womanly wiles, but she felt she had to draw the line someplace. Police work was at first a lark, for she wanted to get the attentions of a young man she had a physical attraction to. She found later that it held a certain prestige. True, the times in many ways had been different, but being a black woman in a corporation-style world held no great promise for her. Being a police officer did. After a time she had to transfer from Texas, after an encounter with two married men caused problems that the department could not ignore. She never understood why, but married men seemed a challenge that she wanted to take. And the key word to her is take: taking another woman's man is a type of power she enjoys wielding. When she is physically attracted to a man and he is married, it is much like waving a red flag in front of a bull. Roberta is a competent officer and does not take chances on the job when safety is a concern. Having a background in psychology makes her a very difficult person to best when she sets her mind on something. One very evident trait is that she likes to keep her hair very short, for reasons of her own.

Personality/Motivation: The most challenging things are like cream to the cat for her. Advancing in life and male conquests are the ultimate motivations.

Quote: "Why blame me if they can't keep a man? They must not be taking care of business."

Powers/Tactics: While on duty, like most police officers, Roberta will be wearing some form of ballistic vest or jacket. Her main weapon used is a Colt Delta Gold Cup in 10mm.. Her backup weapon is a Walther Model PP in .380 acp. with seven rounds. She will do her best to have conversation win out before using force, making use of her psychology skills. If it comes down to it she will use her pepper gas first, and her firearm as a last resort unless she or someone else is in danger. If so, she will not hesitate to use her weapon.

Appearance: Roberta is a beautiful Afro-American woman who wears her hair short. She has an athletic build and a model's face. Her deep brown eyes can disarm just about anyone.

Jesse Jane Peters

Occupation: Army Sergeant, Anti-Terrorist Branch

Skills: Leadership, Small and Large Weapons, Military Vehicles, Survival, Hand-to-Hand Combat

Motivations: Military career

Weaknesses: Stubbornness & Temper

15 STR	16 DEX	14 CON	12 BODY	12	INT
14 EGO	16 PRE	12 COM	3 PD	3	ED
3 SPD	6 REC	28 END	27 STUN		

Powers and Skills: Climbing 12-; KS: Military Chain of Command 11-; KS: Military Terminology/Phrasing 11-; Oratory 12-; Persuasion 12-; PS: Career Military Officer 11-; Stealth 12-; Survival 11-; Transport Familiarity: Tracked Vehicles; Weapon Familiarity: Small Arms Group; Weapon **Familiarity:** Heavy Machine Guns; Weapon Familiarity: Grenade Launchers; +2 with Hand-to-Hand Combat; +4 with .44 Revolvers

Disadvantages: Distinctive Features (Speaks with Pronounced Texas Accent); Professional Rivalry with Other Military Branches; Psychological Limitation (Thinks She's Linked to Jesse James, Tries to Emulate Him); Psychological Limitation (Short Temper); Psychological Limitation (Stubborn); Watched by Superior Officers

Background/History: Jesse Jane Peters is a woman who believes she is somehow linked with the old western outlaw, Jesse James. Her fascination with the era is evident in her manner and her speech, for she speaks with a Texas accent by choice even though she is from Jersey city. Jesse originally joined up with the armed forces for the adventure of it, and even with her oddities she soon became a very good officer. Her commanders watched her and decided she was perfect for a command in the anti-terrorist branch of the armed services: Section 7. This was the lowest of the low that the military had to offer, but Jesse took the unit and forged it into a force that far surpassed the expectations of the military leaders. Jesse has a temper that not many people would want to be on the wrong side of. Like the old western outlaw she tries to emulate, she is known to carry two western .44 six shooters. They are kept in a tooled leather fast-draw rig, and she is an expert with these weapons. Jesse is fast to anger when she feels her space is being violated, and she will not drop an insult, imagined or otherwise, easily. Jesse is a fit woman with a trim figure and short curly red hair.

Personality/Motivation: Jesse feels she has ties to the west of old and particularly Jesse James. Her toughness is not a show at all. She will always say what she means and do what she says. Her main motivation is adventure; she goes out of her way to get the tough assignments for her team.

Quote: "It's not always the quick that gets the killing shot in, it's the careful.."

Powers/Tactics: Jesse makes use of two EAA Big Bore Bounty Hunter six shooters. These weapons are replicas of old single action revolvers of the old west during the 1800-1900s, both in .44 caliber. When it comes down to a fight she is greased lightning with her guns, and can draw and fire both weapons in a half a second or less from the hip. She has an icy stare that melts even hardened veterans into questioning themselves. Jesse will not waste time talking; if there is a threat she will act—either by a solid right or left cross, or by drawing her weapons. With all of her tough reserve she will never place her unit under any undo risk.

Appearance: Jesse is very trim and has short curly red hair that frames a red freckled face. Her eyes are a deep green and her voice comes forth with a Texas twang.

Mary Walters

Occupation: Scientist, Operations Blue Book and Black Book

Skills: Physicist, Quantum Theory, Radiation, Astrophysics, Astrology

Motivations: Climbing the ladder of fame

Weaknesses: Fame envy

Skills: KS: Astrology; PS: Physicist; Science: Quantum Theory; Science: Radiation Physics; Science: Astrophysics

Background/History: Mary is a meek woman who grew up in a small town in the middle of nowhere. Nebraska was hit less than most of the nation, though washed-out roads and ground saturation did cause problems. Her family was forced to move to a bigger city in Georgia when she was a teen. Mary excelled in her schooling and leaned towards the sciences. After a time, a recruit for a major scientific research firm hired her on and she soon found herself working with some older projects dating back to the 1950's. Being from a nothing town, Mary feels the need to shine in anything she does. She wants her name on the research papers and scientific papers that other scientists would be reading. Fame, she feels, will bring her to the height she wants to get to in life. As a result of her working so hard, her department managed to make many of the items from Operations Blue Book and Black Book work. Mary, at 29, had been part of the secret research and development on quantum drive, the drive intended to power Earth ships to far reaches of the cosmos. Mary never considers the use of anything she works on and will be oblivious to any negative effects from any weapons or items she has helped create and perfect. Mary Walters is a woman of small stature, with mousy fine hair she tries to hide in a bun or pony tail.

Personality/Motivation: Fame in the research and scientific world is her motivation. For the most part she is in the dark about what the things she works on are used for. She will not have any interest in what anyone will have to say; she feels that her work, regardless of the outcome, is for the better of all life.

Quote: Better life with the aid of research, that's what every one is reaching for.

Powers/Tactics: Mary does not like confrontations. She will become closed and seek to bury herself in whatever work she is doing rather than argue.

Appearance: Small in build with very fine brown hair and blue eyes, Mary is a plain Jane but has a womanly quality that peeks past her scientific demeanor.

Darwin Hazelroth

Occupation: Interstel Agent

Skills: Firearms, Computers, Acting, Underwater Skills (diving, scuba gear), Submersible Pilot

Motivations: Rising up the ladder of command

Weaknesses: Woman he loves is a criminal

16	STR	14	DEX	15	CON	12	BODY	14	INT
10	EGO	16	PRE	10	COM	4	PD	3	ED
3	SPD	6	REC	30	END	29	STUN		

Powers and Skills: Acting 13-; Disguise 13-; Computer Programming 13-; Concealment 12-; Electronics 11-; KS: Terrorist Groups 11-; KS: Criminal Organizations 11-; PS: Submersible Pilot 11-; Stealth 12-; Transport Familiarity: Submarines; Transport Familiarity: SCUBA; Weapon Familiarity: Small Arms Group; +2 with Small Arms Group

Disadvantages: Hunted by Ann Booth; Psychological Limitation (In Love with Ann Booth); Psychological Limitation (Wants to Climb the Ladder As Fast As Possible); Watched by Interstel

Background/History: Hazelroth is good field agent for Interstel, and is called in on most cases that are considered extra special or dangerous. A muscular man with a short stature, he has dark hair that he changes in style once in awhile so as to keep any spy watchers in the dark regarding his looks. He has gone so far as to let his beard and mustache grow and to style those in different ways as well. Hazelroth, during a raid, hesitated in firing his weapon, and as a result a fellow agent was injured by a criminal's gunfire. The criminal turned out to be a woman that Hazelroth had feelings for. After shooting the agent the woman, Ann Booth, leapt out of a window to the dark waters two floors below, and was never seen again.

Personality/Motivation: Hazelroth is more than just a little headstrong in his ideas. He knows that to stay alive the rules have to change once in a while, so he changes with them. His smaller motivation is to climb the ladder of command and become a supervisor one day. When being dealt with or worked with, Hazelroth will not listen nor act on anyone else's ideas unless they far overshadow his own with truth or sense.

Quote: Even with the UWP, it's supposed to be by the people, for the people. It doesn't always work out that way. That's why Interstel is here, to make sure it does.

Powers/Tactics: Hazelroth's hand-to-hand fighting is a mix of Boxing and a form of Chinese wrestling that involves joint and muscle locks as well as redirectional movements. When it comes down to a gunfight he makes use of a 9mm Walam 48 pistol. The weapon is from his own collection of old guns, in 9mm short, best known as .380ACP. His backup weapon is a dagger that he keeps in an arm sheath.

Appearance: His hair gets changed from time to time depending on what his mood is. Hazelroth is short in stature and muscular; this never changes.

Darwin Hazelroth

Hawk Hauser

Hawk Hauser

Occupation: Special Operations Commando

Skills: Survival, Weapons, Air and Seacraft Pilot, Hand-to-Hand Combat, Radio Technician

Motivations: The good fight

Weaknesses: None

18	STR	16	DEX	13	CON	11	BODY	13	INT
10	EGO	14	PRE	10	COM	4	PD	3	ED
3	SPD	7	REC	26	END	27	STUN		

Powers and Skills: Climbing 12-; KS: Military Chain of Command 11-; KS: Military Terminology/Phrasing 11-; PS: Career Military Officer 11-; Stealth 12-; Survival 11-; Systems Operation 12-; Transport Familiarity: Planes; Transport Familiarity: Helicopters; Transport Familiarity: Boats; Weapon Familiarity: Small Arms Group; +2 w/Hand-to-Hand Combat; +1 w/Small Arms Group; Commando Training: Boxing Cross (+0, +2, 51/2d6), Karate "Chop" (-2, +0, 1d6+1K), Kung Fu Block (+2, +2, block, abort)

Disadvantages: Distinctive Features (Special Ops Tattoo); Professional Rivalry with Other Military Branches; Psychological Limitation (Over-eager to Get Into Combat); Psychological Limitation (Always Obeys Orders of Superiors); Watched by Superior Officers

Background/History: A soldier all around, Hauser does his best to volunteer for anything that looks like it will result in battle, for in his words he enjoys "Lighting Ôem up!" Hawk Hauser has been a career soldier for most of his life, in the service for the better part of ten years. He seems to thrive on combat, and that makes him someone who the top brass like to put on special operations. Hauser has a thin build with muscle, which makes for a lethal combination if you happen to be on the wrong end of any of his attacks.

Personality/Motivation: His only motivation seems to be combat, the thrill of the kill. The personality of this man is unknown. His own, whatever it may have been has long since been washed away in the torrent of military training and conditioning. To the common person his single minded dedication can be a bit over-powering or downright scary.

Quote: "I like my work."

Powers/Tactics: Drawing from a massive amount of training, Hauser is at home hand-to-hand using a combination of a form of Karate and Judo, or any kind of bladed weapon. His skills with firearms or guns of any kind is hard to surpass. He is at home using most kinds of firearms or explosives. While he will not hesitate to kill, he will not kill without reason or orders.

Appearance: A tall thin frame hides a muscular form that he puts to good use against an opponent. His gray eyes hold no humor, nor does the severe way he styles his dark hair.

Frances Devreaux

Occupation: Scientist

Skills: Space Sciences, Basic Quantum Mechanics, Electronics

Motivations: Discovery

Weaknesses: Anorexia

Skills: Electronics; Science: Space Sciences; Science: Basic Quantum Mechanics

Background/History: Frances Devreaux is a brilliant scientist who had been working on quantum fold theory long before it became a reality. Many, if not all of her theories have since been found to be true. Her drive for discovery pushes her far past most peoples' need for knowledge. The first thing anyone will notice about the woman is that she has almost skeleton-like features. Due to abnormal feelings about becoming overweight, she often starves herself. Her red hair is worn in a tight bun at the back of her head most of the time. The UWP uses her for advances in the quantum drive technology they had gotten ahold of in the Blue Book and Black Book projects. Her advances in the field are something that the scientific community keep abreast of, for most of her papers end up breaking new ground in the technology of spaceship engines.

Personality/Motivation: The ultimate motivation for Devreaux is discovery and the further enhancement of quantum fold mechanics and application. Her personality is borderline, as she has hidden stresses that cause her to seem to have mood swings over the least little thing.

Quote: "People who say it can't be done should get out of the way of the one who is doing it."

Powers/Tactics: Devreaux has had some mild training in self defensive movements in the UWP training center. Often times it is just enough to catch someone unaware and for her to make a run for it.

Appearance: Her small frame is more from starving herself than that from nature. Features are taut around her face, almost giving the look of a skull with a thin sheen of skin upon it. Her hair is a flame red that she keeps in a tight style; often times this is a bun style at the back of her head. Bangs hang down just above her brows, framing her violet colored eyes.

Sheila Brown

Occupation: Mechanic

Skills: Machine Repairs, Flying Craft Technology, Watercraft Technology, Space Vehicle Technology, Cooking, History, Knife Fighting, Handguns

Motivations: Life

Weaknesses: None

12	STR	13	DEX	11	CON	11	BODY	13	INT
10	EGO	12	PRE	12	COM	2	PD	2	ED
3	SPD	4	REC	22	END	23	STUN		

Powers and Skills: Bureaucratics 12-; Combat Driving 11-; Electronics 13-; KS: International Criminal Law 11-; KS: International Civil Law 11-; KS: Aerotech 12-; KS: Watercraft Tech 12-; KS: Space Vehicle Tech 12-; KS: Cooking 11-; KS: American Indian History 12-; Mechanics 13-; Perk: Weapon Permit; Perk: Worldwide Passport; Perk: International Police Powers; Shadowing 11-; Weapon Familiarity: Pistols; Weapon Familiarity: Knives; +2 w/Knives

Disadvantages: Distinctive Features (Police Officer); Distinctive Features (American Indian); Psychological Limitation (Feels Strong Need To Learn About Her Heritage); Watched by UWP

Background/History: Sheila Brown is a top mechanic who works with the International Police Department. She is known for her seeming miracles, putting broken or otherwise nonworking vehicles back into service in no time at all. Her background is one that goes deep, and she feels a great need to learn of her Indian heritage. The problem in these times is that any history dealing with American Indians is now very hard to come by. Now anything she finds, she feels, is a treasure worth more than anything anyone can imagine. Pieces of history help her to learn of her people and the deep past that once was. She does not hold the plight of the American Indian against anyone for what has happened in the past, but she does feel a great sorrow. While Sheila is a police officer, she will never be found working on a case or on patrol, other than to be working on a service call in the field when called to fix a vehicle. Her American Indian heritage is evident in her features, long dark hair and dark eyes.

Personality/Motivation: Proud of both her background as a Native American and as an International Police Officer, she has a strong will that is always evident in anything she does.

Quote: "Too many people don't bother to take the time to be human beings."

Powers/Tactics: Trained as an International Police Officer, she will be able to defend herself either by hand-to-hand using Judo style moves; in a firefight she will make use of her Heckler & Koch P9. The weapon uses a 9mm cartridge.

Appearance: A tall woman with well defined features that show her native American back ground. She sports long dark hair that she wears in a ponytail while at work to keep it out of the way.

Sheila Brown

Matta Nakaruka

Matta Nakaruka

Occupation: Computer Specialist

Skills: Computer Programming, Hacking, Electronics, History, Skin Diving

Motivations: The ultimate challenge of hacking into unhackable systems

Weaknesses: None

10	STR	11	DEX	10	CON	10	BODY	19	INT
12	EGO	10	PRE	16	COM	2	PD		2	ED
2	SPD	4	REC	20	END	20	STUN		

Powers and Skills: Computer Programming 14-; Electronics 11-; KS: Computer Networks 12-; KS: Hacking 12-; KS: History 13-; KS: Skin Diving 11-; PS: Computer Technician 11-; Security Systems 13-

Disadvantages: Psychological Limitation (Spare Time Hacker)

Background/History: Matta has always been drawn to computers, even as a young girl in private school. A teacher noticed her talent with computers and paid extra attention to her, helping her in classes and studies. The hard work soon paid off, for the more Matta learned, the more interest she had in computers. She has been hired at one time or another by several different corporations for small jobs and company computer systems reprogramming. In her spare time, she teaches computer courses in some private schools. One of the things she does in her spare time (and almost as a hobby) is hacking into systems just for the challenge of it. Matta is a small woman with dark hair and eyes. She does not think of herself as beautiful, when in fact she is a very nice looking woman.

Personality/Motivation: Matta's personality is one that is quiet. She is not overly talkative when speaking with anyone, preferring to let the other person take the load of the conversation. Matta's motivations lie along the path of computers; she is always looking for another thrill of cracking the uncrackable code.

Quote: "In programming if you can't get in the front door there is always the back. If you can't find a back door... make one."

Powers/Tactics: Matta does not resort to violence; she feels using her wits is far better. If it comes down to it, she will try to use her mind before all else.

Appearance: A striking woman, tall with a medium build and exotic eastern features.

Samuel Jackson

Occupation: International Police Detective

Skills: Disguise, Firearms (guns, SMGs, shotguns), Black Belt—Judo, Piloting

Motivations: Excitement

Weaknesses: Temper

15 STR	18 DEX	11 CON	10 BODY	13 INT
10 EGO	15 PRE	10 COM	3 PD	2 ED
3 SPD	5 REC	22 END	24 STUN	

Powers and Skills: Acting 12-; Breakfall 13-; Combat Piloting 13-; Disguise 12-; KS: International Criminal Law 11-; KS: International Civil Law 11-; Perk: Weapon Permit; Perk: Worldwide Passport; Perk: International Police Powers; Shadowing 11-; Stealth 13-; Streetwise 12-; Talent: Combat Sense 12-; Weapon Familiarity: Pistols; Weapon Familiarity: Sub-Machine Guns; Weapon Familiarity: Shotguns; +1 with Ranged Combat; Judo: Escape (+0, +0, 30 STR v. Grabs), Joint-Lock (-1, -1, 25 STR Grab), Legsweep (+2, -1, 4d6, Target Falls), Slam (+0, +1, 3d6 + v/5, Target Falls)

Disadvantages: Distinctive Features (Police Officer); Distinctive Features (Style Disadvantage); Psychological Limitation (Temper); Psychological Limitation (Risk Taker/Thrill Seeker); Watched by UWP

Background/History: Samuel Jackson is one of the toughest men alive, and he will be the first to tell you that, no matter what he is doing. He is currently working undercover as an iron blood, trying to infiltrate one of the more infamous crime groups in New Miami. He has always been on the edge, competing in many risky sports in his early years, and joining the International Police Force for the chance to pit his skills against major criminals. He figured that he could either become a criminal for the excitement, or try to stop them for the excitement. Fortunately for the police, he chose the latter. His latest undercover work has been successful, and he has learned that the crime group is involved in offworld interests.

Personality/Motivation: Jackson comes off as cocky and sure of himself and his abilities. He is fast to anger and fast to seek retribution. He is working on the side of the law because of the thrill of the adventure, going into places that all but a few fear to tread. It's more than a job to him—it's his life's high.

Quote: "I think the sweetest sound a man can hear is the snap of the bone when you hit it just right".

Powers/Tactics: For hand-to-hand fighting, Jackson is highly skilled in Tae Kwon Do; his kicks can put someone down and out in fast order. Choice of firearms is rather diverse; he will use any caliber weapon from 9mm on up to .44 magnum. You never know until it is far too late. When he pulls his weapon and has to fire, it is always for the kill—making use of what is termed as the double tap: one to the chest, one to the head.

Appearance: Jackson is a tall man of Afro American descent, he has short hair and brown eyes and is clean shaven.

Samuel Jackson

Ervin Manor

Ervin Manor

Occupation: Merchant—Warden

Skills: Fast-Talk, Appraisal, Firearms, Accounting

Motivations: Profit

Weaknesses: None

8	STR	11	DEX	10	CON	10	BODY	12	INT
10	EGO	14	PRE	10	COM	3	PD	2	ED
2	SPD	4	REC	20	END	19	STUN		

Powers and Skills: AK: Atlantis Colony 11-; AK: New Cozumel 11-; AK: Deep Sea Trenches 11-; Bribery 12-; KS: Accounting 11-; Persuasion 12-; PS: Merchant 11-; Trading 12-; Weapon Familiarity: Pistols; +1 with Pistols; 3 Contacts in SUNC at 12- (Game Master's choice)

Disadvantages: Psychological Limitation (Motivated by Profit)

Background/History: Ervin has always been looking for a way to strike it rich, from his humble beginnings at Atlantis Colony to his current respect at New Cozumel. He has spent much of his early days as a liaison between UWP and the local populations of the two sea colonies, and has used his SUNC contacts to become a warden of one of the penal colonies in order to fulfill an ambition that he has had for quite some time. He has been in charge of some of the exploration performed by the trenchers, and has personally selected and guided some of them to the locations that they explore. Recently, one of them found it: the legendary prototype research ship that was carrying information and priceless artifacts when it was lost on its return voyage. After finding it, Ervin and his trencher explorer/assistant have been trying to find a way to get a group together to retrieve the ship, or at least its contents.

Personality/Motivation: One may say that Ervin is greedy. It may be true he is always looking for that angle even in conversation; in this he comes across as someone with something to hide. His main motivation is simple: more riches.

Quote: "Money can't buy everything, but it sure comes in a close second!"

Powers/Tactics: Ervin can sell anything, even someone else's life for information. He will do his best to talk his way out of most situations. He is not above throwing a cheap shot in the form of a right or left cross and running for it.

Appearance: Manor is handsome man in his mid 30's. He keeps his hair trim. He is medium built and can pass for an actor in the looks department.

Lisa Fear

Occupation: Specialist for hire

Skills: Blades, Handguns, Climbing, Observation, Silent Movements, Disguises

Motivations: Powerful people

Weaknesses: Powerful people

13	STR	18	DEX	11	CON	10	BODY	16	INT
10	EGO	14	PRE	12	COM	3	PD	2	ED
3	SPD	5	REC	22	END				

Powers and Skills: Acting 13-; Climbing 13-; Disguise 12-; Concealment 12-; KS: World Governments 11-; KS: Local Gangs 11-; Lockpicking 13-; Shadowing 12-; Stealth 13-; Streetwise 12-; Weapon Familiarity: Small Arms Group; Weapon Familiarity: Knives; +2 w/Knives

Disadvantages: Hunted by Enemy Gang; Psychological Limitation (Mercenary Attitude—Works For The Most Powerful Bidder); Watched by Johny Masterson

Background/History: Lisa Fear worked for a long time as a spy for her government, Japan. She is Japanese only on her grandfather's side, and does not really show it outwardly. She looks as if she could have come from Iowa to most people, which is why the Japanese government used her for spy work. Working with some of the best trained agents, she soon became one of their top operatives. After a time, when the UWP was formed and Japan joined, she lost interest for various reasons and went freelance. Working for the most powerful people she could find, she soon came to New Miami. Fascinated with the fear and power Johny Masterson wielded, she offered her services as an agent, and the two have been inseparable ever since. Lisa is a cold, calculating woman who will not let emotion get in the way of any job at hand. She is used as a scout to observe and report on Masterson's targets.

Personality/Motivation: Lisa has one friend, herself. She does not trust anyone. She is a very quiet person and does not associate very much. If she ever had any true motivation before, it has long since left her memory; now, all she works for is the money and the thrill of being around powerful people.

Quote: "Intelligence gathering is the first step to taking an enemy out."

Powers/Tactics: Lisa has a lot of training to fall back on. Her climbing skills have helped on many occasions to get into places that no one else would dare to try. In a fight she will duck and cover and lob a flash bang. This is a small grenade like weapon that gives off a incredible flash that can disorient persons. She will try to get away if she can, but will do minimal damage to an opponent to do it. She will use a firearm as a last resort.

Appearance: Lisa is a tall slender woman with long dark hair and deep brown eyes. She is also very fit due to her training.

Lisa Fear

Michael Shelanskey

Michael Shelanskey

Occupation: District Attorney New Miami

Skills: Public speaking, acting, computers, interrogation

Motivations: Greed

Weaknesses: Greed

8	STR	10	DEX	9	CON	8	BODY	14	INT
10	EGO	18	PRE	12	COM	2	PD		2	ED
2	SPD	4	REC	18	END	17	STUN		

Powers and Skills: Acting 13-; Bureaucratics 13-; Computer Programming 12-; High Society 13-; Interrogation 13-; Oratory 13-; Persuasion 13-; Streetwise 13-; Weapon Familiarity: Pistols; Contact: Pony (Enforcer) 13-; 2 Government Contacts 12-: Felicia Tsui Section Head for International Police Department. Roger Detweiler Personal assistant to the chief of UWP Navy.

Disadvantages: Psychological Limitation (Greedy)

Background/History: Michael Shelanskey would have had a long promising political career if it had not been for one thing: greed. Shelanskey wanted more in his CredIdent account, and he did not care how he got it. He soon fell in with the Mob gangs, becoming a pawn in the high places the gangs needed for certain operations. After a time, Shelanskey became involved in other activities that resulted in his committing crimes of his own. Becoming bolder in his actions, he became a risk that the gang bosses just could not keep around. In a recent incident, Shelanskey was instigator in a rash of bombings in New Miami designed to make him look good to voters. As a result, he was killed in an exchange of gunfire with Joann Lee Danns. If the characters ever meet Shelanskey, it will be before this event and the characters should not at first know or suspect his activities. As the games go on, a gamemaster can drop clues that point in the direction of the D.A. The D.A. is of course a powerful political figure and any evidence should be strong, or the characters will just end up being transferred (or worse, if they are not police officers). The D.A. may also have Pony in his employ, and this will be an extra danger for characters to contend with. Pony is a man who is fit and in his mid 30's. No file is known to have much in the way of information on him, other than the fact that he wears his hair in a long pony tail.

Personality/Motivation: Shelanskey is a smooth talker through and through, and is in the habit of playing up to the press. If he does not know anything about a situation he will fake it and do his best to make it, in the end, seem like he had a hand in making things work out. Shelanskey has a motivation that is old as the earth's memory: greed. He has become used to being in the seat of power and the luxury that comes with it.

Quote: "I have no recollection of those events."

Powers/Tactics: Shelanskey is pretty much a coward and will push people around with words. He prefers to let the hired muscle handle anything physical. He is of course not above using a fire arm if he has to, but he must be pushed to a breaking point before this happens.

Appearance: Shelanskey is medium built and tall. He looks the distinguished gentleman. His iron gray hair is short and well kept, and he has light blue eyes and wears glasses.

Rocko McGee

Occupation: Enforcer

Skills: Firearms, Boxing, Knives

Motivations: Working for the gangs

Weaknesses: Women

20	STR	12	DEX	16	CON	14	BODY	10	INT
10	EGO	14	PRE	10	COM	4	PD	3	ED
3	SPD	7	REC	32	END	32	STUN

Powers and Skills: CK: New Miami 11-; Disguise 11-; Forgery 11-; KS: Local Rival Gangs 11-; Interrogation 12-; PS: Boxer 11-; Shadowing 11-; Streetwise 12-; Weapon Familiarity: Small Arms Group; Weapon Familiarity: Knives; +1 with Small Arms Group; +1 with Hand-to-Hand Combat; Boxing: Block (+2, +2, block, abort), Cross (+0, +2, 6d6), Hook (-2, +1, 8d6)

Disadvantages: Distinctive Features (Large, heavily built man); Psychological Limitation (Sadistic); Psychological Limitation (Weakness For Women); Psychological Limitation (Do Whatever Needed To Finish The Job); Watched by Gang Leaders

Background/History: All his life Rocko has been a big lad, picked on in school for his size, and he soon found that fast fists would make everyone leave him alone. As he got older, he became fascinated with the gang enforcers. Rocko liked the power they wielded in the name of the gangs they worked for, and the respect they commanded from everyone who knew who they were and which gang they represented. It was an easy thing for the gangs to see Rocko's potential. Other enforcers soon trained him in a few choice skills, and Rocko became very good indeed at his job. It seems that Rocko gets some type of pleasure from preying on others, all in the name of the gangs.

Personality/Motivation: McGee has a certain pride that he holds for his work, and it shows. While he can be angered, he will hold it in and fume until his boss lets him loose. McGee is crude and has no sense of, or does not care, when his words offend anyone.

Quote: "You talking to me?"

Powers/Tactics: McGee is a brawler who also uses a bit of boxing learned long ago. In a fight, McGee will open with a fast one-two combo, then if close enough he will grab an opponent by the hair and keep punching with his free hand. In a firefight, McGee is very fond of spray firing a weapon.

Appearance: McGee has what looks like a permanent squint to his eyes; his square jaw and strong jawline make him look the part of a thug. He keeps clean shaven and keeps his blonde hair in a severe short cut.

Alien Races

The two main races that are known to exist by the UWP are called the Homalo and the Intrentia.

The **Intrentia** are small tree-dwelling beings with hairless bodies. Elongated limbs ending in powerful digits help them to climb better than any living creature on the planet they inhabit. They are a nonaggressive race for the most part, preferring to live in peaceful coexistence with others and at one with the nature of their world. This may soon change, for many young Intrentia have grown angry and resentful at what the Homala have visited upon them.

The **Homala** (singular Homalo), on the other hand, are an aggressive race. No human has ever seen a Homalo without the armor that they wear from head to toe. The Homala have been trading small pieces of technology to the UWP; in return the UWP have taken the Homala up on the target planet they have suggested, and are now helping the Homala to relocate the Intrentia to another planet. (See the section on The Truth for more information.) The true form of the Homalo is a humanoid insect lacking any exoskeleton. Homala wear armor as protection; some say this is the remains of insects they evolved from. Homala are fast learners and can learn the rudimental parts of a new language quickly. They are strong warriors who can fight even injured to death's door. Some Homala use poisons much like ants, only much stronger. The poison will slow a victim's response, eventually causing unconsciousness. The Homala warrior people are easy to rile, and they respect shows of force. Signs of weakness can very well be taken as an insult to them.

Regent Golat (Homalo)

Occupation: Regent of Diluth (Sector) Seven

Skills: Diplomatic Relations, Blade Weapons, Pilot

Motivation: The Hive

Weaknesses: New Experiences

Val	CHA	Cost	Roll	Notes
18	STR	8	13-	300 kg; 3 1/2d6 [4]
14	DEX	12	12-	OCV: 5/DCV: 5
18	CON	16	13-	
13	BODY	6	12-	
14	INT	4	12-	PER Roll 12-
12	EGO	4	11-	ECV: 4
20	PRE	10	13-	PRE Attack 4d6
6	COM	-2	10-	
4	PD	0		Total: 10 PD
4	ED	0		Total: 10 ED
3	SPD	6		Phases: 4, 8, 12
8	REC	0		
36	END	0		
31	STUN	0		

Total Characteristics Cost: 64

Movement: Running: 6"/12"   Swimming: 4"/8"

Powers & Skills:

Combat Training:
Combat Skill Levels: +1 with Bladed Melee Weapons (5)

Homalo Racial Powers:
Increased CHAR Maxima (20)
Enhanced Senses: +2 to Sight PER (14- Sight PER total) (4)
Enhanced Senses: Discriminatory Scent (5)
Enhanced Senses: Detect Vibrations (touch-based), sense, ranged, discriminatory, targeting, 360 degree sensing (45)
Extra Limbs (2 extra arms) (5)

Armor Suit:
+6 PD/+6 ED Armor, OIF, Independent, Real Armor, 1/2 Mass (4)

Diplomacy Skills:
KS: Diplomacy 13- (4)
KS: Earth Culture 8- (2)
Oratory 13- (3)
Persuasion 13- (3)
PS: Diplomat 11- (2)

Fighter Pilot Skills:
Combat Piloting (Fighter Ships) 12- (3)
Navigation 11- (3)
Systems Operation 12- (3)

Background Skills:
Language: Earth English (Basic Conversation) (1)
Language: Intrentia (Basic Conversation) (1)
Weapon Familiarity: Bladed Melee Weapons (2)

Total Powers & Skills Cost: 115

Total Character Cost: 179

Disadvantages: 100+

Distinctive Features:
Insectile humanoid, not concealable, extreme reaction (25)

Enraged by
Threats to the hive or outright insults, uncommon, 14- to be enraged, 11- to recover (10)

Psychological Limitation:
Aggressive nature, dislikes shows of weakness, common, moderate (10)
Disparaging towards humans, common, moderate (10)
Willing to do whatever is necessary for the good of the hive, uncommon, strong (10)

Reduced CHAR Maxima (4)

Watched by
Superiors in hive, more powerful, 11- (10)

Total Disadvantage Points: 179

Background/History: Golat has striven hard, working his way up the ranks to become regent for the better of his hive. He has a minor dislike towards most humans that spills past his manner at times. A strong warrior, Golat will do anything for the good of the hive—even team with humans if he must. If this happens, he will (of course) point out human flaws whenever he can.

Atash Rossec (Homalo)

Occupation: Atash of a Attack Group

Skills: Blade Combat, Tactician, Leadership, Hand-to-Hand Combat, Survival

Motivation: Power

Weaknesses: Narrow Thinking

Val	CHA	Cost	Roll	Notes
25	STR	15	14-	800 kg; 5d6 [5]
17	DEX	21	12-	OCV: 6/DCV: 6
20	CON	20	13-	
14	BODY	8	12-	
18	INT	8	13-	PER Roll 13-
11	EGO	2	11-	ECV: 4
25	PRE	15	14-	PRE Attack 5d6
0	COM	-5	10-	
7	PD	2		Total: 13 PD
7	ED	2		Total: 13 ED
3	SPD	3		Phases: 4, 8, 12
10	REC	0		
40	END	0		
39	STUN	0		

Total Characteristics Cost: 91

Movement: Running: 6"/12"   Swimming: 4"/8"

Powers & Skills:

Combat Training:
Combat Skill Levels: +2 with Bladed Weapons (10)

Homalo Racial Powers:
Stinger: Drain 1d6 v. STUN, Returns 5/Hour, Six 1 Minute Charges (17)
Drain 1d6 v. DEX, Returns 5/Hour, Six 1 Minute Charges, Linked (11)
Increased CHAR Maxima (15)
Enhanced Senses: +2 to Sight PER (15- Sight PER total) (4)
Enhanced Senses: Discriminatory Scent (5)
Enhanced Senses: Detect Vibrations (touch-based), sense, ranged, discriminatory, targeting, 360 degree sensing (45)
Extra Limbs (2 extra arms) (5)

Armor Suit:
+6 PD/+6 ED Armor, OIF, Independent, Real Armor, 1/2 Mass (4)

Military Skills:
KS: Famous Homala Battles 11- (2)
KS: Famous Homala Generals 11- (2)
Oratory 14- (3)
PS: Attack Group Atash (Leader) 11- (2)
Survival 11- (3)
Tactics 14- (5)
Weapon Familiarity: Bladed Melee Weapons (2)

Background Skills:
Language: Earth English (Basic Conversation) (1)

Total Powers & Skills Cost: 136

Total Character Cost: 227

Disadvantages: 100+

Distinctive Features:
Insectile humanoid, not concealable, extreme reaction (25)
Enraged by
Threats to the hive or outright insults, uncommon, 14- to be enraged, 11- to recover (10)
Professional Rivalry with
Atash Cinor (5)
Psychological Limitation:
Aggressive nature, dislikes shows of weakness, common, moderate (10)
Narrow minded, common, total (20)
Military fanatic who believes power is everything, common, strong (15)
Reduced CHAR Maxima (4)
Villain Bonus (38)

Total Disadvantage Points: 227

Background/History: Rossec is from a warrior group, and holds the beliefs that go with such a position: Power is everything, and showing any kind of mercy or weakness is cause for death. His fanatical views have served his hive well in the rush for power and leadership, but Rossec has narrow views and refuses to change his way of thinking. Others of his hive feel this is wrong but will not voice it, for they feel the wave of the future of all the hives depends on change. Rossec is a fearsome fighter and will only back down under the worse conditions. He will turn the tide at the least sight of an advantage on his part.

Atash Cinor (Homalo)

Occupation: Atash of an Attack Group

Skills: Blade Combat, Poisons, Leadership, Public Speaking, Spacecraft Piloting, Survival

Motivation: Exploration

Weaknesses: Non-aggressive

Val	CHA	Cost	Roll	Notes
21	STR	11	13-	400 kg; 4d6 [4]
16	DEX	18	12-	OCV: 5/DCV: 5
19	CON	18	13-	
14	BODY	8	12-	
19	INT	9	13-	PER Roll 13-
14	EGO	8	12-	ECV: 5
20	PRE	10	13-	PRE Attack 4d6
2	COM	-4	10-	
6	PD	2		Total: 12 PD
5	ED	1		Total: 11 ED
3	SPD	4		Phases: 4, 8, 12
8	REC	0		
38	END	0		
35	STUN	0		

Total Characteristics Cost: 85

Movement: Running: 6"/12" Swimming: 4"/8"

Powers & Skills:

Combat Training:
Combat Skill Levels: +2 with Bladed Weapons (10)
Homalo Racial Powers:
Stinger: Drain 1d6 v. STUN, Returns 5/Hour, Six 1 Minute Charges (17)
Drain 1d6 v. DEX, Returns 5/Hour, Six 1 Minute Charges, Linked (11)
Increased CHAR Maxima (15)
Enhanced Senses: +2 to Sight PER (15- Sight PER total) (4)
Enhanced Senses: Discriminatory Scent (5)
Enhanced Senses: Detect Vibrations (touch-based), sense, ranged, discriminatory, targeting, 360 degree sensing (45)
Extra Limbs (2 extra arms) (5)
Armor Suit:
+6 PD/+6 ED Armor, OIF, Independent, Real Armor, 1/2 Mass (4)
Leadership Skills:
Oratory 15- (7)
Persuasion 14- (5)
Pilot Skills:
Combat Piloting (Space Fighters) 12- (3)
KS: Famous Historical Space Battles 11- (2)
KS: Famous Homala Pilots 11- (2)
Navigation 13- (3)
PS: Combat Pilot 11- (2)
Systems Operation 13- (3)
Tactics 13- (3)
Background Skills:
KS: Poisons 11- (2)
Language: Earth English (Basic Conversation) (1)
Survival 11- (3)
Weapon Familiarity: Bladed Melee Weapons (2)

Total Powers & Skills Cost: 154

Total Character Cost: 239

Disadvantages: 100+

Distinctive Features:
Insectile humanoid, not concealable, extreme reaction (25)
Enraged by
Threats to the hive or outright insults, uncommon, 14- to be enraged, 11- to recover (10)
Professional Rivalry with
Atash Rossec (5)
Psychological Limitation:
Nonaggressive, common, moderate (15)
Disagrees with some hive conventions, common, strong (15)
"Soldier mentality"—Does what the hive deems necessary, common, strong (15)
Reduced CHAR Maxima (4)
Watched by
Hive Atash, more powerful, 11- (10)
Villain Bonus (45)

Total Disadvantage Points: 239

Background/History: Cinor is a rare Homalo in that he feels coexistence may be the better way. In his teaching to others of his hive, he has had a following grow—so much so that the hive Atash (leader) has found it hard to silence the words of Cinor. Cinor is a soldier, and does what is deemed necessary by the hive, but does not agree with some of the things that have taken place. Cinor can be a powerful friend, and he may be the next Hiash Atash (high leader) and the future for the other hives on his world.

Regent Ommanu (Homalo)

Occupation: Regent of Offworld Affairs

Skills: Public Speaking, Administration, Negotiations, Diplomacy, Blade Weapons, Cooking

Motivation: Expansion of the Hive

Weaknesses: Exotic Foods

Val	CHA	Cost	Roll	Notes
18	STR	18	13-	300 kg; 3 1/2d6 [4]
12	DEX	6	11-	OCV: 4/DCV: 4
15	CON	10	12-	
12	BODY	4	11-	
16	INT	6	12-	PER Roll 12-
13	EGO	6	12-	ECV: 4
23	PRE	13	14-	PRE Attack 4 1/2d6
8	COM	-1	11-	
5	PD	1		Total: 11 PD
6	ED	3		Total: 12 ED
3	SPD	8		Phases: 4, 8, 12
7	REC	0		
30	END	0		
29	STUN	0		

Total Characteristics Cost: 74

Movement: Running: 6"/12"   Swimming: 4"/8"

Powers & Skills:

Combat Training:
Combat Skill Levels: +1 with Bladed Weapons (5)

Homalo Racial Powers:
Increased CHAR Maxima (15)
Enhanced Senses: +2 to Sight PER (14- Sight PER total) (4)
Enhanced Senses: Discriminatory Scent (5)
Enhanced Senses: Detect Vibrations (touch-based), sense, ranged, discriminatory, targeting, 360 degree sensing (45)
Extra Limbs (2 extra arms) (5)

Armor Suit:
+6 PD/+6 ED Armor, OIF, Independent, Real Armor, 1/2 Mass (4)

Regent Training:
Bureaucratics 14- (3)
KS: Administration 11- (2)
KS: Diplomacy 11- (2)
KS: Negotiation Methods 11- (2)
Oratory 14- (3)
Persuasion 14- (3)
PS: Regent 11- (2)

Background Skills:
High Society 14- (3)
KS: Cooking 11- (2)
KS: Exotic Foods 11- (2)
KS: Mating Techniques/Rituals of Alien Species 11- (2)
Language: Earth English (Basic Conversation) (1)
Seduction 14- (3)
Weapon Familiarity: Bladed Melee Weapons (2)

Total Powers & Skills Cost: 115

Total Character Cost: 189

Disadvantages: 100+

Distinctive Features:
Insectile humanoid, not concealable, extreme reaction (25)

Enraged by
Threats to the hive or outright insults, uncommon, 14- to be enraged, 11- to recover (10)

Psychological Limitation:
Aggressive nature, dislikes shows of weakness, common, moderate (10)
Strong desire to spread her hive across the galaxy, common, strong (15)
Fascination with alien mating techniques/rituals, uncommon, strong (10)
Weakness for exotic foods, common, strong (15)

Reduced CHAR Maxima (4)

Total Disadvantage Points: 189

Background/History: Ommanu is a female of her kind, and has always wanted to travel the stars. She wants with all of her being to expand her hive across the far reaches of the living night. She is as aggressive as most of her race except for a few things that she developed over the course of her travels and duties of being Regent. She has a love for exotic foods, a taste for trying new things. The gift of a new type of food she has never tried before is a sure way to get onto her good side. Males of other species may have some troubles around her if she starts to grow interested, for another fascination she has acquired is for other species' mating techniques and rituals. Ommanu is a powerful fighter, but will never do battle unless provoked.

Tobius Pack (Intrentia)

Occupation: Village Elder

Skills: Snares, Hunting, Survival, Sign Reading, Leadership, Public Speaking

Motivations: His Village

Weaknesses: None

Val	CHA	Cost	Roll	Notes
10	STR	0	11-	100 kg; 2d6 [2]
20	DEX	30	13-	OCV: 7/DCV: 9*
11	CON	2	11-	
10	BODY	0	11-	
23	INT	13	14-	PER Roll 15-
16	EGO	12	12-	ECV: 5
15	PRE	5	12-	PRE Attack 3d6
10	COM	0	11-	
2	PD	0		Total: 2 PD
2	ED	0		Total: 2 ED
4	SPD	10		Phases: 3, 6, 9, 12
4	REC	0		
20	END	0		
20	STUN	0		

Total Characteristics Cost: 72

Movement: Running: 8"/16"   Swimming: 4"/8"

Powers & Skills:
  Intrentia Racial Powers:
    +2" Running (base running 8") (4) [1/5"]
  Increased CHAR Maxima (14)
  Enhanced Senses: +1 with all PER (15- PER total) (3)
    *Shrinking, 1 Level (1m height, 12.5 kg mass, -2 to PER Roll
      Against, +2 DCV [8 DCV total]), 0 END Persistent, Always
      On (7)
  Talent: Ambidexterity (3)
  Racial Skills:
    Climbing 12- (3)
  Background Skills:
    AK: Home Woodlands 11- (2)
    AK: Earth Woodlands 11- (2)
    Concealment 14- (3)
    KS: Home Planet Ecology 11- (2)
    KS: Snares 11- (2)
    KS: Hunting 11- (2)
    Oratory 12- (3)
    Tracking 14- (3)
    Skill Levels: +2 Overall Levels (20)
    Stealth 13- (3)
    Survival 11- (3)
Total Powers & Skills Cost: 79

Total Character Cost: 151

Disadvantages: 75+
  Age 40+ (5)
  Distinctive Features:
    Small hairless humanoid, fingers with 3 digits, concealable,
      major reaction (15)
  Hunted by
    The Homalo, wish to "relocate" the Intrentia, more powerful, 8-
      (15)
  Psychological Limitation:
    Pacifistic, common, strong (15)
    Puts his people before himself, common, strong (15)
  Reduced CHAR Maxima (11)
Total Disadvantage Points: 151

Background/History: Pack is the village elder of his Ken (kins-men). He is resourceful, and knows the ways of his planet better than most other Intrentia. His people, being nonaggressive, have fallen to the plans of other races. Now the newcomers and allies of the Homalo have come to take his people away. He and others understand that the humans are pawns. Getting the humans to see this is a hard problem, for the human speech is so alien that Pack's peoplehave not figured it out. They do their best to stay hidden in the vast forest areas of the planet. Pack is a good leader, and will always put his people first before all else.

Cinoa (Intrentia)

Occupation: Village Seer (Medicine Man)

Skills: Plants and Herbs, Hunting, Lores and Legend, Healer, Animal Knowledge, Public Speaking

Weaknesses: Legends

Val	CHA	Cost	Roll	Notes
11	STR	1	11-	100 kg; 2d6 [2]
23	DEX	39	14-	OCV: 8/DCV: 10*
14	CON	8	12-	
11	BODY	2	11-	
20	INT	10	13-	PER Roll 14-
14	EGO	8	12-	ECV: 5
18	PRE	8	13-	PRE Attack 3 1/2d6
10	COM	0	11-	
2	PD	0		Total: 2 PD
3	ED	0		Total: 3 ED
4	SPD	7		Phases: 3, 6, 9, 12
5	REC	0		
28	END	0		
24	STUN	0		

Total Characteristics Cost: 83

Movement: Running: 8"/16"   Swimming: 4"/8"
Powers & Skills:
  Intrentia Racial Powers:
    +2" Running (base running 8") (4) [1/5"]
  Increased CHAR Maxima (14)
  Enhanced Senses: +1 with all PER (15- PER total) (3)
    *Shrinking, 1 Level (1m height, 12.5 kg mass, -2 to PER Roll
      Against, +2 DCV [8 DCV total]), 0 END Persistent, Always
      On (7)
  Talent: Ambidexterity (3)
  Racial Skills:
    Climbing 14- (3)
  Background Skills:
    Concealment 14- (3)
    KS: Home Planet Ecology 13- (4)
    KS: Lore and Legends 11- (2)
    KS: Hunting 11- (2)
    Oratory 13- (3)
    PS: Healer 14- (5)
    Tracking 13- (3)
    Science: Herbalism 13- (4)
    Survival 11- (3)
Total Powers & Skills Cost: 63

Total Character Cost: 146

Disadvantages: 75+
  Distinctive Features:
    Small hairless humanoid, fingers with 3 digits, concealable,
      major reaction (15)
  Hunted by
    The Homalo, wish to "relocate" the Intrentia, more
      powerful, 8- (15)
  Psychological Limitation:
    Pacifistic, common, strong (15)
    Fascinated by old tales and legends, common, strong (15)
  Reduced CHAR Maxima (11)
Total Disadvantage Points: 146

Background/History: As the village seer, Cinoa is often high in the branches of the giant trees, collecting various things for his medicine pack. Cinoa is a powerful speaker amongst the Intrentia, but he never uses his skill against the village leader. Cinoa's skills in his planet's medicines are unsurpassed, and he can be a powerful person to have on the characters' side if they can find a way to communicate.

Redue (Intrentia)

Occupation: Weaver (Storyteller)

Skills: Lore and Legend, Planet History, Photographic Memory, Public Speaking

Weaknesses: Fear of Strangers

Val	CHA	Cost	Roll	Notes
8	STR	-2	11-	50 kg; 1 1/2d6 [2]
21	DEX	33	13-	OCV: 7/DCV: 9*
10	CON	0	11-	
10	BODY	0	11-	
23	INT	13	14-	PER Roll 15-
10	EGO	0	11-	ECV: 3
12	PRE	2	11-	PRE Attack 2d6
10	COM	0	11-	
2	PD	0		Total: 2 PD
2	ED	0		Total: 3 ED
3	SPD	0		Phases: 3, 6, 9, 12
4	REC	0		
20	END	0		
18	STUN	0		

Total Characteristics Cost: 46

Movement:　　　Running: 8"/16"　　　Swimming: 4"/8"

Powers & Skills:

Intrentia Racial Powers:
 +2" Running (base running 8") (4) [1/5"]
 Increased CHAR Maxima (14)
 Enhanced Senses: +1 with all PER (15- PER total) (3)
 *Shrinking, 1 Level (1m height, 12.5 kg mass, -2 to PER Roll Against, +2 DCV [8 DCV total]), 0 END Persistent, Always On (7)
 Talent: Ambidexterity (3)

Racial Skills:
 Climbing 13- (3)

Background Skills:
 Acting 13- (7)
 Concealment 15- (5)
 KS: Intrentia Racial History 14- (5)
 KS: Lore and Legends 14- (5)
 KS: Famous Intrentia 14- (5)
 KS: Singing 13- (4)
 KS: Storytelling 13- (4)
 Mimicry 13- (7)
 Oratory 13- (7)
 PS: Storyteller 14- (5)
 Talent: Eidetic Memory (10)

Total Powers & Skills Cost: 95

Total Character Cost: 137

Disadvantages: 75+

Distinctive Features:
 Small hairless humanoid, fingers with 3 digits, concealable, major reaction (15)

Hunted by
 The Homalo, wish to "relocate" the Intrentia, more powerful, 8- (15)

Psychological Limitation:
 Pacifistic, common, strong (15)
 Fear of strangers, uncommon, strong (10)

Reduced CHAR Maxima (11)

Total Disadvantage Points: 141

Background/History: Redue is a female of the species, the history keeper. She speaks the history in stories and song, and one day she will pass on this history to another when she sees her time is close. If characters can get past her fear of strangers, Redue can be a good source of information of the planet and its past.
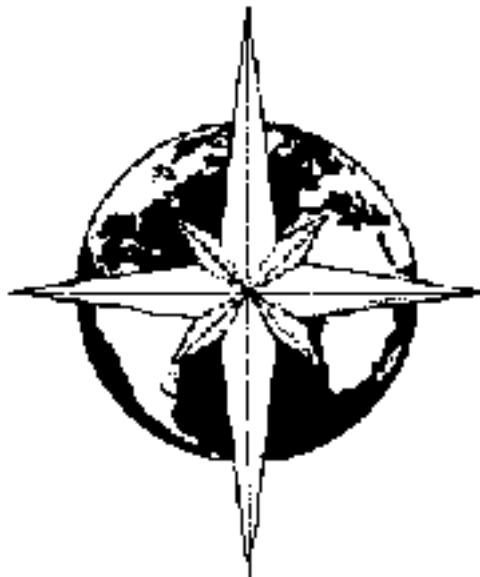
4: Agencies & Organizations

The UWP security establishment operates at several levels. A number of multinational law enforcement units exist in the form of different agencies, but the bulk of the work is carried out by nine units in four departments of United World Powers Security (UWPS). These units were once known as The United Bureau of Investigation (UBI), the largest and most important. Other prominent units include those of the Drug Enforcement Agency (DEA), Secret Service, Internal Revenue Service (IRS), Customs Service, Anti-Terrorist Bureau (ATB), and The Organized Crime Task Force (OCTF). These are all now part of United World Powers Security. The main concern of UWPS is terrorist organizations that are a threat to the new world order. Anti-Terrorist Bureau and The Organized Crime Task Force groups exchange information among other organizations about criminals who operate in more than one sector, whose crimes affect other sectors, or who have fled from one sector to another to escape prosecution. In theory, the different groups are united for the common cause, but in practice there are some groups that do not get along. The real problem comes when a certain branch is in secret control by a branch of the United World Powers Security forces. When this happens, there are half-truths granted to whatever organization they happen to be working with. If the organization can further whatever project the UWPS group happens to be working on, then they are implemented; often unknowingly.

Law Enforcement

International Police

The International Police are World Powers agents charged with maintaining order and protecting persons from unlawful acts. Police provide a variety of services to the public, including law enforcement, crime prevention (by way of preventive patrols), the maintenance of order and resolution of disputes. In the United World Powers, the International Police is the largest and most visible component of the Criminal Justice system. It is not uncommon for a police officer to work in another Sector on a case they are investigating, as jurisdiction is worldwide.

Sector One includes Eastern Russia, Mongolia, China, Japan, and all of the Pacific Islands including Australia and Antarctica. The main office is located in Central China. The heads of Sector One are Felicia Tsui, Chin Su Wong, and Superintendent Siu Mao Pak.

Sector Two covers Alaska, North and South America, Greenland, the United States, and the smaller island nations in the sector. Its head office is located in what once was New York City. The heads are Bert Seitz, Kathy Hoffman, and Superintendent Charlie Brooks.

Sector Three covers the remainder of the world. The main office for Sector Three is located in London. The heads are Pandy Saint James, Alaxander Pervis, and Superintendent John C. Dowding.

By the year 2002, the police system could no longer control the crime and disorder that had begun to appear in the cities. When the flooding started, more problems arose; and in large cities, riots occurred regularly and crime appeared to be increasing. As a result, a new kind of police force was established. These new po-

lice differed from the old in that the new officers worked on a multinational level and patrolled the streets in the new military-issue sky ships, hovercraft and watercraft in an attempt to prevent crime and maintain order. These sky ships were armed, but public outcry was at a minimum, since a need for such a show of force and willingness to use it was greatly needed. The quality of the police was low in the beginning. Corruption dominated police work.

The primary source of the problems was the political machines that controlled most city police departments. Then, a campaign to "professionalize" the police began to emerge. With professionalization came demands for better selection of police officers, centralization of commands, more technology for aiding crime prevention, and the elimination of politics from policing. The reforms had been contested by members of the United World Powers Security firm, for certain key branches (working along the shady side of the law) had the most to lose with the reforms. As reforms slowly occurred, some bad feelings carried over even to this day between United World Powers Security higher ups and the police department sections. One of the worst cases involving instances of corruption, brutality, and non-enforcement of the laws took place in Chicago. Corruption within departments had ranged from organization-wide theft to individuals taking bribes. Police brutality, involving unnecessary use of force, had created difficulties for the police and minorities. Police shootings, beatings, and killings of civilians, whether justified or not, had raised questions of accountability. This turned out to be a cell group of United World Powers Security not really minding who got in the way when it came to weapons being fired. The cell group was ferreted out after an extensive investigation by the International Police Department's Internal Investigations branch. The public questioned whether or not it was, in fact, a cover-up of the true nature of the International Police Department.

Police operations now involve the actual work of law-enforcement agencies as they pursue offenders and prevent crimes. The range of police activities is quite broad. It includes areas of patrol, detective work, shipping control, vice, crime prevention, and special tactical forces. Patrol is often called the backbone of police work. The patrol function has three basic components: answering calls for assistance, maintaining a police presence, and probing suspicious circumstances. Detectives are primarily concerned with law-enforcement activities after a crime has been reported. They are involved in an investigative function, relying on criminal-history files in the main world-wide database, laboratory technicians, and forensic scientists for help in apprehending criminals. Specialized operations units are set up to deal with particular types of problems. Traffic, vice, juvenile, and special weapons and tactics (SWAT) units are often created in larger departments to deal with such problems. SWAT units are used in many anti-terrorist operations. Enforcement of laws against vice—prostitution, gambling, narcotics—is the area that involves undercover work and informers. Juvenile divisions work on processing youth arrests, prepare and present court cases in which a juvenile is involved, and often divert juvenile offenders out of the criminal justice system. The special units such as SWAT are trained to take on terrorists and skyjackers. SWAT units are trained in marksmanship and equipped with shotguns, sniping rifles, automatic weapons, climbing gear, and other specialized equipment useful in dealing with snipers, barricaded persons, or hostage-takers.

Many of the newer weapons and technology spring from United World Powers test labs, and these include the new versions of gunships, air cushion boats and standard boats.

Selection and Training

In selecting new police officers, police agencies use a number of criteria to pick the best-qualified applicants. The most prominent selection methods include a written examination, a background investigation, an oral interview, and a medical examination. More recently, psychological tests have become popular as a means of eliminating undesirable candidates. Virtually all departments have minimum requirements for age, height, weight, and visual acuity. Standards vary for each of these categories. Recruits must range in age from 21 to 34. Height and weight requirements have changed in the last 60 years as a result of lawsuits against particular departments. The old minimum height requirement of 5 ft 9 in (1 m 75 cm), for example, has been challenged as discriminating against both female and minority groups. As a result, height and weight requirements are now a bit more flexible. Education is another matter to be considered. It is common now that most departments require only a high school diploma as the minimum level of educational attainment. Very few departments require college education, and only a handful require a bachelor's degree. The formal training for a police recruit involves primarily the technical aspects of police work: the details of criminal law and procedure, internal departmental rules, and the care and use of firearms. Arrest procedure and interview techniques are also implemented into the training program to better prepare trainees for the rigors of the job. Branches that deal with the training of special units, such as Bumblebee piloting and special weapons and tactics divisions, have more rigorous than most other training courses. The Bumblebee pilot will be in charge of an awesome piece of equipment, as it is armed and somewhat bulletproof. A player desiring to train as a pilot should have scores that are high in the areas of dexterity, perception, and stamina or the equivalent, depending on the system.

United Bureau of Investigation (UBI)

The UBI's main concern is the war on crime in a world-spanning jurisdiction. The UBI deals with anything that would have an effect on United World Powers holdings; while this may conflict with UWP security in some cases, everything seems to flow smoothly. The UBI deals with the criminals outside the ultra-secret project holdings of the UWP, and UWP Security deals with anything that would affect the ultra secret projects. The UBI has some of the best crime labs in any law enforcement organization, and they are often called on for assistance in evidence gathering and evidence investigation. UBI agents, like the International Police, work in sections and can at times travel to other areas while working on a case.

Military Police

Military police are the constabulary units of a nation's armed forces. These units have been charged with maintaining order on military installations; they also have jurisdiction in areas near military bases when military personnel are involved. Military police also maintain security and discipline in a war zone. Each of the armed forces of the United States, for example, has its own

trained police force. In the Army and the Marines, police duties are carried out by the Military Police, or MPs; in the Navy and in the Coast Guard it is by the Shore Patrol; and in the Air Force it is by the Security Police. These branches, like the police departments of the world, are now United as well. They too answer to a main body that makes up the higher council of police affairs.

Legal Change

The Legal Change section works with the world's multinational police departments, working to change laws and civil declarations at times when it would serve the public trust, and to solidify a case. The Legal Change offices work in conjunction with the United World Powers' lawmakers council. Laws are in constant flux and may change week to week, but note that it is not hundreds of laws, and not all the time. Under extreme circumstances, the police will deal with Legal Change to help change a law so that a bust can be deemed legal.

Sentencing: Sea Exploration and Cultivation

It is increasingly obvious that there are no easy solutions to the problem of crime. Hard-line policies, such as long-term sentencing, cannot be accomplished at small cost. They have instead aggravated overcrowded conditions in prisons, and have increased the already heavy costs of incarceration. In 2013, many crimes that had once been matted out with nothing but jail terms now have more severe actions taken. The research in space was on, but so was research and exploration of the Earth's deep trenches in the seas. As of 2020, criminals could now find themselves sentenced to deep sea exploration and classifications. It's a dangerous job that no one wants.

Drug Enforcement Agency (DEA)

This organization's main purpose is to fight against large-scale drug cartels and illegal drug organizations. In the battle against the drug lords, this organization uses everything from boats and subs to aircraft.

Secret Service

The Secret Service, an agency of what was once the United States Department of Treasury, is still in existence, though its role has changed somewhat. After the 1901 assassination of President William McKinley—who, after Lincoln and James A. Garfield, was the third president to be assassinated in 36 years—the Secret Service was charged with the protection of the Chief Executive. Later, the protective function of the agency was expanded to include the President-Elect and the Vice-President-Elect, their immediate families, the President's and Vice-President's immediate families, former Presidents and their wives and children (until the age of 16), major candidates for President and Vice-President, certain visiting foreign dignitaries, and others at the discretion of the President. As a result of the assassination of President John F. Kennedy, the Warren Commission recommended that the Secret Service undergo a modernization program. Its jurisdiction was extended to several subsidiary agencies, and its budget was increased. With the world as it is now, the Secret Service has gone into other types of reform. The groups' main purposes are: protection of all UWP heads, their immediate family, protection of the United Powers World Building located in Greece, the Trea-

sury vaults, and certain other UWP buildings. As of 2063, the agency had 303 district offices worldwide. The Secret Service's main behind-the-scenes job is espionage and other covert operations against non-UWP countries. A special section deals with the Black and Blue Book projects and hostile alien life forms. See Alien character types and the Aliens Section for more information.

Anti-Terrorist Bureau (ATB)

The ATB, as it is called in law enforcement circles, trains its people to deal with a wide range of terrorist activities. Training covers hostage rescue, terrorist elimination, special weapons tactics, and training on land, sea and air. If the ATB is called in, it will only be for situations deemed far beyond the control or abilities of local law enforcement to handle. A character in such a organization will have a good amount of training to fall back on.

Organized Crime Task Force (OCTF)

This task force has hundreds of undercover agents all over the world. The main targets for this unit are the large crime bosses and gang organizations that dot the globe. The files of the OCTF will always be kept current as information is received from countless sources. Characters seeking information about gang organizations would do well to make friend in this organization.

Interstel

Interstel is an organization that spies for concerned members of the UWP in order to acquire information. It involves gaining access to the desired information, actually acquiring the information, and then conveying it to an appropriate intelligence agency for evaluation. Industries use it to gain research data from other firms without performing the labor, and political factions use it hoping to pre-empt and undermine their rivals. Interstel is in the habit of being very careful as to who its clients are. They will not take on a job that is deemed questionable, but they will work to counter agents who are plaguing current clients. Interstel's main concerns are the splinter groups of United World Powers Security. Ferreting out these groups and underlying plans is an ongoing battle for this organization. High-tech to low-tech weapons and equipment are a mainstay for the field agent, for they never know what they may come up against. Interstel agents are recruited from military and police organizations. People with eye-catching track records have files kept about their exploits. After a vote, they are approached and offered a post with Interstel.

Crime Organizations

The deep and deadly secretive world of crime organizations is a place that most people would not want to find themselves in the midst of. In a web of networks, crime lords from five main organizations conduct business on a grand scale.

The Organization

(Weapons dealing, strongarm protection, scams, technology theft, murder):

The Organization has a main body of eight who run the different sections. This organization has cells in most major cities. Each cell is run by a group of six. The groups' heads are known for the ruthlessness with which they carry out business, and it is not uncommon for infighting to take place. This is, however, tolerated only to an extent. For instance, if the infighting starts to affect business, enforcers are sent by the main heads to set things right again, and get the cells back into business as usual. One of this organization's main points of operation is in New Miami.

Bloody Rain

(Underground slave trade, drugs, prostitution, gambling, pirating):

This group is of the old family once called the Yakuza. Like most other organizations, the Yakuza saw the need for unification for the future. The organization set about absorbing smaller Asian organizations, and in doing so became something different from what it was: more powerful and diverse in what its goals had been. To offend one of this organization's members is to make an enemy for life. They are fond of carrying out business in the old ways, enforcing domination with the razor edge of a tanto.

Enstanza

(Drugs, pirating, weapons, extortion, strip shops):

With the world's seas risen and the lands saturated or submerged in many places, it was only a matter of time before some group would take up crime on the seas. Enstanza is a group that hails from what was Mexico and some parts of south America. The group's dealings extend into weapons sales, weapons delivery, and smuggling to some cause terrorist organizations, on into extortion and protection credits. The old tales of bloody pirate adventures has nothing on the reality and bloody ruthlessness of Enstanza.

Mestafa

(CredIdent racket, prostitution, strip clubs):

Haiti and the islands bore the brunt of the seas- rising. Many of the islanders found refuge in the mountain ranges that dot the islands. Mestafa was one of the groups that survived, using the disasters to their advantage, destroying competition. Dealing in fear and voodoo, the Mestafa grips most of the islands and surrounding areas in fear and superstition.

Promise

(Betting, organized underground fights, death runs):

This organization is a great mystery, for its utter chaos makes it seem as though it should not exist at all. It stretches to some parts of Florida, along the east coast. Promise deals in the habits and evils of betting, and in the darker sides of competition, staging underground fights and death runs. The organization is not above kidnapping unwilling players for these games of death and deceit.
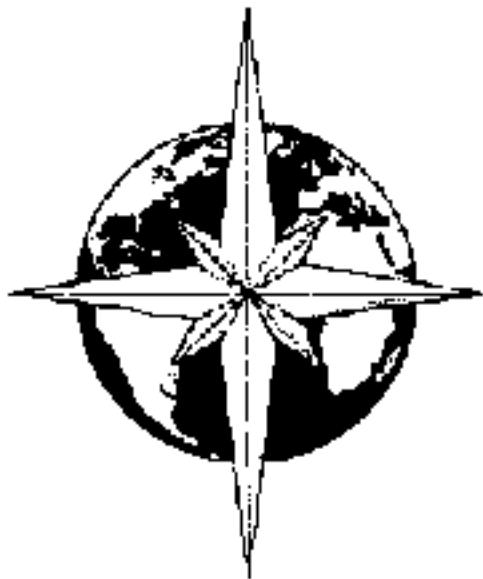
5: Combat

Combat—General

Sooner or later, when you get down to it, some characters will end up in combat. This section deals with some suggestions on combat in many types of phases. Some, as you will note, will be very short sections; while other areas may be a bit larger, and branch off into sub-groups. All of these are suggestions which we hope will spark ideas for the gamemaster. All damage values given in later sections, as well as new combat rules, are suggestions only. They are a reasonable estimate of how the Bright Future comic converts to the HERO System. If you prefer to have a more high- or low-powered campaign, feel free to modify these rules as you see fit.

Bright Future makes use of all the standard and optional HERO System rules for both hand-to-hand and ranged combat (see the *HERO System Rulesbook*, p. 152, for a full explanation of combat maneuvers). Characters may buy the Skill Martial Arts if they wish, without the Extra DC element—all Martial Arts must be used "as is." As in every HERO System genre, all characters have the Weapon Familiarity with Clubs for free. Any other weapons used require the appropriate Weapon Familiarity.

Because Bright Future is set as a campaign for Talented Normals, Knockback rules are not used—use the rules for Knockdown instead (*p. 165 in the HERO System Rulesbook*).

When determining damage, use of the Hit Location Table is optional, but recommended for more realistic fights (especially firefights). It is also recommended that the GameMaster make use of the Impairing and Disabling Wounds rules, and the rules for Bleeding as well. While it does involve slightly more time and book-keeping to use these rules, they add a high degree of realism to the game and a greater sense of self-preservation to the PCs. Knowing they can die from bleeding will certainly make them

want to get out of a fight and over to a hospital as quickly as possible! For a full explanation of each of the above rules, see pages 162 to 165 in the *HERO System Rulesbook*.

The next several sections deal with combat in various types of vehicles and in different environments. After reading them, it is recommended that the GameMaster carefully read the section on Vehicle Combat in the *HERO System Rulesbook*, pp.192-195. It provides several useful tips and suggestions for handling this more unusual form of combat, including handling damage to vehicles and simplified methods for dealing with high-speed combat.

Combat in Water Craft

Combat on water craft, whether the craft is a boat or a jet ski, takes great skill. A character who has the Combat Driving Skill will be able to maneuver the vessel in such a way as to lessen harm to the craft and its occupants. They can bring the vessel into play so as to give its gunners a good field of fire.

This type of combat, as well as underwater and airborne combat (discussed briefly below), is tricky to run. Unlike ground-based, direct character combat, it takes place over much larger distances and has many additional factors to consider. Some of these include the heaviness of the roll of the roll of the waves and how calm or choppy the water is. A GameMaster will have to practice running this sort of multi-dimensional combat a few times before trying it in a game.

Players, too, will need practice. A good water pilot will use the sea's motions to an advantage in combat, gunning the vessel and using waves or high whitecaps to jump the vessel out of harm's way or into a better firing position. He must also consider the danger of being swept over the side in a heavy swell or stormy seas.

Combat in Underwater Craft

Wits, guts and cold calculating skills and determination separate the living from the dead in underwater craft combat. When the sonar picks up high speed screws in the water, and you know it's a skipray torpedo, it's life or death.

The effectiveness of the underwater craft depends on remaining undetected for long periods of time while it searches, keeps track, or attacks from beneath the surface. Before an underwater ship can be attacked, it must be detected and its position determined. The underwater craft can give itself away by emitting radiation or bending energetic or magnetic waves away from itself. Detection by light has an excellent differentiation ability and high speed transmission rate, but its range in water is very limited. Ongoing laser light detector research, however, shows that this type of detection has not been dropped completely. Radio frequency waves are used for some types of detection, but again seawater is impervious to most frequencies. VLF signals only penetrate about 10 meters, and higher frequency penetration in deep depths can be measured in millimeters. Magnetic and gravitational field distortions can be detected only at short ranges, and the anomaly diminishes exponentially with range. For acoustic energy, or sound detection, keep in mind that depth of water is not uniform in pressure, temperature, or salinity. These characteristics have important effects on sound propagation through water. A character with the Systems Operation Skill will have an easier time predicting effects of water conditions on sonar performance than a character without this Skill.

Underwater obstructions, such as deep chasms and rocky underwater mountains, thick sea kelp and thick deposits of coral, can mask an underwater vessel. Characters can use masking techniques to hide from an adversary if need be. The character would make a Concealment roll to hide from sonar, using either Systems Operation or an appropriate Area Knowledge of the local undersea landscape as a Complementary Skill. The one doing the hunting would then make his own Systems Operation Skill Roll in a Skill vs. Skill contest.

Torpedoes and depth charges are two main concerns for a character in an underwater craft. Torpedoes can home in on the screws of a ship or submersible craft, achieving a mobility kill. Detonation underneath the keel can cause severe damage to the craft as well. A character piloting the craft, on realizing that there is a torpedo incoming, must do something right away. Combat Driving Skill is useful here, as is employing such tactics as diving past a thermal layer to confuse the torpedo's sonar system. Apply a -1 to -3 modifier to the torpedo's PER Roll if such tactics are used. If the underwater craft is equipped with some type of noise maker that it can jettison as a decoy, then a greater modifier may be applicable.

The damage caused by mines and depth charges are not so much from the charge, as much as from the cavity filled with high pressure gas created by an underwater explosion. The blast of bubbles forms into kinetic energy that can cause massive damage to a vessel within 20 feet of the blast. The closer the vessel, of course, the worse the damage.

Underwater combat is perhaps the most difficult type of combat for a GameMaster to moderate. It takes place in three dimensions, and there are no visual clues that can be given to players. In effect, all players and NPCs in an underwater combat are "fighting blind," having to rely on sonar and the skill of their pilot to see them through. It is highly recommended that a GameMaster practice this sort of combat several times before incorporating it into a scenario. The players themselves will be confused the first time or two, and if you as the GameMaster already have some experience with the difficulties and can clearly explain things to the players, a better time will be had by everyone involved. In fact, after two or three sub-to-sub combats, players may well decide that this sort of fight is the most exciting of all, because there are so many unknowns to deal with.

Combat in Aircraft

Aircraft combat pilots have a saying that carries over to this day: "Once aircraft have engaged, someone is going to die." The better-skilled pilot will have an edge on the lesser-skilled pilot, regardless of what type of aircraft is being used. The nimble and fast Scarab can lose a battle against a Bumblebee pilot with a high Combat Piloting Skill Roll.

Factors that affect air combat include skill of the pilots (measured by their DEX, SPD, and Combat Piloting Skill), weapon platforms, and speed and maneuvering capabilities of the aircraft (measured by the vehicle's DEX and SPD). A higher SPD and DEX will give an edge, allowing the more maneuverable craft to turn more frequently, fire weapons more readily, and perform tricky or dangerous maneuvers more easily. But remember that a vehicle is only as good as the person flying it—a pilot with a 13 DEX and 3 SPD flying a fighter jet with an 18 DEX and 4 SPD will only be able to react at his own DEX and SPD level. The jet is simply "too responsive" for the pilot, and he won't be able to use it to its fullest potential.

Skilled pilots will not only know how to use their vehicle most effectively, but will also know how to use the terrain beneath them. Using masking (the act of using terrain or structures to hide oneself and one's vehicle), an aircraft pilot can dodge missiles and other types of hardware fired upon a vessel. Masking can also be used to sneak up to a target for a surprise attack.

As with underwater combat, air combat is particularly tricky since it takes place in three dimensions. While vision is still a primary tool in this sort of combat, its use is limited to close-in dogfights. Unfortunately, real air combat begins much sooner than when the pilot can "see the whites of their eyes." It begins as soon as the pilot acquires a target on radar, which usually happens several miles out from the pilot's location. Add heavy cloud cover or a low-altitude flight through variable terrain, and things suddenly get a lot more difficult.

The other consideration with airborne combat is the much greater speeds involved. Planes flying by each other at close to Mach speeds will get only one or two chances to fire before turning around. And of course, during that time the attacker can quickly become the defender if the person he was attacking can get behind him. A vehicle's Turn Mode (see p. 143 in the *HERO System Rulesbook*) is very important. Once again, it is highly recommended that a GameMaster practice this type of combat before introducing it into a scenario.

Combat in Spacecraft

Spacecraft combat is not too different from aircraft combat, the only important differences being maneuvering room, the lack of gravity, and the generally much larger distances involved (tens or hundreds of miles, as opposed to only a few miles in aircraft combat).

Spacecraft have the advantage of being able to maneuver in several dimensions almost to infinity, relative to placement of planetary and other massive objects. A spacecraft does need to be careful when maneuvering around things like stars or planets, since getting too close could get the spacecraft caught in the object's gravitational pull or cause it to "bounce" off the object's atmosphere (something that can be very damaging to spacecraft).

Lack of gravity is an especially difficult concern. Contrary to what might be believed, the problem is not so much when a ship is firing its own weapons. A spacecraft can make use of maneuvering thrusters when using weapons platforms, so that the opposing reaction to a weapons launch does not offset forward momentum in the vacuum of space. The problem lies in when a ship is hit by an opposing ship's weapons (this is the one time that Knockback rules should be used). The impact forces from an incoming missile or an enemy ship crashing into the character's ship (either due to damage or intentionally) can be tremendous, and can send the ship struck careening wildly through space. Naturally, this is a direct function of the ship's mass and current velocity, since even in space the laws of momentum and inertia still hold. A sufficiently large impact or explosion can still send even a large battle cruiser slowly tumbling. Pilots will need to recover from such jolts quickly—a Combat Piloting Skill Roll is required, with a penalty applied depending on how badly the ship is tumbling, and several Phases may be required to restore a ship to a stable orientation. If the pilot cannot quickly right his ship, the enemy will be able to finish him off with little further resistance.

Distance is the other primary concern, although this is offset somewhat by the larger sizes of spacecraft as opposed to earthbound aircraft. While spacecraft combat will still be within line-of-sight, firing at more distant targets does involve higher range penalties. As in normal air combat, masking can be used to fool sensors and other radar emitters. In this case, rather than using clouds or terrain the pilot would use other massive space objects and/or manmade structures to hide or obscure a ship's location (how many times in the Star Trek movies did one ship or another hide inside a nebula?). Even the scatter of magnetic fields at the base or top of a planetary body can hide a vessel from target-seeking sensors. Such masking effects are, naturally, more effective at greater distances, allowing one ship to ambush another from much closer than would normally be possible.

Once again, the intricacies of this type of combat require that a GameMaster practice a time or two before introducing players to it. This is quite possibly the most involved form of combat, but like underwater combat, it has the potential to be the most exciting as well.

Optional Rules

In addition to the above rules, the following additional rules are suggested. Note that while they add realism, they can make life even more risky for the characters.

Critical Hits: When a character makes his or her Attack Roll by more than half, the character will automatically do maximum damage to the target.

Weapon Jams and Misfires: This rule simulates the need for a character to regularly maintain any firearms he or she has. Without regular maintenance, a gun can easily jam or misfire, and possibly even explode, causing no end of trouble for the character in the middle of a heavy firefight. Maintenance is especially important given the much more humid atmosphere since the melting of the polar ice caps.

If a character (player or otherwise) does not regularly maintain his or her weapons, then after a certain time period (set by the GameMaster—a maximum of two days is recommended, assuming minimal use of the weapon) the weapon will acquire the Jammed Limitation with a roll of 15-. Every time that period passes without maintenance, the Jammed roll will lower (get worse) by one level. Using the above time limit of two days, a handgun would acquire a 15- Jam roll after two days, a 14- roll after four days, a 12- roll after six days, etc. to a maximum of an 8- roll after 14 days (two weeks).

Anytime a character attempts to use an improperly maintained weapon, the GameMaster should check the Jamming roll before the character makes the attack. If the roll is equal to or less than the Jamming value, the weapon works properly. If the roll is higher than the Jamming roll, the weapon jams and cannot be used again until the character properly cleans the weapon. This will remove the Jamming limitation and restore the weapon to normal operation.

While annoying, this is a minor problem compared the threat of a weapon misfire or explosion. If the character uses an improperly maintained weapon and successfully gets around the Jamming roll, the GameMaster should make a second 3d6 roll at the same time the character makes his or her Attack Roll. This second roll is a normal Activation roll with the same value as the Jamming roll. If this second roll is equal to or lower than the Activation value, then all is well. Otherwise, a misfire has occurred and no shot goes off.

If the second roll is an 18, however, then the bullet or shell explodes in the gun, and the weapon and character firing it both take damage equal to that for the bullet in the chamber, plus all the other bullets remaining in the clip. Obviously, this is a very dangerous situation to risk, so most characters will want to make sure to keep their guns well taken care of.

Example: *Joann Lee Danns has cornered Richard McKenzie, a man suspected of several bombings, in an alleyway. McKenzie, not too keen on being arrested, draws a .22 automatic pistol he keeps inside his jacket for emergencies and aims it at Danns. Unfortunately for him, he isn't especially big on keeping it clean and oiled, and after a week of no maintenance the gun has a Jamming roll of 12-. The GameMaster first rolls for Jamming, and rolls a 9—more than enough for the weapon to work right. But now he rolls again to check against a Misfire, again needing to roll 12 or lower. This time, he rolls a 15. McKenzie's gun makes a loud click, but nothing else. His eyes widen in surprise, and a moment later, Danns closes the distance and slaps the cuffs on him.*

Weaponry

Knives

Knives are deadly weapons that can be used for slashing as well as stabbing attacks. A knife can be the standard store-purchased type, or any length of steel or hard metal sharpened in such a way as to cause damage when used against a target. Speed and dexterity are two deciding factors in a knife attack or defense. While slashing attacks generally cause only minor damage, mostly bleeding and some muscle damage, a stabbing attack can cause a great deal of internal organ damage and internal bleeding. Characters that have been stabbed will have to seek help quickly or risk death from excessive bleeding (assuming the optional Bleeding rules are being used). A deep enough wound can quickly stun or even incapacitate someone—such a character will die within minutes unless he or she is quickly given medical attention.

Most knives will do 1/2d6 of damage. These can easily be hidden under a jacket or inside a pants leg. Larger knives, broken bottles, straight razors and the like will do from 1/2d6 to 1d6+1 of damage, and be correspondingly more difficult to hide. Certain knives, such as stilettos, are used mainly for stabbing attacks, and so have a very sharp point and edges. Such weapons have the Advantage Armor Piercing when used against any kind of body armor such as Kevlar.

Guns

Firearms are the deadliest of weapons to use against characters, for the firearm has but one purpose: to kill. Once a bullet is fired off, there is no stopping it. A gun going off can be the final harsh sound a character may hear. Guns include handguns, rifles, machine guns, shotguns, and larger caliber weapons mounted on the weapons platforms of a combat craft. Bullet calibers are as wide and diverse as the weapons that fire them. Below is a list of the different types of ammunition that can be found, followed by a partial listing of common firearms in the world of Bright Future. Both listings include game-specific information and general statistical information. The latter is to allow a GameMaster to modify the damage or properties of ammunition and firearms, respectively, while having some means of comparing one type to another.

One thing the GameMaster should bear in mind is the matter of carrying and/or concealing handguns and other firearms. Carrying a weapon in a holster or hidden under some clothing means the weapon is not instantly ready, and characters will need to spend a 1/2 Phase drawing the weapon and/or clearing the holster. Obviously, heavier and/or bulkier guns will be somewhat more difficult to clear than smaller and lighter firearms. This is typically a concern only when two characters attempt to draw a weapon simultaneously (i.e., both have the same SPD and DEX stats). In this case, each character should make a DEX roll, with a modifier applied for the size and bulkiness of the weapon being drawn and the type of concealment it is being pulled from. Lightweight weapons would have only a -1 penalty at most, while heavier and more bulky guns would have a -2, -3, or even greater penalty. Naturally, having the Talent Fast Draw comes in very handy at times like this.

Example: *Joann Lee Danns is on patrol when she spots Danny James, a suspect in a recent murder, leaving a local bar. As she approaches him, one hand on the pistol in her holster, James spots her and immediately tries to draw the .44 Magnum he has in a holster inside his jacket. Seeing his movement, Danns tries to draw her gun before James can. But Danns and James have the same DEX, so they need to make a DEX roll to see who draws first. Danns has only a -1 penalty for the .22 pistol, while James has a -3 for the large, heavy .44 Magnum. Danns rolls an 11, just enough to make her modified roll. But James lucks out and rolls 7, 2 more than he needed. James will get a shot before Danns—good thing she's wearing her Kevlar tonight.*

Note that a character who is holding a weapon in his hand but hiding it inside or under a coat or jacket does not suffer this penalty. The weapon is "in hand" and ready to use at a moment's notice. For example, a person holding a pistol and hiding it under a coat draped over the gun arm would be able to fire without using a half Phase to ready the weapon.

Laser Weapons

Laser weapons are very rare. Most characters would have a hard time finding any such weapon. For those that do, the upkeep of such a weapon is paramount, and keeping the lenses clean is a must. Most lasers visible to the human eye are not the type that will cause damage to an object. Rather, the laser that can be seen is most times used for ranging and targeting. The true laser is invisible to most people, and will cause burn damage or in some cases radiation damage at the cellular level. GameMasters using a laser weapon in a game should make them something that is very deadly and hard to obtain. Most lasers that need a huge power source to operate are types used on military spacecraft. A small hand-held unit would have accelerator charges in the shape of clips. These clips would have a limited number of charges, and in turn a limited number of shots.

Explosives

Explosives would include simple homemade devices such as a bottle filled with gas with a rag sticking from the top as a fuse. This, of course, is a very dangerous explosive to both the target and the person holding the thing. Explosives also include military and other professionally and semi-professionally built area damage devices. You will also find a few explosives listed in the specific weapons listing below. A device that goes off will, depending on the size of the wad (or charge), cause a great amount of destruction. Characters within the blast effect can very well perish in the force of the violent detonation. Characters should proceed with the utmost caution when dealing with any type of explosive device. Cover or breaks from the blast, such as solid furnishing, a thick wall or the like will, of course, lessen the damage.
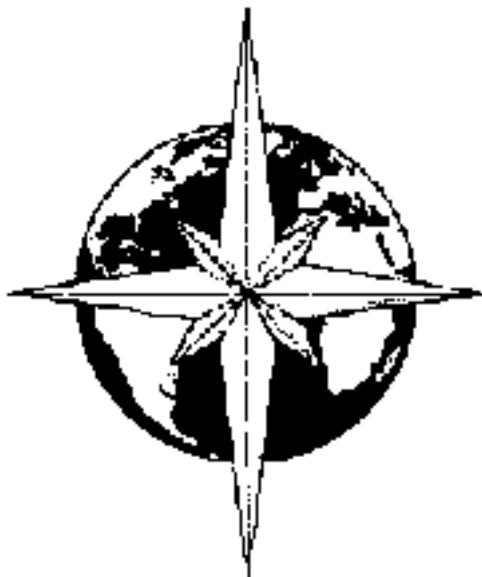
6: Weapons & Other Equipment

Bullets, Rounds, Shells

Weapon rounds are as plentiful in type as the weapons that fire them. Some of the more common weapon rounds are listed here. The gamemaster can draw their own conclusions as to the amount of damage such a round will cause. Listed with the rounds are key ballistic reports on the rounds. It should be remembered that any bullet can kill. Some have more power than others, true, but a shot to the head is still deadly. Some types, such as hollow points, have a mushroom effect and can cause great amounts of damage. High-speed armor piercing rounds can pass from one target through to another unintended target if no bone or large internal organs get in the way. Bullets can take many forms. Some are harder to get than others and some are for military UWP use only. As standard rule, any bullet has a chance of killing a target character.

Normal

Everyday, garden variety bullets, shotgun cartridges and rifle rounds, available at almost any gun store. The specifics on different caliber rounds are given later in the section on Ballistics.

Hollow Point

A hollow point round (or Dum-Dum) is designed to have a pronounced mushroom effect when striking the target. This causes much larger and messier wounds than standard rounds, and the mushroom effect also allows these rounds to more easily bypass Kevlar vests and other protective gear. Smaller caliber hollow points such as the .25 and the .22 have a nasty habit of breaking up into shrapnel. Hollow point rounds have the Advantage Penetrating and the Limitation 1/2 Effect through Walls, Shields, and Barriers.

Armor Piercing

This is a steel projectile with a cap over the tip (usually made of Teflon) which helps penetration. This type of round can slice right through the fibers of a Kevlar vest, rendering such protection all but useless. These rounds have the Advantage Armor Piercing.

Tracer

This round has a kind of propellant and/or chemical base that burns a different color. It's good for psychological effects, or to aim and march the spray of fire across a target. Tracers are designed as follows: Combat Skill Levels (+1 OCV), Obvious Accessible Focus, Does not apply to first shot (-1/2)

High Explosive

This is a military round and can be found in some .50 caliber machine guns. The round penetrates the target and then explodes, causing more damage. Explosive rounds have the Advantages Penetrating and Area Effect: 1 Hex, and the Limitations Must hit target, not Hex and 1/2 Effect through Walls, Shields, and Barriers.

Ballistics

Rim Fire and Center Fire Handgun Cartridges

		VELOCITY AT		
ROUND	TYPE	50 YARDS	100 YARDS	DAMAGE
22 Long Rifle	Rim Fire	1017 fps*	140 fps	1d6-1
25 Automatic	Center Fire	813 fps	752 fps	1d6-1
32 Smith and Wesson	Center Fire	645 fps	610 fps	1d6
32 Automatic	Center Fire	895 fps	835 fps	1d6
380 Automatic	Center Fire	920 fps	870 fps	1d6
9mm	Center Fire	1130 fps	1040 fps	1d6+1
357 Magnum	Center Fire	1095 fps	975 fps	1½d6
40 Smith and Wesson	Center Fire	936 fps	893 fps	1d6+1
10mm Automatic	Center Fire	1070 fps	1010 fps	1½d6
.44 Magnum	Center Fire	1365 fps	1175 fps	2d6, +1 STUNx
45 Automatic	Center Fire	917 fps	860 fps	1d6+1, +1 STUNx

*fps = feet per second

Rifle Cartridges

Rifles are used many times for longer-range shooting, so ballistics are listed for up to 400 yards.

		VELOCITY AT				
ROUND	TYPE	100 YDS	200 YDS	300 YDS	400 YDS	DAMAGE
17 Remington	Center Fire	3284 fps*	2644 fps	2086 fps	1606 fps	3d6+1, +2 STUNx
222 Remington	Center Fire	2602 fps	2123 fps	1700 fps	1350 fps	2d6+1, +1 STUNx
6mm Remington	Center Fire	2829 fps	2573 fps	2332 fps	2104 fps	2½d6, +1 STUNx
25-06 Remington	Center Fire	3043 fps	2680 fps	2344 fps	2034 fps	3d6, +2 STUNx
6.5x50mm	Center Fire	2160 fps	1970 fps	1790 fps	1620 fps	2d6-1
6.5 Remington	Center Fire	2905 fps	2621 fps	2353 fps	2102 fps	3d6, +1 STUNx
7mm	Center Fire	2012 fps	1821 fps	1643 fps	1481 fps	1½d6
30 Carbine	Center Fire	1567 fps	1236 fps	1035 fps	923 fps	1d6-1
307 Winchester	Center Fire	2321 fps	1924 fps	1575 fps	1289 fps	2d6
30-06	Center Fire	2511 fps	2311 fps	2121 fps	1939 fps	2d6+1, +1 STUNx
303	Center Fire	2441 fps	2210 fps	1992 fps	1787 fps	2d6
444 Merlin	Center Fire	1733 fps	1405 fps	1160 fps	1012 fps	1d6

*fps = feet per second

Shotgun Shells

Unlike other types of ammunition, shotgun shells will only be used in shotguns. The shotgun shell is most often made of a light material, such as a plastic, and is filled with hundreds or even thousands of tiny steel pellets known as shot. Persons using a shotgun can use the weapon's choke to control the spread pattern. The wider the shot is placed, the less damage it causes. In game terms, this is the same as Spreading an attack. The following types of shotgun shells are available:

CALIBER	TYPE	VELOCITY	DAMAGE
10 Gauge	Center Fire, Spread Shot	1205 fps*	3d6
12 Gauge	Center Fire, Spread Shot	1175 fps	2½d6
16 Gauge	Center Fire, Spread Shot	1250 fps	3d6
20 Gauge	Center Fire, Spread Shot	1185 fps	2d6+1
28 Gauge	Center Fire, Spread Shot	1125 fps	2d6
410 Bore	Center Fire, Spread Shot	1245 fps	2d6

*fps = feet per second

NOTE: All shotgun shells have a +1 STUN multiplier when calculating STUN damage. In addition, all shot has the Reduced By Range and Reduced Penetration Limitations.

Large-Scale Armament

Large-scale armament is used for water craft, spacecraft and aircraft. All such items are "fire and forget." The pilot acquires his target and then fires the weapon, and its internal guidance and tracking systems allow it to find its target without further guidance from the vehicle pilot. In game terms, all such weapons have an internal Computer defined as follows: INT 10, DEX 10, SPD equivalent to the weapon's indicated SPD value, Combat Piloting Skill at 12- (for maneuvering), Systems Operation Skill at 12- (for interpretation of internal radar/sonar systems), and a single program to "Intercept Target" (once the weapon is fired, there is no deactivating it or calling it back).

A pilot attempting to evade one of these weapons would make a Skill vs. Skill roll, using either his own Combat Piloting Skill against the weapon's skill, or (if using the technique of Masking described earlier) using Concealment Skill versus the computer's Systems Operation Skill. In the former case, the weapon has not lost its target, but simply has to maneuver back into position. In the latter case, the weapon has lost its target, and will continue flying in a straight line until it either impacts with another object, runs out of fuel (exceeds its maximum range), or reacquires the target (requiring a new Systems Operation Skill Roll). Note that if there are multiple targets close to one another and the computer fails its Systems Operation roll badly enough, it might inadvertently begin tracking a new target.

Certain equipment items, such as radar jammers and other forms of ECM, will allow a person to much more easily evade these weapons. When a person activates their ECM, the weapon's on-board computer will be unable to track him. Unless the weapon has some form of secondary sensing capabilities (for example, heat detectors), it will completely lose the target and act as described above.

Listed here are a few types of weapons that may be used on different types of craft. See the glossary of terms at the end of this book for terminology.

Sea Spray

Type: Surface-to-Air Naval Missile

Length: 13 feet 1 inch

Weight: 503 lb.

Warhead: 88 lb. HE-Frag

Speed: Mach 3 (6,176" per Turn/1,544" per Phase [SPD 4])

Range: 4 miles

Altitude Limitations: 50,000 feet

Damage/Modifiers: 5d6 Explosion, +2 OCV, No Range Mod, +1 STUNx,+6 PER Mod

Starburst

Type: Surface-to-Air Naval Missile

Length: 9 feet 2 inches

Weight: 22 lb.

Warhead: HE-Frag

Speed: Mach 2 (4,120" per Turn/1,030" per Phase [SPD 4])

Range: 5 miles

Altitude Limitations: 30,000-40,000 feet

Damage/Modifiers: 1½d6 Explosion, No Range Mod, +1 STUNx,+4 PER Mod

Goony

Type: Surface-to-Air Naval Missile

Length: 12 feet 7 inches

Weight: 450 lb.

Warhead: 75 lb. HE-Frag

Speed: Mach 2.5 (5,144" per Turn/1,286" per Phase [SPD 4])

Range: 11.5 miles

Altitude Limitations: 16,400 feet

Damage/Modifiers: 4d6 Explosion, +1 OCV, No Range Mod, +1 STUNx,+6 PER Mod

Lamprey M45

Type: Ship and Submarine Torpedo

Length: 21 feet 2 inches

Weight: 3,410 lb.

Warhead: 295 lb. HE

Speed: 35 Knots (120"/Turn, 40"/Phase [SPD 3])

Range: 8 Miles

Damage/Modifiers: 15d6 Normal Damage Explosion, No Range Mod, +8 PER Mod

Dogfish

Type: Aircraft-Carried Torpedo

Length: 8 feet

Weight: 657 lb.

Warhead: 110 lb. HE

Speed: 25 Knots (78"/Turn, 26"/Phase [SPD 3])

Range: 6 Miles

Damage/Modifiers: 6d6 Normal Damage Explosion, No Range Mod,+4 PER Mod

Scourge

Type: Air-to-Surface Anti-Ship Missile

Length: 10 feet

Weight: 430 lb.

Warhead: 100 lb. HE-Frag

Speed: 980 Knots/Mach 1.5 (3,056"/Turn, 764"/Phase [SPD 3])

Range: 10 Miles

Damage/Modifiers: 6d6 Explosion, +2 OCV, No Range Mod, +1 STUNx,+4 PER Mod

Pulsar

Type: Star Missile (used in spacecraft defense)

Length: 20 feet

Weight: 1,000 lb.

Warhead: 400 lb. HE-NU

Speed: Mach 6 (12,360" per Turn/4,120" per Phase [SPD 3]) with Hi Isp Engine system

Range: 100 miles

Damage/Modifiers: 8d6 AP Explosion, No Range Mod, +1 STUNx,+8 PER Mod

Talon

Type: Air-to-Air Missile

Length: 6 feet

Weight: 400 lb.

Warhead: 75 lb. HE-Frag

Speed: Mach 4 (8,240" per Turn/2,060" per Phase [SPD 4]) with Hi Isp Engine system

Range: 18 miles

Damage/Modifiers: 4d6 Explosion, +3 OCV, No Range Mod, +1 STUNx,+2 PER Mod

Bright Future™ Sourcebook 1

Firearms

Following is a list of the most commonly used firearms. Each listing gives the name of the weapon, the caliber of the rounds used, any OCV or Range Modifiers the weapon takes, the number of rounds a single clip will hold, the STR Minimum to properly use the weapon, and the PER Modifier for the weapon (the higher the PER Mod, the easier it is to spot). Note that some weapons are capable of firing different calibers, depending on the version bought. These firearms will have a separate listing for each caliber. The GameMaster should refer to the previous section on Ballistics for the damage levels of a particular caliber round.

Automatic Pistols

NAME	CALIBER	OCV	RMOD	WEAP CAP	STR MIN	PER MOD
Astra A-70	9mm	1	0	8	9	2
	.40	0	0	7	8	2
Armortech P1, P2	.357 Magnum	1	0	8	12	2
	.44 Magnum	1	0	6	14	4
Beretta .22 LR	.22 Long Rifle	0	0	8 + 1*	6	0
Bersa Model 86	.380 ACP	1	0	13	10	2
Calico M-110	.22 Long Rifle	1	-1	100	11	3
Calico M-P9R	9mm	1	0	50	11	3
Grendel P-12	380 ACP	0	0	11	9	1
H&K P7M8	9mm	0	0	8	9	1
H&K P9S	9mm	0	-1	9	9	1
	.45 ACP	1	0	7	10	2
Sig-Saur P850	9mm	0	0	8 + 1*	8	2
SIG/SAUER P220	9mm	1	0	9	8	2
	.38	0	-1	9	8	2
	.45 ACP	1	0	7	8	2
Impact P2	.45	1	0	9	9	3
Impact P3	.38	1	0	8	8	2

Revolvers

NAME	CALIBER	OCV	RMOD	WEAP. CAP.	STR MIN	PER MOD
Ram	.38	0	-1	6	9	1
Colt Python	.357 Magnum	0	0	6	12	2
Colt Anaconda	.44 Magnum	0	0	6	12	3
	.45	0	0	6	12	2

Rifles

NAME	CALIBER	OCV	RMOD	WEAP. CAP.	STR MIN	PER MOD
Calico M-951	9mm	1	0	50	12	6
Feather AT-9	9mm	1	0	25	12	6

Shotguns

NAME	GAUGE	OCV	RMOD	WEAP. CAP.	STR MIN	PER MOD
Maverick 60	12, 2¾" or 3"	1	1	5	10	5
Mossberg 9200	12, 3" Chamber	1	1	5	10	5

Equipment

The following is a list of various equipment, ranging from rope to extra parts for combat arms. They range from easy to find and purchase to much more difficult to find. GameMasters will have to consider the circumstances involved to determine whether the player characters can get an item easily or not.

All of the items listed have the Obvious Accessible Focus and Independent Limitations. Other Limitations and Advantages are given with each item. Note that this is strictly for defining the items in HERO System terms. All such items are bought by the characters with money (credits), not points. A GameMaster can, if he chooses, base the cost of an item on its Real Point Cost.

Custom Sights

COGS (Combat Optics Gun Sights)

A custom 3-dot sighting system. Inlaid white rings and glowing tritium orange dot. Blued finish. This is an aiming system for most automatic and revolver pistols, used in dimly lit and dark areas. The system is very simple to use—the 3-dot system lines up and the weapon is on target. This is, of course, assuming the character has the time to use it, since he needs to stay fairly still for a few seconds to let the sights line up correctly. This is most effective when used in conjunction with the Set and Brace maneuvers.

+2 OCV with Firearm, 1/2 DCV Concentration, Full Phase (10 Active, 2 Real)

Night Vision Compact Head Gear

A fifth generation from Starlight Technology; used by International Police and United World Powers Security. Joann Lee Danns swears by this piece's usefulness in security, search and rescue, and its safety for night fighting when gunplay comes into the picture. The Night Vision Compact comes with a photo-sensitive dimmer that lowers the brightness, which will help protect from overload of the eyes.

UV Vision (5 Active, 1 Real)

Pinger Laser Sigh

Joann likes to mount this to the front of the trigger guard of her gun. The Pinger Laser Sight is actually two sights in one. The first sight is the standard red laser dot sight system. It uses a lithium battery which gives a little over 20 hours of continuous use. The second uses a signal which hooks into an ear unit. When the laser sight is pointing at a target which gives off a slight static charge (people), the second sight gives a pinging sound in the ear piece. The Pinger Laser Sight can range a target up to 300 meters (150 hexes).

Pinger: Detect Static 13-, Ranged, +6 Telescopic (25 Active, 6 Real)

Laser Sight: +2 OCV with Firearm, +1 Range Skill Level, Visible to Sight (0), Uses END, Linked to Pinger (13 Active, 3 Real) [1]

Lithium Battery: 50 END, 0 REC Reserve (5 Active, 1 Real)

Owl's Roost Night Scope

This night scope can be hand-held or mounted on a rifle. The scope is of a compact size (7x3x2), perfect for fast on-the-go persons. The wide optic power of the Owl's Roost turns night into green-hued day in an instant. The unit has a magnification of 3.2x. It's good for the police officer on special assignment, surveillance personnel, nature study, or business and home protection. This unit does not have a flash dampener.

UV Vision, +4 Telescopic Sense w/Sight Group, Side Effect—Vulnerability to Flash Attacks (2x Effect) (-1/2) (11 Active, 2 Real)

Sentry Five Binoculars

A compact binocular set built for most environments. The lightweight 8x30 unit gives a sharp image up to 100 meters.

+8 Telescopic Sense w/Sight Group (12 Active, 3 Real)

Range Binoculars

This binocular has a laser range finder and, depending on conditions such as the weather, can range a target from 25 to 1,000 meters. If the target is out of range, then a set of three dashes shows up instead of a number. The Range Binoculars measure 8.5 inches long by seven inches wide, and the unit weighs in at a hefty 3 pounds.

+12 Telescopic Sense w/Sight Group, Detect Distance (Ranged, Discriminatory, +18 Telescopic) (103 Active, 26 Real)

Communications Gear

Compact Radio Unit

Another piece from Starlight Technology. This radio unit comes in two models: a wrist model and a unit worn in the ear. The ear unit can be set to VA (voice activated) setting—great for when you need your hands free for more pressing matters.

Radio Listen and Transmit, Gestures (wrist-mounted unit only) (5 Active, 1 Real)

Phantom Jammer

The Phantom Jammer jams three bands of radar: X, K and KA. This unit employs a radar masking circuitry that zeroes out pulse and the newer Speed King radars. The unit measures 4 x 3.

Invisiblity vs. Radar (w/Fringe), Focus is Obvious Inaccessible (typically installed as part of a vehicle) (20 Active, 6 Real)

The Ear

The Ear is a bug combination pack. The subminiature electronic unit can amplify and transmit even the lowest whispers to its secondary listening unit. The micro-lithium battery has a three month life span.

Microbug: Clairsentience w/Hearing, x2 Range (0.25 mile), 1/2 END, Focus is Inobvious Accessible, Requires a Bugging Skill Roll (25 Active, 6 Real) [1]

Microamplifier: +3 Hearing PER, Linked to Microbug (6 Active, 1 Real)

Microbattery: 100 END, 0 REC Reserve (10 Active, 2 Real)

The Lamprey

The Lamprey is a miniaturized listening device that is used to eavesdrop in on the verbal voice synth bands of a vidphone. The unit can pick up both ends of the conversation, and it has a tuning dial that can be set from 70 MHz to a staggering 130 MHz. The unit's range is only 1/2 mile. The user must clip the small listening unit to the subject's vidphone for this to work.

Bug and Receiver: Clairsentience w/Radio Listen, x4 Range (0.5 mile), Indirect (+1/2), Focus is Inobvious Inaccessible (installed in vidphone), Only Works When Installed in Vidphone (-1/2), Requires a Bugging Skill Roll (45 Active, 11 Real)

Receiver Battery: 50 END, 5 REC Reserve, REC only works when plugged in (-1/2), OAF, Independent (10 Active, 2 Real)

Voice Changer

The Voice Changer is used in witness-protection phone conversations, or when there is a security need for a voice not to be recognized. Most vidphones have a video switch that can be shut off. The Voice Changer can be hooked up to the voice unit of any vidphone and the user's voice will be changed as well. A man can sound like a woman, and a woman can sound like a man if they so wanted. Note that most voice changers are obvious. In other words, anyone listening can typically tell the voice is being disguised, but they generally cannot tell who is speaking.

Disguise Skill at 12-, Only v. Hearing PER Rolls (-1) (5 Active, 1 Real)

Friend or Foe Identification (FFI)

This equipment sends out a short tight-beam ping to other systems programmed to the same frequency.

Detect Frequency Signature, Ranged, Discriminatory, No Range Penalty, IIF, Independent, Uses END (19 Active, 5 Real) [2]

Distress Beacon

This beacon sends out a pulse sonar and radio wave, which lasts five days, for rescue team location. The radio wave is only good above the surface of the water.

Detect Distress Signal, Ranged, Discriminatory, +6 vs. Range, 1 Charge of 5 Days Duration, OAF, Independent (27 Active, 7 Real)

Miscellaneous Weapons Gear

Time Gas

This unit looks like a watch, but the face has a small hole that fires bursts of CN tear gas when the button is depressed. Great for security or as a backup weapon for the slight edge an undercover operative may need. The Time Gas piece has up to five one-second bursts before needing a recharge.

1d6 Flash v. All Sight, 5 Charges, Gestures (must push button), No Range (10 Active, 2 Real)

Bullet Bug Tracker

Created for International Police, the Bullet Bug Tracker is made for most calibers of weapons. It is a heavy-duty tracker hidden in a type of bullet. When it is becomes necessary to drop back from a chase, the police officer or security agent can fire the Bullet Bug Tracker at a vehicle. The system will automatically initiate itself. It has a range of 10 miles and a life span of 48 hours.

Detect Transmitter, Ranged, +14 vs. Range for the Detect, Focus is Inobvious Accessible, 1 Non-Recoverable Charge of 2 Days Duration (-2), Requires a Bugging Skill Roll (29 Active, 5 Real)

Stun Gun

The hand-held Stun Gun is a favorite of both UWP Security and criminals. The Stun Gun is a compact package, delivering a stunning charge to the target on contact of the two metallic conductors at the end of the unit.

4d6 EB (Electricity), NND (Defense is being electrically insulated), 20 Charges, No Range (45 Active, 10 Real)

Hip Holster

Standard hip holster can be hooked to a belt or affixed customized with a clip to most areas, depending on the size of the firearm in question.

Hide-a-Holster

The Hide-a-Holster, or pancake-style holster, is flat and molds to the frame of the gun. It will only cover the body of the gun; the barrel will stick out. The Hide-a-Holster is ideal for undercover work or bodyguard work when you don't want the public to know you're holding any hardware.

Shoulder Holster

The Shoulder Holster is a system that works well for undercover officers and folks who just like that feel of assurance under the armpit. The shoulder holster rig can also carry extra clips and/or speed loaders on the opposite strap.

Bulletproof Vest

The vest is typically of a Kevlar mix. Strength and protection increase with the grade, from A-D. The higher the grade, the higher caliber bullet the vest will stop. A shot to the head, on the other hand, will not get a refund.

Grade A: +2rPD/+2rED Armor, 10- Activation, Focus is Obvious Inaccessible, Real Armor, x1/2 Mass (1.25 kg) (-1/2), (6 Active, 1 Real)

Grade B: +4rPD/+4rED Armor, 10- Activation, Focus is Obvious Inaccessible, Real Armor, x1/2 Mass (2.5 kg) (-1/2), (12 Active, 3 Real)

Grade C: +6rPD/+6rED Armor, 10- Activation, Focus is Obvious Inaccessible, Real Armor, x1/2 Mass (5 kg) (-1/2), (18 Active, 4 Real)

Grade D: +8rPD/+8rED Armor, 10- Activation, Focus is Obvious Inaccessible, Real Armor, x1/2 Mass (10 kg) (-1/2), (24 Active, 5 Real)

Reloading Set

Reloading sets come in the form of extra clips or cylindrical assemblies that hold rounds for a revolver. Working open the action of the revolver and slipping in the speed loader cuts reload time in half.

Underwater and Sea Equipment

Breathing Gear

Dive Tank Compressed Air

A standard tank of compressed air will give different lengths of bottom time to the user, depending on the depth. As the diver goes deeper, the air becomes more compressed; this will cause more breathing on the user's part. A double tank can be used if one does not mind the extra bulk. In this case, stats are doubled. At 60 feet, the diver will have 45-47 minutes of bottom time. At 100 feet, bottom time is reduced to 19-20 minutes. At 120 feet, a diver will have 18-20 minutes of bottom time.

Life Support—Self-Contained Breathing, 1 Charge of 45 Minute Duration (-1/2), Charge time is cut in half at depths greater than 60 feet, by 1/4 at greater than 120 feet (-1/2) (10 Active, 2 real)

Liquid Oxygen Gel

This is by far the hardest substance to come by and is used by special forces of the UWP as well as other forces. Liquid oxygen gel is time consuming to create. It uses a mix of Black Book technology and science technology from the UWP scientists. Characters using the liquid oxygen gel will find themselves, when using it for the first time, trying to hold their breath for fear of drowning. When this gel is used in a tank, on the diver's back, it gives up to three hours of bottom time up to 190 feet. Each 15 feet beyond that will reduce the bottom time by ten minutes.

Life Support—Self Contained Breathing, 1 Charge of 3 Hours Duration (-1/4), Duration reduced by 10 minutes per 15' of depth beyond 190' (-1/4) (10 Active, 2 Real)

Gill Oxygen Extractor (GOE)

The Gill Oxygen Extractor system takes the place of a diver's back tanks. The unit is best used with lighter suits, but can be fitted to hard suits with the aid of expansion kits. The unit is designed as one-piece helmet and backpack unit. The backpack houses a complex miniature computer system and extraction nodules that pull oxygen molecules from water, processing it for the diver to breathe. In the sides of the diver's helmet are sets of water intake slats. Small counter-rotating fans pull water in the front slats and out through the rear slats. The biggest danger for the unit is the intake of foreign objects which can clog the system. The GOE is a marvel of technology that can only be used for five hours before burning out its extractor nodules. This system is hard to get, for only a few hundred have been created.

Life Support—May Breathe Underwater, 1 Charge of 5 Hours Duration (-1/4), Does not work when clogged by foreign objects (-1/4) (5 Active, 1 Real)

Dive Suits

Dive suits are classed by depth and range capabilities. Different types of dive suits will give different types of protection. Standard dive suits are used for most normal dives; military hard dive suits are built in such a way as to provide some forms of protection against underwater explosions; and some of the military suit types make use of different types of breathing aids which can more than double the bottom time for the diver.

Shelf Suits

Very similar to SCUBA, all suits come with form-fitting foot fins, face mask or helm, and one tank. The type of breathing aid is optional and can be changed out with most types that are available. The mesh makes what can be considered a type of chain mail made of Kevlar/tight weave metal fibers to provide protection for the diver. Designed for depths of up to 120 feet.

Suit Armor: +3rPD/+3rED Armor, OIF, Independent, Real Armor, Mass (7 kg) (9 Active, 2 Real)

DeepCore Shallow Mine Suit (SMS)

Includes HUD in helmet for air time, compass heading. The suit is a mix of hard suit and mesh Kevlar fibers. Able to keep a diver safe at the required depths for deep core mining, the suit can withstand pressures up to 900 feet. An interchangeable tool attachment can be affixed to either hand of the suit. This tool unit can be affixed with several types of mining tools and has a small motor to work power tools. The battery for the tool unit has a cell life of 3 hours.

Suit Armor: +4rPD/+4rED Armor, OIF, Independent, Real Armor, Mass (10 kg) (12 Active, 3 real)

Suit: Life Support vs. Extreme Pressure, OIF, Independent (3 Active, 1 Real)

HUD: Absolute Time Sense & Bump of Direction, OIF, Independent, Uses END (6 Active, 1 Real) [1]

HUD Systems Generator: 50 END, 5 REC Reserve, OIF, Independent (10 Active, 2 Real)
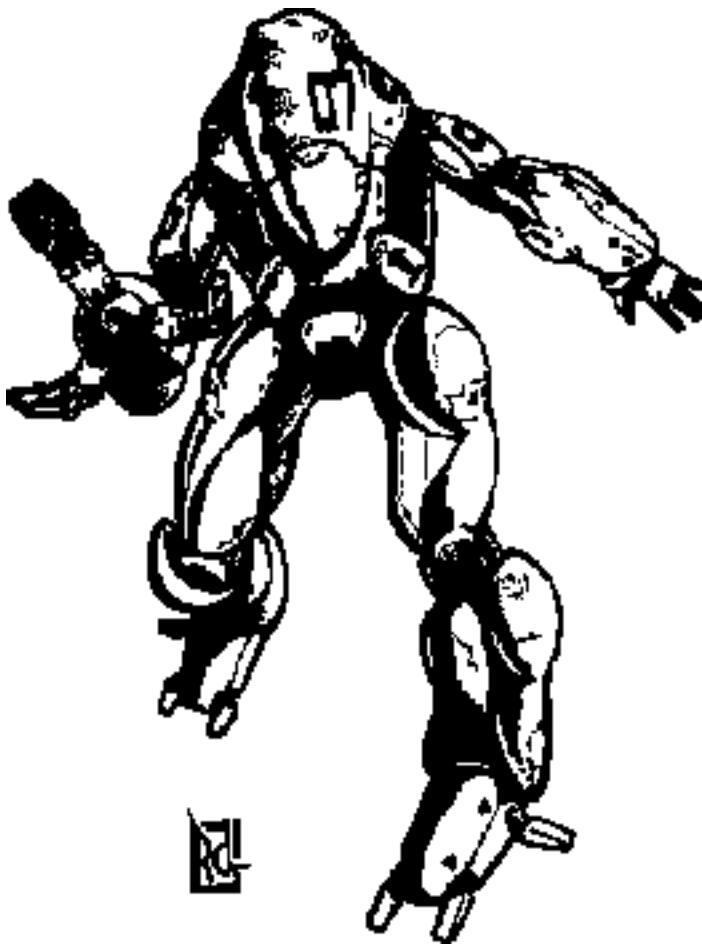
Military Shelf Suits

Standard Issue

Used for amphibious units and UWP troops, spear-resistant Kevlar/carbofilament mesh in all areas except joints (to allow movement) protects the diver from some forms of attack. Comes with helmet HUD, echo-location generator on helm backpack compartment w/ 5 km. comm radius. Twin screw propulsion gives a diver in this suit a speed of 9 knots.

Suit Armor: +4rPD/+4rED Armor, 15- Activation, OIF, Independent, Real Armor, Mass (10 kg) (12 Active, 2 Real)

Propulsion System: 5" Swimming (5" total, 10" Non-Combat), OIF, Independent (5 Active, 1 Real) [1/5"]

Echo-Location Generator: Radio Listen and Transmit, OIF, Independent, Uses END (5 Active, 1 Real) [1]

HUD: Absolute Time Sense & Bump of Direction, OIF, Independent, Uses END (6 Active, 1 Real) [1]

Suit Systems Generator: 100 END, 5 REC Reserve, OIF, Independent (15 Active, 4 Real)

Covert Operations Suit

Uses advanced Black Book technologies to "dam" IR/UV signatures—practically invisible to all detection devices. It uses an advanced onboard RISC processor to produce 3-D maps from passive echo-location. Wide-band phase scanner maps can be displayed using advanced color HUD echo-location. These are good out to 500 meters. Onboard targeting and acquisition gear (TAG) for undersea artillery is able to feed coordinates using communications gear. The communications gear's range is 5 kilometers. All equipment fits into a full-sized backpack which also contains a double screw propulsion system. This system has a low sonar signature. Its maximum speed, using caterpillar stealth mode, is 12 knots.

Suit: Invisibility to all Sight and Sonar (w/Fringe), IIF, Independent (30 Active, 9 Real) [3]

Propulsion System: 9" Swimming (9" total, 18" Non-Combat), OIF, Independent (9 Active, 3 Real) [1/5"]

Sensor Systems: Spatial Awareness (Passive Sonar), IIF, Independent, Uses END, 500 Meter Range Limit (-1/4) (25 Active, 7 Real) [2]

HUD: Absolute Time Sense & Bump of Direction, OIF, Independent, Uses END (6 Active, 1 Real) [1]

HUD: Images v. Normal Sight, -3 PER Mod, OIF, Independent, Only to draw maps (-1), Maps Limited to Incoming Sensor Systems Data (-1/2) (19 Active, 4 Real) [2]

Communications Gear: Radio Listen and Transmit, OIF, Independent, Uses END, 5 km Range Limit (-1/4) (5 Active, 1 Real) [1]

Suit Systems Generator: 100 END, 5 REC Reserve, OIF, Independent (15 Active, 4 Real)

"Slick Suit"

This suit covers all of body, and is made of Black Book technology which gives a nearly frictionless surface between water and suit, allowing movement up to 30 knots submerged. It has no visible breathing or helmet apparatus. Not much else known, as only three are known to be in existence. This suit is nearly impossible to obtain—Alpha Blue Top Secret Clearance only.

DeepCore Explorer—Rugged Suit

These armored undersea envirosuits can give a diver protection as deep as two thousand feet. Movement is hampered from the great pressure at this depth and the suit's cumbersome size in relation to the diver. This suit is used for deep trench exploration. Further research has begun for a heavier armored and enviro-adjustable atmosphere-style suit that can give a diver a deeper and longer bottom time. This suit has armored joints and is made of puncture resistant materials. The liquid environment standard extended tank is good for 8 hours. The optional gas tank is only good for 6 hours. The expanded communications unit (radio) is good to 5 kilometers. Its echo-location & map generator, coupled with an echo range finder, is good to 2.5 km burst use only. This is a major drain on the battery. An onboard minicam has 3 hours of record-to-CD time.

Environment temperature detectors are also standard. The suit is equipped with four probe lights which can go 4 hours before recharge. The HUD display includes air and battery monitors, a compass, and the echo-location display in a 3-D rendered map.

Suit: +6rPD/+6rED Armor, Bulky OIF, Independent, Real Armor, Mass (40 kg) (18 Active, 3 Real)

Suit: Life Support vs. Extreme Pressure, OIF, Independent (3 Active, 1 Real)

Extended Tank: Life Support—Self-Contained Breathing, OIF, Independent, 1 Charge of 8 Hours (0) (10 Active, 3 Real)

Sensor Systems: Active Sonar, IIF, Independent, Uses END, 5x END, 2.5 km Range Limit (-1/4) (15 Active, 2 Real) [5]

HUD: Absolute Time Sense & Bump of Direction, OIF, Independent (6 Active, 2 Real)

HUD: Images v. Normal Sight, -3 PER Mod, OIF, Independent, Only to draw maps (-1), Maps Limited to Incoming Sensor Systems Data (-1/2) (19 Active, 4 Real) [2]

Communications Gear: Radio Listen and Transmit, OIF, Independent, Uses END, 5 km Range Limit (-1/4) (5 Active, 1 Real) [1]

Suit Systems Generator: 100 END, 5 REC Reserve, OIF, Independent (15 Active, 4 Real)

Propulsion System

A propulsion system can be fitted to most hard-based suits. Depending on the power and number of screws (up to three), the diver can go up 15 knots.

Spear Gun

The spear gun is still one of the choice weapons for both protection and hunting beneath the waves. Depending on the thick band used, the spear gun has a range of up to 15 feet.

1½d6 RKA, 0 END, OAF, Independent, Reduced Range (15" Max) (-1/2) (37 Active, 8 Real)

Shark Stick

The shark stick is a two- to three-foot pole with a shotgun cartridge at the end. The diver thrusts the pole at the target, and on contact depresses a small switch at the grip's end. The resultant explosion at the end of the pole can kill most sharks.

3d6 HKA, Armor Piercing, OAF, Independent, 1 Charge (67 Active, 11 Real)

Target and Aquisition Gear (TAG)

For compatible underwater weapons systems, this unit can track up to ten multiple targets. It ties into most on-line systems in shelf and hard suits. Good to 500 meters.

Heads up Display (HUD)

The HUD system can be fit into most suits that have a large helmet and face plate for the diver. The HUD superimposes electronic data onto the divers face mask so that all pertinent information can be seen without having to look down. The HUD can be tied into several different types of systems such as depth in meters, speed in knots, oxygen supply, and so on. Upkeep of the HUD is simple, but the unit is prone to malfunction caused by sudden and violent shocks from underwater explosions or large electrostatic charges.

All HUDs are described with the individual suit descriptions.

Echo-Location, Speed Recon/Forward Observation Module (ELF)

This small unit can be used as a reconnaissance device when a diver doubts the safety of a given area. The unit is the size of a baseball and can be used up to 50 meters from its control unit. The ELF can broadcast a tight band of information on a flash frequency in the form of a sonar ping. The hand control unit then acts as a descrambler so the unit's controller can make sense of the information sent.

ELF Sensors: Clairsentience with Sonar, OAF, Independent, Reduced Max Range—25" (50m) (-1/2) (20 Active, 4 Real) [2]

ELF Power Supply: 50 END, 0 REC Reserve, IIF, Independent (5 Active, 2 Real)
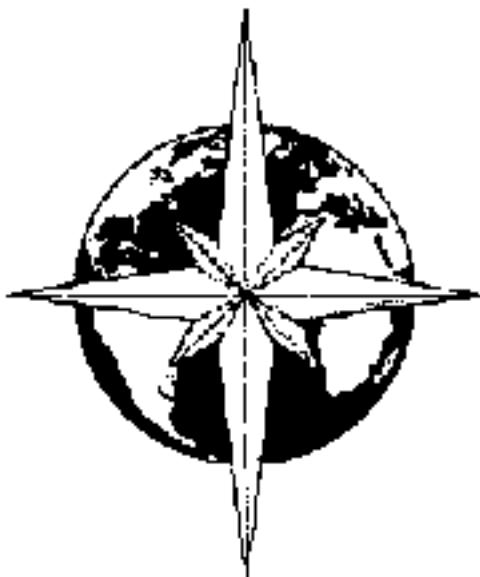
7: Vehicles

This section contains descriptions of several types of vehicles that can be found in the Bright Future campaign world. While the vehicles themselves are fictitious, they are based on real-world engine and vehicle systems data, as well as some recent experimental prototypes that may come into actual production some time in the next several decades. The vehicles are broken down into air, sea, and space vehicles. No land vehicles are included here, as there are several generic land vehicles listed on p. 195 of the *HERO Systems Rulesbook* which are quite applicable.

Note that while the vehicles have been designed using point costs, characters should always purchase them using money, just as with regular equipment. Obviously, few characters will have the kind of money needed to afford such a vehicle, so for the most part they should be supplied by outside organizations and the like. Given that such organizations don't take kindly to having their loaned equipment trashed, it's a good idea to remind players that the vehicles are on loan and that they will be held accountable for any damages to them. This should suitably discourage (most) players from trying reckless stunts.

The descriptions first give the stats for the particular vehicle, followed by any equipment it comes with. This is followed by a description of the aircraft and any variants it may have, as well as additional equipment applicable to a given variant. Any equipment for a given vehicle is automatically given the Bulky OIF and Independent Limitations.

Aircraft
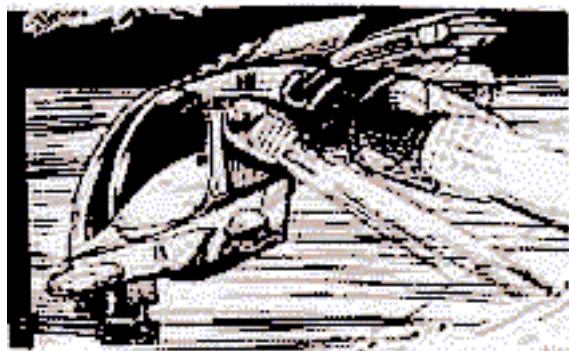
Bumblebee Patrol/Attack Ship

Principal stats of the Bumblebee V4 (Honey Bee):
Length: 20.4 feet
Width: (Cockpit area) 5.6 feet
Height: 8.5 feet
Ceiling: 14,600 feet
Cruise: 125 knots
Max Speed: 130 knots
Stall Speed: 20 knots (without use of thrust jets)
Max Range: 1400 nautical miles
Climb Rate: 2000 feet per minute
Bumblebee Patrol/Attack Ship

Val	CHA	Cost
3.2 x 1.6	Size	25
-3	DCV	0
3.2 ton	Mass	0
35	STR	0
6	DEF	12
15	BODY	0
14	DEX	12
3	SPD	6
34" x 4	Move*	73
408"	MAX	0

*The Bumblebee has a Stall Velocity of 20" when not using its thrust jets. However, it is still a VTOL craft, and so does not get the Stall Velocity Limitation on its flight.

Standard Equipment

Radio: High Range Radio Hearing (10 Active, 2 Real)

Target Acquisition Designator: Radar Sense, 360 Degree Sensing, Discriminatory (30 Active, 7 Real)

Search Light: Change Environment (Create Light), 2 hex Radius, 0 END (15 Active, 4 Real)

Flight controls on the Bumblebee are simplified to make the pilot's workload light. This includes the first layout of the cockpit control panel. The instruments on the control panel can be used to fly the craft if need be, but the primary flight control linkages are controlled by two hands-on control systems incorporated into the Bumblebee's design. The engine itself is a marvel of design, accomplished by marrying the best of the old style helicopter with an old VTOL type aircraft. VTOL are still in use today, but the United World Powers armed forces, in the fight against terrorism, wanted something with a hover ability as well as fighter/bomber ability. The result was the Bumblebee, with a fifth generation Pegasus Mark-12 engine. The engine has rotatable nozzles for directing the thrust from an overhung 3-stage fan, located in the main body of the craft just behind the pilot and radio observer seats. The pilot controls the engine thrust and nozzle controls via hands-on flight controls. Secondary foot controls work the stabilizer wing units in tight maneuvers. In standard flight, the hand controls work just fine. A new style of Target Acquisition Designator (TAD) is used in the Bumblebee. Shaded glasses (much like sun glasses) with a micro chip in the rim help bring the heads-up display close to the pilot. The craft can be flown without this system, but combat pilots swear by it. Original designs, in early 2022, had problems with the bevel gear box coming loose from the torque shafts. This caused many accidents, and the project was almost shelved. The Bumblebee's versatility won out, however, and the problem with the bevel gear box was solved in new variations of the craft.

Bumblebee Variants and Additional Equipment:

There are several different models in the Bumblebee line that are designed to take advantage of this ship's remarkable versatility. These variants are listed below, along with any modifications or additions to the characteristics or equipment listed above.

Prototype Bumblebee V1

There are three variants of the V1, the Bumblebee V1A (Drone) Trainer, the Bumblebee V1B Scout and Rescue Ship, and the Bumblebee V1C Fast Attack Bomber.

The V1A is exactly what its name implies, a training ship that is for new pilots to work with until they receive their license. The vehicle has no armor (DEF is the base of 2), and only the standard equipment listed. This is not a machine to be taken out into the sky for any kind of even remotely dangerous work.

The V1B is no different than the basic ship listed above. It has no armament, and is equipped with only the standard items listed above. Because it is a Search and Rescue Ship and may be required to go into potentially dangerous areas, however, it does have a slightly better degree of armor protection (DEF is 8).

The V1C Attack Bomber is slightly more heavily armored than the base model (DEF 7), and includes either a trio of heavy bombs or a cluster of sixteen anti-personnel bomblet tubes, each tube containing 3 bomblets. In game terms, these weapons systems are defined as follows:

Bombs: 12d6 EB, Explosion, 3 Charges, Limited Arc of Fire (60 degrees downward, -1/2) (90 Active, 16 Real)

Anti-Personnel Bomblets: 4d6 EB, 16-Shot Autofire (+1), Explosion, 48 Charges, Limited Arc Of Fire (60 degrees downward, -1/2) (60 Active, 13 Real)

Bumblebee V2 (SeaBee) Submersible Hunter

The V2 is designed to locate and eliminate enemy submersible craft, and is equipped accordingly with a sonar detector and a pair of MK-60 Shark Torpedoes. The Shark Torpedoes are similar to the Dogfish Torpedo in most respects (see the section on ballistics for details of the Dogfish). The Shark is somewhat larger and has a more powerful warhead, as well as a slightly greater speed and range.

Magnetic Ping Tracker: Detect Sonar at +3, Ranged, 360 Degree Sensing (24 Active, 6 Real)

MK-60 Shark Torpedoes: 9d6 EB, Explosion, No Range Mod, 2 Charges (90 Active, 16 Real)

Bumblebee V3 (Queen Bee) Fighter

The V3 is designed as a medium combat fighter. It is more heavily armored than the other models (DEF 9) and is also slightly more maneuverable (DEX 16). The V3 is armed with a Browning 12.7mm and two Hellfire missiles.

Browning 12.7mm: 3d6 RKA, 5-Shot Autofire, 125 Charges, Limited Arc Of Fire (Straight Ahead, -3/4) (101 Active, 26 Real)

Hellfire Missile: 4d6 RKA, Explosion, No Range Mod, +1 STUNx, Limited Arc Of Fire (straight ahead, -3/4), 2 Charges (150 Active, 36 Real)

Bumblebee V4 (Honey Bee) Patrol Ship

This is the type of Bumblebee that will most frequently be encountered or used by Player Characters. This model is used by the police and some security forces. The V4 is armed with either a 20mm or 30mm Gatling cannon, or a 12.7mm three- or six-barrel Vulcan.

These weapons are described in game terms as follows:

20mm Gatling Cannon: 2 1/2d6 RKA, AP, 5-Shot Autofire, 100 Charges, Limited Arc Of Fire (straight ahead, -3/4) (110 Active, 23 Real)

30mm Gatling Cannon: 3d6+1 RKA, AP, 5-Shot Autofire, 100 Charges, Limited Arc Of Fire (straight ahead, -3/4) (137 Active, 29 Real)

12.7mm three- or six-barrel Vulcan: 3d6 RKA, 5-Shot Autofire, 200 Charges, Limited Arc of Fire (straight ahead, -3/4) (112 Active, 24 Real)
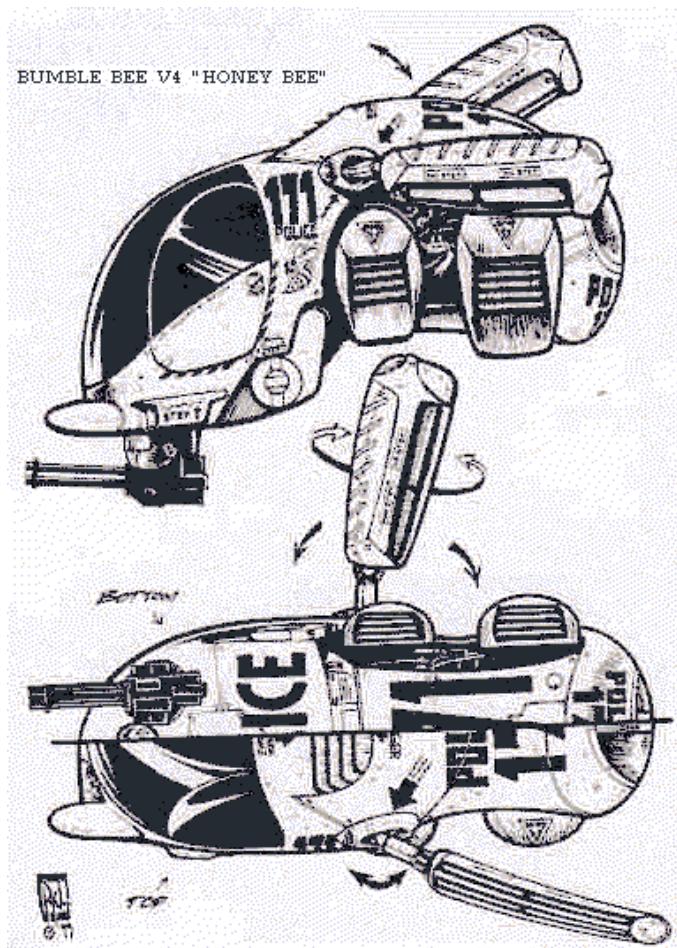
Bumblebee V4 "Honey Bee"

Bumblebee V5 (Killer Bee)

No information is available at this time regarding this model. This new design is still on the drawing boards and not yet in commercial production.

Scarab

Principal stats of the Scarab C:
Length: 30.6 feet
Width: 6.5 feet
Height: 9.5 feet
Ceiling: 50,000 feet
Cruise: 800 knots
Max Speed: Mach 2
Stall Speed: 110 knots (without use of VTOL)
Max Range: 2,000 nautical miles
Climb Rate: 3,000 feet per minute (full burn)

Val	CHA	Cost
5 x 2.5	Size	35
-4	DCV	0
12.5 ton	Mass	0
45	STR	0
7	DEF	21
17	BODY	0
20	DEX	30
4	SPD	10
130" x 8	Move*	270
4160"	MAX	0

*The Scarab has a Stall Velocity of 85" without use of its VTOL system. However, like the Bumblebee it does not receive any Limitation bonus.

Standard Equipment

ECM Gear: Invisibility to Radar, 0 END (30 Active, 7 Real)

Radio: High Range Radio Hearing (10 Active, 2 Real)

Target Acquisition Designator: Radar Sense, 360 Degree Sensing, Discriminatory (30 Active, 7 Real)

Oxygen/Pressurization System: Life Support (Breathing is Self-Contained, Safe from Extremely Low Pressure) (13 Active, 3 Real)

The Scarab was created for one reason: to kill other aircraft, and this unique STOVL (Short takeoff/vertical landing) craft delivers. This is one of the most exotic craft in production, used by the armed forces and small sections of the United World Powers Security forces. The craft can hover for up to four minutes, during which it will use only 6 percent of its fuel load. It can then accelerate to its full burn Mach 2 in 90 seconds, and can carry a sustained turn rate of 5 G's at 10,000 feet. To give hovering ability, an ejector system based on the Pegasus engine integrated with a Mark-10 turbo fan engine is used. Air coming through the slat ventral intakes located forward and below the nose section of the craft are used for the turbo fan. Air from the engine's fan is collected in a chamber, then used for vertical lift or to boost forward speed during the transition from vertical hover to horizontal flight. Air is ducted to the centrally located swiveling nozzles, while the core exhaust is ducted to the rear nozzle. The Scarab makes use of a three-poster configuration rather than four-poster configuration nozzles. It has two forward-located thrust nozzles and one aft vectoring nozzle. The forward thrust is provided by the turbo ejector system rather than the vectored nozzle configuration. The turbofan air is ejected from a series of nozzles arranged fore and aft at the root of each folding wing. Main fuselage and wing-mounted mini flaps direct the fan's air downward. The flow of air from the turbo fan draws a further supply of air from louvers on the upper surface of the wing; this

helps to augment thrust. It was noted in testing that fly-by-wire systems would have to be augmented fully into the design of the Scarab, or it would be uncontrollable in flight. As a result of the tests, most of the major avionics systems of the Scarab are fly-by-wire control, from the nose and air data probe, to the middle of the craft and its accelerometers and rate gyros, to near the rear of the craft and its very important integrated triplex servo actuators. As stated before, the Scarab has one purpose: to shoot down other craft. Not only is the Scarab one of the best air-to-air fighters around, but its weapons configurations are a deadly mix of destruction.

Here are the weapons loadouts as listed in the final version of the Scarab.

Scarab Weapon Packages

Following are the weapons loadouts as listed in the final version of the Scarab. Because of the overlap between many of the packages, the package contents will be described first, followed by the game mechanics of each weapon system.

Package 1: One gun turret mount, 12.7mm or 7.62mm; two self-contained 30mm gun pods.

Package 2: One gun turret mount, 12.7mm or 7.62mm; two skipray torpedoes.

Package 3: One gun turret mount, 12.7mm or 7.62mm; two rocket pods with 14 rockets.

Package 4: One gun turret mount, 12.7mm or 7.62mm; ten AT-XY air-to-air missiles.

Package 5: One gun turret mount, 12.7mm or 7.62mm; one anti-personnel mine dispenser pod; one anti-armor mine dispenser pod.

Package 6: One gun turret mount, 12.7mm or 7.62mm; two 500 lb bombs, one 900 lb guided bomb.

12.7mm Gun Turret Mount: 3d6 RKA, 5-Shot Autofire, 125 Charges, Limited Arc Of Fire (60 degrees forward, -1/2) (101 Active, 22 Real)

7.62mm Gun Turret Mount: 2d6+1 RKA, AP, 5-Shot Autofire, 125 Charges, Limited Arc Of Fire (60 degrees forward, -1/2) (96 Active, 21 Real)

30mm Gun Pods: 3d6+1 RKA, AP, 5-Shot Autofire, 100 Charges, Limited Arc Of Fire (straight ahead, -3/4) (137 Active, 29 Real, +5 for x2 weapons)

Skipray Torpedoes: 9d6 EB, Explosion, 2 Charges, Limited Arc Of Fire (straight ahead, -3/4) (67 Active, 9 Real)

Rocket Pod: 4d6 RKA, Explosion, No Range Mod, 14 Charges, Limited Arc Of Fire (60 degrees forward, -1/2) (120 Active, 27 Real, +5 for two Pods)

AT-XY Air-to-Air Missiles: 3d6+1 RKA, Explosion, No Range Mod, 10 Charges, Limited Arc of Fire (60 degrees forward, -1/2) (100 Active, 21 Real)

Anti-Personnel Mine Dispenser: 6d6 EB, 10-Shot Autofire, Explosion, Trigger (something steps on mine, +1/4), 50 Charges, Limited Arc Of Fire (60 degrees downward, -1/2) (90 Active, 20 Real)

Anti-Armor Mine Dispenser: 21/2d6 RKA, 10-Shot Autofire, AP, Explosion, Trigger (something runs over mine, +1/4), 50 Charges, Limited Arc Of Fire (60 degrees downward, -1/2) (140 Active, 31 Real)

500 lb Bombs: 15d6 EB, Explosion, 2 Charges, Limited Arc Of Fire (60 degrees downward, -1/2) (112 Active, 19 Real)

900 lb Guided Bomb: 25d6 EB, Explosion, No Range Penalty, 1 Charge, Limited Arc Of Fire (60 degrees downward, -1/2) (250 Active, 38 Real)

Firefly Air-to-Air Attack Craft

Length: 31 feet
Width: 6.5 feet
Height: 9.5 feet
Ceiling: 40,000 feet
Cruise Speed: 890 knots
Max Speed: Mach 2
Stall Speed: 110 knots (without use of VTOL)
Max Range: 2,000 nautical miles
Climb Rate: 3,080 feet per minute (full burn)

Val	CHA	Cost
5 x 2.5	Size	35
-4	DCV	0
12.5 ton	Mass	0
45	STR	0
5	DEF	15
17	BODY	0
18	DEX	30
4	SPD	12
150" x 8	Move*	310
4800"	MAX	0

*The Firefly has a Stall Velocity of 85" without use of its VTOL system. Like the other VTOL craft, it does not receive any Limitation bonus for this.

Standard Equipment

Twin 7.62mm Machine Guns: 2d6+1 RKA, AP, 5-Shot Autofire, 100 Charges, Limited Arc Of Fire (straight ahead, -3/4) (96 Active, 20 Real, +5 for x2 weapons)

Talon Air-to-Air Missiles: 4d6 RKA, Explosion, No Range Mod, 2 Charges, Limited Arc of Fire (60 degrees forward, -1/2) (120 Active, 20 Real)

Air-to-Surface Missiles: 3d6+1 RKA, Explosion, No Range Penalty, 6 Charges, Limited Arc Of Fire (straight ahead, -3/4) (100 Active, 18 Real)

ECM Gear: Invisibility to Radar, 0 END (30 Active, 7 Real)

Radio: High Range Radio Hearing (10 Active, 2 Real)

Target Acquisition Designator: Radar Sense, 360 Degree Sensing, Discriminatory (30 Active, 7 Real)

Oxygen/Pressurization System: Life Support (Breathing is Self-Contained, Safe from Extremely Low Pressure) (13 Active, 3 Real)

The Firefly is a fast attack ship used against drug runners, terrorist group encampments, and other such targets. Another marvel of the VTOL theme, the Firefly is the ultimate fast attack craft next to the Scarab. Small size and maneuverability makes this ship a deadly adversary to come up against. A material distribution of combined conventional and composites gives the Firefly's airframe the optimums in strength and lightness. Graphite epoxy-type materials cover 40% of the craft. The structure make-up is 49.6% aluminum, 16.7% steel, 12.9% titanium, graphite epoxies make up 9.9%, and 10.9% is made up of Black Book material. It has two small rotatable nozzle inlets just forward and below the cockpit, and another set just past the delta wing configuration. These give the ship maneuvering thrusters as well as its VTOL capability. Two jet engines at the rear of this craft give it a large amount of thrust for fast attacks. The delta wings are folded inward along tracks that are interconnecting, giving room for the fuel load at the center of the craft. The wings are controlled by a set of computerized automatic actuators which drive the hydraulic cylinders that extend and close the delta wings. The power plant uses a low bypass ratio turbofan, using some of its mix to power a smaller three-stage fan for the VTOL modules.

Beetle Emergency Vehicle

Val	CHA	Cost
6.4 x 3.2	Size	40
-5	DCV	0
25 ton	Mass	0
50	STR	0
9	DEF	21
18	BODY	0
13	DEX	9
3	SPD	7
36" x 4	Move*	77
432"	MAX	0

Standard Equipment

Radio: High Range Radio Hearing (10 Active, 2 Real)

Medical Equipment: +5 to Paramedic Skill (10 Active, 2 Real)

The Beetle was designed, first and foremost, as an emergency injury evacuation aircraft, and it performs the job well. The main body can carry up to ten injured persons and five medical crew members. Its hover ability gives it a hover time of up to 40 minutes with minor adjustments to the controls. It can reach a speed of 140 knots, and has a range of 800 miles without excess fuel tanks.

Melon Blimp Patrol Ship

Val	CHA	Cost
4 x 2	Size*	30
-7	DCV*	0
6.4 ton	Mass	0
40	STR	0
2	DEF	0
16	BODY	0
10	DEX	0
2	SPD	0
12" x 2	Move**	10
48"	MAX	0

*This is the size of the passenger compartment. The whole vehicle is much larger (16 x 5 hexes), and DCV is set to reflect this fact.

**Movement for this vehicle is bought using the -1/4 Limitation Limited Maneuverability.

Standard Equipment

Radio: High Range Radio Hearing (10 Active, 2 Real)

Oxygen/Pressurization System: Life Support (Breathing is Self-Contained, Safe from Extremely Low Pressure) (13 Active, 3 Real)

The Melon Blimp patrol craft is a rehash of a program the United States Navy had in use in the 1940's. The craft is generally a two-man affair with room for at least two observers near the midship of the crew housing. The blimp is designed to go to a height of 19,000 feet maximum, and is controlled via two rotatable fan nodules aft of the crew compartment. The speed is only a modest 15 knots, but it serves the purpose. International Police use the craft to spot trouble areas, and the blimp crews dispatch other units to areas where needed. Its range is 400 miles on what fuel it can carry.

Wasp Fighter Bomber

Length: 59 feet 9 inches
Height: 16 feet 6 inches
Ceiling: 50,500 feet
Climb Rate: 1,200 feet per minute
Max Speed: 1,320knots, Mach 2.3

Val	CHA	Cost
10 x 5	Size	50
-6	DCV	0
100 ton	Mass	0
60	STR	0
10	DEF	24
20	BODY	0
17	DEX	21
4	SPD	13
150" x 8	Move*	248
4800"	MAX	0

*The Wasp has a stall velocity of 85", and movement is built using the -1/4 Stall Limitation.

Standard Equipment

Talon Air-to-Air Missiles: 4d6 RKA, Explosion, No Range Mod, 2 Charges, Limited Arc of Fire (60 degrees forward, -1/2) (120 Active, 20 Real)

Radio: High Range Radio Hearing (10 Active, 2 Real)

Target Acquisition Designator: Radar Sense, 360 Degree Sensing, Discriminatory (30 Active, 7 Real)

Anti-Jamming System: Detect ECM Emitter at +3, Ranged, +4 vs. Range, 360 Degree Sensing, Discriminatory, Targeting Sense (55 Active, 14 Real)

Oxygen/Pressurization System: Life Support (Breathing is Self-Contained, Safe from Extremely Low Pressure) (13 Active, 3 Real)

The Wasp is built mainly from high strength steel alloys, with most of the structure arc welded. The skin is stiffened with welded-on steel stringers. A titanium alloy is used for the leading edges and around the engine tail pipes. The craft's main feature is its powerful radar system. Unlike most airborne radar, it is powerful enough to provide a fix even when being jammed. Its burn-through-jamming ability gets stronger as the distance gets shorter to the target. The power plant feeds two engines, with the lateral feed inlets built fore and just to the sides of the craft. Twin tail booms carry the small fins and tailerons. Weapons loadout varies greatly with this craft. For its roles as a fighter bomber it will always carry at least two air-to-air missiles. It can also carry two guided bombs or four dummy bombs.

Mayfly Light Armed Reconnaissance Craft (Jet Copter)

Length: 53 feet 9 inches
Height: 13 feet 6 inches
Ceiling: 10,500 feet
Climb Rate: 1,090 feet per minute
Max Speed: 380 knots

Val	CHA	Cost
8 x 1.5	Size	35
-4	DCV	0
12.5 ton	Mass	0
45	STR	0
6	DEF	12
17	BODY	0
15	DEX	15
3	SPD	5
49" x 8	Move	108
1176"	MAX	0

Standard Equipment

Pivot-Housed 20mm Cannon: 21/2d6 RKA, AP, 5-Shot Autofire, 100 Charges, Limited Arc Of Fire (60 degrees forward, -1/2) (110 Active, 23 Real)

Missiles: 3d6+1 RKA, Explosion, No Range Penalty, 2 Charges, Limited Arc Of Fire (straight ahead, -3/4) (100 Active, 16 Real)

Infrared Suppressor: Invisibility to IR Vision, 0 END (30 Active, 7 Real)

Laser Range Finder: +3 Range Skill Levels (9 Active, 2 Real)

Doppler Navigational System: Spatial Awareness (25 Active, 6 Real)

Radio: High Range Radio Hearing (10 Active, 2 Real)

This craft has a long thin body, housing the pilot and the weapons control officer in a staggered manner. The pilot sits in the front with the WCO at the rear. The craft has the standard rotor, like most copters, and is aided via a set engine that initializes an infrared suppresser at the outwash of the engine. The Mayfly has the ability to land in most environments, and can be outfitted with floater skids if necessary. The nose of the helicopter houses many of its electronic devices for sensing and attack. Just above the pivot-housed 20mm cannon is the laser range finding system, as well as a Doppler navigational system for night flying. In addition to the Mayfly's front sting, it can also carry two air-to-air or air-to-ground missiles.

Water Vehicles

Waterbug Police Patrol Boat

Val	CHA	Cost
5 x 2.5	Size	35
-4	DCV	0
12.5 ton	Mass	0
50	STR	5
3	DEF*	1
17	BODY	0
14	DEX	15
3	SPD	5
24" x 2	Move**	12
144"	MAX	0

*The DEF of this vehicle only protects against direct frontal attacks (i.e., the windscreen), and has the corresponding -1 Limitation.

**Movement is purchased as Swimming with the -1 Limitation Only on Water Surface, Not Underwater.

Standard Equipment

Radio: High Range Radio Hearing (10 Active, 2 Real)

This fast patrol craft can reach 47 knots. Used by many of the International Police branches, it ends up housing many different types of hardware. Listed here are some of the types of weapons and equipment that can be housed on this boat:

Weapon Packages

Package 1: One .303 machine gun fore; one .303 machine gun aft.

.303 Machine Gun: 2d6 RKA, 5-Shot Autofire, 125 Charges, Limited Arc Of Fire (60 degrees fore or aft, -1/2) (67 Active, 15 Real, +5 for x2 weapons)

Package 2: One 30mm cannon midship; one .50 machine gun aft.

30mm Cannon: 3d6+1 RKA, AP, 5-Shot Autofire, 100 Charges, Limited Arc Of Fire (180 degrees forward, -1/4) (137 Active, 32 Real)

.50 Machine Gun: 3d6 RKA, 10-Shot Autofire, +1 STUNx, 105 Charges, Limited Arc Of Fire (60 degrees aft, -1/2) (124 Active, 28 Real)

Package 3: Sonar dip pod; four depth charges aft; two torpedoes; one .50 machine gun midship.

Sonar Dip Pod: Active Sonar, 360 Degree Sensing (25 Active, 6 Real)

Depth Charges: 6d6 EB, Explosion, Trigger (Charge reaches specified depth, +1/4), 4 Charges, Limited Arc Of Fire (straight down, -3/4) (52 Active, 9 Real)

Torpedoes: 9d6 EB, Explosion, No Range Penalty, 2 Charges, Limited Arc Of Fire (straight ahead, -3/4) (90 Active, 14 Real)

.50 Machine Gun: 3d6 RKA, 10-Shot Autofire, +1 STUNx, 105 Charges, Limited Arc Of Fire (180 degrees forward, -1/4) (124 Active, 29 Real)

Wave Hopper Jet Boat

Val	CHA	Cost
6.4 x 2	Size	35
-4	DCV	0
12.5 ton	Mass	0
45	STR	0
3	DEF*	1
17	BODY	0
18	DEX	15
4	SPD	5
18" x 4	Move**	14
288"	MAX	0

*The DEF of this vehicle only protects against direct frontal attacks (i.e., the windscreen), and has the corresponding -1 Limitation.

**Movement is purchased as Swimming with the -1 Limitation Only on Water Surface, Not Underwater.

Standard Equipment

Radio: High Range Radio Hearing (10 Active, 2 Real)

This speedy craft can go up to 90 knots. The length of the craft is a modest 40 feet, with a tri-jet engine aft of the craft that can run on one jet if need be at the cost of lower speed. The Wave Hopper is a favorite in boat racing and for smugglers and other crime families when a fast run is needed out in the open.

Endo Tech Mud Skipper (Hovercraft)

Val	CHA	Cost
8 x 4	Size	45
-6	DCV	0
50 ton	Mass	0
55	STR	5
6	DEF	12
19	BODY	0
14	DEX	15
3	SPD	5
13" x 4	Move*	44
156"	MAX	0

*Movement is purchased as Ground Movement with the +1/2 Advantage Usable On Ground And Water Surface.

Standard Equipment

Radio: High Range Radio Hearing (10 Active, 2 Real)

Endo Tech was the main supplier for military craft at one time. Now the company builds for UWP Security and corporations that can afford the credit costs for an Endo Tech craft, some of the best-built in the world. The Mud Skipper can accommodate up to 36 people with a few minor modifications and loss of comfort. The 36-person variation is used mostly for the Mud Skipper air cushion attack craft in times of military engagements. The vehicle's maximum speed is 50 knots.

Electric Eel Attack Submarine

Length: 70 feet
Two diesel engines and one electric motor
Dive Depth: 280 feet
20 Person Crew, 10 torpedoes 8 fore, 2 aft

Val	CHA	Cost
10 x 3.2	Size	45
-6	DCV	0
50 ton	Mass	0
55	STR	5
4	DEF	6
19	BODY	0
17	DEX	21
3	SPD	3
13"/10" x 2	Move*	12
78"/60"	MAX*	0

*This submarine's movement is bought as 10" base Swimming, with an additional 3" Swimming bought with the -1/2 Limitation Only Usable Submerged. The sub's maximum speed is given as maximum submerged speed followed by maximum surface speed.

Standard Equipment

Fore Torpedoes: 12d6 EB, Explosion, No Range Penalty, 8 Charges, Limited Arc Of Fire (straight ahead, -3/4) (120 Active, 23 Real)

Aft Torpedoes: 12d6 EB, Explosion, No Range Penalty, 2 Charges, Limited Arc Of Fire (straight back, -3/4) (120 Active, 19 Real)

Radio: High Range Radio Hearing, Only Usable At Surface (-1) (10 Active, 2 Real)

Sonar System: Active Sonar (15 Active, 4 Real)

Surface Radar: Radar Sense, 360 Degree Sensing, Only At Surface (-1) (25 Active, 5 Real)

ELF Radio System: Ultrasonic Hearing, Only to Detect Low-Frequency Sounds (-1) (3 Active, 1 Real)

Periscope: Clairvoyance, 0 END, Limited Range (Only To 5" Reach Of Periscope, -1/2) (30 Active, 7 real)

Life Support System: Life Support (Breathing Is Self-Contained, Safe From High Pressure) (13 Active, 3 Real)

Guppy Two-Man Observation Deep Sea Submarine

Length: 50 feet
Four electric motors turning four screws
Dive depth: 760 feet
Speed: 27 knots surfaced; 15 knots submerged

Val	CHA	Cost
8 x 4	Size	45
-6	DCV	0
50 ton	Mass	0
55	STR	5
4	DEF	6
19	BODY	0
10	DEX	0
3	SPD	10
7"/14" x 2	Move*	10
42"/84"	MAX*	0

*This submarine's movement is bought as 7" base swimming, with an additional 7" bought with the -1 Limitation Only Usable On Surface. The sub's maximum speed is given as maximum submerged speed followed by maximum surface speed.

Standard Equipment

Radio: High Range Radio Hearing, Only Usable At Surface (-1) (10 Active, 2 Real)

Search Lights: Change Environment (create light), 4 hex radius, 0 END, Limited Arc (60 degrees forward, -1/2) (15 Active, 3 Real)

Claw Arms: 2" Stretching, 0 END, Limited Arc (60 degrees ahead, -1/2), Requires a DEX Roll (-1/2) (15 Active, 3 Real)

Life Support System: Life Support (Breathing Is Self-Contained, Safe From High Pressure), 1 Charge of 5 Hours (13 Active, 3 Real)

Sjoormen Class Submarine

Displacement: 1,125 tons surfaced; 1,400 tons submerged
Length: 167.3 feet
Four diesel engines delivering 2,100 horsepower and one electric motor driving one shaft
Dive Depth: 492 feet
Max: 820 feet
Speed: 15 knots surfaced; 20 knots submerged
Crew: 18
Armament: Four 533-mm bow tubes, two 400-mm bow tubes. Eight type-61 anti-ship torpedoes or Sixteen ground mines and four anti-sub torpedoes
Sensors: One surface search radar and one low-frequency sonar; One torpedo fire control and information center.

Val	CHA	Cost
25 x 8	Size	65
-8	DCV	0
800 ton	Mass	0
75	STR	5
6	DEF	12
23	BODY	0
15	DEX	15
3	SPD	5
10"/7" x 2	Move*	9
60"/42"	MAX*	0

*This submarine's movement is bought as 7" base Swimming, with an additonal 3" Swimming bought with the -1/2 Limitation Only Usable Submerged. The sub's maximum speed is given as maximum submerged speed followed by maximum surface speed.

Standard Equipment

Radio: High Range Radio Hearing, Only Usable At Surface (-1) (10 Active, 2 Real)

Sonar System: Active Sonar (15 Active, 4 Real)

Surface Radar: Radar Sense, 360 Degree Sensing, Only At Surface (-1) (25 Active, 5 Real)

ELF Radio System: Ultrasonic Hearing, Only to Detect Low-Frequency Sounds (3 Active, 1 Real)

Periscope: Clairvoyance, 0 END, Limited Range (Only To 5" Reach Of Periscope, -1/2) (30 Active, 7 real)

Life Support System: Life Support (Breathing Is Self-Contained, Safe From High Pressure) (13 Active, 3 Real)

The Sjoormen (pronounced Syoor'-men) class submarine is a medium war sub. It measures 167.3 feet in length and has a displacement of 1,125 tons when surfaced, 1,400 tons when submerged. It lies between the Electric Eel and Upholder Class sub-

marines in its speed and attack capabilities. Its single screw is powered by four diesel engines, delivering 2,100 horsepower, and one electric motor. It has a dive depth of 492 feet, with a maximum of 820 feet for short periods of time. The sub can take one of two different armament packages, which are described below.

Weapon Packages

Package 1: Type-61 Anti-Ship Torpedoes: 15d6 EB, Explosion, No Range Penalty, 8 Charges, Limited Arc Of Fire (straight ahead, -3/4) (150 Active, 29 Real)

Package 2: Ground Mines: 11/2d6 RKA, Explosion, x1 STUNx, Trigger (object comes in contact with mine, +1/4), 16 Charges, Limited Arc Of Fire (straight ahead, -3/4) (56 Active, 12 Real)

Anti-Sub Torpedoes: 10d6 EB, Explosion, No Range Penalty, 4 Charges, Limited Arc Of Fire (straight ahead, -3/4) (100 Active, 17 Real)

Upholder Class Submarine

Displacement: 2,126 tons surfaced; 2,362 tons submerged
Length: 230.6 feet
Two diesel engines and one electric motor driving one shaft
Dive Depth: 984 feet
Max: 1,640 feet
Speed: 12 knots surfaced; 20 knots submerged
Crew: 44
Armament: Six 533mm bow tubes; 18 Anti-sub and anti-ship torpedoes or thirty-six ground mines; eight Harpoon underwater-to-surface and anti-ship missiles
Sensors: One surface search radar, one bow sonar, one ranging sonar and one towed array sonar; one torpedo fire control and information center.

Val	CHA	Cost
36 x 14	Size	75
-10	DCV	0
3.2 kton	Mass	0
85	STR	5
8	DEF	18
25	BODY	0
13	DEX	9
3	SPD	7
10"/6" x 2	Move*	9
60"/36"	MAX*	0

*This submarine's movement is bought as 6" base Swimming, with an additonal 4" Swimming bought with the -1/2 Limitation Only Usable Submerged. The sub's maximum speed is given as maximum submerged speed followed by maximum surface speed.

Standard Equipment

One of the following:

a: Anti-Sub Torpedoes: 10d6 EB, Explosion, No Range Penalty, 9 Charges, Limited Arc Of Fire (straight ahead, -3/4) (100 Active, 20 Real)

and

Anti-Ship Torpedoes: 15d6 EB, Explosion, No Range Penalty, 9 Charges, Limited Arc Of Fire (straight ahead, -3/4) (150 Active, 30 Real)

b: Ground Mines: 11/2d6 RKA, Explosion, x1 STUNx, Trigger (object comes in contact with mine, +1/4), 36 Charges, Limited Arc Of Fire (straight ahead, -3/4) (69 Active, 15 Real)

and

Harpoon Underwater-to-Surface/Anti-Ship Missiles: 4d6 RKA, Explosion, No Range Penalty, 8 Charges, Limited Arc Of Fire (straight up, -3/4), Cannot fire below 200 feet (-1/2) (120 Active, 21 Real)

Radio: High Range Radio Hearing, Only Usable At Surface (-1) (10 Active, 2 Real)

Bow and Towed Array Sonar System: Active Sonar, 360 Degree Sensing (25 Active, 6 Real)

Ranging Sonar: +4 Range Levels (12 Active, 3 Real)

Surface Radar: Radar Sense, 360 Degree Sensing, Only At Surface (-1) (25 Active, 5 Real)

ELF Radio System: Ultrasonic Hearing, Only to Detect Low-Frequency Sounds (3 Active, 1 Real)

Periscope: Clairvoyance, 0 END, Limited Range (Only To 5" Reach Of Periscope, -1/2) (30 Active, 7 real)

Life Support System: Life Support (Breathing Is Self-Contained, Safe From High Pressure) (13 Active, 3 Real)

The Upholder Class is the largest sub currently in use, measuring a massive 230.6 feet in length and having a displacement in excess of 2,000 tons. The sub is powered by two diesel engines and one electric motor driving a single shaft, which propels the sub to a speed of 12 knots when surfaced, and 20 knots when submerged. The sub's crew of 44 handles its numerous systems, including several radar and sonar systems as well as its heavy complement of weaponry.

Invincible Class Aircraft Carrier

Displacement: 16,000 tons
Full Load: 19,500 tons
Length: 677 feet, Beam 90 feet, Draught 26 feet
Speed: 28 knots
Range at 18 knots: 5,000 nautical miles
Aircraft: 15
Sensors: Surveillance radar, search radar, fire control radar, navigational radar
Compliment: 954

| Val	CHA	Cost
104 x 12	Size	95
-11	DCV	0
12.8 kton	Mass	0
100	STR	5
15	DEF	39
27	BODY	0
10	DEX	0
2	SPD	0
22" x 2	Move*	11
88"	MAX	0

*The Carrier's movement is bought as Swimming with the -1 Limitation Only Usable On Surface.

Standard Equipment

Radio: High Range Radio Hearing, Only Usable At Surface (-1) (10 Active, 2 Real)

Radar Systems (Surveillance, Search, Targeting, and Navigational): Radar Sense, Discriminatory, 360 Degree Sensing, +10 Against Range (45 Active, 11 Real)

The Invincible Class Carrier is a ship designed to carry up to 15 aircraft into combat on the sea. It has a top speed of 28 knots, and at a cruising speed of 18 knots it has a range of 5,000 nautical miles. It has a wide range of radar systems on board for navigation, tracking of enemy ships and aircraft, and general surveillance. Because this ship is designed primarily as a transport vessel for aircraft, it has no on-board weapons systems with which to defend itself. Naturally, its own planes and/or jets can help in its defense, but in large-scale combat its 15 fighters can quickly be overwhelmed. For this reason, carriers are seldom found on their own when in a combat situation. At such times, they are typically escorted by one or more cruisers, destroyers, or battleships to protect them from incoming enemy attack.
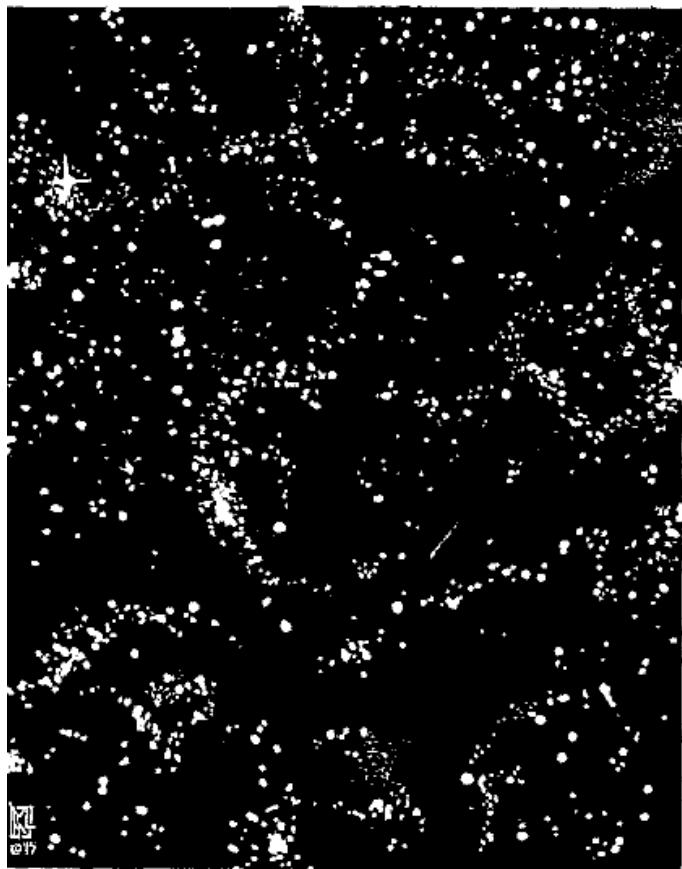
Spacecraft

Scuttlebug

Length: 50 feet
Width: 20 feet
Height: 10 feet
Isp Value: 65-70

Val	CHA	Cost
8 x 4	Size	45
-6	DCV	0
50 ton	Mass	0
60	STR	5
8	DEF	18
19	BODY	0
13	DEX	9
3	SPD	7
57" x 4	Move	119
684"	MAX	0

Standard Equipment

Radio: High Range Radio Hearing (10 Active, 2 Real)

Life Support Systems: Life Support (Breathing is Self-Contained, Safe from Vacuum/High Pressure, Safe from Intense Heat/Cold, Safe from High Radiation), 1 Charge of 3 Hours (19 Active, 4 Real)

Tool Set: +4 to Mechanics Roll (8 Active, 2 Real)

Powered Robot Arms: 2" Stretching, 0 END, Limited Arc (60 degrees ahead, -1/2), Requires a DEX Roll (-1/2) (15 Active, 3 Real)

The workhorse of the space exploration program, the Scuttlebug is nothing more than a maintenance ship and can only fly short distances from the main ship's body. It is used for the upkeep of large ships for the convenience of having tools ready at hand. For the Scuttlebug's small size, it can carry a great many working tools that a person in an Envirosphere suit cannot. The Scuttlebug is no larger than an old-style bus, with the same shape but for the bulbous tail end that houses the battery power source. The battery powers all the craft's systems, including the small thrust engine found just under the bulb of the battery housing. The engine is a two-nozzle thruster with clusters of five outlets per nozzle. The battery itself is not able to power the ship and its systems for lengths of time longer than about three hours. For this reason, Scuttlebugs are best used close to larger ships. A two-pronged cable that emits a small static charge can be drawn to the skin of the larger ship, where it can feed static power to the battery, keeping it charged. Workers can use powered robot arms that are multijointed and are attached to a tool cluster near the front of the Scuttlebug. For tough jobs that need hands on, a person in an Envirosphere suit can exit the craft and work outside, while still being able to access the load of tools and repair material in the hold of the Scuttlebug.

Hornet Space Fighter

Length: 50 feet
Width: 20 feet
Height: 10 feet
Isp Value: 199-210

Val	CHA	Cost
8 x 4	Size	45
-6	DCV	0
50 ton	Mass	0
55	STR	0
8	DEF	18
19	BODY	0
20	DEX	30
4	SPD	10
193" x 16	Move	401
12,352"	MAX	0

Standard Equipment

Pulse Lasers: 5d6 RKA, Full Phase, Not in Heavy Dust (nebulae, stellar dust clouds, etc., -1/4), Limited Arc Of Fire (straight ahead, -3/4) (75 Active, 14 Real, +5 for x2 weapons) [7]

Mini Missiles: 4d6 RKA, Explosion, No Range Penalty, 4 Charges, Limited Arc Of Fire (straight ahead, -3/4) (120 Active, 21 Real)

Static Charge Laser Shield (I): 6d6 Energy Absorption (50 Max) to END Reserve, Fades at 5 Active/Minute, Only vs. Laser Attacks (-1), Linked to Force Field (46 Active, 8 Real)

Static Charge Laser Shield (II): +36ED Force Field, Fully Invisible, Ablative, Only to Amount Rolled on Absorption (-1/2) (72 Active, 13 Real) [7]

Generator System: 300 END, 15 REC Reserve (Powers Laser and Laser Shield) (45 Active, 11 Real)

Tracking/Targeting System: Radar Sense, 360 Degree Sensing, +12 vs. Range (43 Active, 11 Real)

Radio: High Range Radio Hearing (10 Active, 2 Real)

Life Support Systems: Life Support (Breathing is Self-Contained, Safe from Vacuum/High Pressure, Safe from Intense Heat/Cold, Safe from High Radiation) (19 Active, 5 Real)

The Hornet attack fighter houses two front firing pulse lasers and a bay for four mini missiles. It has a tracking system that can track up to 10 targets at once, and a target designator that is good for a 10 mile radius. Its static charge laser shield generators are a design that is new to the field of defensive systems. It can draw laser power directed towards it and siphon off power for its own use. Multiple hits at once can overload the system, causing a burn-out and leaving the craft vulnerable. Only well-trained combat pilots should be allowed use of this craft.

Firebug Space Fighter

Length: 40 feet 10 inches
Width: 20 feet 8 inches
Height: 9 feet
Isp Value: 190-200

Val	CHA	Cost
6.4 x 3.2	Size	40
-5	DCV	0
25 ton	Mass	0
50	STR	0
6	DEF	12
18	BODY	0
17	DEX	21
4	SPD	13
184" x 16	Move	383
11,776"	MAX	0

Standard Equipment

Twin Lasers: 6d6 RKA, Full Phase, Reduced Penetration (2 x 3d6), Not in Heavy Dust (nebulae, stellar dust clouds, etc., -1/4), Limited Arc Of Fire (straight ahead, -3/4) (90 Active, 16 Real, +5 for x2 weapons) [9]

Mini Missiles: 4d6 RKA, Explosion, No Range Penalty, 8 Charges, Limited Arc Of Fire (straight ahead, -3/4) (120 Active, 23 Real)

Space Mines: 2d6+1 RKA, AP, 5-Shot Autofire, Explosion, Trigger (contact with mine, +1/4), 30 Charges, Limited Arc Of Fire (60 degrees aft, -1/2) (105 Active, 23 Real)

Generator System: 200 END, 20 REC Reserve (Powers Laser System) (40 Active, 10 Real)

Tracking/Targeting System: Radar Sense, 360 Degree Sensing, +12 vs. Range (43 Active, 11 Real)

Radio: High Range Radio Hearing (10 Active, 2 Real)

Life Support Systems: Life Support (Breathing is Self-Contained, Safe from Vacuum/High Pressure, Safe from Intense Heat/Cold, Safe from High Radiation) (19 Active, 5 Real)

High-tech sensors make this attack craft one of the best space fighters all around. A three boom engine helps give the Firebug its speed, and two twin laser housings, to the right and left just below the pilot station, give it the close-quarters firepower that makes it a fearful opponent to come against. The laser system is complimented with a housing just below the main body of the craft for eight mini missiles. The aft part of the fighter houses a system to release small space mines. This can be enough to get any craft on the Firebug's tail to break engagement.

Vampire Bat Missile Attack Cruiser

Val	CHA	Cost
36" x 4	Move	77
432"	MAX	0

Length: 412 feet

Isp Value: 390-395

Sensors: Surveillance radar, search radar, fire control radar, navigational radar

Six forward missile tubes; four aft missile tubes; two missile tubes port and starboard of main body housing; two swivel pulse laser turrets forward; one swivel turret aft; one swivel turret underneath

Compliment: 387

Val	CHA	Cost
64 x 32	Size	90
-12	DCV	0
25 kton	Mass	0
100	STR	0
20	DEF*	67
28	BODY	0
13	DEX	9
3	SPD	7
36" x 2	Move	72
216"	MAX	0

*The Cruiser's DEF is bought with the Advantage Hardened

Standard Equipment

Pulsar Missile Launchers: 8d6 RKA, AP, Explosion, +1 STUNx, No Range Penalty, 6 Charges, Limited Arc Of Fire (straight, -3/4) (360 Active, 65 Real, +20 for x16 weapons [6 forward, 4 aft, 3 port, and 3 starboard])

Pulse Laser Turrets: 8d6 RKA, Full Phase, Not in Heavy Dust (nebulae, stellar dust clouds, etc., -1/4), Limited Arc Of Fire (180 degrees, -1/4) (120 Active, 24 Real, +10 for x4 weapons [2 fore, 1 aft, 1 below]) [12]

Quantum Drive (I): Faster Than Light Travel (1 Light Year/Hour), 1/2 DCV Concentrate Throughout, Requires a Navigation Skill Roll, Must Wait 1 Hour After Completing Jump Before Using Again (-11/4), Linked to Desolidification (36 Active, 6 Real)

Quantum Drive (II): Desolidification (Special Effect: Folding into Quantum Space, can be affected by nuclear or quantum weapons), Invisible to Sight and Hearing (Visible to Radio), 1/2 DCV Concentrate, Full Phase, Requires a Navigation Skill Roll, Must Wait 1 Hour After Leaving Quantum Pocket Before Using Again (-11/4) (70 Active, 11 Real) [7]

Generator System: 500 END, 25 REC Reserve (Powers Laser System and Quantum Drive) (70 Active, 17 Real)

Tracking/Targeting/Navigational System: Radar Sense, 360 Degree Sensing, +12 vs. Range (43 Active, 11 Real)

Radio: High Range Radio Hearing (10 Active, 2 Real)

Life Support Systems: Life Support (Breathing is Self-Contained, Safe from Vacuum/High Pressure, Safe from Intense Heat/Cold, Safe from High Radiation) (19 Active, 5 Real)

Ship's Computer

Val	CHA	Cost	Roll	Notes
23	INT	13	14-	
13	DEX	9	12-	CV: 4
3	SPD	7		

Skills

Weapon Use Skills
 Weapon Fam: Vehicle Weapons (1)
 Range Skill Levels: +2 with all Vehicle Weapons (6)

Autopilot Skills
 Combat Piloting 12- (3)
 KS: Locations of Quantum Pockets/Corridors 16- (7)
 Navigation 14- (9)
 Systems Operation 14- (3)

Ship Diagnostics Skills
 Mechanics 13- (7)

Programs
 Fire Weapons System at Designated Target (1)
 Perform Evasive Maneuvers (1)
 Activate Quantum Drive (May use the KS as complementary to Navigation) (1)
 Pilot from Point A to Point B (1)
 Provide Ship Status/Damage Report (1)

Yankee Pulse Laser Attack Battleship

Length: 412 feet

Isp Value: 380-399

Sensors: Surveillance radar, search radar, fire control radar, navigational radar

Five swivel pulse laser turrets fore; three pulse laser turrets aft; one forward-firing particle laser underneath and forward

Compliment: 426

Val	CHA	Cost
64 x 32	Size	90
-12	DCV	0
25 kton	Mass	0
100	STR	0
27	DEF*	94
28	BODY	0
11	DEX	3
3	SPD	9
35" x 2	Move	70
210"	MAX	0

*The Battleship's DEF is bought with the Advantage Hardened

Standard Equipment

Pulse Laser Turrets: 8d6 RKA, Full Phase, Not in Heavy Dust (nebulae, stellar dust clouds, etc., -1/4), Limited Arc Of Fire (180 degrees, -1/4) (120 Active, 24 Real, +15 for x8 weapons [5 fore, 3 aft]) [12]

Particle Lasers: 6d6 RKA, AP, Full Phase, Not in Heavy Dust (nebulae, stellar dust clouds, etc., -1/4), Limited Arc Of Fire (straight ahead, -3/4) (135 Active, 24 Real, +5 for x2 weapons [1 fore, 1 underneath]) [13]

Quantum Drive (I): Faster Than Light Travel (1 Light Year/Hour), 1/2 DCV Concentrate Throughout, Requires a Navigation Skill Roll, Must Wait 1 Hour After Completing Jump Before Using Again (-11/4), Linked to Desolidification (36 Active, 6 Real)

Quantum Drive (II): Desolidification (Special Effect: Folding into Quantum Space, can be affected by nuclear or quantum weapons), Invisible to Sight and Hearing (Visible to Radio), 1/2 DCV Concentrate, Full Phase, Requires a Navigation Skill Roll, Must Wait 1 Hour After Leaving Quantum Pocket Before Using Again (-11/4) (70 Active, 11 Real) [7]

Generator System: 500 END, 25 REC Reserve (Powers Laser System and Quantum Drive) (70 Active, 17 Real)

Tracking/Targeting/Navigational System: Radar Sense, 360 Degree Sensing, +12 vs. Range (43 Active, 11 Real)

Radio: High Range Radio Hearing (10 Active, 2 Real)

Life Support Systems: Life Support (Breathing is Self-Contained, Safe from Vacuum/High Pressure, Safe from Intense Heat/Cold, Safe from High Radiation) (19 Active, 5 Real)

Ship's Computer

Val	CHA	Cost	Roll	Notes
23	INT	13	14-	
11	DEX	3	11-	CV: 4
3	SPD	9		

Skills

Weapon Use Skills
  Weapon Fam: Vehicle Weapons (1)
  Range Skill Levels: +3 with all Vehicle Weapons (9)

Autopilot Skills
  Combat Piloting 12- (3)
  KS: Locations of Quantum Pockets/Corridors 16- (7)
  Navigation 14- (9)
  Systems Operation 14- (3)

Ship Diagnostics Skills
  Mechanics 13- (7)

Programs
  Fire Weapons System at Designated Target (1)
  Perform Evasive Maneuvers (1)
  Activate Quantum Drive (May use the KS as complementary to Navigation) (1)
  Pilot from Point A to Point B (1)
  Provide Ship Status/Damage Report (1)

Space Barge

  Length: 412 feet
  Isp Value: 196-200
  One main Quantum drive
  Sensors: Surveillance radar, search radar, fire control radar, navigational radar
  Compliment: 878

Val	Char	Cost
64 x 32	Size	90
-12	DCV	0
25 kton	Mass	0
100	STR	0
5	DEF	9
28	BODY	0
8	DEX	-6
2	SPD	0
25" x 2	Move	50
100"	MAX	0

Standard Equipment

Quantum Drive (I): Faster Than Light Travel (1 Light Year/Hour), 1/2 DCV Concentrate Throughout, Requires a Navigation Skill Roll, Must Wait 1 Hour After Completing Jump Before Using Again (-11/4), Linked to Desolidification (36 Active, 6 Real)

Quantum Drive (II): Desolidification (Special Effect: Folding into Quantum Space, can be affected by nuclear or quantum weapons), Invisible to Sight and Hearing (Visible to Radio), 1/2 DCV Concentrate, Full Phase, Requires a Navigation Skill Roll, Must Wait 1 Hour After Leaving Quantum Pocket Before Using Again (-11/4) (70 Active, 11 Real) [7]

Generator System: 100 END, 10 REC Reserve (Powers Quantum Drive) (20 Active, 5 Real)

Tracking/Navigational System: Radar Sense, 360 Degree Sensing, +12 vs. Range (43 Active, 11 Real)

Radio: High Range Radio Hearing (10 Active, 2 Real)

Life Support Systems: Life Support (Breathing is Self-Contained, Safe from Vacuum/High Pressure, Safe from Intense Heat/Cold, Safe from High Radiation) (19 Active, 5 Real)

Ship's Computer

Val	CHA	Cost	Roll	Notes
15	INT	5	12-	
8	DEX	-6	11-	CV: 3
2	SPD	0		

Skills

Autopilot Skills
  KS: Locations of Quantum Pockets/Corridors 13- (4)
  Navigation 12- (5)
  Systems Operation 12- (3)

Ship Diagnostics Skills
  Mechanics 11- (3)

Programs
  Activate Quantum Drive (May use the KS as complementary to Navigation) (1)
  Pilot from Point A to Point B (1)
  Provide Ship Status/Damage Report (1)
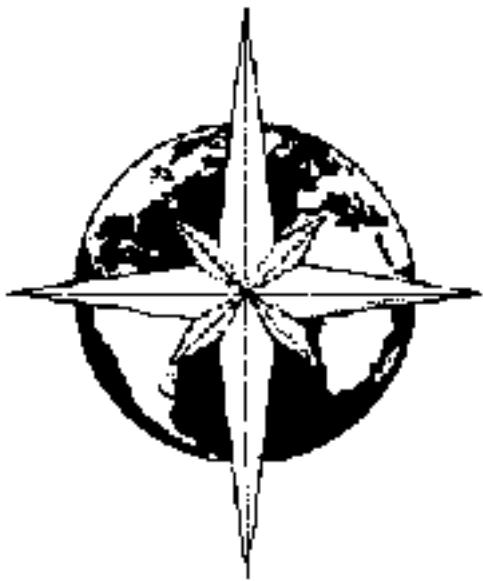
8: Outer Space

Space Exploration and Colonization

The sixth decade of the 20th century saw space exploration realized. Since that golden time, man has sent almost every conceivable object into the reaches of space: robotic probes, apes, and then humans themselves. Many probes have since gone on to explore the far reaches of the solar system and beyond. In the year 2050, humankind set forth to expand technology in the area of space exploration using technology gleaned from Operations Blue and Black Book. The United World Powers was still new then, but it poured

its research credits into space technology and then alien technology. At that time, the Earth was starting to change and the obvious course of action was to colonize outward and away from what the UWP had deemed a dying planet, Earth.

Deep space offers a new problem for players. The range of hostile environments demands that any traveler be prepared for what may lay ahead. Training is paramount, with ten major training centers both public and private sprinkled across the Earth. Persons entering into a job that includes space travel can get the training needed. Prospective adventurers should be prepared; a small mistake can prove fatal.

The Space Age is still considered very young. Working hand in hand with technology research for engines and craft, others continue work on support technology. Items such as instruments for sensing conditions in vacuum, and communications hardware for support, continue to be developed. Work on survival technology, survival suits and other types of research is also an ongoing thing.

Rocket Booster/Engine Technology and Spacecraft

Engine Notes

Different types of rocket engines are now in use, from the standard booster rockets to the newer technology that had been researched as part of Operations Blue and Black Book. The basic principle of a rocket engine is that when fuel is burned in the engine, the reaction mass is expelled at such a speed that it pushes the engine in the opposite direction. Such energy to expel the reaction mass comes from some sort of exothermic (heat producing) chemical reaction which, in turn, causes the combustion products to expand violently and to stream out of a nozzle. A number of other types of rocket engines are also possible, but the main purpose of an engine is to expel and thrust an object—the basics of action and reaction.

Engine Efficiency

The efficiency of a rocket engine is a crucial indicator of its performance. Spacecraft engine efficiency is measured by a quantity called specific impulse (Isp), an equivalent to the propellant's exhaust velocity divided by g. The resulting unit of measure is seconds. An equivalent concept is that the Isp value is the duration of time for which one kilogram of propellant can produce one kilogram of thrust. The higher the exhaust velocity and thrust, the more efficient it is. As players venture forth, they will soon learn that not all engines have been created equal.

Solid-fuel rocket engines tend to have Isp values of up to about 200.

Simple liquid-rocket systems, such as those using kerosene and liquid oxygen, have Isp values that measure in the mid-200s.

Hypergolic systems such as those using hydrazine and nitrogen tetroxide, where the components ignite upon contact, have Isp values exceeding 300.

Hydrogen based fuel can deliver values in the mid-400s.

A simple nuclear engine such as the Minerva project of the United Aeronautics and Space Administration in 2060 can deliver 800 to 900 seconds, but with significant complications in safety.

Thrust

The thrust of a spacecraft's engine is measured in kilograms or pounds, where one unit of thrust gives an equivalent unit of weight acceleration of one Gravity (G). This can also be measured in Newtons, which is a unit of force yielding one kilogram an acceleration of one meter per second. Larger values are always measured in Kilonewtons.

Engines range from easy to purchase to special Blue/Black Book engine technology that only key UWP and military would have access to.

Engines

Ion Engine

(Low thrust, long mission)

The ion engine is used on unmanned ships and probes for which time is of lesser importance. A few ion engines have been used for Scuttlebugs and orbital tugs. The propellant is dense and takes up little room, and provides low thrust but high velocity given enough time. One of the economical points to this system is that the electrical energy needed for ionization of the fuel is free and easily obtained from the sun. The sun's solar energy is captured in a set of large solar panels that give ion rockets their characteristic appearance. The most common propellants used for these engines are cesium gases and mercury. Ionization happens when either of these gases have been stripped of electrons. The freed electrons and ions form a plasma, after which an electric field sucks out the ions at a great speed, filtering this past a fine-screen grid. The beam has one charge and must be neutralized by an injection of equal number of electrons. Continuous operation of the beam brings a craft up to velocity after a great deal of time. That is why these are best suited for long unmanned flights. The ion engine is the most common stock that most corporations can produce or purchase. Some private ventures would find the ion engine easier to find than other types. Ion engines are fitted in clusters of up to ten, and are fairly easy to maintain.

Mas Driver

The mass driver is also known as a magnetic levitation accelerator. This type of engine uses the principle of the Japanese bullet train, where an electromagnetic track levitates a vehicle, reducing friction and causing motion. With modifications come the space vehicle mass driver engine. This type of engine is used to launch mined rock from asteroids and push whole asteroids to more convenient locations in the inner systems. While used mostly on haulers, the mass driver has found its way onto other types of space-faring craft, with power obtained from solar arrays. This type of engine must be maintained in a routine manner. Debris in space can cause damage to the magnetic pulse generator that can go undetected until it is too late. The engine itself is massive for space duty, and dwarfs most shuttle-style craft. A bit harder to get due to price and parts requirements.

Nuclear

Hydrogen fuel is heated to an extreme temperature, by a solid reactor core. The workhorse of space, it carries the advantage of being easily stored and stable in normal circumstances. This engine, in performance, is far more than twice as efficient as chemical rockets, making it both useful and in demand. Unfortunately, this makes the engine very hard on the credit account. Companies that produce the reactor core itself can charge a rather large sum per core unit—a hefty 50,000 credits or more. This type of rocket will be found in large company ships and a few military tugs. Upkeep of this engine is paramount, as a breach of the reactor core or cooling jacket can be a dangerous thing. Leaks that go undetected can very well be lethal with long term exposure. A small ship powered by a small engine as this can make a round trip to Mars in around 600 days on no more than six propellant canisters. Getting to as far as Neptune can take far longer, perhaps as long as seven years, depending on conditions. Using a gravity assist launch from a deeper planetary body, this can be halved.

Solar Sail

Solar sails are not for those who wish to get anyplace in a hurry. In most cases, the solar sail is kept for emergencies. If an engine is damaged and the need for an alternate power source exists, solar sails can be a viable alternative, though their effectiveness is very small. With an aluminum alloy mix of 1/100,000 mm thick, using interlaced polymer wire fixtures for slight attitude control of the control surfaces, some performance that is acceptable can be achieved. Pressure of the sunlight close to the Earth is very small. This can build up to a higher velocity over a week or so, but is not very productive if used as a main source of propulsion. The solar sail is an easy item to maintain and cost is low, as it is not a unit in huge demand. The sail itself can become damaged, patchable by characters skilled in metal work or something similar. Skimming the Earth's surface is also a favorite pastime for the very rich. Solar sail craft are used much like water-based yachting as a status symbol for the very rich and famous.

Nuclear Pulse

The Nuclear Pulse engine is not in wide use, and not many scientists or technologists support this type of engine due to the dangerous nature of the propulsion system. Acceleration can take a ship to speeds of up to 13-15% of the speed of light. Nuclear Pulse engines use a combination of chemical, electric and thermonuclear systems (with helium fuel) to produce momentum. The system itself is very dangerous, as it is prone to leaks and malfunction. Characters can, of course, find this type of engine in the curtain market (black market), but the problematic maintenance can detract from a mission in the long run. Only a few

parts and repair places are known to even handle repair and upkeep of such engines, the costs are high for repairs, and the engine is not widely supported by any space commission affiliates.

Quantum Drive

The ultimate Blue/Black Book child, the quantum drive uses a quantum pocket of space, literally folding reality as we know it. Slipping into the pocket, the vessel's quantum drive creates a field around the ship, keeping it within the flux of that particular pocket. Keeping to a certain quantum corridor and emerging at the other end, the ship then uses a static electrical charge to clean its surface of residue from quantum space. Quantum drive is only available to higher organizations of the UWP, such as the military. A trade off of alien technology, type type of drive needs constant maintenance. Engine crews have cabins close to the engines so they can be on hand for work details. The ship's quantum drive is a two-stage engine, relying on the navigational corridor computer to get it to the place it needs to go. The aliens that traded the drive and computer navigations to the UWP did not make available all the infinite numbers of corridors, so any ship with quantum drive has to rely on known corridors made available in the first place. Some research has begun in finding other corridors, bue progress is slow. Characters using quantum drive will discover a disorienting effect at the start of the flux for a few seconds. At the end of the jump, characters will feel a movement much like a drop in an elevator.

Ship's Gravity

Many long-term space flights will have a need to generate some type of gravity so that human beings can get away from the weightlessness of outer space and continue to be healthy. Some spacecraft have a special habitat section in the form of a large ring, or some bulbous section that gives a rotational effect, synthesizing gravity, while the rest of the vessel is not affected at all. Special dampers are interlaced with the ship's subsystems so that the magnetic field generated as a result will not have a detrimental effect on other ships systems. With the ship's gravity are huge air recycling generators. These keep circulation of air going and recycle the exhaled carbon based gases that humans generate. It's a great system, but as anyone that has served on either a spacecraft or submarine knows, the air always has a metallic tang taste to it. The first few days of this are rather stifling, but most people soon get used to it.

Ship's Sensors

With space travel comes the need to convert different sensing devices for space duty. The spectroscope is one such device, used to study stars and other light-reflecting bodies, given in terms of magnitude. With the spectroscope's refit and sensor upgrade, its efficiency in space is much more productive. Radar arrays and pulse Doppler types are used for limited distances. The efficiency of a radar system is based on the fact that certain navigational planetary bodies have a constant plot projection as well as a cer-

tain speed at which they move. Using navigational cryptographical charts, the system can be plotted in a matter of seconds. Cross references will show anything that doesn't belong. With the knowledge that quantum travel is probably widespread amongst inhabitants of other planets comes the need for early warning systems. Ships can now unfold close to Earth or another planet body in

a matter of seconds. Sensor sweeps of a certain area will show an increase in certain key neutron particles and a sudden unexplained decrease in free roaming minute ions. Using these, sensors can now predict 15 minutes before a ship unfolds from quantum drive fold. Characters with a high skill in sensor technology can perhaps even make the warning more than the 15 minutes by factors of 1-5 minutes. The number of sensors on any given ship are staggering. A ship's sensors and probe devices always have up to three secondary systems to fall back on in case of the first system has any problems. Listed here are types of sensors and upkeep charts.

RADAR

Pulse Doppler

This type of sensor radar puts out a beam in pulses, using a separate receiver to measure the radio pulse returns. The pulse radar is cheaper in the long run than most types of radar in both overall price and upkeep of the unit. This device, very different from its predecessor, is less effective at closer ranges of less than 20 miles. Due to its use, upkeep is easier than most radar and sensing devices. A maintenance check every thirty hours of use is all that's needed.

Continuous Wave

This type of radar unit needs at least daily system checks due to its work in such a new range of environments. The continuous wave radar does exactly what the name states—it sends out a continuous beam, using a secondary array to pick up any signals it comes in contact with.

Magnetic Field Detection

A magnetic field detector picks up the static charges used to wash over a craft's outer hull after a quantum jump, with a range of 100 miles. Most craft will still carry an enormous charge even a day after a jump. This system, if in constant use, requires upkeep every 20 days.

Ship Defenses

Ship defense comes in three main areas: detection, attack, and countermeasures. A craft's detection capabilities has been gone over already. A craft's defensive and attack systems range from the common missile, with several different types of warhead, to the more advanced and harder to find Blue/Black Book laser and pulse ion beam weapons. A continuous beam will do more damage to unshielded targets than will a multi-pulse beam. Pulse beams will burn hotter, but they dissipate energy faster than a continuous beam with a steady burn of energy. A gamemaster may want to work up a system and give targets mass points, much like hit or body health points. Ships with mass points can withstand damage to an extent before system shutdown or total destruction. Listed here are a few random dice effects for laser and missile hits in space combat.

Using 1D20.

1: Chunks of armor plate are blown off.

2: Control panels short out, causing damage to character nearby.

3: Shields hold.

4: Ship shakes, characters thrown to the deck. Light damage.

5: Small hull breach, repair in three days. All actions at half speed.

6: Shields hold.

7: Ship's engines offline for an hour.

8: Weapons systems offline two hours.

9: Gravity is lost for two hours; all actions at half normal.

10: Communication systems are blown out.

11: Sensors are blown out; all weapons reduced to 1/2 chance to hit.

12: Shields dissipate and are out for two hours.

13: A missile in the arming bay works loose and arms; will explode in twenty minutes.

14: Shields hold.

15: Ship shakes with small explosions.

16: Shields have multi-colored energy dance across them, but hold.

17: Life support units go out. Death in 20 hours.

18: Shields are blown out.

19: Shields hold.

20: All power blown out; ship defenseless.

Medical Emergency

Atmosphere

The lungs need proper atmosphere to function properly. Oxygen starvation causes tunnel vision, gray vision, mental confusion, and eventual blackout. Continued lack of oxygen will cause death.

Gravity

Long exposure to weightlessness can cause problems. Calcium productivity in bones ceases after a point, and the bones become pliant and prone to fracture. Calcium loss can be as high as 3% per month. The spine has been known to extend several centimeters and the face starts to retain fluid and becomes rounded. After long periods without gravity, physiological changes are irreversible. Even with short term exposure, the body will have some difficulty re-adapting to normal. Lack of gravity for no more than 7 days is safe as long as characters exercise.

Explosive Decompression

A rip or tear from a sudden fall, or micrometeor damage, can result in failure in a Envirosphere's pressurized environment. Exposure to a vacuum can cause the body to swell and rupture, during which internal gases rapidly expand and the blood boils.

Psychological Effects and Dangers

Loss of equilibrium in a weightless environment can result in psychological problems. If this affects a character, it can warp perception. If they have any other types of psychological problems, loss of equilibrium can aggravate the problem to a full manifestation, causing the effects to be permanent.

Lack of Stimulation

This is caused by the constant nothingness of deep missions. Long periods of weightlessness can cause a reduction in the threshold of the nervous system. The lack of activity causes the brain to decide it's really asleep, and it will start to shut down. This triggers some strange fantasies in some people. Characters affected in this way may end up off in their own little world. It will be up to the gamemaster to decide whether the affected character is dangerous or not.

The Space Environment

It is known that a high number of charged particles are trapped in the Earth's magnetic field. The Earth is encircled by what is known as the Van Allen Belt. This has no overly adverse affects on craft, or at least none that have been recorded. Other characteristics of space environment to be expected include a very hard (that is, very pure) vacuum, zero gravity, high solar illumination levels, radiation, and micrometeorite hazards. The vacuum conditions encountered in space require the encapsulation of systems and crew members in a space vehicle, or the special and expensive design of equipment that works without an air environment. The cooling of electronics for such systems can be a problem. Moving parts require special lubricating systems, as they tend to stick together when operating in space. Such lubrication is a must for repair and upkeep of such systems; without it any craft will soon become so much space junk. Solar radiation is a hazard, as unfiltered solar radiation can cause illuminated portions of a spacecraft to rise to high temperatures. This will cause weakness (up to 20-40%) in armor plate. Left alone and unmaintained, armor shielding can very well deteriorate to total collapse of a bulkhead.

Shaded portions of the craft radiate their warmth into space. They can cool below the freezing point of common fluids such as water. Characters who touch a part of a spacecraft that has been supercooled can freeze to that surface. If this happens, the character should take some type of cold damage from the actual touch, plus damage caused by ripping the skin away from the surface.

All ships sent into the solar system will be affected by radiation a great deal if they are without proper shielding. Satellites and other ships in low orbit are protected by the magnetosphere from solar charged particles and from a large percentage of other space radiation. Vehicles operating at higher orbits or in deeper space, however, receive the full force of these radiations. Cosmic rays have been known to penetrate integrated circuits in spacecraft autopilots, altering data and commands. Static electricity can build up on space vehicles during solar storms, resulting in electrical sparks that can cause severe problems in onboard electronics. Characters with systems skills may be able to fix systems that have been scrambled or altered in some way. The gamemaster will have to consider the magnitude of damage versus the character's ability to fix the system.

Space and Living Things

The environment in space itself, and the many types of planets and other planetary bodies, brings up the important problem of survival. Survival in space not only depends on the craft, but in working and moving around in these atmospheres. Envirosphere suits are the current answer, built with the extremes of different environments in mind.

Specifications to keep in mind include: maintenance of a constant pressure that is comfortable to the user; supply and filtration of oxygen or other matter used for breathing; protection of the wearer from radiations; protection from micrometeor storms; and maintenance of a normal temperature range for the wearer.

Envirosphere suits are designed from special interwoven link fabrics of six layers, or at least that's what the UWP uses. Alien races may use other designs, depending on that race's needs. The UWP Envirosphere suit's helmet is also equipped with a gold-plated visor to reflect solar heat and filter out solar radiation. Radiation doses are measured in REMs. Places on Earth have a background of no more than 0.1 REM a year; the dose that can blast an unshielded person in space is a high 10-15 REMs. Some type of shielding is needed at all times; special types must be used during solar flares, as solar flares have intense build-ups of radiation that may damage normal shielding.

Survival Gear

Envirosphere suits have to be maintained and repaired after every 10 hours of use. It is suggested that the gamemaster keep track. After 10 hours, the chance of a rupture goes up to 3% per hour. (Suggestion: using a table that the gamemaster can create, use percentile dice to see if the player's character gets a nasty surprise.)

Standard Envirosphere

This suit is the standard environment outfit, using all the main designs. It has standard protection from heat, radiation and cold and is fire resistant up to 800 degrees Celsius.

Envirosphere Work Unit: This suit uses accordion billows joint technology that may seem a bit dated, but it has a high degree of usability. The suit has only one glove unit; the other hand (most times the left) ends in a motor tool with a counter-rotating drive to hold interchangeable tools for different jobs. The suit uses a bubble helmet for maximum visibility.

Envirosphere Hard Suit

This cumbersome unit is used in high micrometeor areas, protecting the wearer from microscopic bombardments.

Other Equipment

Portable Backpack Life Support System

This unit contains an activated filtration system, oxygen purgence, and a communications send-and-receive unit. The power source is a silver-zinc battery which can give up to 9 hours continual usage. The system requires maintenance after every use.

Planetary Expeditional Tools

This packet of tools is for securing samples and small excavation of planetary body surfaces. It includes hand tools for scooping, digging and probing, and small sacks and bags for samples.

Personal Equipment Pack

This pack is used for an individual's own equipment. It has space for an extra radio send and receive unit.

Duster

The duster is used after a walk on a planetary surface or other space body. Most of these places, like the moons surface, are covered in a fine dusty top sediment that is rather clingy. The player may want to use the vacuum's duster unit to get these particles off of the Envirosuit before entering the ship again.

Restraint Devices (electro-adhesive plate, shoe restraints, tether)

These devices are used to keep a person from drifting away while doing a space walk. The electro-adhesive plate is a handheld unit (controlled by a thumb switch) that can affix to most surfaces. The shoe restraints are like slippers that slip on and are strapped over the main shoe pieces of most Envirosuits. The tether is an old tried-and-true method of keeping an individual from floating off into the void. The tether, in most cases, is attached somehow to the Envirosuit. The other end is attached to a spool unit that can use a motor to ply out the tether or reel it in, in an emergency.

Maneuver Units (handheld, backpack)

These units propel a person in a desired direction in a zero gravity environment. The handheld units have up to 20 hours charge. The backpack units are large and cumbersome in gravity. The backpack unit is, in the long run, more reliable when in it comes to exploration and ship repair. The backpack has a built-in radio unit and backup air supply. The backpack has charge enough for 40 hours of use.

Zero Reactionary Tools

All tools are electric and/or otherwise powered. Useful in no gravity, these tools have counter-rotating heads. Without this feature, the user would be spinning at the tool's mercy.

Synthetic Lab Equipment (food supplements)

Synthetic food supplement is nothing anyone would want to fall back on, as the gummy substance created via chemical reaction is not exactly tasty or nutritionally complete. The food synthesized by one of these units is enough to live on for about three months. After that, the body will start to lose out on too many nutrients obtained by the consumption of real foods.

Aliens

As exploration and colonization becomes more commonplace, the chances of meeting diverse new beings increases. Here are a few categories for creating an alien race or character that players and gamemasters may use.

Humanoid

The being is roughly humanoid in shape, has two arms and two legs, and resembles humans for the most part.

Insectiod

The being may be biped, or more insect-like with multiple limbs. Some will also have a hard armor-like exoskeleton which will add to a being's defensive abilities.

Reptiloid

The being has the trappings of a reptile, including scaly skin and secondary eyelids to aid in the protection of the eyes. Some may have tails that can be employed in attacks, while others may have no tail at all.

Animalistic

These beings are in some ways like animals. Some may be biped or multi-legged, and they can have fur or large cutting teeth for ripping into prey or enemy. An animalistic being will have a higher range of senses for sight, smell, and sometimes taste.

Energiastic

These beings are primarily formed of energy and can, within limits, adapt their form into different shapes.Mineralistic

These types of beings are formed of mineral, and can exist in many types of biped or geometric shapes.

Space, Planets, Stars, and Other Outer Space Objects

Our Solar System

The Council for Exploration and Exploitation of Outer Space has encouraged a new industry for exploration, mining and other types of research and exploitation of our inner galaxy. This will of course expand as star drive technology is improved.

The Inner Planetary Bodies

Our solar system is alive with planetary activities, and as exploration advances we learn new ways to exploit our system's resources. Listed here are some of our system's planetary bodies, with other points of interest.

The Sun

Rotation period: 27 days.

Diameter: 864,972 miles.

Gravity: 28 X Earth.

Our sun has a core of hydrogen that is continually converted to helium by way of thermonuclear fusion at the incredible rate of some 5-6 tons a second. The core temperature of the sun is 27 million degrees Fahrenheit. Any ship that drifts too close to the sun will soon be burned to nothingness.

Mercury

Distance from sun: 35.98 million miles.

Day: 25 days. Year: 88 days.

Diameter: 3,031 miles.

Gravity: 0.38 X Earth.

Mean Temperature: day 660 F; night -270 f.

Mercury is the closest planet to the sun. Its surface is heavily cratered. Its core is large, making the planet give off a very weak magnetic field. It can't hold much of an atmosphere, but what little it has is mainly helium.

Venus

Distance from sun: 67.11 million miles.

Day 243 days. Year: 225 days.

Diameter: 7,520 miles.

Gravity: 0.9 X Earth.

Mean Temperature: 900°F.

Venus is the second closest planet to the sun. One of its strange properties is that its rotation is the reverse of the other planets. Venus' day is longer than its year; it takes longer to spin on its axis than it does to orbit the sun. The planet is covered by a dense cloud of carbon dioxide which traps heat on the surface so well that metals like lead would melt. Clouds of sulfuric acid are known to appear when storms occur. Great continent-sized plains, lowlands and even highlands are known to be on the surface. Mountains dot the surface as well, with some being volcanic and active rising up as high as 6-7 miles.

Earth

Distance from sun: 93.21 million miles

Day: 23 hours 56 minutes.

Year: 365.3 days. Diameter: 7,929 miles.

Gravity: 1 X Earth.

Mean Temperature: 68°F.

The Earth is geologically active, and the core is large enough to provide energy for plate tectonics, motion of the upper layers of crust causing continental drift. The magnetic field is strong, so much so that it traps the particles of the solar winds into large radiation belts called the Van Allen belts. At least 70% of the Earth is covered with water; this rose to nearly 80% after the strange weather changes and floodings.

Earth's Satellite (The Moon)

Orbit around Earth: 239,239 miles.

Orbit period: 27.3 days.

Diameter: 2,159 miles.

Gravity: 0.16 X Earth.

A quarter of Earth's diameter, some scientist classify Earth and its satellite as a double planet system. The Earth's moon is heavily pocked with craters from hundreds of asteroid impacts. Parts of the moon are covered with a fine powdery top layer. Moon missions are far in between at this time, though some companies do carry out lunar experiments on temporary bases built on the surface.

Mars

Distance from sun: 141.68 million miles.

Day: 23 hours 37 minutes.

Year: 687 days.

Diameter: 4,217 miles.

Gravity: 0.38 X Earth.

Mean Temperature: -9°F.

Mars appears as a red star in the night skies. The surface of the planet is engulfed quite often by dust storms, some which last for months at a time. Ice-like polar caps advance and shrink with changing seasons. The planet has certain unique qualities, such as Mariner Valley, a huge rift valley that is 2800 miles long. This rift runs horizontally across the surface of Mars. Some parts of the valley rift are 155 miles across, and two miles deep. A chain of three huge volcanoes lies a few hundred miles away from the valley. The volcanoes are named Olympus Mons, Pavonis Mons, and Arsia Mons. Olympus Mons is the largest of them all, rising up past seas of foamy white clouds. Below this on much of the surface stretches vast rock strewn deserts. The sky above this is a fine pink color due to dust particles suspended in Mars' atmosphere. The redness of the dust and rocks come from a fine coating of iron oxide (or rust to the layman). Lethal amounts of ultraviolet radiation penetrate to the surface from the sun. Without a heavy Envirosphere suit, a living being would soon die from the radiation's onslaught. One Mars base is in use, run by a skeleton crew of 40 persons. The base itself is buried under the surface to protect against the radiation.

Phobos and Deimos

Phobos

Orbital radius: 5,829 miles.

Orbital period: 7 hours 40 minutes.

Diameter: 12X14X17 miles. 13 miles in length.

Gravity: 32 feet per second.

Deimos

Orbital radius: 14,600 miles.

Orbital period: 30 hours 26 minutes.

Diameter: 6X7X10 miles. 7.46 miles in length.

Gravity: 20 ft per second.

If one were on Mars to view these moons up above, Phobos would go across the sky opposite to all other celestial bodies. It rises in the west and sets in the east five and half hours later. Deimos, on the other hand orbits the planet every one and a quarter days. Both moons orbiting Mars are irregular in shape, and both are among the darkest in the solar system. They reflect perhaps 6% of any light that falls upon them. They are in near-circular orbit around Mars. Phobos has an orbit that is in a decay, and in another few million years will perhaps crash down into Mars. Both of these moons lack much in the way of mass and have been researched in several projects. No true use can be found for the moons other than satellite relay stations and unmanned observation posts, one of which is on Deimos.

Asteroids

Between the orbit of Mars and Jupiter lies an asteroid belt. Some of the asteroids lie outside the belt in strange orbits, and some are in orbits that carry them close to Jupiter. The oddest of the group is one that is carried for a 50-year orbit which takes it past both Uranus and Saturn. The main belt stays within a certain orbit, thanks to the immense pull of Jupiter. The main asteroids, from the largest to the smallest, are: **Ceres**, **Palles**, **Vesta**, **Juno**, **Eros**, **Hidalgo**, **Icarus**, And **Hermes**.

Jupiter

Distance from sun: 483 Million Miles.

Day: 9 hours 55 minutes

Year 11.9 years.

Diameter: 44,400 miles.

Gravity: 2.6 X Earth.

Mean Temperature: -240°F.

Jupiter, a vast planet of hydrogen and helium gas, rotates in less than 10 hours. The interior is hotter than the surface of the sun. This seeps up into the atmosphere and causes the turbulent storms that whip around the planet. The atmosphere has around the same water content as the sun in this system. The white zones are areas of gas that are ascending, topped by high cirrus clouds of ammonia. The darker belt zones are of gas descending again. These get their color from sulfur and molecules containing carbon. Huge slashes of lightning rake across the storm-like surface at regular intervals. The huge storms that make up the belts and boiling dots blow at 300-330 miles per hour. Within the atmosphere lies a vast sea of liquid hydrogen several Earth diameters beyond the core. Beyond this, the pressure is so great that hydrogen molecules are broken down into free protons and electrons. The hydrogen is in such a state this deep that it is electrically conductive, much like a metal. Lethal doses of radiation are trapped within the magnetic field around Jupiter. Players will not be able to remain in too close of an orbit for more than four hours at a time for any reason. This will drop to one hour if the ship is not radiation shielded. A rather intensive radiation belt lies 31,000 miles above the cloud tops. Various levels of neon, carbon, oxygen, sulfur and helium are what makes up much of Jupiter's atmosphere. Around Jupiter orbit 16 moons; the inner most, **Io**, is the most volcanic. At least eight volcanic points are mapped on the surface of Io. These eight are the most constant, spitting out sulfurous material and spreading it across the terrain. Under its crust is a sea of sulfur and sulfur dioxide. The outermost moons, **Ganymede** and **Callisto**, are heavily cratered. Io's neighboring moon, **Europa**, has the fewest craters but it does have a yellow colored crust that crisscrosses its surface. This is a layer of ice. Three of Jupiter's moons, **Metis**, **Adrastea** and **Amalthea**, have orbits in the outer part of Jupiter's ring region. Jupiter's rings are the Inner or Halo ring (100,000 to 122,800 Kilometers from the center of Jupiter), the main ring (122,800 to 129,200 Kilometers), and the outer or Gossamer ring (129,200 to 214,200 kilometers).

Saturn

Distance from sun: 887 Million miles.

Day: 10 hours 40 minutes.

Year: 29.46 days.

Diameter: 74,978 miles.

Gravity: 1.2 X Earth.

Mean Temperature: -290°F.

Saturn's rings, consisting of ice and rock fragments, extend some 186,420 miles across. The planet itself is made up of hydrogen with a molten core. Eighteen moons surround Saturn, more than any other planet in this system. Close to what is termed the ÔF Ring' are two small moons named **Pandora** and **Prometheus**.

Other moons are: Dione, with large impact craters and a huge crack across its surface. **Mimus**, only 250 miles in diameter, is another moon with a cratered surface. Its geological development has ceased, making it a dead moon. The craters make it look like a ragged rock with large chunks taken from it. **Iapetus** is perhaps the strangest of them all. Half of the moons surface is bright and icy, while the other is dark and covered with a fine dust. **Epimetheus** and **Janus** are two small irregular shaped moons. These two now are in identical orbits just beyond the planets rings. **Tethys** is about the same size as Dione, 700 miles in diameter, and also shares an orbit. Tethys has two smaller fragments that lay just to the front and back of it a few hundred miles. **Rhea** and **Enceladus** also orbit the planet. All of the moons, except for Titan, are made of rock and some form of ice. **Titan** moon orbits Saturn at a distance of around 760,000 miles. It orbits the planet in 15.9 days, and has a diameter of 3,200 miles. Titan is Saturn's largest moon and has a dense atmosphere of orange clouds. At least 95% of Titan's atmosphere is nitrogen intermixed with smaller parts of methane, ethane, propane, acetylene, and hydrogen cyanide. The surface mean temperature is -290°F. Great cliffs of solid frozen methane rise across its surface. Methane rain and snow pelts its surface during weather changes. Titan does not have a magnetic field and the core is not electrically conductive.

Uranus

Distance from sun: 1,783 Million Miles.

Day: 17.24 hours.

Year: 84 years.

Diameter: 32,560 miles.

Gravity: 0.93 X Earth.

Mean Temperature: -355°F.

The seventh planet in our system, Uranus, is a gaseous planet containing heavy elements such as iron and carbon, as well as hydrogen and helium. The axis of rotation is at 98 degrees to its orbit around the sun. The planet's magnetic field is inclined at 60 degrees to the rotational axis, giving the magnetic field a corkscrew shape. The field spirals in shape synchronizationally with the rotation. It has 11 rings which can't be seen from Earth, and the moons that sit in various orbits number 15 in all. The largest of the moons are named **Ariel**, **Miranda**, **Umbriel**, **Oberon**, and **Titania**. These are located in equatorial orbits. Most of these moons have ice-like surfaces and Oberon, Titania, and Umbriel are the least geologically active of them all. The smaller moons lie closer to the planet in orbit and are charcoal black, reflecting only minor percents of sunlight. The darkness of the moons' surfaces are caused by the presence of carbon and methane, bombarded by high-energy protons from Uranus's magnetic field. There have been at least three large cargo craft lost in this area, crashed on the surface of the planet or on one or more of the moons. Players that find one or all of the craft would earn a rich finders fee from the UWP.

Neptune

Distance from sun: 2,800 million miles.

Day: 17 hours.

Year: 165 years.

Gravity: 1.22 X Earth.

Mean Temperature: -364°F

Neptune is the eighth planet from our sun, slightly smaller than Uranus and with a greater density. The surface of this blue planet is specked with white cirrus clouds of methane. The internal heat source of Neptune drives the weather systems across its surface. There is a higher layer of clouds that are icy and cast shadows down upon the lower clouds. Neptune has three complete rings around it, two of which are composed of a dust. These rings loop around the planet at 18,000 and 24,000 miles from the surface. Between the two rings and the cloud tops is a sheet of faint dust particles and another very faint broad ring further in. The magnetic axis is tilted at 47 degrees to the rotational axis. The planet has seven moons, the largest of which is **Triton**. Triton orbits Neptune at 220,162 miles. The orbit time is some five and a half days, and the moon's diameter is 3,728 miles. Tritons atmosphere is composed mostly of frozen nitrogen and methane; atomic particles striking the surface turn the methane ice a pink color at the south polar region. The surface itself changes with the seasons, melting from time to time and re-freezing, smoothing out any impact craters. Characters crashing on this moon stand little chance of ever being found.

Pluto

Distance from the sun: 3,666 million miles.

Day: 6 1/2 Days. Year: 248 years.

Diameter: 1,367 miles.

Gravity: 0.03 X Earth.

Mean Temperature: -220 Degrees Centigrade.

Pluto, the farthest planet in our system, is composed of small amounts of frozen methane and nitrogen. **Charon**, Pluto's moon, orbits a mere 12,000 miles from the planet. A few long-term experimental stations have been placed in orbit around Pluto, but only one is designed to be manned. This station, Oasis One, is manned for only four months out of the year but it does have supplies that can be used by voyagers in an emergency.

Space Bodies

These figures are gathered from the United World Powers Department of Space Travel and Commerce, and the Department of Charting and Geodetic Services, with additional data from the Corps of Engineers from the Department of Mercenary Regulation and Enforcement. Figures are given in both miles and kilometers.

These survey figures supercede all other records until further notice.

Even to this day several objects are still under study. Such objects are small planets on the fringe of our system, much different than the collection of small, icy bodies numbering in the 40's to 50's that circle the sun beyond the orbit of Neptune known as the Kuiper belt. No further information is on file for general public use at this time. It is best that all ships avoid these areas.

There are certain moons that are still under survey, in these cases the moons have been given a number catagorization designation.

Note that gravity wells of these celestial moons will be a navigational hazard to craft using standard travel. Military craft using quantum pocket engines will not be effected unless they are in normal space. Craft with engine damage or engines operating in a lower percentage of total engine efficiency should navigate clear of gravity wells. Craft that are under-powered will be pulled towards the moon, exerting the gravity pull at a rate of 500 feet per second.

Craft with engine damage will be pulled towards a moon or planet if they are within the influence of the gravity pull of the celestial body. A safe navigational distance is suggested. Safe distance is measured for game purposes to be 1 1/2 mile per diameter of the planet or moon.

Jupiter's Moons	Distance from Jupiter	Diameter Of Moon
Adrastea	80,159 Miles (129,000 KM)	22 Miles (35 KM)
Amalthea	112,471 Miles (181,000 KM)	106 Miles (171 KM)
Ananke	13,173,429 Miles (21,200,000 KM)	19 Miles (31 KM)
Callisto	1,170,074 Miles (1,883,000 KM)	12,995 Miles (4,820 KM)
Carme	14,043,372 Miles (22,600,000 KM)	25 Miles (40 KM)
Elara	7,293,233 Miles (11,737,000 KM)	50 Miles (80 KM)
Europa	416,951 Miles (671,000 KM)	1,942 Miles (3,125 KM)
Ganymede	664,885 Miles (1,070,000 KM)	3,278 Miles (5,275 KM)
Himalia	7,113,536 Miles (11,480,000 KM)	106 Miles (171 KM)
Io	262,226 Miles (422,000 KM)	2,257 Miles (3,632 KM)
Leda	6,893,680 Miles (11,094,000 KM)	9 Miles (14 KM)
Lysithea	7,282,669 Miles (11,720,000 KM)	22 Miles (35 KM)
Metis	79,538 Miles (128,000 KM)	25 Miles (40 KM)
Pasiphae	14,602,622 Miles (23,500,000 KM)	31 Miles (50 KM)
Sinope	14,726,899 Miles (23,700,000 KM)	22 Miles (35 KM)
Thebe	137,948 Miles (222,000 KM)	47 Miles (76 KM)

Neptune's Moons	Distance from Neptune	Diameter Of Moon
Despina	32,640 Miles (52,530 KM)	92 Miles (148 KM)
Galatea	38,500 Miles (61,960 KM)	98 Miles (158 KM)
Larissa	45,700 Miles (73,550 KM)	119 Miles (192 KM)
Naiad	29,970 Miles (48,230 KM)	36 Miles (58 KM)
Nereid	3,423,290 Miles (5,509,100 KM)	211 Miles (340 KM)
Proteus	73,100 Miles (117,640 KM)	258 Miles (416 KM)
Thalassa	31,100 Miles (50,070 KM)	50 Miles (80 KM)
Triton	220,470 Miles (354,800 KM)	1,678 Miles (2,700K

Saturn's Moons	Distance from Saturn	Diameter Of Moon
Atlas	85,547 Miles (137,670 KM)	19 Miles (30 KM)
Calypso	183,098 Miles (294,660 KM)	22 Miles (35 KM)
Dione	234,512 Miles (377,400 KM)	700 Miles (1,130 KM)
Enceladus	147,903 Miles (238,020 KM)	310 Miles (500 KM)
Epimetheus	94,092 Miles (151,422 KM)	55 Miles (90 KM)
Hyperion	920,338 Miles (1,481,100 KM)	220 Miles (350 KM)
Lapetus	1,212,950 Miles (3,561,300 KM)	890 Miles (1,430 KM)
Janus	94,123 Miles (151,472 KM)	60 Miles (100 KM)
Mimus	115,280 Miles (185,520 KM)	240 Miles (390 KM)
Pandora	88,237 Miles (142,000 KM)	120 Miles (190 KM)
Phoebe	8,048,220 Miles (12,952,000	140 Miles (225 KM)
Prometheus	86,373 Miles (139,000 KM)	950 Miles (1,530 KM)
Rhea	327,496 Miles (527,040 KM)	22 Miles (35 KM)
Telesto	183,098 Miles (294,660 KM)	650 Miles (1,050 KM)
Tethys	183,098 Miles (294,660 KM)	3,190 Miles (1,050 KM)
Titan	759,231 Miles (1,221,830 KM)	3,190 Miles (5,130 KM)
S-6	234,512 Miles (377,400 KM)	(Under survey)
S-34	205,058 Miles (330,000 KM)	(Under survey)
S-7	236,128 Miles (380,000 KM)	(Under survey)
S-8	236,128 Miles (380,000 KM)	(Under survey)
S-9	292,052 Miles (470,000 KM)	(Under survey)
S-10	205,058 Miles (330,000 KM)	(Under survey)
S-11	217,486 Miles (350,000 KM)	(Under survey)
S-1	83,000 Miles (133,600 KM)	(Under survey)

Uranus's Moons	Distance from Uranus	Diameter of Moon
Ariel	118,800 Miles (191,200 KM)	720 Miles (1,160 KM)
Belinda	46,800 Miles (75,300 KM)	35 Miles (55 KM)
Bianca	36,800 Miles (59,200 KM)	30 Miles (50 KM)
Cordelia	30,900 Miles (49,700 KM)	25 Miles (40 KM)
Cressida	38,400 Miles (61,800 KM)	35 Miles (55 KM)
Desdemona	39,000 Miles (62,800 KM)	35 Miles (55 KM)
Juliet	40,000 Miles (64,400 KM)	50 Miles (80 KM)
Miranda	80,700 Miles (129,800 KM)	355 Miles (570 KM)
Oberon	362,100 Miles (582,600 KM)	950 Miles (1,530 KM)
Ophelia	33,400 Miles (53,750 KM)	30 Miles (50 KM)
Portia	41,100 Miles (66,100 KM)	50 Miles (80 KM)
Puck	53,400 Miles (69,800 KM)	105 Miles (170 KM)
Rosalind	43,400 Miles (69,800 KM)	35 Miles (55 KM)
Titania	270,900 Miles (435,800 KM)	980 Miles (1,580 KM)
Umbriel	165,300 Miles (266,000 KM)	725 Miles (1,170 KM)
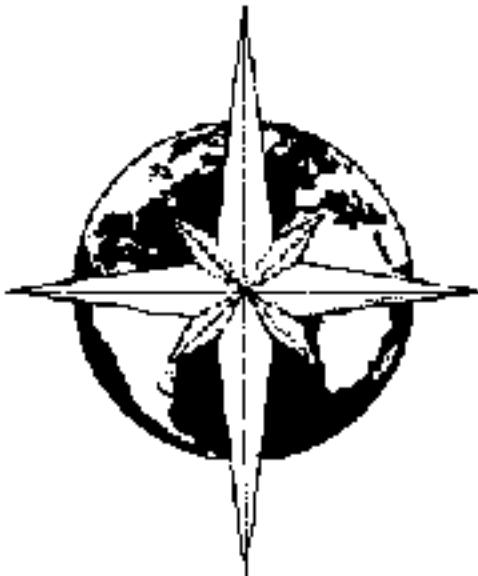
9: The Seas

"The sea giveth and the sea taketh away"—this phrase, coined in the early days of undersea exploration, describes the basic views of any man or woman braving the undersea in search of something. Sometimes fame or fortune lures them under the waves; but more often than not it's the idea of an unsettled frontier—the picture of seeing parts of the planet so remote that they don't even show up on the advanced maps of the twenty-first century.

Exploration and planned colonization of outer space seems to be the UWP main objective, but the UWP does also see the need to explore and colonize the vast expanses under the waves. A great deal of the planet is under water, and the geology, physics, chemistry, and ecology of the seas is something unto itself, a vast world of learning.

Undersea Geology

Deep down under the waves is another world that some would view as alien. Basic geology differs greatly deep down in the crushing depths. The Earth's surface is not a fixed feature, and deep at the bottom of the seas of the world this is even more evident. This can catch a character unawares, and some of these differences can be deadly. The Earth is made up of several plates, or layers, that shift from time to time. Above the waves the movement is very slow—so slow that it is not overly evident. Below the waves of the seas, however, the evidence is more pronounced. Where two plates start to pull away from each other, material from the Earth's mantle is constantly on the rise to fill the space. Trenches are formed at such sites—some mild in depth, while others can extend downward for miles. It is here that the UWP has sent research teams, for deeper down there are great pockets of unexploited resources.

Rows of ridge-like formations—underwater mountain ranges—also form where trenches are made. "Mountain" is the correct word for them, for some of these ranges are huge in size. A strange geological happening, the abyssal plains, develops between the mountains and trenches. Vast expanses of nothingness are dotted with life to break up the underwater plain.

Water depths differ greatly in different areas, so a general guide is listed here. Over the continental shelves, the depth is around 640 feet. Over the abyssal plains, it goes to around 20,000 feet, and the trenches can go as far as 35,000 feet or more.

Abyssal Plains

The plains are flat, flatter than most almost anywhere else one can find. Gradients rise no more than three feet over a mile's distance. There are, however, places on certain plains that have exceptions. These have hills (less than 3000 feet in height) and mountains (more than 3000 feet), believed to be volcanic in origin. When a mountain or hill breaks the flatness of the plains, it is not in a gradual rise but very abrupt. The abyssal plains found in the Atlantic are far more extensive than those found in the Pacific. One will find very few life forms along the plains bottom, other than very small to microscopic life. Once in a while a bottom feeder can be seen, but for the most part the plains are much like a desert beneath the sea. The bottom is made up of sediment, a fine soot-like substance that can quickly cover anything small. Large vessels that have somehow crashed will be covered in three hours time. Any vessel unfortunate enough to find itself slammed into the bottom with any force due to a crash or incompetent piloting will find itself stuck in the thick muck under the sediment layer. Blowing ballast tanks may get the vessel unstuck 50% of the time. Underwater boats and subs stuck on the bottom will run out of air eventually, and the crew will die, unless they get the vessel

unstuck or find an emergency route to the surface. As the sediment is a danger to vessels, so too is it to a diver who has weight boots or is using a heavy suit. Movement will be slowed even more so for a diver walking on the bottom. Dangers to a player walking on the bottom also include sink holes. A player falling into a sink hole can lose balance and become stuck if the hole is of any appreciable size.

Trenches

The call of the excitement of exploration, exploitation of minerals, and oil deposits is to be found in the trenches, perhaps the deepest parts of the oceans. One of the largest, in the western Pacific, known as the Marianas Trench, reaches as deep as 35,000 feet. A trench is almost a ÔV' shape, partly flat at the base. Deep trenches are a dangerous place, filled with unexplained geologic movements that can crash large, overhanging rock faces down onto an underwater vessel or diver.

Guyouts

Guyouts are seamounts or volcanoes that get very large, rising up above the water. These are more frequent in the Pacific, but a few can be found in other places. Seamounts occur in chains or as isolated peaks, and the slopes are very steep. Flat-topped seamounts are called guyouts. Seamounts are formed from lava that has cooled and risen above the surface over the years. Some seamounts and guyouts have coral of one type or another growing around or on them. Coral can be very unforgiving, and can cut like a razor. After the rings of coral around the seamount, the surface of the seamount or guyout can have plant life upon it, small animal life and birds. Some plant life, such as the coconut tree, can be a life-saver for a vessel short on supplies.

Volcanoes and Other Hot Spots

Along the ocean floor, on places such as ocean ridges, are dangers that can kill the unsuspecting in a agonizing instant. Faults form at these ocean ridges, oceanic plates slipping past each other to cause the area to be seismically active. They can extend into the plate as fracture zones or great cracks and breaks in the plate. Within the cracks or fracture zones, thankfully, there is little to no seismic activity.

One thing to watch for is pillow lava, which gets its name from the shape it takes as it wells up and forms a crust over the real danger. The mounds look like a paste substance squeezed from tube. An animal, fish, or diver who cracks open one of these pillows will soon find themselves burned badly by the lava beneath the crust. The lava can easily burn away any protective clothing, or even burn through a hard envirosphere suit given the right circumstances. The temperature at the center of the ridge is very hot, but does cool down as it spreads outward. Another rare thing, but still a danger, is the submarine volcano, so named because it is submerged and active. The violent reaction in the water around an underwater volcano can swamp a ship above the surface or swat a sub out of control as the superheated lava reacts to the cold water. The battle between the two seems to be a never-ending play of natures.

In all oceans around the Earth, new sea floor is thrown forth in ridges by upswelling lava from deep within the Earth. Along the borders of these ridges, dotted in no particular pattern, are several springs of heated water. These vents can be found along the east Pacific rise as well as the mid-Atlantic ridges. Great chimneys formed from sulfides, such as iron, copper and zinc, rise up as far as 30 ft in some places, spewing forth superheated water. The stream of water welling up has tiny sulfide particles that react to the cold water. This creates a kind of black smoky effect in some, white in others. The water's temperature is as hot as 660°F, and can kill anything that strays within the stream. The pressure is great, and this results in the stream escaping forth with a great deal of force. A newly formed stack exploding its stream can very well catch an underwater vessel by surprise. The superheated water can melt components, and worse yet Plexiglas ports if the underwater vessel has any. There is a 30% chance of a plume being created in an active ridge area. Seismic sensors can detect some activity, but it will take a character of great skill in the workings of such equipment to reliably predict the dangers. Characters will find new types of life forms around these smokers, presumably thrown forth from the deep Earth. This includes blind crabs and shrimp, and strange giant tube worms. Normal fish and other undersea life do not go near the smokers, because the sulfides are toxic to them.

Life Under the Sea

Life thrived deep within the cold depths long before man decided to work at taming the seas. Now that man has made water a new environment to be exploited, he soon learned that newly discovered life can be a help or a hindrance.

Many sea plants are now farmed for food purposes. Great kelp forests provide major habitats for hundreds of other plants and animals such as crabs, shrimp, starfish and sea urchins, which also provide a food base themselves. Plant life is scarce as one goes deeper into the depths; most plants—water or land based — need the sun.

Coral is another type of sea animal, for that is what it is, or more correctly that is what they are. Coral is made up of thousands, perhaps millions, of tiny animals called coral polyps or of plants called coral line algae. Coral can pose a problem to an unsuspecting diver, causing rather painful cuts. Coral will be found in places where the sunlight can reach it (harder in these times) and where the water temperature is a steady 68°F.

As divers go deeper into the depths, they find that animals begin to take on shapes that perhaps spawned the myths of sea monsters at one time. Further in the deeper parts of the ocean there is no plant life, for the sun cannot reach these depths. Here, in the blackness of water space, there is danger in the form of predators and scavengers. Such strange creatures as the skullby had been found in the deeper depths. After being taken for research from the blackness they once called home, the skullby soon found its way into most areas of the world. Along with the skullby other types of fish life had, before the great floods, remained hidden beneath the secret blankets of water and in the trenches. Anyone who makes a living under the seas will tell you dangers that have always been present lie in wait.

The Dangerous Sea Animals

The seas are now even more vital to the economy than before. While man strives to explore the deeper recesses of this planet, contact with dangerous sea animals becomes all too common. Contact may include attacks on purpose or accidental contact; these include bites and stings, as well as some diseases or parasites that will cause sickness in a character if the sea animal is prepared for eating in the wrong manner.

[*Editor's Note*: Several of the creatures presented below are taken directly from the *HERO Bestiary*, while the remainder are new creations. In addition, many of the creatures in this list have venomous attacks or carry diseases that take effect over a period of time and are recovered from slowly. These are bought as Gradual Effect Drains versus the appropriate characteristic. For a review of the Gradual Effect rules, see the *HERO System Almanac I*, pages 12 and 13. For a discussion on Venoms, see pages 30-35 in the same book.]

Barracuda

Val	CHA	Cost	Roll	Notes
15	STR	5	12-	200 kg; 3d6 [3]
14	DEX	12	12-	OCV: 5/DCV: 5
18	CON	16	13-	
10	BODY	0	11-	
2	INT	-8	9-	PER Roll 12-
5	EGO	-10	10-	ECV: 2
18	PRE	8	13-	PRE Attack $3^1/_2$d6
10	COM	0	11-	
3	PD	0		Total: 3 PD
4	ED	0		Total: 4 ED
3	SPD	6		Phases: 4, 8, 12
7	REC	0		
36	END	0		
27	STUN	0		

Total Characteristics Cost: 29

Movement: Running: 0"   Swimming: 14"/28"

Powers & Skills

Native Abilities:
Bite: $^1/_2$d6 HKA, Reduced Penetration (8) [1]
Gills: Life Support (Breathe Underwater) (5)
Swimming +12" (14" total) (12) [1/5"]
Lateral Line: Ultrasonic Hearing, Targeting Sense (23)
Enhanced Smell: Tracking Scent, Discriminatory Smell (15)
Enhanced Senses: +3 with all PER (12- total) (9)
Sea Animal: -6" Running (0" total) (-12)

Combat Skills:
Combat Skill Levels: +2 with Bite (4)

Total Powers & Skills Cost: 64

Total Creature Cost: 93

Disadvantages: 50+

Physical Limitation:
No Fine Manipulation, frequent, greatly impairing (15)
Susceptibility:
2d6/Turn when out of water (Uncommon) (15)
Creature Bonus (13)

Total Disadvantage Points: 93

Appearance/Ecology: These fish can get rather large. They are found around inshore waters and reefs where they hunt for food. They are fast swimmers and torpedo through the water at blinding speeds. When they attack a human, more times than not it is a case of mistaken identity; the fish sees something flashing in the water, thinks it's a fish, and attacks.

Notes: While in the water, characters would be wise to not disturb any of these large fish if they see them resting. Nor should they wear any shiny objects while on a dive. A bite from this fish is very painful and will cause bleeding depending on the severity of the bite. First aid should include any cleaning of wounds using a disinfectant, and then medical attention for any large wounds. In some cases antibiotics are necessary. Other dangers from the barracuda come from eating them. Ciguatera poisoning can be very harmful to the character if they eat any infected barracuda that are large, most times over 900 grams. Symptoms of Ciguatera poisoning are severe. These include abdominal pain, weakness, vomiting, headache, diarrhea, dizziness, and numbness with a tingling sensation in the lip, throat and tongue. Sometimes a rash can occur, and convulsions depending on the severity of the poisoning.

In game terms, this is defined as follows:

4d6 BODY Drain: Recover 5 Active per Day ($+1^1/_2$), Continuous, Uncontrolled, Gradual Effect (Once per Day, $-1^3/_4$), Must be Eaten ($-^1/_4$), 3 Charges (38 Real, 0 END)

3d6 STUN Drain: Linked to BODY Drain, same Advantages/Limitations (25 Real, 0 END)

3d6 DEX Drain: Linked to BODY Drain, same Advantages/Limitations (25 Real, 0 END).

Bristle Worm

Val	CHA	Cost	Roll	Notes
-20	STR	-30	5-	
10	DEX	0	11-	OCV: 2/DCV: 10
8	CON	-4	11-	
2	BODY	-16	9-	
3	INT	-7	10-	PER Roll 12-
5	EGO	-10	10-	ECV: 2
5	PRE	-5	10-	PRE Attack 1d6
10	COM	0	11-	
2	PD	2		Total: 2 PD
2	ED	0		Total: 2 ED
2	SPD	0		Phases: 6, 12
2	REC	0		
16	END	0		
10	STUN	4		

Total Characteristics Cost: -66

Movement:	Running: 0"	Swimming: 2"/4"

Powers & Skills
Native Abilities:
Bristles: 1 pip HKA, Damage Shield, 0 END Persistent, Always On, Reduced Penetration, Linked to Bristle Venom (5)
Bristle Venom: 1d6 Drain vs STUN, Recover 5 Active per Hour (+1), Continuous, Uncontrolled, Gradual (Every 5 minutes, -3/4), Bristles must do BODY first (-1/2), 32 Clips of 3 Charges (0) (11)
Small Size: Shrinking (40 pts—2.5-4.5" long, 0.025 kg, -8 to others' Sight Perception, +8 DCV), 0 END Persistent, Always On (53)
Gills: Life Support (Breathe Underwater) (5)
Enhanced Senses: +2 with all PER (12- total) (6)
Sea Animal: -6" Running (0" total) (-12)

Total Powers & Skills Cost: 73

Total Creature Cost: 7

Disadvantages: 50+
Distinctive Features:
Bright orange and white striping, bristles, not concealable, noticed and recognizable (15)
Physical Limitation:
No Fine Manipulation, frequent, greatly impairing (15)
Creature Bonus (-73)
Total Disadvantage Points: 7

Appearance/Ecology: This flat orange and white sea worm is found on reefs, and amongst inshore rubble. Most times the worm will be found under rocks but they can be found outside as well, hunting for bottom food.

Notes: It is best to avoid contact with this creature because of its defensive tiny spines or bristles. Brushing up against the worm can cause injury to a character due to the spines lodging in any unprotected skin. The spines cause a burning sensation, numbness and swelling. Removal of the bristles from a victim should be done with extreme care so that they do not break into even smaller lances; tweezers are suggested, as well as an application of alcohol or ammonia to the wounded areas.

Cone Shell

Val	CHA	Cost	Roll	Notes
-20	STR	-30	5-	
13	DEX	9	12-	OCV: 4/DCV: 10
8	CON	-4	11-	
4	BODY	-12	9-	
3	INT	-7	10-	PER Roll 12-
5	EGO	-10	10-	ECV: 2
5	PRE	-5	10-	PRE Attack 3 1/2 d6
10	COM	0	11-	
3	PD	3		Total: 4 PD
2	ED	0		Total: 3 ED
3	SPD	7		Phases: 4, 8, 12
4	REC	4		
16	END	0		
16	STUN	10		

Total Characteristics Cost: -37

Movement:	Running: 0"	Swimming: 2"/4"

Powers & Skills
Native Abilities:
Stinger: 1 pip HKA, Linked to Stinger Venom (3) [1]
Stinger Venom: 2d6 Drain vs BODY, Recover 5 Active per Day (+1 1/2), Continuous, Uncontrolled, Gradual (Every 20 minutes, -1), Stinger must do BODY first (-1/2), 8 Clips of 3 Charges (-1/2) (27)
2d6 Drain vs STUN, Linked to BODY Drain, same Advantages/Limitations (23)
Shell: +1 PD/ +1 ED Armor (3)
Small Size: Shrinking (30 pts—5-9" long, 0.2 kg, -6 to others' Sight Perception, +6 DCV), 0 END Persistent, Always On (45)
Gills: Life Support (Breathe Underwater) (5)
Enhanced Senses: +2 with all PER (12- total) (6)
Sea Animal: -6" Running (0" total) (-12)
Combat Skills:
Combat Skill Levels: +2 with Stinger (4)

Total Powers & Skills Cost: 104

Total Creature Cost: 67

Disadvantages: 50+
Physical Limitation:
No Fine Manipulation, frequent, greatly impairing (15)
Susceptibility:
2d6/Turn when out of water (Uncommon) (15)
Creature Bonus (-13)
Total Disadvantage Points: 67

Appearance/Ecology: Found along rubble bottoms as well as sandy bottoms, the cone shell uses its venom to capture small fish. A puncture wound is caused by the stinging apparatus at the tip of the shell.

Notes: A wound from the stinger causes immediate and intense pain on the site and around the injured area, followed by numbness. A tingling of the mouth and extremities can also develop. While death from such a wound is rare, there have been cases reported that resulted in fatalities or serious sickness. While not all cone shells are equally dangerous, some of the subspecies that can paralyze a fish are deadly (Raise the BODY Drain to 4d6).

Eel

Val	CHA	Cost	Roll	Notes
10	STR	0	11-	100 kg; 2d6 [2]
14	DEX	12	12-	OCV: 5/DCV: 7
10	CON	0	11-	
5	BODY	-10	10-	
2	INT	-8	9-	PER Roll 11-
5	EGO	-10	10-	ECV: 2
15	PRE	5	13-	PRE Attack 3d6
10	COM	0	11-	
3	PD	1		Total: 4 PD
2	ED	0		Total: 3 ED
3	SPD	6		Phases: 4, 8, 12
4	REC	0		
20	END	0		
20	STUN	5		

Total Characteristics Cost: 1

Movement: Running: 0"   Swimming: 6"/12"

Powers & Skills

Native Abilities:

Bite: $^1/_2$d6 HKA, Reduced Penetration (8) [1]

Hide: +1 PD, +1 ED Armor (3)

Size: Shrinking (10 pts, 1m long, 12.5 kg, -2 to others' PER, +2 DCV), 0 END Persistent, Always On (13)

Gills: Life Support (Breathe Underwater) (5)

Swimming +4" (6" total) (4) [1/5"]

Lateral Line: Ultrasonic Hearing, Targeting Sense (23)

Enhanced Smell: Tracking Scent, Discriminatory Smell (15)

Enhanced Senses: +2 with all PER (11- total), +3 with Smell PER (14- total) (12)

Sea Animal: -6" Running (0" total) (-12)

Total Powers & Skills Cost: 71

Total Creature Cost: 72

Disadvantages: 50+

Physical Limitation:

No Fine Manipulation, frequent, greatly impairing (15)

Susceptibility:

2d6/Turn when out of water (Uncommon) (15)

Creature Bonus (-8)

Total Disadvantage Points: 72

Appearance/Ecology: The eel is found in rock caves and coral crevices as well as rocky bottoms. A bite from these animals can be very painful, causing a puncture wound and bleeding, with the mucus from the animal causing infection of the wound.

Notes: Generally, eels do not attack people. If they do attack, it will be most likely that a person has poked around in the eel's lair without realizing it until it is far too late. Eating an eel is not advised unless one knows for a fact the species in hand is edible. Some types of eel will cause Ciguatera poisoning (see the description of the barracuda above for a full description of Ciguatera poisoning).

Fire/Red Sponge; Fire Coral

The fire sponge can be found in and amongst mangrove roots, hard bottoms, and grass flats. The color is red or orange and contact should be avoided. Characters coming in contact with such a sponge will find trouble around unprotected skin areas. Chemical irritants are released on contact, and while the spicules do not puncture into skin they can still cause problems. Such symptoms are stinging sensation, pain, itching, welts or swelling. The reaction is very much like the skin's reaction to poison ivy.

Fire coral is found around reefs and many pilings. It is very common in coral reefs around Florida, and in some other tropical areas. Fire coral is an orange-yellow and has an arrangement of tiny pore groupings in the form of a central large one surrounded by five smaller ones. Contact with this coral will cause a character to end up with severe itching, welts and a fire-like pain around the irritated area.

Val	CHA	Cost	Roll	Notes
10	BODY	0	11-	
2	PD	2		Total: 2 PD (4 PD for Fire Coral)
2	ED	2		Total: 2 ED (4 ED for Fire Coral)

Venom: 1d6 Drain vs STUN, Damage Shield, 0 END Persistent, Recover Once Per 6 Hours ($+1^1/_4$), Continuous, Uncontrolled, Gradual Effect (Every 5 Minutes, $-^3/_4$), Must Make Contact With Bare Skin ($-^1/_4$), 4 Charges (17)

Hard Crust (Fire Coral Only): +2 PD/+2 ED Armor (6)

[Editor's Note: Unlike the other sea creatures presented here, the fire sponge and the fire coral (see above) are not written up in the usual fashion. This is because these organizms are completely immobile and lack any form of intelligence or self will. As such, they are written up as nothing more than their BODY, PD, ED, and attack/defense powers.]

Lancer

Val	CHA	Cost	Roll	Notes
15	STR	5	12-	200 kg; 3d6 [3]
14	DEX	12	12-	OCV: 5/DCV: 5
18	CON	16	13-	
10	BODY	0	11-	
4	INT	-6	9-	PER Roll 12-
5	EGO	-10	10-	ECV: 2
18	PRE	8	13-	PRE Attack 3$\frac{1}{2}$d6
10	COM	0	11-	
3	PD	0		Total: 3 PD
4	ED	0		Total: 4 ED
3	SPD	6		Phases: 4, 8, 12
7	REC	0		
36	END	0		
27	STUN	0		

Total Characteristics Cost: 31

Movement: Running: 0" Swimming: 8"/16"

Powers & Skills

Native Abilities:
  Horn: $\frac{1}{2}$d6 RKA, Limited Range (Adjacent Hex, -$\frac{1}{4}$) (8) [1]
  Gills: Life Support (Breathe Underwater) (5)
  Swimming +6" (8" total) (6) [1/5"]
  Lateral Line: Ultrasonic Hearing, Targeting Sense (23)
  Enhanced Smell: Tracking Scent, Discriminatory Smell (15)
  Enhanced Senses: +3 with all PER (12- total) (9)
  Sea Animal: -6" Running (0" total) (-12)

Total Powers & Skills Cost: 54

Total Creature Cost: 85

Disadvantages: 50+

Distinctive Features:
  Horn protruding from head, not concealable, noticed and
    recognizable (15)
Physical Limitation:
  No Fine Manipulation, frequent, greatly impairing (15)
Susceptibility:
  2d6/Turn when out of water (Uncommon) (15)
  Creature Bonus (-10)

Total Disadvantage Points: 85

Appearance/Ecology: The lancer is one of the cross bred alien fish that had escaped UWP labs some time ago and has bred in the wild. It is a long, trumpet-shaped fish with what looks like a single horn at the top of its elongated head. The horn can be thrust outward at the end of a tentacle that reels back within the animals body. The lancer can be found along rocky bottoms and amongst debris; it does not seem picky on where it makes its lair.

Notes: An attack from this fish can cause a puncture wound with bleeding and intensive pain and swelling.

Sharks

Great White Shark

Val	CHA	Cost	Roll	Notes
30*	STR	0	11-	1,600 kg; 6d6 [6]
15	DEX	15	12-	OCV: 5/DCV: 3*
25	CON	30	14-	
27*	BODY	26	14-	
2	INT	-8	9-	PER Roll 11-
5	EGO	-10	10-	ECV: 2
23	PRE	13	14-	PRE Attack 4$\frac{1}{2}$d6
10	COM	0	11-	
10	PD	8		Total: 15 PD
8	ED	3		Total: 13 ED
3	SPD	5		Phases: 4, 8, 12
7	REC	0		
50	END	0		
45*	STUN	0		

Total Characteristics Cost: 82

* Bonuses for Growth already figured in.

Movement: Running: 0" Swimming: 18"/36"

Powers & Skills

Native Abilities:
  Bite: 1$\frac{1}{2}$d6 HKA, Reduced Penetration (20) [2]
  Hide: +5 PD/+5 ED Armor (15)
  Size: Growth (20 pts), Persistent, Always On (1,600 kg, +2 to
    Others' Sight PER, -2 DCV, +1" Reach) (27)
  Swimming +16" (18" total), $\frac{1}{2}$ END (24) [1/10"]
  Enhanced Senses: +2 with all PER (11- total) (6), +3 with Smell
    PER (14- total) (6)
  Enhanced Senses: Discriminatory Smell, Tracking Scent (15)
  Lateral Line: Ultrasonic Hearing, Targeting Hearing (23)
  Life Support (Breathe Underwater) (5)
  Sea Creature: -6" Running (0" total) (-12)

Total Powers & Skills Cost: 129

Total Creature Cost: 211

Disadvantages: 50+

Berserk:
  In presence of blood, Uncommon, 14- to go berserk, 11- to recover
    (20)
Physical Limitation:
  No Fine Manipulation, Frequent, Greatly (15)
Physical Limitation:
  Cannot Leap, Infrequent, Slightly (5)
Psychological Limitation:
  Always Hungry (goes out of way to find food), Common, Strong
    (15)
Susceptibility:
  2d6/Turn when out of water, Uncommon (15)
Susceptibility:
  1d6/Turn when not moving in water, Uncommon (10)
  Creature Bonus (81)

Total Disadvantage Points: 211

Hammerhead Shark

Val	CHA	Cost	Roll	Notes
25*	STR	0	11-	800 kg; 5d6 [5]
15	DEX	15	12-	OCV: 5/DCV: 3*
20	CON	20	13-	
19*	BODY	12	13-	
2	INT	-8	9-	PER Roll 11-
5	EGO	-10	10-	ECV: 2
18	PRE	8	13-	PRE Attack 3½d6
10	COM	0	11-	
8	PD	6		Total: 10 PD
6	ED	2		Total: 8 ED
3	SPD	5		Phases: 4, 8, 12
6	REC	0		
40	END	0		
34*	STUN	0		

Total Characteristics Cost: 50

* Bonuses for Growth already figured in.
Movement: Running: 0"   Swimming: 10"/20"

Powers & Skills
Native Abilities:
Bite: 1d6 HKA, Reduced Penetration (12) [1]
Hide: +2 PD/+2 ED Armor (6)
Size: Growth (15 pts), Persistent, Always On (800 kg, +2 to Others' Sight PER, -2 DCV, +1" Reach) (20)
Swimming +8" (10" total), ½ END (10) [1/10"]
Enhanced Senses: +2 with all PER (11- total) (6), +3 with Smell PER (14- total) (6)
Enhanced Senses: Discriminatory Smell, Tracking Scent (15)
Lateral Line: Ultrasonic Hearing, Targeting Hearing (23)
Life Support (Breathe Underwater) (5)
Sea Creature: -6" Running (0" total) (-12)

Total Powers & Skills Cost: 91

Total Creature Cost: 141

Disadvantages: 50+
Physical Limitation:
No Fine Manipulation, Frequent, Greatly (15)
Physical Limitation:
Cannot Leap, Infrequent, Slightly (5)
Psychological Limitation:
Always Hungry (goes out of way to find food), Common, Strong (15)
Susceptibility:
2d6/Turn when out of water, Uncommon (15)
Susceptibility:
1d6/Turn when not moving in water, Uncommon (10)
Creature Bonus (31)
Total Disadvantage Points: 141

Mako Shark

Val	CHA	Cost	Roll	Notes
20*	STR	0	11-	400 kg; 4d6 [4]
15	DEX	15	12-	OCV: 5/DCV: 4*
22	CON	24	13-	
16*	BODY	8	13-	
2	INT	-8	9-	PER Roll 11-
5	EGO	-10	10-	ECV: 2
19	PRE	9	13-	PRE Attack 3½d6
10	COM	0	11-	
7	PD	5		Total: 8 PD
5	ED	1		Total: 6 ED
3	SPD	5		Phases: 4, 8, 12
6	REC	0		
44	END	0		
32*	STUN	0		

Total Characteristics Cost: 49

* Bonuses for Growth already figured in.
Movement: Running: 0"   Swimming: 14"/28"

Powers & Skills
Native Abilities:
Bite: 1d6+1 HKA, Reduced Penetration (16) [2]
Hide: +1 PD/+1 ED Armor (3)
Size: Growth (10 pts), Persistent, Always On (400 kg, +1 to Others' Sight PER, -1 DCV) (13)
Swimming +12" (14" total), ½ END (12) [1/10"]
Enhanced Senses: +2 with all PER (11- total) (6), +3 with Smell PER (14- total) (6)
Enhanced Senses: Discriminatory Smell, Tracking Scent (15)
Lateral Line: Ultrasonic Hearing, Targeting Hearing (23)
Life Support (Breathe Underwater) (5)
Sea Creature: -6" Running (0" total) (-12)

Total Powers & Skills Cost: 87

Total Creature Cost: 136

Disadvantages: 50+
Physical Limitation:
No Fine Manipulation, Frequent, Greatly (15)
Physical Limitation:
Cannot Leap, Infrequent, Slightly (5)
Psychological Limitation:
Always Hungry (goes out of way to find food), Common, Strong (15)
Susceptibility:
2d6/Turn when out of water, Uncommon (15)
Susceptibility:
1d6/Turn when not moving in water, Uncommon (10)
Creature Bonus (26)
Total Disadvantage Points: 136

Appearance/Ecology: There are several hundred different types of sharks, with some of these more dangerous to people than others. In most cases sharks are not man eaters, but a simple rule of thumb is that any large shark should be considered dangerous. A bite from a large shark can prove a life threat to a character. Bites result in great pain and, depending on the size of the bite, a small to large loss of blood. Even getting brushed against by a large shark can cause some abrasive wounds. Blood and splashing attract these fish. They are found in deep waters as well as inshore waters.

Notes: The three sharks listed on the previous pages are by far the most dangerous, but fortunately they are also the three that will least frequently be encountered by anyone doing long-term sea exploration. Other (more commonly found) species include the tiger shark (found more in inshore waters, and known to attack humans on occassion), the nurse shark (a harmless coastal variety, but still large and imposing), and the whale shark (several times larger than the largest great white, but completely harmless since it's a plant eater).

Appearane/Ecology: Found in shallow waters and deep waters alike, the Skullby stays around rocky bottoms or near debris. This strange fish has a poison sac just under its gills and at its neck. The poison acts on the nervous system and can cause intense burning pain and in some cases blackout. It is a shy fish and will often stay away from people, but can be surprised and it will spray its poison, which spreads through the water in a yellow cloud. While the fish is a good eating fish, not many people like to catch it due to the time it takes to cut out the poison sac. The sac can also be drained by massaging the fish under the gills.

Skullby

Val	CHA	Cost	Roll	Notes
-20	STR	-30	5-	
15	DEX	15	12-	OCV: 5/DCV: 11*
8	CON	-4	11-	
2	BODY	-16	9-	
3	INT	-7	10-	PER Roll 12-
5	EGO	-10	10-	ECV: 2
5	PRE	-5	10-	PRE Attack 1d6
10	COM	0	11-	
2	PD	2		Total: 2 PD
2	ED	0		Total: 2 ED
3	SPD	5		Phases: 4, 8, 12
4	REC	4		
16	END	0		
10	STUN	4		

Total Characteristics Cost: -42

* Bonuses for Shrinking already figured in.
Movement: Running: 0"   Swimming: 8"/16"

Powers & Skills

Native Abilities:

Venom: 2d6 Drain v. STUN, Recover once per Day (+1$\frac{1}{2}$), 1 Hex Area Effect, Continuous, Uncontrolled, Gradual Effect (Every 20 Minutes, -1), 4 Clips of 2 Charges (30)

1d6 Drain v. BODY, Linked to STUN Drain, same Advantages/Limitations (13)

Size: Shrinking (30 pts), Persistent, Always On (0.25 m, 0.2 kg, -6 to Others' Sight PER, +6 DCV) (45)

Swimming +6" (8" total) (6) [1/5"]

Enhanced Senses: +2 with all PER (12- total) (6)

Life Support (Breathe Underwater) (5)

Sea Creature: -6" Running (0" total) (-12)

Concealment 14- (11)

Total Powers & Skills Cost: 104

Total Creature Cost: 62

Disadvantages: 50+

Physical Limitation:
No Fine Manipulation, Frequent, Greatly (15)

Susceptibility:
2d6/Turn when out of water (Uncommon) (15)

Creature Bonus (-18)

Total Disadvantage Points: 62

Mineral Nodules, the Sea's Bounty

Nodes, or nodules of metals and other resources, are inorganic substances that miners and gatherers seek out. While the seawater itself does contain many types of minerals, they have to be in a more concentrated form to be of any use. Players who wish to make some credit on their CredIdent accounts can node search. A good bounty of nodules can bring high credit, depending on the type of node. Some of the nodules that can be found are phosphate deposits, oil (which itself is organic), manganese, and some types of gas. Phosphate deposits are a complex chalk, phosphate, and fluoride. These types of node deposits form in continental shelves and are roughly football-sized nodules. The color of these nodes can range from the light colors to black. Phosphate nodules will be found in areas that have a cool water flow with rich nutrients.

Manganese nodules are found both in the deeper realms and in water as shallow as 15 feet. They can be found on or just below the surface of the sea bottom. They can take on the shape of multiple rounded structures, around the size of golf balls in a colony, or they can be as large as slabs measuring several square feet. Sometimes they can be found encrusting other rock faces as well. When this happens, it is a delicate operation to remove them from the host rock without breaking up the nodes, making harvest that much harder. The varieties differ from shallow to deep water in the rate of formation. The shallow water type form much faster. Another major difference a miner will find is the difference in chemical composition. Nickel and copper form in deep but not shallow water nodules.

The Great Oil Search

Oil is one of the resources that lay hidden not only below the waves, but deep down below the surface of the Earth as well. Oil may be as deep as two miles under the sea floor, so search ships use seismic survey techniques to find what may be oil bearing ground. If an area is worthwhile, a platform is put in place and used to drill. Drilling can take as long as two weeks before a well yields anything. Oil finds are something to protect, and platforms that lay far from land are prone to periodic attack by pirates. Oil is a rich resource that many companies seek from the depths.

Decompression Sickness

Characters using underwater envirosphere suits will in most cases not have to go through recompression. Sea envirosphere suit users are more susceptible to decompression sickness if they are overtaxed due to overexertion, injury, lack of sleep or even alcohol hang over. If a character is in poor mental or physical condition, they are more apt to get decompression sickness. Repetitive diving within a twelve hour period is dangerous. There must be at least twelve hours without any underwater work to give time for the gas in the bloodstream to desaturate.

If a character whose bloodstream is saturated from the canned air they are using should suddenly shoot upward from the depths, the abrupt decrease of pressure will cause the air in the bloodstream to suddenly equalize. This is known as "the bends." The gas comes out of the solution in the blood to join the lower pressure. Blood corpuscles form clots around air bubbles and, in turn, lodge and restrict joints and limbs. This causes damage to the nerves. The result is the character will be paralyzed. If any of the clots travel to the brain, damage to the brain or death will occur. A recompression chamber must be used where an envirosphere suit is damaged or if a character has, for some reason, gone to great depths without one. The recompression chamber simulates taking the character back to the underwater depth; the pressure will dissolve the gas in the blood stream, blood clots will break up, and no further nerve or tissue damage will accrue. Damage from the bends is up to the game master, but we suggest the first sign to be very much like a stun effect.

The following table gives the length a character can stay submerged at certain depths, in relation to water depth and the air cylinder units they are equipped with. This table does not take into account a rebreather, which puts the same air through a scrubber that removes harmful gas that the human body breathes out. Anyone using a rebreather, a damaged envirosphere suit, or the old-fashioned SCUBA gear will have to use a recompression chamber to regulate to normal atmosphere again. Until they get to the chamber, the maximum safe ascent rate is 60 feet per minute (1 foot per second).

Listed here are normal submergence times for regular units and standard SCUBA gear. The usual bottom times for the different suits are listed with their descriptions.

Depth (Feet)	One Cylinder unit	Two Cylinder Units
Surface	100*	200
33	50	100
66	33	66
99	25	50
132	20	40
165	16	33
198	14	28
231	12	25
264	11	22
297	10	20
	*In Minutes	

Credit Values for Sea Resources

Oil: 9,000 credits per 50 gallons.

Phosphate nodules: 40 credits per pound.

Manganese nodules shallow: 50 credits per pound.

Manganese nodules deep: 15 credits per pound.

Fluoride phosphate: 7 credits per pound.

Gas: Gas is measured per canister, and one 40-pound canister yields 15 credits.

The Underwater Frontiers

New Cozumel

Residents of New Cozumel (located approximately twenty miles off the coast of Cozumel) are typically American (North or South), with a majority of the population coming from the former United States of America. Caribbean and Latino countries make up a small percentage of this largely tourism-based city.

New Cozumel is located on the continental shelf and its main draw is the pressurized geodesic dome, approximately five miles in diameter, connected to the edge of the undersea city. When first built it was to be a research platform, but it soon turned into somewhat of a undersea park. The dome rises hundreds of feet above even the five story government building. The water, a sparkling blue, allows nearly full sunlight to penetrate the dome. Tourism is the lifeblood of the city; people come from all over the world to see the schools of fish and dolphins glide above their heads like birds.

Atlantis

The other undersea city, Atlantis Colony, is something of a failed experiment. Located in the murky depths of the Mediterranean, approximately twenty-five miles off the coast of Cannes, Atlantis has become a breeding ground for illegal activities. Rumor has it that the Mafia lords of Sicily moved their operation to Atlantis as recently as 2045 because of the city's wide use as a secure shipping port for corporations and the United World Powers.

More functionality than style, Atlantis was originally designed with the same tourist attraction and research center goals that New Cozumel was built for. Unfortunately, because of the murky waters, faulty desalination systems, and less than honorable clientele, Atlantis quickly became the pit stop of the undersea.

The buildings are self-contained, connected to other buildings by pressurized Plexiglas tubes which house walkways as well as sewer, electricity, and water pipes. Each building typically houses any number of smaller architectures, illuminated from high above by fluorescent lights.

There are two main residential housing blocks, each a six story building stretching for hundreds of meters. Tubes connect the two housing areas at various levels, but airlocks to the outside can only be found on the lowermost levels.

To the north of the housing areas, and connected via a larger Plexiglas passageway, is the Market. This is a dome similar to one in New Cozumel, but, because of the lack for natural light, fluorescent lights have slowly replaced the huge Plexiglas panels in the roof. Here at Atlantis' marketplace, even SUNC soldiers fear to tread unless sent in as part of a mop-up squad, heavily armed and armored. Atlantis has been under SUNC martial law for the past six years, beginning only a year after it was opened to the general public.

Anything can, and usually is, found in the Market, including weapons of all types and styles, drugs, mercenaries for hire, even pirates who are looking for contract work. Laid-off miners roam the streets, hoping to get picked up by a new contractor. Brawls break out regularly, and are usually settled without any military intervention.

Off to the south, built on the side of a large shelf drop, lie the Atlantis Docks. Only here does SUNC have any form of control, backed by armored personnel carriers in the pressurized areas and self-contained gun emplacements perched on the corners of the facility. Cargo subs and transatlantic shipments make Atlantis the third busiest port in Europe. A self-contained cargo monorail system makes transport to the French mainland easy and affordable. The docks are cavernous, stories tall with airlocks for subs docking from the outside, plus internal dry-docks for subs that need repairs and/or refits. Cranes constantly ride steel girders high above the docks, moving cargo containers from sub to sub, or from sub to monorail car.

Oil Platform

Oil platforms are constructed of steel and concrete, the whole structure weighing in at 650,000 tons. Workers rotate every three weeks, and one platform may be in use for as long as 25 years. Platforms are a hazardous place to be, and anyone working on any type of platform goes through survival training which also includes firefighting and other drills. The more dangerous areas are off limits to persons that have no business being in them, and there are no exceptions. There are currently at least 5,000 offshore stations of various makes and designs. The outer structure of such a platform is little more that a skeleton framework of steel girders with at least three heavy lifting cranes. The interior of an oil platform is almost like a cheap motel, but comfortable none the less. Companies know that a content crew is a hard working crew, so they do work to make sure the crews of such platforms are not lacking. Unused platforms are toppled and given over to the sea to become a habitat for fish life.

Research Platform

Research platforms are smaller versions of the sprawling undersea cities. They are usually made up of three separate sections: housing, control, and docks. Each section is self-contained, connected to the other via reinforced tubes. These tubes house the walkway as well as electricity, water, and recycling facilities.

The housing section is a small, double-hulled cylinder with two or three levels. The first level has the airlock, connected to the tube leading to the control area. It also has a small lounge complete with public eye, comfortable recliners, and a small couch. The recreation room, directly opposite the lounge, typically has weightlifting equipment as well as treadmills and exercise cycles. The remaining area is made up of a small ladder which leads upwards to the higher decks. The two upper decks are similar in construction, most of the room taken up by bunks with a dual locker at the foot of each. Nearly a third of each of the upper decks is taken up by locker rooms, complete with showers, latrines, and a whirlpool.

The control section can be anywhere from three to five levels. The command area is a single level, approximately two stories high, at the bottom of the control section. The platform commander's quarters are located here. It contains a bed, desk, and computer terminal for platform-to-shore private communications. In a semi-circle around the other half of the platform is the command center. A large status video screen hangs in front of a dozen consoles for command and control of the platform's logistics. Behind the consoles is a raised platform where the platform commander and the second in command can keep tabs on daily operations.

The other levels of the platform are typically devoted to labs, for use by the scientists currently stationed at the platform. The walls for the upper areas are modular, allowing for labs of any size to be created as necessary. The only exception is the containment system, which is a self-contained room for use in case of hull breach, fire, or other accident. All levels in the control section are self-sealing in case of disaster.

The docking area is a simple, one-level platform on struts. Two airlocks jut out from the platform, like antenna, for docking purposes. The platform also contains a large pressurized dive chamber that holds suits for the complete compliment of the station, as well as one or two small subs.

Farming

Kelp and fish farming are the main yields for food in these times. Large corporations lead the industry with enclosed underwater corrals. Large underwater plants conduct controlled fish breeding and herding. A few hardy companies have even taken to herding whales for the various products that these large animals yield forth. Great kelp forests in the waters near Japan and what was once California produce great amounts of food, medicines and other animal life for the industries of the world.
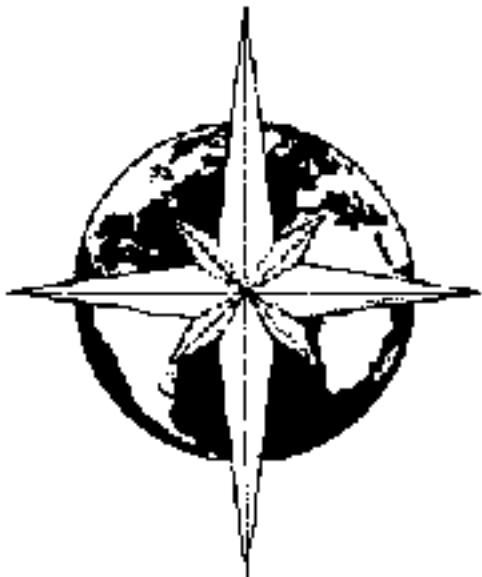
10: Story Seeds

Cruise for Danger

Introduction

Cruise for Danger is an adventure set for 4-6 players of law-enforcement occupations of fairly low to medium skill level. The adventure is made to be different in case you wish to change GameMasters or just play it at a later date with the same characters. This gives variety as well as a way to show new players an introduction to Bright Future while allowing existing players to play along without "giving it away".

This adventure is divided up into two different sections: Permanent Elements and Pliable Elements of Play. The permanent elements should not be changed since this is the backbone of the adventure and the core of the adventure. The pliable elements are areas where the adventure may change or be molded into your existing campaign. Feel free to add, change, or delete parts of the pliable to what you feel would be a better challenge to your players.

The objective in this adventure is the same: Protect a middle-aged professor by the name of "Dr. Richard Jones" or a female by the name of "Dr. Jennifer Jones" on a cruise ship orbiting the planet Earth. The players must do this without Dr. Jones ever even realizing he/she is being protected. The events in the adventure are the only things that are set—the encounters vary depending on the non-player characters' motives, player locations and decisions, and how fun the GameMaster wants to make it. This adventure can easily become humorous, serious, or dramatic just by changing the elements of play. The most important objective is to learn and have fun.

Permanent Elements of Play

Professor Jones

Professor Jones is a middle-aged nuclear physicist who has been working on projects for the United World Powers (UWP) through a scientific and research branch only known as the United Science Foundation (USF). This branch is highly classified, working on projects from nuclear fusion propulsion to new nuclear weapons for the UWP. Dr. Jones is critical to several major projects involving nuclear fusion, and the UWP must keep him/her safe. The good professor has been working over six years in USF without one vacation and has always been protected by a small security team. He/She is tired of always being watched and has decided that a good get-away vacation would be perfect for the next two weeks. The USF has allowed it, on stipulation that the professor only go as far as an orbiting cruiser. Dr. Jones has specifically denied any and all protection and has further noted that if there is any protection he/she would take that as a violation of his/her civil rights, and quit. The USF and UWP cannot allow that to happen, so strict undercover operation has been launched to protect the good doctor. The players must keep their identities unknown until it is impossible to do otherwise (final scene).

Professor Jones

Occupation: Lead Scientist, Nuclear physics, Nuclear engineering

Skills: Scientific Theory, Physics, Nuclear Physics/Theory/Physics, Nuclear Engine Technology

Motivations: New ways to implement Nuclear power

Weaknesses: Single-mindness

Val	CHA	Cost	Roll	Notes
10	STR	0	11-	100 kg; 2d6 [2]
11	DEX	3	11-	OCV: 4/DCV: 4
11	CON	2	11-	
11	BODY	2	11-	
19	INT	9	13-	PER Roll 13-
16	EGO	12	12-	ECV: 5
14	PRE	4	12-	PRE Attack 2 1/2d6
10	COM	0	11-	
2	PD	0		Total: 2 PD
2	ED	0		Total: 2 ED
2	SPD	0		Phases: 6, 12
4	REC	0		
30	END	4		
22	STUN	0		

Total Characteristics Cost: 36

Movement: Running: 6"/12"   Swimming: 4"/8"

Powers & Skills

Research Skills:
- Deduction 13- (3)
- Inventor 13- (3)
- Skill Enhancer: Scientist (3)
- Science: Physics 13- (3)
- Science: Nuclear Engine Mechanics 13- (3)
- Science: Nuclear Physics 13- (3)
- Science: Theory 13- (3)
- Science: Nuclear Engine Technology 13- (3)

Background Skills:
- Computer Programming 13- (3)
- Electronics 11- (3)
- KS: Operation Blue Book 11- (2)
- KS: Operation Black Book 11- (2)
- KS: Homalo Technology 8- (1)
- Language: Arabic, Fluent Conversation (2)
- Language: Russian, Fluent Conversation (2)
- Skill Levels: +1 Overall (10)

Total Powers & Skills Cost: 49

Total Character Cost: 85

Disadvantages: 50+

Distinctive Features:
- Habit of Chewing glasses when stressed, concealable, noticed & recognizable (10)

Psychological Limitation:
- Single-minded when working on a new project, common, strong (15)

Watched by:
- United World Powers Security, more powerful, 11- (10)

Total Disadvantage Points: 85

Cause Terrorists (AKA Scorpion's Legion)

A small band of Cause Terrorists known as Scorpion's Legion have infiltrated the personnel of the pleasure cruiser (the Van Allen Princess), and some have come aboard as passengers. These terrorists' main objective is to kidnap Professor Jones to do their own work, or kill him/her if escape is not possible before re-entry. They are a determined lot who only see people as obstacles or pawns in their great quest. They can all be recognized by a Scorpion's tail tattooed in a specific spot on an individual's body (this location can change from adventure to adventure—we advise it). These terrorists will not in any way act differently than the people they are portraying until the time comes to act accordingly to their job. Terrorists demonstrate their strength by killing hostages—so play them as determined fanatics. There should be enough terrorists to compensate the players and their skill levels—varying their numbers is a good way of making the game more interesting each time it is played. Their leader is named Henry Dobbs, and he will be doing all the negotiations and talking for the group. Play this character with an English accent, someone who has had years of schooling. He is intelligent, calculating, professional, and cold.

Leader:

This package is based on the MasterMind package, and GameMasters will want to read the description of the MasterMind to better implement this into the Cause Terrorist leader's skills.

Skills

Three Knowledge Skills of the GameMaster's choice at 11- (6)

Conversation (3)

Persuasion (3)

Streetwise at +1 (5)

Three of the following: Bribery, Bugging, Computer Programming, Electronics, Weapons Use (Hand guns SMGs or Explosives), Deduction, Gambling, High Society, Interrogation, Seduction (9)

Well Connected (3)

Perk: 4 Contacts at 11- (4)

Disadvantages

Hunted by International police, want to imprison, 8- (15)

Psychological Limitation: Superiority complex, common, moderate (10)

Underlings:

Skills

Weapon Familiarity: One class from the Small Arms Group (1)

KS: Organization of Terrorist Group 11- (2)

KS: Propaganda about the Cause 11- (2)

Two other Knowledge Skills or Sciences of the Player's choice at 11- (4)

Three appropriate Skills of the Player's Choice (9)

Disadvantages

Psychological Limitation: Devoted to the cause, common, strong (15)

Because the persons involved come from diverse backgrounds, there are few skills that can truly be called "common" to a Cause Terrorist, including the specific cause itself. "Player's choice" skill selections make up the bulk of this Package Deal. The GameMaster may want to take time to give the underlings a few skills that will make them a challenge.

Van Allen Princess

Van Allen's crew consists of a captain, first mate, executive officer, 5 stewards, 2 chefs, 3 technicians (three shifts—one is a terrorist), and two security officers. The crew consists of 15 people catering to a maximum of forty passengers. The crew is well trained and has been with the Van Allen Princess for several years now (all except the security officers, who have only been with her for the last two voyages). The Captain (Mr. Robinson) has been flying orbital craft for over 40 years and is a grizzled veteran of a few wars. He and the technicians are the only people who should never be changed. The other crew members can be cause terrorists, internal security agents, or just normal crew members. As GameMaster you must decide where the enemy is and why they are there. The only two definite characters (do not allow the players to know) are the captain and the terrorists' technician, who ends up killing the other two technicians.

Events/Encounters

These are events or encounters that are the backbone to the adventure and should not be changed (unless otherwise noted). The Pliable events/encounters of the adventure are listed in the next section and can be used or discarded at will. There are three main events that occur and are in the beginning, middle and end. These events are to challenge the characters' role-playing skills—do not allow them to decide events by a roll of the dice. Play these events out and make them sweat!

The permanent encounters are in ship rooms in which the party may or may not find themselves exploring. These encounters give clues to the players, to decipher exactly what is happening and how best to solve it (hopefully). Experience should be rewarded based on character intuition and intelligent role-playing.

Events

Briefing . . .

Read to the players:
"Your team of agents meet again for another mission briefing. You are expecting a simple recon, or maybe an escort job again. You all remember the last mission of escorting that mindless, arrogant military officer to Mars, where he was supposed to lead up the new atomic test facilities producing military warships. He arrived safely all right, but on your trip back you found out that he was killed by his own stupidity. He was advised to leave his window shutters closed in case of damage to the dome—which seemed to crack. The military officer had only a few moments to realize that he was in the toxic atmosphere of Mars. Theories abound on what had happened—most call it karma, others even considered it aliens. Who knows? Fate just has a way of showing up at the wrong time."

GM Note: Tell the players that their duty officer finally arrives and seems to look at all them with a keen eye. Eye the players who have acted irrationally or behaved incorrectly in your past adventures.

"**We have another escort mission (a general moan is heard). You are to escort a Professor Jones on his/her vacation on an orbital cruise ship—the Van Allen Princess. The UWP will not allow this vital member to be harmed in any way, for he/she is a member of the United Science Foundation, which heads up the research for atomic fusion power. The professor (show the characters a photo of the professor) is on vacation, and has further noted that if there is any protection, he/she will sue for a violation of civil rights and quit. No one is to know that you are protecting the professor, and strict undercover operation is called for. You will be checked at the gate for weapons and will be considered civilians. The cruise will last two weeks and then re-enter the atmosphere, landing back near USF headquarters.**"

"**We expect there may be some faction or another after Dr. Jones and his/her knowledge. If this information were to be allowed to fall in the wrong hands—let us pray that does not happen. You have one day to prepare and equip yourselves for this mission. Look like you are having fun, and do not stay together too long in large groups. Don't screw this one up; it may be your last...**"

GM Note: Make sure you give the troublesome players one last look and then tell them that the duty officer leaves. Give the players some time to prepare for the mission, and then proceed to the next section.

All Aboard . . .

The players have arrived to see the last of the passengers get on board. They are met by the First Mate and the Executive Officer. They will be passed over by a hand metal detector that only checks the upper body. The executive officer will be conducting the test, and if there are weapons he will be suspicious of the characters from now on. This will make problems later for the character. DO NOT ALLOW ANY WEAPONS that are found by the Executive Officer or in bags (they will also be found) to pass by. The weapons will be stored until their return. If the characters present who they are, the First Mate will pull them aside and tell them this: "I don't care who you claim to be. This is our ship, and we do not allow weapons aboard. If you wish to come aboard you'd better behave yourselves, or you might be finding a long trip home. Do I make myself clear?" If the players fuss or argue with the First Mate, he will not allow them aboard—and the adventure is over. (You may be generous and allow them to stow away).

Spies

You may be having the First Officer or Executive Officer be a member of the Cause Terrorists—in this case have the players be carefully watched. Do they talk together? What do they say? Were there weapons? If the executive officer is a terrorist, they will do a thorough search of the players and demand to know who they are. Allow them onboard in this case no matter what, but the Cause Terrorists will know who to kill first if they give away who they are.

Terrorists Take Control

This should happen sometime in the middle of the adventure after some minor role-playing with the guests and searching for clues around the ship. The players might even know who some of these terrorists are before they try to take over the ship. The terrorists take control of the ship by doing the following things (and when):

Engineering:

The Scorpion's Legion technician has eliminated the other two technicians aboard at this time. He has planted enough explosive to cause the ship's engines to be permanently damaged. It is wired to explode when Mr. Dobbs (Leader) presses the trigger around his arm (his watch). He has sabotaged the engines to fail (even without the explosives) upon re-entry. This is their back-up plan in case someone is able to disarm the explosives. There will always be two guards here once the technician leaves and the terrorists have taken control of the ship.

Bridge/Communication:

Henry Dobbs will take over the bridge with 5 other members, using automatic weapons which were hidden in the Engineering deck and passed out by the technician there. This will happen on the last three days of the journey unless the characters create an incident that causes this to be sooner. They all will be in communication, using a wired ear-piece and speaker system. They will kill (unless one of them) the first mate and the executive officer and hold the captain with the other hostages. The bridge will be cleared and Henry will always have 3 people around him guarding his new "home". He will then find the professor and will tie him/her up on the bridge. From the bridge he will control all the actions of his team. If Henry Dobbs dies, the cause terrorists will surrender. They will stay there until a shuttle arrives to escort the terrorists (and the professor) off the ship.

Crew Deck / Passenger Deck

The crew and passenger decks will be searched upon the ship being hijacked and the terrorists will post one guard to these places. They will not be searched again unless directed so by Mr. Dobbs.

Observation Dome / Entertainment Deck

These two places will be cleared of all personnel, who be taken to the landing / take-off room next to the bridge. There will not be any guards posted and this area will not be searched again (unless otherwise directed by Mr. Dobbs).

Landing / Take-Off Room

This is the where the hostages will be located at all times. There will be at least 3 cause terrorists here at all times unless Mr. Dobbs directs otherwise. The hostages will be sitting in the chairs, strapped in, with one guard on each side watching them carefully.

Terrorists Leave With a Goodbye Present

The terrorists are here for one reason only—to capture Dr. Jones. They are professionals and will not kill any more people unless they need to (though they are planning on killing all aboard by destroying the engines). Once Dr. Jones and the passengers are all under the terrorists' control, they will wait until their pirate shuttle arrives. They will all arrive in the Landing / Take-Off room where

they will suit up (Dr. Jones as well) and enter the airlock chamber. The airlock chamber remains locked until it re-pressurizes after the terrorists have boarded their ship. The only way to stop them at this point is to use explosives which may kill or hurt the professor. The ship's engines will explode, and the ship will be started on its fateful descent. A character with technical skills and pilot skills will be able to re-enter atmosphere on a successful roll. The ship will then need to be piloted, only by its thrusters, on a crash landing into the ocean. If the explosives were de-activated, the sabotaged engine controls fixed, and the captain is still alive, then they will land where they were supposed to.

Van Allen Princess

(1) **Take-Off / Landing Room**: This is where the characters first appear when they enter the ship. The rest of the passengers have already strap themselves in, and are awaiting departure. The characters are asked to please strapped themselves in and lean their heads back against provided pillows. The ship will be taking off with about 5 gravities of force—the characters can do nothing for the first 30 minutes of the ride. Once they leave earth's atmosphere, they are told they can now unbuckle themselves and visit their quarters. This is also the area that the hostages will be kept when the terrorists take-over. There is a small uni-sex bathroom which one person at a time can enter. This place will normally be deserted during the majority of the trip. The bridge is on this deck, towards the bow of the ship.

(2) **Bridge**: The main crew is located here (Captain, First Mate, Executive Officer, and the two security officers). This is where the entire ship is maintained and the small security office is located. If there is trouble aboard the ship, the security officers will be able to respond. The cameras located on each deck of the ship have a vid link in the security office. The bridge has a small elevator that allows the crew to enter the crew deck. The crew deck is where the kitchen, crew quarters, and a small personal recreational center are located. The only other entrance to this deck is by using a key in the main elevator. The terrorists will kill the two security officers, First Mate, and Executive Officer, and you may allow a terrorist or two to die in the first attempt to take over. If the PCs are there, they may interfere in the operation also. This is where the only radio to the Princess' Earth base is located. It will be destroyed once the terrorists take over the bridge and have relayed their message to their space shuttle.

(3) **Crew Deck / Passenger Deck**: The crew deck and passenger deck are very similar except that the passenger deck does not have a kitchen. Food is dispersed to passengers at the entertainment deck or brought to them (room service). There are three main room types in the passenger deck. There are the First Class Suites (6), Passenger Class (15), and Cabin Class (15). The first class suites are located in the corners and bow/aft of the ship. The rooms and their passengers are located below:

First Class:
1—Professor Jones
2—Leader of Terrorists
3—Older Couple (get-away trip)
4/5/6 Rich families (one with children on a standard cruise)

Passenger Class:

7-15 Hunter Club Members (Terrorists?)

16 Independent Contractor (Burley man)

17-21 Single men/women club (These people are 20-35 years of age)

Cabin Class: (Inside cabins)

22-37 Single men/women club / Player characters

(4) **Engineering Deck**: The engineering deck consists of the technician quarters, engine rooms, and a repair facility as well as a small kitchen. The technicians actually live and stay on this deck which is dedicated to them. They operate all the controls, do any repairs, and check the engine status from here. One of the technicians is a cause terrorist who will kill the other two technicians when the time is right. He will then call in for some guards after he has sabotaged the engines and set the explosives. The weapons of the terrorists are stored in the crew quarters of the terrorist technician.

(5) **Observation Dome / Entertainment Deck**: The observation dome is the highlight of the cruise itself. This is located on the top of the ship, and covered by a special dome resistant to the vacuum of space. From here they can see the stars, Earth and its moon. The view is spectacular along with the latest exercise equipment and a full size olympic pool. On the bow of this deck is the entertainment area—a small casino and games for the kids. This deck is open 24 hours a day and has a good-sized bar. The terrorists will make a clean check and then guard the elevator to this deck on the bridge. Have fun on this deck and let the characters spend some of that hard earned money.

GameMaster Random Events

Lover's Tryst: If the players are investigating any of the rooms (to find out who the terrorists are), they find that the room they have just entered is dark and some small talk is happening in the next room. It sounds like they are talking about hijacking a ship. Then the voices become too low to hear. There was some arguing going on and then quiet. If the players investigate the next room they find two people enjoying each other's company in front of a now quiet vid show. Let them talk themselves out of this one!!

Technician: The characters are about to explore the engineering deck and when they do they will see the following:

BEFORE TERRORISTS TAKE-OVER: They will be greeted by a technician when they exit the elevator to this section (they had to have a key or be escorted by a crew member). He will gladly give them a tour of this deck. He talks far too much about how they go through major inspections, and how he takes half the passengers on a tour each voyage. It seems that the passengers feel better when they know what and who is controlling the ship. The characters will see the other two technicians performing routine jobs and will not be disturbed. If you wish, you may have one of the characters notice a small part of a tattoo as they depart.

AFTER TERRORISTS TAKE-OVER: The elevator will be inactive to this level. They can get to this level through the air-ducts or the elevator shaft. The terrorist technician will not be expecting them (unless notified) and could be surprised. When the characters reach here, they will find that the other two technicians are dead and the explosives/sabotage has already taken place (if they search). When they are searching around this deck, they will eventually meet with the elusive technician.

Are You Single?: One of the characters will be asked if they are single when they are in the entertainment deck. It will be a member of the singles club looking for a new date. They will keep trying to win his/her favor, even to the point of following him/her around. You can make this person a terrorist or just your friendly fatal attractionist.

Professor's Good Buddy: The players will notice that one of the passengers has become good friends with the professor. You must decide if their intentions are good (terrorist, hustler, or an actual lonely person). They will exercise, drink, gamble, and just talk for hours. This is best used when the players are starting to relax. Create as much tension as possible.

Professor's Love?: One of the single passengers has an infatuation with the good professor. They start spending time, buying drinks, and even sharing a cabin. How far you want to go with this is up to you, but the players should be on edge. The professor/lover will be looking for people staring and will comment. This should not be a terrorist, since they were told not to socialize with Dr. Jones.

Terrorist Revealed!!: This event should happen when the players are rewarded for good detective work. If they have stumbled upon a room or meeting between two terrorists, they may find who it is before the strike. The terrorist will be unarmed and a martial arts expert. Give the players a run for the money. If the terrorist(s) is seriously out numbered, he will attack and then escape if possible. If he is not then he will attempt to kill the players. Once the players have disposed (or the other way around) of the terrorist and find that he has a tattoo—what will they do? This may spark the terrorists to strike early or even catch them by surprise.

Ending Ideas . . .

This leaves the characters with many different routes. The most important control factor that you have is to make sure they receive the consequences of their actions. If they are irrational and start searching through rooms, leaving a trail of destruction, they will be escorted by the security officer to their room, where they will be locked there until the cruise is over. If the act in a group, then the terrorists will know that they are the protection team, and will target them first for termination (unless they role-play and claim they are with some organization—a chess club?).

Once the ship starts to plummet into the Earth, they must use their skills to save the ship (which will burn up in the atmosphere in 30 minutes) and Professor Jones. They should be trying to do both at the same time (and may have to split up). Time is of the essence, and make the characters feel it. Where you place the enemy is very important. You can change the difficulty just by changing the placement of the terrorists within the ship. The hunters club is a good place for beginning characters but the singles club would be much more difficult. Match the challenge with the players, and they will enjoy it much better.

Outcomes / Experience:

The outcomes depends on the final solution the characters come up with:

Best outcome:

Saving the doctor and the ship while neutralizing the threat of the terrorists is the best possible outcome. The earlier the characters neutralize the threat, the better. If they do this too quickly, then it may have been too easy.

Satisfactory Outcome

Characters save the doctor, let the terrorists escape in the shuttle, but make it safely to earth are still rewarded if they did so without letting the doctor (or anyone else) know who they were (until it was appropriate).

Unsatisfactory Outcome

If they were foolhardy and barely escaped with their lives as well as the doctor they will not be rewarded and may be looking for a new career. If they offended the professor (or revealed who they were before it was time), they may be looking at a new job elsewhere—since the professor will be.

The worst outcome(s) is:

The terrorists escape with the doctor and/or the characters (and hostages) descend to their deaths. The characters are either dead or need to find a new career path. No experience!

DOUBLE DOUBLE CROSSED

Beginning: The party stumbles upon a plot by terrorists to blow up a processing plant.

Middle: The processing plant appears to have been dumping waste into the local river and air, but for some reason, the authorities have apparently done nothing about it.

End: The terrorists are being manipulated by the corporation that owns the plant. They have not been dumping waste, and only want to get rid of the plant because they have stockpiles of the material it produces, and they want to sell it for a higher price. The terrorists have been targeted for assassination as soon as they announce that they were responsible for the bombing.

DEEP TROUBLE

Beginning: The PCs discover the location of a long-lost research vessel while mapping new regions of the ocean floor.

Middle: The research vessel was supposed to be carrying valuable cargo, and is extremely valuable itself, and photos suggest that there is little obvious hull damage. The PCs either have interest in the cargo themselves and/or have contacts who are interested in buying the cargo and ship if it is salvageable.

End: The research ship didn't sink. It is part of a secret monitoring outpost for the government, or at least it was. When the PCs arrive, they discover that most of the crew has vanished, and those that remain have only recently died of unknown but horrible causes. Strange tracks are also found within the ship, which appears to be operational, but something has disabled internal security systems and sensors.

BIG BROTHER

Beginning: The PCs gain information about strange offworld activities by a government operation.

Middle: Investigation into the government operations reveals that the offworld activities are related to an alien artifact found during a mining operation on an asteroid. The exact location of the artifact is unknown.

End: The artifact is a listening station/translator device, which has been monitoring frequencies which just happen to be the ones used by the organization, among others, and has automatically decrypted all of the transmissions that it has received. The organization doesn't know where it came from, or exactly how long it has been in place, but they want to use it against their enemies and destroy the race that created it, since numerous secret transmissions were stored in the artifact, including their own.

HUNTER AND HUNTED

Beginning: The characters are hired as Interstel agents to investigate an aircraft contractor. The design and test buildings are located in what was once the Grand Canyon. The Grand Canyon is now a UWP security contractor test site.

Middle: While investigating the aircraft facility that is designing and testing new military aircraft, the players find out about a project that has been tagged as Black Book technology. The project is plagued by accidents.

End: The UWP wants to tie things up and silence the aircraft contractors by blowing up the plant, blaming the characters for the disaster. A team of UWP security agents is out to kill the characters and make it look like an accident if they can.

A KILLING BLOW

Beginning: The characters find a dead body that one or more of them is blamed for.

Middle: The legal change department and Interstel give the characters a chance to clear themselves as well as help find the killer.

End: A local detective has gone mad. He enjoys killing and does it with flair. The players, if they get too close, will be his next targets.

OSPREY'S LANDING

Beginning: The Characters are invited to a Posh opening of a new "Club", Osprey's Landing, in New Cozumel. It is going to be the gathering of the decade. Assuredly there will be some of the top international authorities in attendance. Security will be tight, but The Characters are there as guests, not as guards. Since The Characters are not actually on assignment, but are coming at the request of a friend, they should not have on them more than the most discreet and concealable of weapons. The company organizing the opening and who owns the "Club" are planning the event to coincide with the declaration of a joint space venture. Apparently their motto is "We go to the greatest depths and heights for your enjoyment". New Cozumel, being the Tourist trap that it is, seems a perfect place to advertise their soon to be under construction "Space Hotel".

The Osprey's Landing boasts three stories of superb dancing and dining. The top floor is almost entirely see-through, with specially designed "nooks" the give the diners the illusion of being suspended in the sea. Even the floor in these nooks is transparent, thus adding to the effect. Of course the menu is mostly seafood, but it also offers such rare delicacies as a real beef hamburger. There are three dancing areas, one on each floor, each with a different style of music playing. None of the sound can be heard in the dining areas of the first two floors. The design of the Osprey's Landing is fairly simple. Upon entering, The Characters have two choices, left and right. Forward is the kitchen. Due to the high security, players will not be allowed into the food preparation area. If any of The Characters tries to gain more than a cursory glance, they will be gently but firmly instructed to sign up for a tour, later in the month.

When looking down the hallway, towards the kitchen, The Characters will see elegant spiral staircases on either side. Set next to each staircase is also an elevator. Upon closer examination, the staircases are plushly carpeted and wide enough for people to pass without a problem.

Left is the dancing area. This room contains a large dance floor, with a two level stage against the back wall. This dance room has the least visibility of the sea. Off to the right is the first of the dining areas. It is also the largest, set up to mimic the standard fine restaurant found on land. The dining area has seating for approximately 175, with a comfortable and spacious layout. The inside walls are made of what appears to be real wood. If The Characters inspect closer, they'll find that while artificial, the wood-like panels are a high quality synthetic mock up. The seats are simple yet comfortable. On the whole, it's a quietly elegant design.

Going up either of the two staircases, or the elevator, will bring The Characters into a relatively square lobby area, with a staircase ending on either side, and elevators opening next to them. Against the far wall is another large spiral staircase, flanked on either side by elevators.

Players poking around the second floor will find a slightly smaller dance area off to the immediate left. There is a similar, but slightly more upscale dining area off to the immediate right. Down the walls on either side are what appear to be office doors, two on each side. All of the doors have expensive looking locks,

with lights glowing red to indicate locked. If any of The Characters are skilled in breaking through electronic locks, or have experience with security systems, they will eventually realize that these locks are unlike any they've ever seen before. It could be said that the locks seem to be "out of this world". The Characters will also find that the doors, while appearing to be wood, are of a material that can not be readily identified, nor gotten through in any manner.

Remember, The Characters are not in this club by themselves. There are literally hundreds of other people wandering through the three levels. Anything more than a casual inspection will bring attention either from other guests or from Club security. It might also be worthwhile to mention that there is no music yet, since this is a party to show off the facilities and the organizers do not want to hamper conversation. The dance floors, however, will be active before the end of the night.

Upon reaching the top floor, The Characters will see the true splendor of the Osprey's Landing. This room is huge. Unlike the previous two floors, the dance and dining areas are not separated. The decor is in exquisitely detailed ancient medieval style. The floors and walls are see-through, thus showing the brilliantly clear waters and abundant sea life that earned New Cozumel its fame. The other floors and walls are done up in a stonework pattern. As mentioned before, along the sides of the dining areas are "nooks" that allow couples or small parties to be visually suspended in the sea.

On the dancing side of the room is, of course, the dance floor, but there is also a stage. It looks to be capable of accommodating full length plays. There are no vids in this room, which is something that would probably catch The Characters attention. Through casual observation there is no way to see how the food is brought up. If The Characters really look hard, at length they will find well lit but tiny "closets" in the back. These contain small heating and cooling units as well as special elevators that go directly to the kitchen. The elevators are currently locked, again with a similar locking system as was found on the office doors.

The people who will be at this shindig along with the PCs are varied. One could expect some high ranking personnel from the UWP and many other organizations. In amongst these will be interspersed many current high society figures. Also be sure to include the most recent entertainment stars. Rubbing elbows with the high and mighty should be stressed to the PCs as one important reason for coming to the party in the first place. Along with all the others will be representatives from every major news agency on the planet.

After a sufficient amount of time has passed, during which the characters have had a chance to nose around the place, an announcement will be made that the President of Osprey United will begin the press conference part of the evening. This is a party for the press, after all.

Chances are that The Characters will not be in the top floor of the club when the President speaks. This is not a problem, as all of the rooms will have vids set up. All of the party's attendants can view the speech equally well, no matter where they are.

Middle: Madame President's name is Niaomia Fitzgerald. She is half Pakistani, half Irish. The speech contains the normal drivel about thanking all the wonderful people in her life, her mom, her siblings. Only bits and pieces stand out as even half worth the interest of The Characters. The Characters might want to

pay attention to the brief history of Osprey United; more specifically, the metaphoric use of the Osprey as the symbol of her company.

"As you good people know, the Osprey is a creature of both the Sea and the Air. So do we symbolize this union. Thus with this reminder of the dual nature of our organization, it is with extreme pride that I announce the plans to build a glorious Hotel far up in the heavens. It shall be known as Osprey's Nest. It will be the crowning achievement of Osprey United."

Niaomia goes on to explain that they are joining forces with a major Firm that specializes in Space ventures. Everyone in attendance today will be invited on a tour of the facilities upon completion. Apparently this "Space Hotel" is going to be located on one of Jupiter's moons. The exact location is being kept a secret until all the legal contracts are worked out. After the President's speech, a few of the top officers in the company step up and also give small speeches, most of them glorifying the Company and the generous Ms. Fitzgerald. The last one to speak is the Director of Marketing and Advertising, William Chadwick. He is a rather unremarkable looking man, no outstanding distinguishing features. He does speak with a softly eloquent voice, which invites the listener to relax and believe.

About this time a splendid computer generated "show" comes on the vid. It displays the "Hotel" with three-dimensional graphics and a contemporary music score. The entire piece takes about 5-7 minutes, during which people dressed in old-style butler outfits are threading their way throughout the crowd on all floors, carrying trays with antique champagne glasses.

Precisely at the end of the show, as the music is reaching its height, all of the butlers, as one, send the trays of glasses crashing onto the floor. In the ensuing stunned silence, all of them draw large guns and order the guests to their knees, hands on their heads. The break down of the "Terrorists" follows; it is important to note what level and in what room The Characters are on. They would not be on the third floor unless the player characters are members of a press crew. If this is the case, then the GameMaster will have to be a bit more creative and modify some elements of play. Most likely though, The Characters will be on either the first or second floors.

On the first floor, the kitchen is most assuredly sealed off, as this is where the organization of the terrorists took place. The dining area has three armed terrorists. The dance room has only two, but one of them is on the stage which affords a much better view of the room. There is one stationed at the bottom of each of the spiral staircases, thus making a total of 7 on the first floor.

The second floor has, again, three in the dining area, and two in the dance room. There are, however none in the lobby, trusting that the two at the bottom would be enough. This makes a total of 5 on the second floor.

On the Vid screen it can be seen that one of the terrorists has the President of Osprey United held at gun point. If any of The Characters takes note, she has a look of genuine shock on her face and outraged terror. The Marketing director is nowhere to be seen. In case one or all of The Characters are on the third floor, there are 5 visible terrorists in the room. Two of them are on stage with those who were speaking, and three are spread through the crowd.

One of the terrorists takes the vid controls and orders the press cameras to continue rolling. He says that his name is Andrew Langly. The name should be familiar to at least one of The Char-

acters. Any Character who is in police work or has any kind of dealings with Cause Terrorists will know right away that Andrew is the leader of a small terrorist group who fights against the exploitation of space resources. He is especially vehement against those organizations who are going into space solely for profit and selfish gains. Undoubtedly, the characters will be glued to the vids; as such, they should see the face of William Chadwick cross the screen behind the Terrorist, white and even under the circumstances abnormally terrified.

Andrew goes on at some length about the inherent evil of Osprey United. They not only destroy the sea for their own profits, but now they take their evil ways into the heart of the unknown, corrupting the innocence of untouched space. It can be safely presumed that Andrew is a bit off his proverbial rocker. However, a madman can pull the trigger just as easily as a sane one.

Hopefully The Characters will be looking for any sign of weakness among the terrorists. They will find it when Andrew is speaking, for the others seem to hang on his every word. They seem to be paying far more attention to the Vid when Andrew is on, than at other times. It is fairly easy to see that these are total fanatics. About this time William comes on the screen. He implores all of the guests to be calm, and assures them that Niaomia is safe. His normally calm voice is shaking and off. He seems extremely unnerved.

One way or another The Characters should get to the second level, if they're not already there. For whatever reason, one of the "locks" on the office doors is now green. It is important that at least one of The Characters realizes this. In this office will be found correspondence between William Chadwick and an Eco-terrorist group. There are maps of the layout of Osprey's Landing, as well as detailed instructions of where to send the credits in payment for the "Show," as it is called.

There is a large wall vid off to one side. If one of The Characters turns it on, they will be able to watch what is going on. William is just finishing his bid for peace and his plea to the guests not to do anything rash. It is common knowledge to any citizen that a crack in the surface of the panes of material that separate New Cozumel from the sea would be catastrophic. Gunfire of any sort would most assuredly have the potential of causing said cracks. This is the main point in William's placating manner. Andrew takes over and begins preaching his values of nature and the evil of man's encroachment. Many minutes pass, and William is not seen on the vid again.

End: Before The Characters can return to the "party," William Chadwick comes rushing in. He is understandably distressed at seeing The Characters in his office. If pressed, William will admit that he hired Eco-Terrorists to "come in and make a ruckus" in exchange for a large amount of credit and some concessions. Andrew Langly's group, however, was not the one he had made the arrangements with. Somehow, Langly got ahold of the maps and the original plans on how the terrorists were going to get in. Mr. Chadwick's intentions were to maximize the amount of publicity that Osprey United received from this venture. The upshot of this is that Chadwick has arranged for the security forces of Osprey United to lay low until about an hour and a half after the Terrorists came in. Then they are to come in and "subdue" them. Unfortunately, the security people aren't going to have real weapons, and they aren't expecting real terrorists.

So what are The Characters going to do? Try and take down the terrorists before the security personnel come in? Try and find a way to alert the Osprey United guards in time to stop them from starting a free-for-all? Or nothing at all, and wait and see if any of them survive? A wait-and-see attitude will most likely result in the Club security personnel being gunned down by the better trained, and better armed Terrorists.

Additional notes: If any of The Characters are especially skilled at electronics, it might be possible for them to hook up the vid in the office so that it could broadcast as well as receive.

OIL'S WELL THAT ENDS WELL

Beginning: The characters are invited to a research platform out in one of the seas by a prominent scientist who is worried about security.

Middle: While there, someone makes attempts on the scientist's life by way of rigged accidents and out-and-out booby traps. The scientist confides in the characters that he is onto a major scientific find. He then shows them a coral-encrusted object the size of a football. The object has resisted all forms of probing thus far.

End: The object is an information-gathering device from an alien world. An alien spy is on the platform, trying to get the object back in any way it can.

BONUS FICTION:

From BRIGHT FUTURE: POWERS THAT BE

By Edwin A. Millheim

Prologue

It had been two hours, and another light rain had begun to fall from the black and purple sky. Joann Lee Danns pulled her raincoat closer, too late to stop some of the icy rivulets from marching down her spine. "Damn." She spoke to no one in particular. "What's going on?" A scratchy electronic voice whispered in her ear. She absently moved a hand up, as if to brush at the tacky blonde curls that covered her own dark hair. In truth, she slipped a finger under the golden locks to make sure the tiny radio unit was secure in her ear. "Nothing happening Gary, just a bit cold." Her teeth chattered as if to accent the point. Gary Bergenson sat someplace a block away, in the dry cockpit of one of the International Police Department's Bumblebees.

The Bumblebee is a marvel of technology—a joining of helicopter design with the use of a fifth generation Pegasus Mark Four engine. The result was exactly what the United World Power forces needed to fight terrorists: an aircraft that flies via the four main thrusters at its sides, swiveling the thrust of jetwash in certain directions depending on what the pilot wants. The Bumblebee indeed looks like a great steel insect, right down to its two stabilizer swivels that look like thin insectovorid wings, and the bul-

bous cockpit that looks like its namesake's head. Like its namesake, the Bumblebee has a sting in the form of a .50 caliber 4 barrel machine gun on a swivel mounting just under the chin of the craft.

Joann wished she was in that warm, dry cockpit now. Instead, here she was on decoy duty, down in the industrial sector of New Miami, freezing her tail off. Breathing deep and exhaling the cold crisp night air, she was thankful that the rain at least beat down the sour smells of long disused buildings and rotting planks that made up most of the docks in the area.

The year was 2071, and the scientists were happily reporting that the damaged ozone layer and world ecosystem had begun a slow restoration process. Nature was starting to heal what the human race had destroyed. In 2022, the ozone layer had just about been destroyed, and the ecosystem was in such a state that the two major problems combined to make life on earth something altogether different from what most people would remember in the late 20th century. The waters had risen, flooding much of the low lying lands; places like Florida had all but been submerged. The weather, rainy most of the time, made standard travel next to impossible. Air-cushion craft and boats became the mainstay mode of transport all over the world. Even on high ground, the shattered roadways were no place for simple cars and trucks any more; four-wheel drive vehicles came to widespread use.

Stopping in a doorway, Joann slowly looked around, trying to make out anyone hiding in the darkened shadows created by buildings looming around her. This area was not known for its high traffic at night. It was known more as a stomping ground for various iron bloods, click offs, and people who had hit the bottom of an empty life of despair and poverty. Joann knifed a hand across her brow, wiping the water from her eyes. Electric lamps shone their mournful cones of light. Almost every second one of these sputtered erratically, creating a strobe effect in certain areas. And then, there were the few that stood dark, surrendering to the shadows, badges of testament to city workers not bothering with upkeep in this area. Joann's eyelids formed slits, as if this act would be enough to pierce the darkness, hoping to find anyone hiding in the deep shadows. The rain, combined with the fact that most of the dock lamps had been shattered, made this a task that bore no fruit. A high static whine blasted her ear, causing her to rip the ear unit out. "Bloody hell!" she clenched her teeth, realizing she had yelled the words into the night.

The buzz chug-chug of a small engine was all that seemed to answer back. She watched the small craft go past, leaving a wake that swiftly closed to nothing more than a few ripples. She frowned, holding the ear unit in her hand. After a moment, she stuffed the unit back into her ear; hearing little more than static, but at least it was not the wailing sound that had split into her skull moments ago from the tiny radio unit. She huddled in the dry doorway, feeling the old bricks of the entryway rub roughly against her back. She should call it a night, but something about her just did not like giving up. As an insistent stream of water pelted her nose from some place above, Danns' mind wandered back a week ago to the conversation with her boss, Captain Jon Blackburn.

Danns should have known that there was going to be a problem when she found herself waiting for the better part of an hour for Blackburn. The last case she worked on had been all but handed to her in a neat little packet. A killer was stalking the city using a high powered rifle as his tool of death. Victims had ranged from

mid-20's to mid-50's; their races had varied. This seemed to point to a random killer, for at the time there had been nothing linking any of the victims. No common denominator. The pieces that were put into place would have left most detectives stumped. And Joann was no different. It wasn't until a sniper had been cornered atop a burning building and Danns was the one that went up to capture him that the mad truth came to light.

Joann had expected a hardened killer, or a total click-off. What she found was a bitter, dying man who, sucking oxygen to keep his destroyed lungs working, explained how they, meaning society in general, had murdered his wife. And now he too was murdered. Murdered in his reeling mind, at any rate, by an uncaring public; he was dying of cancer. He explained that it was from secondary smoke. Joann was sure it was more than that alone, but she allowed the man his explanation. The Beetle (New Miami's rescue ship) took him away, and he died three days later—nothing more than a case number on a CD along with countless megabytes' worth of other cases that had been deemed closed. Captain Blackburn helped her past that, for she felt a pang of guilt and sorrow, and not being able to figure out why she felt that way made it worse. But it passed with many talks with Blackburn. Movement from the office door drew Joann's attention, and for a split second she felt that electric jolt, the promise of the adrenaline rush as she was put on a new case.

A patrol officer assigned to a floater unit exited the captain's office in a hurry. Joann allowed herself a smile; Blackburn must be up to true form. Captain Jon T. Blackburn was a man she trusted in his position over her in command, even if she more than once fenced words and ideas with him. Sometimes she won her point across; more times than not he let it be known who was in charge. She respected him for that. Blackburn was able to balance along a paper thin line between friendship and boss. If you were in his circle of friends and co-workers, you would know what a friend he could be. But in the same respect, you would know that friendship would in no way affect his command decisions. The key word here was respect, for most cops respected him for his abilities. Jon Blackburn was of the old police school, to serve and protect, uphold the public trust, the whole nine yards of it. Now in his late forties, his looks betrayed long hours of police work. Thinning hair, thin wisps at the top of his head, spread out in a dark tousle mixed with shocks of silver, meddles of time. His face was punctuated by a mustache that seemed unsure of its true color, a mix of black, auburn, and now tiny hints of silver. This all combined with his attire, which at the office most times was a white shirt and tie, and dress slacks. It gave him a fatherly look.

"Danns!" The shout yanked her from the half daydream. "Get in here on the double!" *Yes*, Joann thought, *definitely a father figure.* Standing up, smoothing down her issued jacket, a mix of fabric and a new technology of kevlar, and sneaking in a deep breath, she walked into Blackburn's office. The boss wasted no time and cut to the thick of it, "More assaults have been taking place down in the less respectable parts of town. Three deaths in the last month have prompted the politicians to speak out on how much they are doing about the problem—and on how much they are insisting that the police department of this sector take care of the problem."

Fixing her with one of those uncompromising stares, Captain Blackburn stated matter of factly, "Since you're working homicide, and three murders have taken place in that area," he told her,

"You will be going under cover to see what you can pull in." She could tell he did not like the idea, but this being an election year, they all had to dance to the tunes on the VRD (Vertical Reality Dimensional) shows. And so that's what had put her out here, simple as that.

A cold drenching from above shocked her back to the present. Chastising herself mentally and breathing a lungful of the cold air to clear her head, she wrapped her arms around herself. *Time to be bait again.* Putting her best working-girl stride into motion, she stepped back out into the misty rain. After a few feet she stopped in her tracks, surveying the destruction just in front of her. A large section of the docks had collapsed and there was no way around, other than back around the old warehouse. A long exhale escaped her lips, trailing off in a display of steam, and that's when she heard the other sound. The voice came with a contemptible tone from behind. "Hey lady, don't worry, we gonna help ya get across." This first voice was joined by a second and third. The second one choked out the words with a laugh. "Yea, we got a boat." The third one joined in with a voice that betrayed nothing more than that of a hunting animal who knew the prey has been run to ground. "Yea, babe. And it wont cost ya nothin' but some favors." The look of the three she had not been prepared for. They were the strangest trio she had ever seen. Matching the voices to the faces, the first one looked like a jetski ganger, complete with long red hair framing a gnarled face, with ruddy cheeks and narrowed eyes peeking over a full beard and mustache. The second one looked like a jock, buzz haircut and all. The third had a dark, neatly trimmed beard and mustache, his long chiseled features gave him the look of a rather elongated skull. His bald head accented this. The Walking Skull, as she now tended to think of him, walked towards her in a slow gait, grinning all the way. The flickering lights sparked off small hoop earrings in each ear. "Well, lil' lady. How about coming with us for a bit of wetwork action?" The other two crowded in behind the first, causing her to step back against the building wall. "You look kinda hot in all those clothes," the one she deemed the Giggler added. "Wanna cool off?" Another sound came from past the docks, out in the inky blackness of the water: the low grumble of a motor. Walking Skull's attention was drawn off, the look of uncertainty a brief reprieve from the fear starting to crowd into Joann's mind. The knife that had been in the man's fist, point playing at the top button of her shirt, pulled away as the man afforded a glance to the other two. "Peel it man!" Even with the danger at hand, Joann could not help but cringe at the sound of the slang, something she herself had learned not to use around her captain. Strange thinking for the problem at hand. *Who was out on the water*? She surmised that it could not be her backup. Her radio still gave off a soft scratchy hum in her ear, an electronic lifeline that could call in Gary and the wrath of the Bumblebee's 50 caliber. For now it was so much electronic junk. *Damn damn damn! I'm it for now.* As the three men trained their eyes out over the water, she saw an outline of white froth parting for a boat.

It was the only thing that gave it away, for it was running without lights of any sort. The jock had balanced himself at the tip of the dock. Peering out over the water for a few seconds, he stood and smiled in the flicker of one of the broken dock lamps. "S'kay! No badge, boys."

Out on the boat, unseen from shore, shadows that were men moved around the decks, making sure the boat was running right.

Running in the dark tested any boat and its crew, and the crew did not want to anger this boat's commander. A second boat stayed close astern; anyone viewing the vessel from the front would see only one boat. One of the shadows stood close to the pilot of the boat, smoke from a large cigar circling around his head. Spitting out a speck of the cigar's end from his mouth, the large man thumped his hand on the dash, causing the pilot to jump with the sudden sound. He had seen this man get angry before, and it was something he did not want to see again. The large man was Lenny Spellani; the almost comical name was never joked about by those who knew him. Spellani had climbed the dark ladder of the underworld of organized crime to become one of the most powerful crime lords in New Miami. Even at 58, this tiger of a man was never one to underestimate. His temper flared at the most inopportune times, much to the displeasure of the other organized leaders of this area. In his old age he had started to become more of a hindrance than an asset. Lenny cared little for what the other bosses thought. All that mattered was his hold on his own area. The dealings mattered also, and here another one was being finalized, a simple matter of some old surplus that he happened to get his hands on due to the demise of a man who had been mild competition. While his tongue worked at a particular pesky bit of cigar leavings Lenny, in one flowing turn that ended with a stride to the aft part of the boat, switched on a small red light. The red bulb provided light to the control cabin, but did not hinder the boat pilot's night vision. Shaking his head and glancing back across the water towards the disused docks and warehouse, his nostrils flared, giving him the look of a bulldog complete with jowls.

Affording another glance at the four figures standing there, Lenny gestured in a theatrical, open handed manner conveying his loss for an answer. "It's getting so a man can't do business anymore without prying eyes!" The words dripped with unhidden contempt. "The low life scum give us bad names." "Take it easy, Lenny." A man separated himself from deep shadow at the aft of the boat, made darker by the large tarp-covered object he had been sitting next to. Dressed in a suit that bore the looks of a man with money, Johny Masterson was a third generation Irishman, and his features spoke of the country of his ancestors' birth. His face was clean shaven, with a widow's peak of dark hair framing a face that could have been chiseled from marble, ending in a square jaw. His frown glowed in the red of the cabin light. His words came cold, with the promise of a seething magma of anger hiding under the ice cold surface. "We need to be looking at that surplus. My buyer wants it in a bad way." Lenny huffed, expanding his chest and waggling the cigar towards Masterson. "Hey! In a moment huh? This won't be a problem for long." Masterson knew what was coming next. The cigar flicked into the darkness, trailing a burning pattern before it hissed out of existence. Lenny spoke the next words to one of his men, "Rocko! Clean off that dock!"

Rocko smiled. He did enjoy his work. "No problem, Mister Spellani!" The man pressed past Masterson and fumbled with a rope that tied down one end of the tarp. Shoving his hands in his pockets, Johny frowned and glanced around at Lenny's hired guns. For the sixth time tonight he wished he had Pony with him. True, Pony worked for someone whose interests meshed with Johny's, but he was a man you could trust. The man seemed to thrive on his work as a hired gun, and he always told someone that he was going to kill them, before he did so. The fact that Johny was paying him a bonus to help out aided matters quite well.

Rocko managed to pull the tarp free, steadying himself against the rocking of the boat. Under the tarp was a weapon of no small destructive capabilities—a large, four-barreled mini-gun, the kind you would see on a military Bumblebee or Scarab. This one was mounted to the deck and designed in such a way as to suggest changes in its making for this very purpose. It had scope mount near the rear and box ammo feed on the left housing. Controls at the end were two upturned pistol grips with trigger depressions on top for thumb firing. Johny's voice came across the deck to Lenny, almost a warning tone to it. It was so low that the slapping of the waves against the hull almost drowned it out, but Lenny heard him. "What about cops? You know what our friend down at city hall said." Lenny turned, his jowls quivering, "Hey, ta hell with him! That's my building over there, and I don't like nobody getting too nosy!" Lenny seemed to calm just a degree as he looked at the frown on Johny's face. "Don't look so down pal. We can do business further off shore." Masterson sniffed in the salt air. It only had the hint of Lenny's cigar on it. Looking towards the docks that connected much of the city, he watched the people on it. It seemed that several of them were men, and they were backing a woman towards one of the walls of the building. The flickering lights along the dock gave it a movie theater effect. From what he could tell the woman was blonde and tall, the men moved closer in for the kill. One of them smashed a hand across the woman's face and she backed up against the wall, a trapped animal. Johny sighed as he heard Rocko work the bolt of the weapon and swing it around towards the docks.

The man with the long hair, beard and mustache played with his knife as he advanced. Joann's eyes fell to the man's jacket front. The blue jean jacket had its arms and shoulders ripped off, perhaps for further comfort by its owner. The front was also decorated with a silver SS symbol, and under this a little silver skull and crossbones pendent. These might be the people she was looking for. She still heard the scratchy static in her radio unit, *Damn!* A flash of sudden movement, and her brain registered one thought. *Hoboy, here it comes.* Then her head exploded with pain, pulling a curtain of red across her vision. The man backhanded her; she was at least thankful that it was not a knife slash. Her cheek stung and her head hurt; this served only to make her angry. The blonde hair from the wig framed her face in strands, her eyes catching the glint of the flickering dock lights as she turned towards them in a low crouch. "Bad move on your part," she all but growled.

She advanced in a half lunge and swung her leg up with force. The upswinging leg connected between the bald man's legs. The kick was off a bit, and she struck with her shin rather than her foot, but the thump it produced was satisfying nevertheless. As the first one toppled over in pain, trailing a line of spittle from the side of his mouth, Joann felt a hand grip the top of her wig. As she sidestepped and spun around, the blonde wig was torn away in the Jock's hand. Her real hair was held down by a net, and the bobby pins ripped some of her hair out as well, causing a jab of pain. Using the spin to full advantage, she swung her other leg around, this time cracking into a set of ribs. The Jock rolled away, gasping in surprise and gripping the wig. The one with the knife was coming up again from her right. Joann reached to her right hip, gripping the gun under her clothes in a pancake holster. It came from its hiding place in a well-practiced motion. She jammed the weapon's business end in the man's face. As his nose buried in the barrel of the weapon, his exclamation of surprise was nasal.

His eyes crossed, staring down the gun's barrel. The knife dropped from his hands, sticking point-first into the wet dock.

The darkness beyond the dock erupted in light and noise, reflecting the boats aft section and the stuttering machine cannon there. Red tracers arced from the weapon and seemed to come in slow motion, picking up speed as they came closer. Joann registered this in a split second. Her legs were already propelling her along the dock, just ahead of the destruction not far behind. The large rounds chewed into the dock and the buildings, sending bits of wood and stucco whining off in all directions. The three would-be assailants had not been so lucky. Their bodies jerked to multiple impacts as the heavy rounds tore into flesh, muscle and bone. As angry red tracers marched after the fleeing Joann, the three dropped to the dock, growing crimson spreading. The blood pounded in her ears and her heart thumped as if it would burst. All she could see ahead was the large break in the docks—it bounced in her vision in rhythm to her pounding feet.

Debris sprayed her from the building and wood fencing, and Joann tensed every time, waiting for one of the rounds to knock her over. In another instant, she was at the end of the dock. Without stopping, she dove into the black water. Underwater, she could hear the weapon fire far off and then thumps as the gunner raked the waters above her. With this to drive her onward she dove for more depth, clinging to a slime-covered piling.

With her arms cut from barnacles and her face buried in fine slimy sea grass on the piling, she waited for as long as she could; finally, the boat's engines revved and the sound dwindled away. Her lungs felt as if they were on fire; the reflex to suck in air was starting to overcome her so much so that her legs kicked hard and she was soon rocketing from the depths. Erupting on the surface and sucking in gasps, she was blinded by a search light. A load hailer assaulted her draining ears, ordering her not to move. She was too tired to argue, her strength drained away like so much sand from an hourglass. Danns only clung limply to the dock as hands heaved her from the chill waters.

International Police and Law Enforcement Codes

*some organizations may have slight differences

Priority 1: Lights and siren

Priority 2: Blue light and siren

Priority 3: Normal run

10-1 Receiving poorly

10-2 Receiving well

10-3 Stop transmitting

10-4 Acknowledged

10-5 Relay to:

10-6 Busy

10-7 Out of service

10-8 In service

10-9 Repeat

10-10 Out of service-subject to call

10-11 Dispatching too rapidly

10-12 Visitors/officials present

10-13 Weather check

10-14 Convoy escort

10-15 Prisoner in custody

10-16 Pick up prisoner at:

10-17 Conduct investigation

10-18 Complete assignment quickly

10-19 Return to your station

10-20 Your location

10-21 Call station by vid phone

10-22 Disregard

10-23 Stand by

10-24 Trouble; send help

10-25 In contact with

10-26 Message received

10-27 Check drivers license

10-28 Check boat registration

10-29 Check for wants

10-30 Against rules/procedures

10-31 In pursuit

10-32 Is Intoxilyzer available?

10-33 Emergency traffic

10-34 Jail break/trouble at station

10-35 Confidential information

10-36 Correct time

10-37 Operator on duty

10-38 Block waterways at:

10-39 Message delivered

10-40 Out for meal

10-41 In possession of:

10-42 Out of service

10-43 Traffic for:

10-44 Pick up papers at:

10-45 Call _____ by phone

10-46 Urgent

10-47 Reports

10-48 End of message, received?

10-49 Serving warrant

10-50 Stopping boat

10-51 Enroute

10-52 Estimated time of arrival

10-53 Coming by office

10-54 Negative

10-55 Sky craft calling to sky craft

10-55a Patrol boat calling to patrol boat

10-56 Meet _____ at _____

10-57 At range

10-58 At sub-station patrol office

10-59 Warrant for _____

10-60 Assist to motorist

10-61 Need patrol sergeant on scene

10-62 Need patrol lieutenant on scene

10-63 Need bomb squad on scene

10-64 Need crime lab on scene

10-65 Clear to copy

10-66 Cancel

10-67 Serving civil process

10-68 Legal advice/advisor/change

10-69 Send narcotics agent

10-70 Send wrecker

10-71 Send beetle/ambulance

10-72 Send Bumblebee support

10-73 Open gate at sail port

10-74 Recall

10-86 Signing on duty, starting shift

10-87 Signing off duty, end of shift

10-88 Advise vidphone code

10-89 On pager

10-90 Scramble

10-91 Detective or vice frequency

10-92 Police communication frequency

10-93 Detective needed

10-94 Send backup

10-97 Arrived at scene

10-98 Assignment completed

10-99 Unable to receive signal

10-100 Alert, remain in radio contact

10-104 Computer system down

10-105 Send jail water wagon

10-105a Send jail air wagon

10-106 Medical assistance needed

10-108 Calls backed up

Dispatch codes: Code (then number)

0 Armed and/or caution
1 Drunk Boater
2 Drunk pedestrian
3 Hit and run accident
4 Water accident
5 Murder
6 Escaped prisoner
7 Dead person
8 Missing person
9 Stolen boat numbers
10 Stolen water craft/aircraft
11 Abandoned vehicle
12 Reckless boater
13 Suspicious water craft
13p Suspicious person
14 Information
15 Special detail
16 Waterway obstruction
17 Contact
18 Felony
19 Misdemeanor
20 Mentally ill person
21 Burglary
22 Disturbance
23 Pedestrian/hitchhiker
24 Kidnapping/false imprisonment
25 Fire
26 Drowning
27 Prowler/peeper
28 Riot
29 Reckless boat operation
30 Larceny
31 Assault/battery
32 Suicide
33 Shooting
34 Stabbing
35 Rape
36 Fight
37 Juvenile trouble
38 Domestic trouble
39 Neighbor trouble

40 Criminal mischief
41 Robbery
42 Child molestation
43 Lewd and lascivious acts
44 Waterway accident
45 Airship crash
46 Bomb threat
47 Vice case, non drug
48 Open door
49 Alarm
50 Labor trouble
51 Trespassing
52 Forgery/counterfeiting
53 Embezzlement
54 Hijacking airship/water craft
55 Explosion
56 Beverage violation
57 Drug case
58 Unlawful assembly
59 Fire bombing
60 Sniper fire
61 Gambling
62 Racial trouble
62A Racial trouble non earthen
63 Impersonating law enforcement officer
64 Larceny of boat parts
65 Shoplifter
66 Civil matter
67 Accident/injury
68 Police service call
69 Loose animal
70 Animal bite
71 Snake call
72 Lost/found property
73 Child abuse
74 Shark call
75 Hostage
76 Noise complaint
77 Customer problem
78 Unknown trouble
79 Barricade
80 Listen but stay off the radio

GLOSSARY

Accretion Disk: A disk of material that spirals around an object, like a black hole due to gravity.

Astronomical Unit (AU): A unit of distance equal to the average distance between Earth and the Sun: 92,955,807 miles.

Badger or Badgerboy: Police officer or cop.

Bandit: An hostile aircraft.

Beam Rider: An undercover detective who is wired with a send/receive radio unit. Also termed "wired for sound."

Bingo: Radio signal indicating a craft only has enough fuel to make it back to base.

Bogey: Unknown aircraft.

Buster: Radio term meaning go to full afterburners, or best top speed.

Click Off: Crazy person. Person who has taken leave of their senses.

Dip Pod: A sonar sensor array dipped into the water by way of a cable.

Fox: Radio call that designates a friendly aircraft is firing a missile.

FRAG: Fragmentation.

HE: High Explosive.

HUD: Heads Up Display, compressed into some UWP eyewear for fighter pilots.

IPD: International Police Department.

Iron Blood: Habitual or career criminal.

Isp Value: Measure of a spacecraft engine's efficiency.

Knot: A unit of speed of one nautical mile (6,080.27 feet) an hour.

Lift: The elevator used at police stations to bring craft to the liftoff and landing area. The roof of most International Police stations is a flight deck.

Masking: The technique of flying an aircraft behind an obstruction, hiding it from radar or other sensors.

Node: A cluster of mineral deposits.

Nodule: A cluster of mineral deposits in the shape of ingots, eggs or small rocks.

Nose Cold: A craft's radar is turned off.

Peel It: Take a look.

Runner: Errand boy. Person who delivers items for a living.

Skunk: Unknown surface or underwater craft.

Strike Points: A point system whereby criminals are tracked.

Tagger: Arrest or collar.

Tally: A term meaning aircraft spotted. When used, would be followed by location so "tally three low" would be "aircraft spotted three o'clock low." "Tally twelve level" would be aircraft spotted twelve o'clock level, and so on.

Traffic: Radio transmission.

UWP: United World Powers (Established in 2009).

UWP: United World Powers Security.