Roleplaying in the Star Fleet Universe

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Other GURPS Books

The following GURPS rulebooks and manuals published by Steve Jackson Games will be found useful by players of GURPS Prime Directive. They can provide additional skills, rules, actions, and tactics. Some will provide non-player characters and equipment that, while not specifically related to the Star Fleet Universe, could be adapted by GMs (perhaps to populate a new planet for exploration). The GURPS system is vast and continually expanding, and you can often find an existing GURPS book that covers the setting you want to use for your campaign.

GURPS BASIC SET

The basic framework for the entire GURPS family of roleplaying games. The GPD 4e Core Rulebook includes only some of the GURPS rules (those that specifically apply to the characters in this book). If you want to do more things, then the GURPS Basic Set is the place to look. Essential for GMs, it is the single most-recommended book for GPD players. These rules cover everything in more detail and depth and provide additional insight into the game structure. Many of the other GURPS books that would be useful to GPD players won’t work very well without the GURPS Basic Set rules. Also available is a campaign manual and a GURPS Gamemaster’s Screen.

OTHER GURPS MANUALS from SJ Games
GURPS FANTASY and GURPS MAGIC include everything a gamemaster could want to send his Star Fleet adventure team into really strange new worlds with really bizarre new civilizations. Remember that if alien technology is sufficiently advanced or different, it might as well be magic, so you’ll be all set with these interesting manuals.

FUTURE GURPS MANUALS from SJ Games

The most eagerly-awaited G4e books will surely be SPACE and VEHICLES, as these will allow you to build starships and fight space battles. Once these books become available, ADB, Inc., will publish the corresponding data for the GPD series in GURPS STAR FLEET. Also of considerable interest will be G4e versions of Traveller, the Vorkosigan Saga, and Transhuman Space. Check http://www.sjgames.com/gurps/ for continually updated information on new releases.

GURPS THIRD EDITION

The third edition of GURPS included over 100 books on a wide variety of subjects, from dinosaurs to steam punk, from robots to dungeons, from the wild west to World War II. Key elements included several science-fiction realms, including Traveller, Lensman, Transhuman Space, and the more general Space and Ultra-Tech manuals. Many of these manuals can still be found in game stores and online stores, and from Steve Jackson Games. Using conversion data (available on-line) and some effort, Gamemasters can harvest these manuals for equipment, backgrounds, settings, planets, starships, and other things to populate and illustrate their campaigns. Many of these will be upgraded to G4e by Steve Jackson Games.

More PRIME DIRECTIVE

The following GURPS manuals are (or soon will be) published by ADB, Inc., specifically as part of the Prime Directive series and the Star Fleet Universe.

GURPS KLINGONS

Everything you ever wanted to know about the Empire of Steel. Government, how the emperor is selected, the military nobility, military academies, the difference between warriors and civilians, the warrior colonies, military ranks and promotion, military awards and decorations, the Knights Paladins (the emperor’s personal inspectors and auditors), Klingon religions, the intelligence services that spend most of their time spying on each other, data on dozens of Klingon ships, and much more.

SKU 8403, $24.95, Release 11 April 2005.

GURPS ROMULANS

Everything you ever wanted to know about those distant cousins of the Vulcans. The royal family, the role of the praetor, the great houses and how they wheel and deal in the back hallways of the palace, the role of the Intendance Department, intelligence services and praetorian teams, colony planets, the previously-unknown suppressed races along the galactic rim, the development of the cloaking device, starships, and much more.

SKU 8404, $24.95, Release 25 April 2005.

GURPS FEDERATION

Everything you ever wanted to know about the United Federation of Planets. Government, political parties, the intelligence agencies, Star Fleet Academy, surveys of a dozen member planets, Star Fleet, the Marshal’s service, corporations and the dominant role of business, the Prime Directive, the Non-Interference Doctrine, and much more.

SKU 8402, $24.95, Release in August 2005.

KLINGON G1 GUNBOAT DECK PLANS

Detailed plans in Traveller-scale (with both hexes and squares) for the G1 gunboat (including its larger command variant), showing engines, crew positions, power systems, weapons, sensors, repair systems, and color “cardstock characters” for all 27 members of the crew.

SKU 8201, $16.95, already available.

Additional deck plans will be made available during 2005 and beyond in a variety of scales and formats. Check www.starfleetgames.com/primes for the latest information on what ships will be available and how to order them.

FUTURE RELEASES

During 2006 and 2007, we plan to release:

GURPS STAR FLEET, details of ships and weapons.

GURPS THOLIANS including their Sehtorian Slaves.

GURPS GORNs including their Paravian cousins.

GURPS FELINE EMPIRES, the Kzintis and Lyrians.

GURPS ORION PIRATES, the scourge of the galaxy.

GURPS INTERSTELLAR CONCORDIUM, 7 new races.

Plans are in development for a "magazine" to present new things and new civilizations no one has seen before.
**Glossary**

**GURPS** is a roleplaying game (RPG). A roleplaying game is one in which a referee (the Game Master) guides several players through an "adventure" in which they play the parts of fictional characters. Like any hobby, gaming has its own unique language. To help you understand the concepts and terms used in this game (and other RPGs), we'll start with a few definitions:

**Adventure:** The basic "unit" of play in a RPG, sometimes called a "scenario." A RPG is never over until the players want to end it, but a single adventure will have a beginning and an end. It may last through several sessions of play, or be done in a single evening.

**Attribute:** Part of a character's mental, emotional, or physical makeup (e.g., strength, intelligence).

**Campaign:** A continuing series of adventures by a group. A campaign will usually have a continuing cast of player characters and the same Game Master (or team of GMs). A campaign may move from one game world to another, with a logical reason. The overall goal is for characters to learn from each adventure so that they can handle tougher challenges in future adventures.

**Character:** Any being (person, animal, whatever) played by the GM or a player in an RPG.

**Encounter:** One "scene" of an adventure; a meeting between the player characters and one or more NPCs.

**Game Master (GM):** The referee, who selects or writes the adventure, talks to the players through it, and judges the results. He is, simultaneously, the enemy, commanding officer, and umpire.

**Game World:** A background for play; the setting for an adventure. A GM's own fantasy creation or a published setting created specifically for gaming are both examples.

**Non-Player Character (NPC):** Any character played by the GM. The GM may control many characters, major and minor. In some campaigns, the party might borrow an NPC who is a technical expert needed for a mission; the GM supervises such use to prevent the party from misusing or sacrificing the NPC. Sometimes a guest player thinking of joining the group might use a borrowed NPC so that he doesn't have to create a character before starting.

**Party:** A group of PCs taking part in the adventure.

**Player Character (PC):** Any character played by one of the players. Typically, each player controls a single character, but some groups prefer to have each player control two or more, or to have two or more characters and pick one for each adventure.

**Race:** The species to which you belong. Nonhuman characters (elves, dwarves, Klingons, and Martians, for example) are common in RPGs.

**Roleplaying Game (RPG):** A game in which the players take on the personalities of imaginary individuals, or characters, in a fictional or historical game world, and try to act as those characters would.

**Skill:** Something a character knows how to do.

**Stats, or statistics:** Numbers rating a character's abilities, used to determine what each one can and cannot do.

**Expanded Glossary:** www.starfleetgames.com/prime.

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Rescue On Roon

0200 hrs, The Swaggering Dragon, North Roon City, Planet Roon

"Let me get you another round," the waitress said, whisking away the empty glasses. Christopher Plemmons nodded vaguely and returned his attention to the girl across the table. She was sweet and pretty and seemed genuinely interested in his plight.

"I can't blame Father too much for bringing me here," Christopher said, "at least not since I met you."

"I feel the same way," Kaelyn replied. "I was happy in the country where I could walk and ride my renoth across the fields, but Daddy got a big promotion and dragged me here to Roon City where I don't know anyone. The locals are such snobs. They won't hardly talk to me since I am just a 'country girl' and don't know anything about the city. I haven't had a single friend until I met you."

"Lost souls clinging together," Christopher replied, taking the refilled glasses from the waitress. His father's credit chit would stand a few more rounds, and for dragging Christopher to this backwater planet that wasn't even a member of the Federation yet, Father owed more than just drinks. Christopher had been bored, lonely, and angry for the three months he had been here, but since meeting Kaelyn two nights ago, things had definitely improved. Not that his father had noticed.

His conversation with Kaelyn wandered from light to deep, from which restaurant they might try tomorrow to what they really wanted to do with their lives. Christopher mentioned that he would be going to a university in another year, and Kaelyn mentioned that she had applied for the off-world exchange student program that was part of the Federation's provisional trade mission. Maybe there was hope that something serious could come of their chance meeting?

"Have you seen the winter lights yet?" Kaelyn asked.

"No, what are they?" Christopher replied, intrigued.

"I can't believe you don't know!" Kaelyn exclaimed. "They're like fire in the sky, like shimmers of color. It's got something to do with electrons and high altitude water vapor and ... well, it doesn't matter. They're ... just pretty, and I want to show them to you."

"So ... do we find a monitor? ... or go outside?"

"No, silly, you cannot see them in the city. All of the lights here make them too hard to see. We'd have to drive a few kilometers out into the country. I know a place with trees and grass, quiet and romantic ..." she let her voice trail off.

"OK, how do we get there? Is there a local shuttle?"

"No, silly ... " Kaelyn laughed, throwing back her hair in a way that mesmerized him. "I have a ground car. Let's go."

"Now?" Christopher sputtered as he took another drink.

"Now is always the best time!" Kaelyn said. "I don't have to work tomorrow, and you said your father would still be tied up in the trade talks. We can watch the winter lights, and then later, watch the dawn." Her sparkling eyes promised more than just a view of the night sky, and Christopher scrambled to grab his jacket and catch up to her.

1400 hrs, Captain's Office, Light Cruiser USS Tasmania, en route to Roon

"Come in, Grissom, and sit down."

"Yes, sir," Lieutenant Commander Grissom replied, taking the chair the Captain had indicated.

"You know that we have just changed course?" the Captain asked.

"I noticed," Grissom replied, waiting for the Captain to explain the rest. It did not pay to hurry one's commanding officer.

"You've read the file on Roon, I trust," the Captain asked.

"Class-M planet inside Fed space. We've been watching it for some time. Their technology reached warp capability last year, so the Federation sent an envoy to welcome them to the galactic community. By all accounts, the population took it rather well. Some indication that Orion traders have been doing clandestine business there for a decade or more. I do believe there is a Federation trade delegation on the planet right now and that we are scheduled to 'stop by' sometime next month and give the local big shots a joyride around their solar system. That's Roon?"

"The very one," the Captain replied. "Seems that someone kidnapped the son of the delegation leader, and is pressuring him to walk out of the talks."

"I smell Orions," Grissom responded. The Captain frowned at the interruption and resumed his briefing.

"Rather than following instructions and keeping it quiet, Envoy Plemmons told the Federation Ambassador and together they called me. The ambassador called the local government and asked them to send their special police unit to get the kid back."

"Sensible enough," Grissom replied. "Any civilized planet has a hostage rescue capability of some kind. What's in this for us?"

"Apparently, a hostage rescue job," the Captain replied. "The local police don't want to go in there and take a chance on getting the hostage killed. Seems that in some recent matter, one with no interplanetary implications, the Roon hostage rescue team blew it and some hostages were executed. All the police will do is negotiate, and the Envoy told them he would do that himself."

"Please let me know how the negotiations turn out," Grissom replied as the sinking feeling settled into the pit of his stomach.

"Not an option, apparently," the Captain sighed. "The kidnapers set a deadline, and the ambassador has asked us to do the rescue, tonight."

"The Roon government isn't going to like that," Grissom said. "I can see the local trivideo coverage of the 'Federation Invasion' of their sacred soil. The opposition party will have a field day."

"You only hope," the Captain responded. "No, the Roon government is more than willing for us to intervene. They
actually want us to go in and rescue the kid. They just don’t want to get blamed if the rescue goes wrong, or if no rescue is tried at all.”

“As Hindenburg said, ‘send the police to arrest them.’ Come on, Captain, we’re military. This is a police matter. Nobody on this ship is trained for a hostage rescue job. The Federation has police for this. They have their own patrol ships, and they are trained for jobs like this one. Hell, the local police flagship probably has a Prime Team on board just for things like this.”

“Strangely enough,” the Captain explained “the two Federation police ships in this sector have both been called away due to increased Orion pirate activity in the Delaram system. Convenient, isn’t it?”

“OK, we all swore the oath to defend the Federation Charter,” Grissom sighed. “I presume that you’ll send Lieutenant Yahnke and his Marines? What support can my weapons department provide for them?”

“Actually, Commander, you will be leading the mission. You can pick your team, and you probably want Lieutenant Yahnke and one or two of his troops. Talk to him about who else you want to take, but keep the team small, no more than five or six in total. If things go wrong, I will want to get you out of there in a single transporter lift.”

“Why me?” Grissom asked.

The Captain steepled his fingers. “Mister Grissom, this mission needs a senior officer who can think on his feet and improvise when things go wrong, who can deal with things I cannot anticipate in my orders. While Lieutenant Yahnke is quite capable, he’ll expect, and we’ll supply, direction for him. You’re a command-qualified officer of the unrestricted line. Star Fleet doesn’t hand out gold tunics for nothing. And of my command grade officers, you’re in the best physical condition and you shot Expert with a phaser pistol two months ago.” The Captain managed a faint smile. “No good deed goes unpunished, Commander.”

The intercom chimed.

“Captain, sorry to intrude,” came a voice over the comm, “but you asked to be told when Lieutenant Yahnke got to the bridge.”

“Excellent,” the Captain replied. “Send him in.” The door whooshed open, and the burly Marine lieutenant stepped into the room and snapped to attention.

“First Lieutenant Yahnke reporting as ordered, sir!”

“Belay that, Lieutenant, and sit down.” The Captain quickly briefed the Marine on the situation.

“Need intel,” Yahnke frowned. “Where is the hostage? What kind of guards are holding him? How many?”

“Everything is in this file,” the Captain explained, handing both officers datapads. “The younger Mr. Plemons was seen leaving a nightclub with a young lady he had met recently. Police found out that the waitress had helped set up the kidnapping. She gave them a lead on a local businessman; police confirmed it. The young lady’s car was found parked near one of his warehouses.”

“And what a warehouse it is,” Grissom whistled. “None of the locals noticed that it’s sitting on an outcropping of trithallium ore?” That material would block transporters and most sensors, making any underground facilities impos-

sible to probe from outside.

“Warehouse wasn’t built until . . . hmm, two local years ago, three standard,” Yahnke jotted down a note. “Roon doesn’t have our advanced sensors, the ones that cannot probe through trithallium, not that theirs can either, so the locals don’t realize the significance. The company paid through the nose for the property, and relocated the former tenants into new houses 20 kilometers away.”

“I smell Orions,” Grissom said. The others nodded.

“They’ve probably got him underground,” Yahnke sent data to the other pads. “I’ve annotated the blueprints they filed with the planning office; probably been changes since the walls went up. Excavation permit says warehouse number eight is . . . here.” He paused to think it through.

“Here’s what we do. Transport to the basement of this warehouse, stun a few guards, crack the locks into that elevator, search the underground complex, deal with more guards, find the hostage, pick up any evidence, and get back up the elevator shaft to a point that transporters can pick us up . . . Sounds doable.”

“Sounds sneaky,” Grissom said. “I would have expected blazing phasers and the red glare of rockets.”

“A main force rescue would be too noisy,” Yahnke explained. “They’ll kill the kid if they hear us coming. This takes stealth. We have to sneak in, not blast our way in.”

“Then I want Daneric-Tren,” Grissom said. “He’s an engineering technician who spent two years working on a self-contained colony world. He can figure out their elevators and ventilation shafts. And I want Stulak.”

“He’s the junior science officer . . . and a botanist!” the Captain objected.

“He’s Vulcan, which will make interrogations a lot faster if we need the passcodes for a locked door or have to find out anything else is a hurry.”

“And Corporal Kilrathie,” Yahnke said. “Nobody is better at silent take-downs, if we have to go that route. And I want Private Dellik out of the brig immediately.”
"No chance!" the Captain snapped. "She's a thief, and I won't have her running loose on my ship. I'm holding her until we can investigate who accepted her enlistment. She can sweet talk any man out of his money while stealing his phaser at the same time."

"You said it, Captain," the Marine replied, "I rest my case. I'll need your authorization to get her out of the brig. If she helps us and gives a full statement, we ought to consider a general discharge and leave her on some planet. Call it an incentive."

"And, Captain," Grissom reminded, "she did put back everything she stole before we caught her. It's just a game to her. We can't have that on a starship, of course, but she's not a criminal, just a really good thief."

"Preposterous!" he spluttered. "Okay, but I'm holding you personally responsible for her conduct."

"Deal," Yahnke responded. "I need some flashbangs."

"We don't have any on board," Grissom advised.

"Make them," Yahnke ordered, ". . .sir."

"Not time, they're too complex," the Captain advised. Yahnke growled. "I'll need cargo bay three until planetfall with no interruptions. Commander, if you'll gather up the Navy half of our team, and ask engineering to send a crew of repair technicians to the cargo bay with damage control kits, I will get my people and see you there."

"What?" Grissom asked. "Why?"

"Simulations. The engineers will bash together a mock-up of the target, and we'll run rehearsals all the way to planetfall."

"That's six hours," Grissom objected. "Everybody picked for the mission is on the day shift. We need to feed them and bed them down."

"Nice theory," the Marine explained. "Don't have time. If we hit the ground after local dark, we'll be back in an hour, and that won't be too much past everybody's bedtime. Buck up, Mister Grissom, you're going to get tired. Did you think that every mission was going to be scheduled for just after breakfast? You're in the Marines now."

2300 hrs, Basement of Warehouse #8, Celotex Import Export, Planet Roon

"Is the brat still whining?" Melika asked.

"Yes," her sister Annitha responded. "If that's an example of Federation manhood, I'll stick to the locals."

"Not me," Besslioth answered. "Lieutenant Kahl is going to take me with him on his next run, and I'll knock the dust of this planet off my feet for the last time."

"You and your Orion lover," Melika sneered. "You can't really think he's serious. He's probably got a girlfriend on every planet. Father told you not to get involved with him. They're just business associates. They buy, they sell, and they leave."

"Did I say anything about marrying him?" Besslioth answered. "I want space, not a husband, and he'll get me to the nearest Orion base where I can get a working passage on a ship and start learning how starships work. By the time I'm 40, I will be the captain of my own raider."

"The Orions aren't going to like this kidnapping business," Annitha said. "Draws attention. Why do you think they didn't try to stop the Federation from giving Roon a trade deal? They can smuggle in more stuff if legal products are arriving as well. The only one who profits from blocking the trade deal is our father, who wants to keep the off-world trade illegal, and under his exclusive control. Once the Orions figure out what he did, he's going to lose his franchise, if not a lot more."

"The Orions won't care one way or the other," a male voice interrupted. Their brother, Michalik, had walked into the underground office as his sisters argued. "Sure, with open trade they can smuggle in more, but they won't make as much profit on each shipment. Same coin, either way."

"How are the negotiations going?" Melika asked him.

"Very well. Father is working through a series of intermediaries, but the Federation representative is being very agreeable. Seems he didn't really want a trade deal anyway; it was just a Federation ploy to get more concessions out of our enlightened government over a period of years. He's going to give the President a laundry list of conditions for any trade deal, everything from changing the minimum wage to restricting the age of workers. The idea seems to be some kind of 'level playing field' that the Feds want to establish so that prices will be fair. Our government is concerned about high tech imports making entire business sectors obsolete, while the Federation trade rep seems terrified of the idea that we might charge two centos less a ton for grain than some other planet is charging."

"Sounds promising," Melika said. "Maybe we didn't have to kidnap the brat after all."

"Maybe not," Michalik admitted. "The trade rep has asked for another day, but Father is sticking to his deadline of noon tomorrow. He wants the Federation rep to make impossible demands of the government and then withdraw for consultations and go back to wherever he came from."

"He'll do it," Melika said. "The brat is the kind of kid who got everything he ever wanted, which means that his daddy is going to be very willing to do anything to get him back. Obviously a very closely knit family."
“Speaking of family,” Michalik changed the subject, “where is Kaelyn?”
“Down the hall having a party,” Besslith replied.
“She’s not with the prisoner, is she?” Michalik asked.
“It was all just an act?”
“Hell no,” Annitha sneered, “she brought Dahler down here to keep her company.”
“To keep you company, too, Annitha,” Besslith teased.
“Want to explain where you were an hour ago?”
“What?” Michalik roared, “you brought that dim-witted stable boy down here? Can’t you girls keep focus for one single night? We need to be alert. I left Chucst guarding the gate upstairs, but we can’t rely on him alone. One of you needs to get a pistol and a radio and get back to the elevator and stand guard.”
“Why?” Annitha asked. “The police are hardly going to send in their hostage unit when nobody has told them there is a hostage to rescue. And the trade rep is hardly going to risk his precious boy, or the trade deal he doesn’t want, by sending Federation troops in here. The door is locked, the brat is tied up, there’s bouza in the cooler, and all we have to do is wait for father to call. Then we throw the brat in the groundcar and leave him tied to a tree somewhere.”
“Cool your drives, brother,” Besslith advised. “We just have to wait a few more hours. But I’ll go play guard if it pleases you.”

2300 hrs, Cargo Bay #3, Light Cruiser USS Tasmanilla, in orbit above Roon

“Excuse me, Commander,” First Sergeant Bourne said, “allow me to adjust this strap for you. It will ride much easier this way.”
“Thank you, top,” Grissom replied. While First Sergeant Bourne was not going on the mission, he was the senior Marine sergeant on board, and he insisted on inspecting everyone’s gear to make sure it was properly fastened and riding securely ... and silently ... on their back, shoulders, and waist. Grissom hadn’t had a sergeant fussing over his gear since survival school a decade before, and found himself alternately annoyed and grateful at being shown that he had worn the gear wrong the last few times he had gone on a tactical landing (and had put it back wrong after Bourne had corrected it earlier). Bourne moved on, repeating his apology to Dellick that she was not being issued a phaser.

The rehearsals had started off poorly, a real comedy of errors, as everybody did everything wrong, got into each other’s way, dropped equipment without realizing it, or took up a position facing the wrong way. First Sergeant Bourne, without being told to, had rounded up a few Marines to stand in as security guards and a puffy-faced ensign to pretend to be the hostage.

Once they had the hang of the equipment and the mission, the Marines began throwing curve balls. The hostage wasn’t here. The hostage was already dead. The hostage was unconscious. There were two hostages. The guards were alert. The guards were asleep. Once a maintenance technician wandered into the exercise without
2310 hrs, Auxiliary Control, Light Cruiser

**USS Tasmania**, in orbit above Roon

"I suspected that much," Dellik said, peering into the sensor scope at dancing lines of electromagnetic energy. "They're using a Brinks-Braxton 435. That's a fairly common alarm system, commercial grade, sold all over the Federation. But when we install one, we use substrate chips and crystal transdiodes; the Orions downgraded this one to use the local technology, basically transistors and fiber optics and other stuff. Must not have wanted to give them higher tech."

"I don't even want to ask how you know that," the Captain muttered.

"Study, study, study," Dellik grinned.

"All of which means...?" Commander Grissom asked.

"That we can use a tachyon burst to fuse this control node here," Dellik explained, "and the whole system 'fails negative' and won't report anything it detects."

"Fails negative?" Yahnke asked.

"It fails and they don't know it failed," Grissom explained. "The system will report that everything is working if they run a diagnostic."

"Won't work," the sensor technician said. "The bypass loop will detect the short."

"They didn't install one," Dellik said. The sensor technician gave her a surprised look. "Check the scan. See? There's where it should be."

"Lowest bidder," the technician smiled, shaking his head. "There is a lowest bidder on every planet."

"That's not your problem," Dellik said, pointing out something else. "They have old fashioned cameras watching the front of the elevator, the inside of the elevator, the inside of the maintenance shaft, and, I can't tell but I'll bet, watching the door of the lower elevator lobby. Presuming someone is watching the security monitors, they'll see us as we move in."

"Solution?" Grissom asked.

"I've detected their signal relays and have already started copying the transmissions from the cameras. Give me fifteen minutes and we'll have enough of their signal that I can broadcast a recorded picture back into their system, and they'll never know."

"Won't they recognize it's a loop?" Grissom asked. "I mean, an empty room is one thing, but this camera is show-

ing the guard pacing back and forth in the upper elevator lobby. They'll figure out they're watching a loop."

"Only if we're amateurs," the sensor technician chuckled, winking at Dellik. "We'll just run the data stream we record through the computer and have it generate minor variations in a random pattern. He'll stop here, then there, turn around and go back, and so forth. Should fool them for half an hour, maybe more."

"What if they call him for something?"

"That's a chance we will have to take."

"I can't tap into the monitors in the lower level," the sensor technician said.

"We'll use a tricorder to blank them," Grissom said, "and we'll just have to move fast."

"These guards concern me," Corporal Kilrathie said. "If they get wind of us, they can bring two dozen armed men on top of us in a minute."

"Just have the Captain stun them with the ship's phasers," Dellik shrugged. "What's the problem?"

"You watch too much spy show," Grissom laughed. "Ship phasers cannot be used to stun humanoids at 200 kilometers. The power settings don't go that low, and a beam that weak couldn't punch through the atmosphere anyway."

"Tractor beam?" Dellik tried again.

"Controls are not that accurate," Grissom noted. "We can use tractor fields in the ship's crawl spaces because the distance is short and you do not need much power. But from orbit, we would uproot entire buildings. And we don't want to kill a lot of people if we don't have to."

"So, what's the plan?"

"We could just lock onto the guards and transport them a few miles away," Danner-Tren suggested.

"We don't want to do that if they haven't noticed us," Yahnke warned, "and once they do notice, it would be difficult. Locking onto a running man isn't that easy. But we might keep that idea on standby for any of them reacting slowly enough or staying at their posts."

"Transporter spoilers?" Kilrathie asked. Star Fleet personnel carried small scramblers that made it hard, but not impossible, for an enemy to transport them. This worked better inside a Federation ship where the scramblers were tied to the ship's integrity field.

"None in evidence," the sensor technician replied.

"Can we trip an alarm on purpose?" Danner asked.

"In one of the other buildings, to get half of them running to the wrong threat?" The sensor technician nodded and began picking sensors to set off with Dellik.

"Here's a thought," Grissom said. "We can pick up a cubic meter of water from some lake with a transporter and drop it on them... transport it a few meters over their heads, spread out over a three meter square. Should knock a man down, maybe out, without hurting him too much, and water doesn't leave a Federation signature."

"I'll have that set up," the Captain said. "We'll even filter the fish out of the water. By the time you've walked down to Transporter Room Two, we'll have the node fused and the video channels spoofed. Good luck, all of you."
2328 hrs, Storage Bay Four, Celotex Warehouse #8, east of Roon City, Roon

"Down and safe, no reaction," Grissom said quietly into his communicator. His team had transported down already in a crouch, and after materializing had frozen solid for 30 seconds waiting to see if alarms went off or guards burst in. The small sensor probe that had gone before them through the transporter was sitting on top of a crate. Daneric moved to flip the switch that would send it back to the ship.

"Nothing moving, no electronic response," came the voice from one of the ship's sensor technicians.

"Let's move," Grissom ordered. The team moved to the door, Grissom in the lead with Stulak scanning with his tricorder. Daneric-Tren and Dellik followed while Kilrathie and Yahnke scanned the flanks and rear. They were in a room of about 30 by 50 meters, and anything, from a sleeping guard to a sleeping dog, could be in the room with them and missed against the trithallium background.

Stulak scanned through the door with his tricorder. "The guard is present. He walks a path about five meters long, first facing toward us, then away."

"How far?" Kilrathie asked.

"At his closest approach, 5.62 meters," Stulak answered.

"Can you take him?" Yahnke asked. If Kilrathie could not take out the guard silently, they'd have to use a phaser on stun, and discharging an energy weapon might trigger other alarms they hadn't been able to fool. Even the fire alarm would bring more reaction than the team could handle.

Kilrathie nodded. Grissom made to open the door, but Stulak clamped his hand on the commander's wrist, motioning with his eyes to the right, where Daneric-Tren was busily applying lubricant to the door hinges. When Daneric nodded his OK, Grissom looked back to Stulak, who signaled when the guard had turned away from the team and the door they hid behind. Kilrathie exploded out of the barely open door and was on the guard in a split second, wrapping a strangle cord around his neck. The guard struggled for a few seconds, his screams silenced by the cord, until he slumped to the ground.

Yahnke ran forward, past Kilrathie, to scan around the corner. Grissom dove forward, leveling his phaser down the cross corridor. Nothing.

"No alarms," Stulak said, observing his tricorder.

"No reaction," came the voice of the sensor technician in Grissom's ear.

"Standard keypad security lock on the elevator," Dellik observed. "I can be through this in a flash." She started to unsling her tricorder, but Grissom signaled her to stop.

"Passive only, Private," he warned. "I don't want to trigger anything if we don't have to. It was enough risk having Stulak use an active scan through the door." Grissom motioned to Stulak, who let his tricorder swing back to his side and approached the felled guard. Dellik and Daneric watched spellbound as Stulak initiated a mind meld, but the others kept their watch in different directions for anyone approaching. A moment later, Stulak sat up.

"The hostage is indeed below," he reported, "along with several members of the guard's family. They are all the children of the owner of this establishment, a man who has had dealings with the Orions. I have the code for the door, but there is a hidden trap. The guard must press his thumb against a certain spot on the metal plate or an alarm will sound."

"Let's do it," Dellik said, but Grissom's glance reminded her that she was getting ahead of the plan. In their many rehearsals, they had opened the hatches into the ventilating shaft and sent Daneric-Tren down on a rope to observe the lower elevator lobby for any guards. They didn't want to open the elevator until Daneric had reached the bottom and checked out the scene.

With Grissom to help him, Daneric-Tren quickly pulled the bolts securing the panel. Daneric noted that most of the bolts were missing, as they were in most industrial facilities around the galaxy. Everybody got tired of having to remove and replace that many bolts on a non-pressurized hatch they accessed every few days, and only military discipline kept all of the bolts installed in every hatch on the Tasmania. Daneric-Tren used quickset glue to attach a hook to the shaft's inside wall over the hatch, hitched his rope to the hook and to the rappelling harness he already wore, and dropped as silently as he could down the shaft. The drawings on file with the government said the shaft was 15 meters deep, but sensors couldn't probe it due to the trithallium radiation. Grissom and Dellik put the plate back with two bolts to hold it.

"Bottom," came the murmur into Grissom's earpiece.

"Scanning . . . humanoid lifesign, about ten meters away from me, not moving. Doesn't seem to have an elevated heart rate. Probably sitting in a chair. Nothing between the guard and the elevator door."

They had studied six variations of this situation in their rehearsals. By the time Daneric could get the lower hatch open, everyone in the basement would be lined up with
weapons drawn. By the time Daneric could phaser a hole in the hatch cover to stun the guard, the guard would have moved out of the way and sounded the alarm. Grissom thought quickly, as they had set up two choices for this problem. One was to simply go down the elevator and hope to stun the guard before the alarm could sound; the other was to ride down on the elevator roof and try to lure the guard into it and stun him from above. But Grissom had never liked that idea, as the guard was too likely to radio in an alarm before entering the car.

Signaling his selected plan, Grissom motioned to Stulak to start entering the code for the lock while he moved the guard into position where his unconscious thumb could be pressed to the metal plate. The code was good and Stulak had the doors open in just a few seconds; there was no alarm. The team silently filed into the car and took up the positions they had practiced. Grissom and Yahnke were at either side of the door, their phasers ready to sweep the lower lobby in both directions. Kilrathie was on the floor, his knees bent because there was not room for him to lie full length, his phaser at the ready and his elbows braced on the floor. Stulak and Dellig were at the back corners of the car, trying to keep out of the way.

2345 hrs, Basement Elevator Lobby, Celotex Warehouse #8, east of Roon City, Roon

Bessith looked up from the novel-pad she had been reading as she heard the elevator. What was Chucst doing, coming down unannounced? Michalik would be quite angry when he heard this, which was a perfect reason for her to report in.

"Michalik," she began as she pressed the transmit button on the small radio, "Chucst is on his way down without explanation."

She waited for a reply but there was none. She knew that Michalik must be furious and had expected an explorative reply, but none came. In her next second, she assumed that Michalik was on his way and that she would be hearing a door open, but no sound came from down the corridor. And in the next second, she realized that strangers were in the opening elevator. As she bent down to retrieve the pistol that was on the floor at her feet, Kilrathie's phaser burst struck and her motion continued until she was sprawled on the floor. Yahnke and Grissom, in a much practiced move, exited the elevator and took station facing in each direction. Dellig leapt forward to pick up her pistol, but Stulak deftly took it from her hand and pocketed it. She shrugged and moved to follow Grissom, while Stulak moved to mind-meld with the fallen guard. This was, again, a rehearsed part of the plan, and his mission was to get a complete list of who was in the subterranean complex and, if possible, just how big it was.

2346 hrs, Basement Lounge, Celotex Warehouse #8, east of Roon City, Roon

"Did you hear that?" Michalik asked, putting down the radio. Bessith had spoken his name but then the transmission stopped, which could have been simple radio failure, or more likely she had not paid attention to which button she was pressing or had thought better of calling him. But then he heard a clatter from down the hallway. The hair on the backs of his hands had sprung erect; his senses were fully alert. He headed for the door.

"Go with him, Annitha," Melika ordered, turning to check the security scanners. Nothing was seen on the upper ones except Chucst pacing back and forth, but the one on the lower elevator lobby had gone black. "Someone is down here. I'll see to the hostage." She slammed her palm on an alarm button, grabbed a pistol, and headed for the door to the adjoining bedroom as Michalik and Annitha headed out the door.

2347 hrs, Basement Corridor, Celotex Warehouse #8, east of Roon City, Roon

Michalik burst out of the lounge into the corridor, and into the sights of Yahnke's phaser. He went down with the stun charge so fast that Annitha, close on his heels, assumed he had tripped. She fired her pistol, sending its ceramic projectile screaming over Yahnke's head as his second shot dropped her as well. Michalik, only partially stunned, tried to lift his pistol into firing position and sent another bullet screaming past the Marine lieutenant, but collapsed when Yahnke's third stun shot hit him.

This part of the mission had been rehearsed, but now there were too many options, too many variables, and even if they had rehearsed them, nobody could sort through the options fast enough to grasp the right one. From this point, the team went into a drilled routine. Yahnke worked with Stulak, opening each door in turn, one covering the corridor while the other scanned the just-revealed room. Working the other way from the elevator lobby, Grissom and Kilrathie also worked as a team. Dellig did her assigned job, tying up the guard at the elevator while waiting for
something that would need her talents. Without a phaser, she was a liability in a firefight. She could hear Daneric-Tren, no longer trying to be quiet, scrambling his way back up the ventilation shaft. This was wrong. In rehearsals, he had cut his way through the hatch cover and joined the team on the search.

"Dan, where ya' going?" she asked over her communicator. He grunted something about a problem to solve and ignored her second question.

Grissom and Kilrathie had opened one door to find a storeroom, ten meters to the back wall, stacked with boxes. A quick scan with a tricorder showed nothing sentient.

Yahnke and Stulak pulled open a door to find another storage room, this one quite large and filled with stacks of large bags. The room had a pungent aroma, and Stulak holstered his phaser and began adjusting his tricorder.

"Anything alive?" Yahnke asked.

"Negative," Stulak replied, "but these bags appear to contain a substance ..."

"Later," Yahnke ordered. "Next door. Once the area is secure, you can come back and scan that stuff."

"Of course, forgive me," Stulak replied, shifting his tricorder back to his side and drawing his phaser.

They moved to the next door and took up positions, Yahnke covering the door and Stulak the corridor and the two slumped bodies near the far door. Yahnke pulled the door open and felt a pistol bullet smash into his body armor and a second one roar over his shoulder. Stunned, he forced himself to fire his phaser into the room, hoping it would startle his opponent, but it was Stulak's shot that took down Kaelyn. Yahnke noted that she was naked, but this only made it easier to see she was not concealing another weapon. Forcing his eyes to focus through the pain of the pistol shot (which, he knew, had not penetrated his armor), Yahnke noted a cowering naked figure behind the bed.

"We've got the hostage," Yahnke reported, "returning to the elevator." Grissom acknowledged the transmission, and both teams met at the elevator a few seconds later. The hostage was shaking with fear and unable to speak, but Grissom was back to a part of the plan they had rehearsed.

"Get a positive ID," he snapped at Dellik, who had readied her tricorder when she heard the call that the hostage had been found.

"It ain't him," she snapped before even bringing the tricorder to bear. When Grissom glared at her she said "I studied his photo. Right height, age, and hair, but not young Mister Plemmons." Grissom started to argue, but she pointed to the tricorder readings. "He's native to Roon, not to Mars. He's not Plemmons." Grissom swore as Stulak did a superficial mind scan.

"Confirm," Stulak said, "this man is not our hostage. His purpose here is not criminal, but recreational." Without even a shrug, Stulak gripped the youth's shoulder and sent him to the floor in a swoon.

"Back to work," Grissom ordered, heading back the way he had come with Kilrathie. Yahnke, clearly laboring to breathe, waved his phaser for Stulak to follow him.

"We're going to skip the next rooms and go to the door those two came out of," Yahnke said.

"This is not according to the plan for this part of the operation," Stulak pointed out.

"We're improvising. It's taking too long and that must be some kind of control room. That should give us intel."

Stulak followed without arguing as Yahnke moved to the door, scanning what he could see. With Stulak covering, he slid into the room, noting the tables loaded with food, and a control console with screens showing the various cameras, assorted furniture, and an open door to another room. A quick scan showed nothing in this room, which meant that the door to the next room was the key target. Yahnke began moving to the side, watching the door and the room beyond. As he had been drilled since boot camp, everywhere Yahnke's eyes looked, his phaser was already pointed, and everywhere his phaser pointed, his eyes were already focused. When his eyes locked on those of Melika, they both fired at the same instant.

His phaser stun blast was partially blocked by the cabinet she was crouched behind, but enough of it struck her in the face to put her down. Yahnke was not so lucky. The bullet hit between his skull and the protective helmet, driving a red-hot ceramic projectile along his scalp to explode out the back of the helmet. The pain was incredible, although strangely the thought came to him that the ceramic bullet had probably cauterized the wound that it made. Which was lucky, he noted about the time he hit the floor and passed out, since scalp wounds on humans tended to bleed a lot.
2353 hrs, Basement Room, Celotex Warehouse #8, east of Roon City, Roon

Grissom scanned the storage room while Kilrathie covered his back. "Something alive is in here," he advised the corporal, "something humanoid." The room was a large one, filled with storage lockers, file cabinets with racks of datapads, and the drawers that held datachips.

There were several desks, some accompanied by well-upholstered chairs. This was a working office, and someone was working.

Moving slowly down the aisleway, scanning from side to side with his eyes but not his phaser, Grissom searched the room. Behind the second row of filing cabinets he found a man cowering with his hands over his bald head. "Don't shoot me!" the man cried, not looking at his captor. "Please, don't shoot me!"

"It's on stun," Grissom apologized as he fired. He moved on to check the rest of the room, but the tricorder confirmed what his eyes told him. No one else was there.

"Hostage secure," came the clipped words of Stulak in his earpiece. "Identification confirmed; this is young Mister Plemmons. Lieutenant Yahnke is down. Shot in the head. His condition is serious."


"Dan isn't here," came the words of Dellik. "I heard him going back up the service shaft. Maybe he couldn't get the panel open from the inside. I don't know."

"Go help Stulak," Grissom ordered. He left the stunned man on the floor and went back with Kilrathie to check the other rooms. At this point, enough had happened that he would leave no door unopened. The last rooms included an elaborate but empty bedroom and storage rooms filled with boxes.

2359 hrs, Basement Lounge, Celotex Warehouse #8, east of Roon City, Roon

"The area is secure," Grissom announced on his communicator. "Go back and do a quick search and grab anything interesting." Grissom headed for the office area. He checked on the bald man, who was breathing normally, and began going through his desk. The computer terminal was still on line, and Grissom was able to tell that it was accounting records, but not much more. His tricorder wasn't set up to handle translations, so he couldn't tell what he was looking at.

"Can I assist you, Commander?"

Grissom jumped at the sound of the Vulcan, who had arrived silently.

"My task in this phase is to interrogate the prisoners," he explained. "The others are members of the owning family. They were involved in the kidnapping, and their family is indeed involved in illegal trading with the Orions. Most of them, however, are simply passengers on the family business, taking a share of the profits but doing little work. One female knew a great deal about the Orions, and I have marked her for possible evacuation as a material witness. There are also considerable stocks of illegal materials in this complex, including some narcotics and some electronics that are beyond what this planet can make for itself. Do you know who this man is?"

"No," Grissom said, "maybe some kind of accountant. See what you can find out."

Stulak gently repositioned the small man so that he could conduct a mind meld. The process took a couple of minutes.

"This man is Ted N'Korl. He is, by training, an attorney specializing in taxes, but he is employed by this company to do all of the accounting for their illegal off-world trade. He is very unhappy in his job, feeling such trade to be immoral. He is virtually a prisoner in this complex; a device attached to his ankle will cause him great pain if triggered by an alarm field which he knows is within the elevator. This is to prevent him from leaving. He would be grateful for rescue and would be happy to testify against the family."

"I'll get the collar off of his ankle," Grissom said. "You see if you can wake him up. He'll be easier to move if he can do it for himself, and he can help us find the right records to take with us."

"Very well," Stulak answered, "I shall use the medical kit provided by Doctor Kildaire to revive him." Grissom had decided against including a doctor or medic in his team, expecting to complete the mission fast enough he would not need one.

"You might want to give him something to keep him calm," Grissom advised. "He was terrified when I found him. We need him functioning."

"Very well." The Vulcan moved to treat his patient.

"We got trouble, Commander," came the voice of Dellik in his earpiece. "I can hear a lot of pounding and some shooting going on upstairs. Somebody up there is trying to cut their way in here. I blocked the elevator door open, but
the warning buzzer is going off and some recording is demanding that the door be closed.

"Is Yahmke still out?"
"Yes, sir."
"Where's Daneric-Tren?"
"My tricorder found him halfway up the air shaft. He's conscious and working on something, but he doesn't answer his radio. I was working on getting the panel removed from the hatch; it's got all the bolts in it. Kilrathie is moving some stuff that Stulak told him needs to go with us."
"Carry on," Grissom ordered. "I will be right there."

0005 hrs, Bridge, Light Cruiser
USS Tasmania, in orbit above Roon

"Situation?" the Captain demanded.
"I've transported three guards to other locations, knocked a couple out with water bombs, and several have responded to the false alarms I triggered," the sensor technician reported. "But there are at least six at the upper elevator lobby, using some pretty serious tools to try to get in — cutting torches, power saws, and firearms."
"Options?"
"I can kill the main power to the complex," the technician suggested. "That would at least shut down their heavy tools. Should buy a few minutes before they can get into the elevator shaft with the fire axes. That should also let me transport a few more of them somewhere else."
"Have you reestablished contact with the team?"
"Negative. When that alarm went off twenty minutes ago, some kind of field fired up, blocking my view down the elevator shaft, and some kind of heavy metal plate slammed shut over the ventilation shaft."
"Transporter Room One, this is the Captain."
"Sergeant Bourne here, sir."
"Stand up the landing force. The team is trapped, and I may have to have you get them out of there."
"We are ready, Captain," the sergeant reported. "Twenty-four loaded up and ready to drop in two lifts."
"Stand by, Bourne," the Captain said, "and stun only. This is going to be bad enough as it is."
"Aye, aye, sir," the sergeant responded, "we won't leave any of our people behind."
"Technician," the Captain ordered, "buy Grissom as much time as you can, but let me know when the guards have broken into the elevator shaft."
"Power is off, and I broke the emergency fire hose valves, spraying water all over the place. And I just transported two more guards out of there."

0009 hrs, Basement Elevator Lobby, Celotex Warehouse #8, east of Roon City, Roon

Grissom arrived at the lobby just as Dellik got the metal plate off of the ventilation shaft hatch. Yahmke was starting to sit up, Plemons was standing nearby shaking, and Kilrathie had just arrived with a crate to place next to the large bag already on the floor. The naked local had been pulled out of the way.
sives to blast through the bulkheads without collapsing the
whole shaft."

"So we're trapped?" Plemons wailed. "Good lord, what kind of idiot rescue team are you people? You mean
you didn't leave a whole company of Marines guarding the
way out of this place? What morons!"

"Shut up," Grissom barked. "We're not done yet."

"How far up?" Kilrathie asked Daneric-Tren.

"About ten meters."

"Give me a boost up through the hatch of that elevator
car," Kilrathie said, pulling a grenade from his vest, "I'll
open the door for us." With Daneric-Tren's help, Kilrathie
got his torso up through the hatch. Standing on the
engineer's shoulders, he steadied himself and pulled the
pin on the grenade, dialing the fuze as he did so. Placing
his left hand on the hatch itself, he lofted the grenade
straight up and, in the same motion, stepped off of the
engineer's shoulders, allowing himself to fall. His weight
pulled the hatch shut just as the grenade went off.

"Tasmania, this is Grissom, can you hear me?"

"Loud and clear, Commander," the technician an-
swered. "What's your situation?"

"We're going to get everybody into the elevator car.
There will be the six of us and three others, plus some
cargo. Wide field on the transporter."

"Ready when you are, Commander."

"Stand by," Grissom advised. "Where is Stulak?"

"Here, sir," the Vulcan said as he rounded the corner,
a waste bin full of computer disks in one hand and the
collar of N'Korl's jacket in the other. The accountant was
alternately sobbing and screaming.

"Everybody into the car, now!" Grissom ordered. This
part had been covered in the rehearsals, but there were
too many options, and having three passengers and a load
of baggage wasn't one of them. It took some doing to make
everything fit, and with both Plemons complaining and
N'Korls wailing, it took longer than it should have. An ex-
plosion erupted far above them, and pieces of metal and
concrete began to pound the roof of the elevator car.

"Energize!" Grissom ordered.

"Negative," the ship's technician replied. "I can't get a
good lock on your signal. Too much radiation."

Kilrathie had to shove Plemons aside to reach the
still dazed Lieutenant Yahkne, but he thrust his hands into
the Lieutenant's backpack and was obviously trying to work
something. "Beacon on!" Kilrathie announced.

"Good lock," the ship's technician said from the ear-
pieces, "energizing." The thud of a grenade landing on
the roof of the elevator car was the last sound the team heard
on Roon.

Two Days Later, Conference Room, Light
Cruiser USS Tasmania, in orbit above Roon

"The local police are quite pleased with the evidence
you collected," the ambassador said. "By the time they got
into the underground complex, everything had been de-
stroyed, but with samples of the original material, and Fed-
eration technology, they were able to prove conclusively
what had been there."

"Excellent," the Captain said. "The entire family is un-
der arrest, I take it?"

"Most of them," the Ambassador said. "The Roon gov-
ernment is quite distressed to hear that their electronics
industry almost became obsolete overnight. And they were
almost as upset to hear that common weeds on their planet
are a powerful narcotic for Rigelians. We had been won-
dering where that new drug came from. Now we know."

"And we can stop it," the Captain responded.

"Are your personnel recovering?" the Ambassador
asked, "I know that doing a mission without causing casu-
alties can mean taking heavier losses."

"Lieutenant Yahkne will be fine," the Captain explained.
"Everything else was just strains and bruises."

"Then we were lucky," the Ambassador said. "They
will be rewarded?"

"Commendations for everyone," the Captain said, "a
Bronze Star and a wound badge for the Lieutenant, a com-
mand medal for Grissom. The commendations will be writ-
ten up as a rescue, not combat, as you requested."

The Ambassador nodded his thanks.

"And the trade deal?" the Captain asked.

"Will proceed in all good time," the Ambassador said.
"There are issues to be resolved, and diplomacy demands
patience. My staff is working through the problems.

"By the way, one of my staff has asked if he could
speak with Private Dellick."

"I don't need to ask which member of your staff that
was, do I?" the Captain replied with a strained smile.

"It's better if you don't," the Ambassador said, "but I
think I can get her off of your ship. It seems that my Marine
detachment can use another guard."

"I would be grateful," the Captain said, "to your staff
member."

"I think he will consider it an even trade."

PROLOGUE
INTRODUCTION TO GURPS Prime Directive

WHAT IS GURPS?

GURPS stands for “Generic Universal Roleplaying System,” the RPG that these rules are condensed from. Why is it called that? Well...

“Generic:” GURPS starts with simple rules, and builds up to as much optional detail as you like. This abridged version presents the “core rules” that most GMs start with.

“Universal:” The basic rule system is designed to emphasize realism. Therefore, it can fit any situation — fantasy or historical, past, present, or future.

“Roleplaying:” This is not just a “run-and-gun” game. The rules are written to make true roleplaying possible — and to encourage it. GURPS is a game in which you take on the persona of another character — and pretend, for a little while, to be that character.

“System:” Over 160 different books have been published for GURPS, in eight different languages (so far). GURPS is one of the recognized worldwide standards for roleplaying games.

WHAT IS PRIME DIRECTIVE?

Prime Directive is a roleplaying game set in the Star Fleet Universe. Available for several RPG systems, it is based on the history and background seen in the classic board game Star Fleet Battles from the same publisher. SFB is a ship-to-ship combat board game, based on elements of the original Star Trek television series.

The Star Fleet Universe

The Star Fleet Universe is the history and background material generated over the last 22+ years for SFB. All of the races, empires, and other background material found in GURPS Prime Directive are taken from the Star Fleet Universe. It is important for science fiction fans to understand the differences between the Star Fleet Universe and the original source material. SFB (the original SFU product) was done when “The Original Series” was a syndicated program popular on college campuses, and no new material had been done in years. SFB quickly created hundreds of pages of new material and grew in its own directions. Later, when Star Trek began to generate new material, they went in their own direction and the Star Fleet Universe continued to grow along a different path. Thus, the backgrounds are not 100% compatible, and true Star Trek fans will find numerous differences between the later source material and the SFU. See page 183.

The SFU, being a “game universe” where the readers can make their own history, has been forced to be considerably more consistent (within itself) than the purely literary universe of true Star Trek.

PRIME DIRECTIVE, The First Edition

Roleplaying in the Star Fleet Universe is not new. Two decades ago, when Star Fleet Battles was still in its earliest editions, gamers were adapting various roleplaying systems to construct their own RPGs set in the Star Fleet Universe. None of these reached official status or were actually published, but many of them were played at conventions and at least one, based on a Chaosium game engine, was played by several groups for nearly a decade.

When the fourth set of owners of Task Force Games (the previous publisher for Star Fleet Universe products) took over in 1991, they indicated a strong desire to produce a roleplaying game that would exploit this important market segment. While ADB suggested that we should simply license GURPS, Task Force Games felt that it would be better to create their own unique game engine that could be used for other non-Star Trek products. They hired the team of Mark Costello and Tim Olsen to create a new system for Prime Directive.
Tim and Mark created an interesting game engine, published as *Prime Directive* (now known as PD1) in 1993. While it had loyal players and deserved to find a market, it did not gain enough of a following to remain in development, and other factors in the industry and within Task Force Games brought the release of new products for this game to a halt far too soon. Even so, PD1 (a core rulebook and four expansions of various types) remains a milestone in the *Star Fleet Universe*. [ADB Inc. plans to publish update and conversion information for PD1 products in a future product in order to honor those who played (and wrote) these “lost chapters” of Star Fleet history.]

While their game engine didn’t find the success it truly deserved, Tim and Mark were prolific and creative writers, adding a hundred pages of background to the *Star Fleet Universe*, including many items of equipment, several hand weapons, and a plethora of Federation Associate Races. Many of the pages of *GPD* reprise their earlier work, including the backgrounds for many of the minor Federation races. It should not be a surprise if Mark and Tim write new and exciting items for *GPD*.

Mark and Tim also created the concept of Prime Teams (multi-mission teams capable of conducting exploration, combat, diplomatic, scientific, or even espionage missions), truly their greatest contribution to the *Star Fleet Universe*. ADB endorsed this concept wholeheartedly, even adding Prime Teams to their board games (*Star Fleet Battles* and *Federation & Empire*) as special units with many unique modifiers and bonuses. In 2001, ADB Inc. even added a Prime Team card to their *Star Fleet Battle Force* card game. But Prime Teams may have been one source of the problem with marketing PD1; not everyone wanted to be a commando/diplomat/scientist. Plans to expand PD1 into other areas never came to fruition, but the need to do so remained a given for *GPD*.

**PRIME DIRECTIVE, The New Edition**

When Amarillo Design Bureau was incorporated in 1999 and became the new publisher of the *Star Fleet Universe*, we had a plan. Phase 1 (get our existing products back into print) went well, and we moved into Phase 2 (launching entirely new product lines). A major part of this was to be a new RPG. From the first day, we wanted this to be *GURPS*, and found a receptive ear in our old friend Steve Jackson. It was a marriage made in Texas (which must be heaven) as SJ Games wanted to license *GURPS* and we wanted the best RPG system around.


When *GURPS* moved into its fourth edition during 2004, we faced a major decision as to what direction we would take. After much debate, it was decided to do a new 4th Edition version of *GURPS Prime Directive* and *GURPS Klingons* in order to serve the needs of the gamers, who had made it clear that they wanted to move forward into the new 4th Edition. We are proud to have been invited by Steve Jackson Games to join the trip.
place by a series of bases. The various empires pushed their borders as far as they could and placed their bases far beyond star systems actually explored, colonized, and developed. Any given 500 parsec hex on the map in Chapter 8 includes upwards of 50 inhabited colony planets, and thousands of other systems, including at least a hundred habitable planets (a few have small colonies or outposts).

Producing a detailed map of each hex is impossible, and game masters need only create maps required by their adventures.

Nor should a game master worry overly about consistent nomenclature: Federation stellar maps are the compiled the records of dozens of races, and, while generally accurate, are a mish-mash of names, styles, and conventions. For example, stars may have proper names (Rigel), or be named for their position in constellations (Alpha Centauri), or may simply have a numeric designation. Similarly, planets may have a proper name (Pacifica, Strongport), be named for their position in a solar system (Pollux IX), be named for their discoverer (Sherman's Planet), or simply have a catalog number (PX 123).

**A Brief History of the Star Fleet Universe**

This is given in much greater detail in the Timeline in Chapter Eight, but a brief overview will set a context for the remainder of this introduction. As each race has its own calendar, Federation records arbitrarily begin in Y1 (the Year One), when humans of Earth first reached warp speed and were noticed by the Vulcans. The Klingons, Humans, and most other races achieved warp space capability during Y1-Y10. The United Federation of Planets (UFP or simply "the Federation") was formed in Y4.

In the Alpha Sector, the Gorns destroyed the Romulan ability to build tactical warp starships in Y67, exterminated the Paravians (by accident) in Y94, were contacted by the Federation (at Cestus III) during Y157, and became Federation allies against the Romulans in Y174.

In the Beta Sector, the Federation expanded steadily, contacting the Romulans in Y40, the Thollans in Y84, and the Klingons in Y85. The Kzintis attacked the Federation in Y88 and again in Y136. The key moment was the Federation border declaration of Y102, which claimed territory that had been controlled by the Kzintis and Klingons. Several wars established this as the formal border.

The Gamma Sector is home to the Four Powers, those being the Klingons, Kzintis, Lyrans, and Hydrans. The Klingons and Lyrans met first (in war), and both encountered the Hydrans in Y40 and the Kzintis in Y48. The feline Lyrans and Kzintis (despite being deadly enemies of each other) simultaneously annihilated the canine Carnivons in Y110. The Klingons and Lyrans eventually became allies against the Kzintis and Hydrans. Several wars led to the major Four Powers War in Y158-162.

The defining period of the **Star Fleet Universe** is the General War, which began as yet another Kzinti-Lyran conflict in Y168 and eventually included all of the major races by Y174. Facing economic collapse, the empires ended the war in Y185 when the Interstellar Concordium established the "peacekeeper line" between them. This peace lasted only two scant years before the Andromedan Invasion brought the entire **Star Fleet Universe** to the very edge of annihilation.
EMPIRES OF THE STAR FLEET UNIVERSE

The United Federation of Planets

The United Federation of Planets is a multi-racial political entity with its headquarters on the planet Earth. Several races hold seats on its ruling council; many other races are affiliate members; and colonies or stations have been established on over a thousand other planets. Most of its ships are manned by crews composed of 80-90% of one race, with the remainder being a mixture of all others.

The Federation is dominated by the Humans, including those of Earth parentage who were born on other planets. Humans provide more than 70% of Star Fleet personnel and dominate every phase of its operations. Humans are regarded as the most militaristic, but not the most war-like, of the member races of the Federation.

The Federation is probably the most idealistic of all the empires. Federation ships never attack without warning, and while the Federation has fought wars with all of its neighbors, it has never started one. The Federation has negotiated borders with all of its neighbors and has not sought to expand them militarily.

Economically, however, the Federation is the most aggressive race in its sector of the galaxy. Federation merchant ships are found almost everywhere during peacetime, and the “Neutral Zones” between the Federation and its neighbors abound with Federation colonies set up within the strict letter of the relevant treaties. The Federation considers “peace” to include free access to the markets and ports of all other races. Since the Federation has the strongest economy, it has the most money to buy things with and the most production capacity to build things and tends to dominate the galactic economy. Other empires may scoff, but in the end the numbers don’t lie. The Federation is the most economically efficient system in local space, and the Humans are the ones who run it. Not even Tellarites can argue with success!

For more information, see GURPS Federation. This product is scheduled for August 2005.

Orions and the Orion Pirates

The Orions are a green-skinned humanoid race. Their planet is a semi-autonomous member of the UFP. Indeed, some Orions serve as crew on Star Fleet ships. Of the member races of the Federation, the Orions are perhaps the most economically aggressive, both within and outside Federation territory. Officially (according to the Orion government, anyway), the famed Orion Pirates are simply individual privateers and criminals, many of whom are not even Orions, with no formal organization.

It is believed that the precursors of the Orion Pirates were mega-corporations based on the Orion homeworld. The pirates later organized into cartels, each controlling all pirate operations in a given area. Many ships are operated by each cartel, but about 2/3rds of all pirate ships are “independent” ships. These lease an operations area from a cartel lord and purchase their needed supplies, weapons, and maintenance from cartel facilities. Some Orion pirate ships have a large number of crew members who are non-Orion; a few have no ethnic Orion crews at all.

The Orion Pirates are equal-opportunity exploiters of all the galactic powers, except for the WYN Cluster, whose autonomy they protect in order to use it as a base of operations. See GURPS Orion Pirates (scheduled for 2006).

The Klingon Empire

The Klingon Empire arose on the ruins of a previous empire of which the Klingons had been a subject race. The “Old Kings” had used Klingons primarily in their starship crews, and when the Old Kings disappeared the Klingons quickly picked up the pieces.

Klingons are generally regarded as a brutal warrior race, but this characterization is not entirely fair or accurate. Klingons are humanoids very similar to terrestrial humans, but only a tiny portion of their planetary populations are selected as warriors, so those Klingons typically encountered by other races are soldiers and have a military mindset first and foremost. They are not brutal, but they will not spare civilians to attain a military objective.

The Klingon Empire is a poor one, and it can only match the Federation in military power at the cost of a lower standard of living for its people. Any attempt to match the Federation standard of living would require disbanding the military forces, leaving the Empire vulnerable to a host of enemies. The Klingon Empire is also a multiracial one, with more than a dozen subject races. Over 60% of the all Klingon Empire starship crews are, in fact, from non-Klingon subject races.

For more information, see GURPS Klingons.

The Romulan Star Empire

Romulans are an offshoot of the Vulcan race, with pointed ears and copper-based blood (giving their skin a slightly greenish tinge). The most important thing to the average Romulan is “honor,” i.e., their own personal reputation for doing the correct and honorable thing. For some Romulans, however, ambition overcomes honor and replaces it with greed, revenge, or perhaps hubris.

The Romulans are the most aggressive of the several empires. Their territory includes even fewer habitable planets than the Gorns and no other sentient races (at least, none are known to the UFP). The Romulans seem to honestly believe that they are destined to rule the Galaxy and are constantly working toward this end.

For more information, see GURPS Romulans.
The Confederation of the Gorns

The Gorns are large saurians with a high degree of intelligence and personal bravery. They are physically as large as (or larger than) Kzintis, being taller than (and with perhaps twice the bulk of) Humans.

The Gorn Confederation (the two versions of the name are interchangeable) consists of three intelligent races joined into a single political unit. All developed on separate planets but are so nearly identical that they obviously come from common stock; their templates are identical and they can inter-breed. Their area of space includes relatively few habitable planets and, apparently, no native intelligent races beyond themselves.

The Gorns did encounter a sentient race (the birdlike Paravians, also descended from the original Gorn gene pool) closer to the core of the galaxy in the period after the end of the First Gorn-Romulan War. The Paravians, believing the Gorns to be demons, attacked them with unparalleled savagery. The Gorns accidentally destroyed this race, causing traumatic guilt among the entire Gorn race. Previous surgical strikes against Romulan research facilities had denied the Romulans Tactical Warp technology, and while the Gorns could have used their superior ships to destroy or conquer the Romulans, they chose not to do so because of the Paravian Guilt.

If the Gorns are famous for anything, it is for the stoniness of their legislature, which avoids providing the military with sufficient funding. The Gorns would be a much greater power in the universe if their percentage of Gross National Product devoted to the military matched that of the Federation (let alone the Romulans or Klingons).

The Gorn Confederation has been at war with the Romulan Empire since they met, but (after an initial period of tension) has been firm friends with the UFP. The sourcebook GURPS Gorns is scheduled for publication at a future date.

The Kzinti Hegemony

The Kzintis are large felines over seven feet tall and weighing over 300 pounds. They are carnivorous, and stories of Kzintis eating their captives are certainly true. This distasteful habit prevented the Federation from accepting them as allies for many decades.

The Kzinti Hegemony Fleet is aggressive and highly professional, but has spent much of its time in various civil wars over the succession to the throne. The most notable Kzinti Civil War (Y116) resulted in the flight of the Usurper to the WYN Cluster.

The Kzintis have engaged in constant warfare with the Lyrans and Klingons. They also fought several wars with the Federation, but ultimately allied with them during the General War, and benefited from Federation technological assistance to upgrade their military.

They would like to see the WYN Cluster destroyed because it shelters a pretender to the Patriarchy throne, but have been unable to do so due to the support the WYN receive from other powers.

For more information, see GURPS Feline Empires, scheduled for future publication.

The Lyran Star Empire

The Lyrans are a feline race whose fur coats and features bear a strong resemblance to that of a Terran lynx, and their temperaments are also similar. Federation scientists have determined that Lyrans and Kzintis are descended from common stock, but if this detail is mentioned in the presence of a member of either race, the discussion is likely to become heated (and bloody).

The hatred of these two races is so tremendous that every attempt at peace negotiations breaks down into hand-to-hand combat. Federation diplomats attending international conferences have been advised to not stand physically between Kzinti and Lyran diplomats, even when the discussions are proceeding calmly. The fact that Kzinti and Lyrans somehow coexist peacefully inside the WYN Cluster is an embarrassment to both empires.

The Lyrans have engaged in constant warfare with the Kzinti and Hydrans. They also fought wars with the Klingons, but later became allies, although the strong central organization of the Klingons kept the Lyrans as the junior partner in the alliance. They have engaged in attempts to reintegrate the LDR into the Empire, and would love to see the WYN Cluster destroyed, but have been unable to do so due to the support the WYN receive from their enemies. There is a good deal of conflict within the Lyran Empire, which has kept the race as a whole from dominating a much larger area of the galaxy.

For more information, see GURPS Feline Empires, scheduled for future publication.

The Hydran Kingdom

Hydrans are among the few non-bipedal races in known space. They are small (4.5 feet tall) beings, greensh-gray in color, with a barrel-shaped body supported by three stubby legs with three equally spaced tentacles sprouting from the upper torso. They have three sexes: Male, Female, and Matriarchal, the latter of which is about as intelligent as a sheepdog and is rarely seen off planet.

They evolved and live on Class-S planets; their atmosphere is rich in methane and would be uncomfortable (or fatal) to most other species. While this might be thought to allow them to coexist in the same systems as oxygen-breathing races, this typically does not happen because of the competition for resources such as asteroid belts, etc. A future GURPS manual, or the 3rd Edition GURPS Module Prime Alpha, will include more information.
The Tholian Holdfast

The Tholians are not native to the Milky Way galaxy, but once dominated the M81 galaxy. The Tholians were overthrown in a galaxy-wide revolt some 200 years ago, led by the Seltorians. The Tholians in our galaxy are the descendants of a group that escaped that debacle and managed, by means yet unknown, to bring their “planet” which was a provincial capital and a small Dyson sphere (i.e., a huge hollow structure with a small star inside) with them. Tholians are crystalline creatures who require very high temperatures. If they have to interact in person with other races, they use special environmental suits. They settled on the edge of our galaxy at the end of the Orion Arm in what was then Klingon territory.

Despite a nature that is alien even by galactic standards, the Tholians are experts at playing the Klingons and Federation against each other. Extensive Tholian patrols prevent Orion piracy in their space. Seltorian forces followed them to our galaxy during the General War and became allied with the Klingons against the Tholians.

There have been rumors that Tholians have kept Federation and Klingon personnel prisoners and used them as slave labor on worlds that were too cold for Tholians to live on. For more information, see the future manual GURPS Tholians.

The Interstellar Concordium

The ISC is an organization of several races associated by treaty, similar to the Federation. All of these races are native to different planets within a relatively small area at the center of ISC territory. The various races discovered each other, fought several minor wars, and formed the ISC before the era of tactical warp-powered starships.

There, the resemblance to the Federation ends.

The ISC has no concept of a Prime Directive, and will intervene in the development of any race to bring it up to ISC standards. The ISC’s prime conviction is that “a peaceful, harmonious and well-ordered universe is the duty of all sentient species. Civilizations collapse when that duty is ignored, therefore it must be required of all.” The dark underside of the ISC is that they have no respect for individual or cultural rights that violate this principle, and will go to any lengths to enforce their idea of “peace, order, and good government.” They do not try to conquer other powers, or force them to adopt ISC philosophies.

When the ISC became aware of the other empires within known space, they were shocked at the level of conflict they encountered. The ISC built a huge fleet and, at the end of the General War (Y185), imposed themselves as peacekeepers between the warring factions. (Those factions regarded the ISC forces as buying them time to build new fleets.) With their forces scattered as they were, the huge ISC fleet (which might have defended the sector) became easy prey for the invading Andromedans. The ISC will be the subject of a future GURPS manual.

Smaller Political Entities

The LDR: One of the 21 Lyran counties rebelled in Y145 and became the independent and neutral Lyran Democratic Republic. The tiny enclave remained independent mostly because the Lyran Foremost Duchy welcomed the reduction in power of its rival, the Lyran Enemy’s Blood Duchy (of which the LDR had been a part). The LDR later acquired some significant Hydran technology as a bribe to stay neutral in the General War. The LDR is an officially neutral power, but it has fought a minor war with each of its neighboring powers, the Hydrans and the Klingons. It has been attempting to export revolution to the Lyran Star Empire and has fought at least two minor wars with it, in addition to remaining in constant tensions with it.

The WYN Star Cluster: Located at the point where the Klingon, Lyran, and Kzinti borders meet, the WYN Star Cluster was surrounded by a dense cloud of highly radioactive dust, and was long considered saturated with deadly radiation and thereby uninhabitable. Not until Y116, when a Kzinti Duke fled to the WYN Cluster after a failed bid to seize the Patriarchal throne was it discovered that the radioactive shell surrounding the cluster could be breached by a fast warp approach. Later, groups of Lyran, Klingon, and Orion refugees also arrived in the Cluster at various times. Renegades and the disaffected of every race in known space began to trickle into the Cluster. Common enemies and a common cause forced these groups to set aside past rivalries and form a rare multi-racial culture.

The planets and asteroids within the cluster are rich in rare metals, making the WYNs a wealthy group. They would no doubt be destroyed by their neighbors but for the fact that entry into the Cluster causes such damage to outside ships that any invading fleet is easy prey for the small WYN navy. Furthermore, none of the Kzinti, Klingon, and Lyran governments wants to see any one of their rivals control the vast wealth of the WYN Cluster. The WYN attempt to maintain strict neutrality, despite the fact that an entire Orion pirate cartel operates from the Cluster.

GURPS Feline Empires will have more information on both the LDR and WYN.

The Jindarians have been in space 100,000 years or more, and dozens (perhaps hundreds) of their fleets of hollow asteroid ships criss-cross the galaxy (ignoring wars, borders, laws, and treaties) to mine whatever asteroid belts they find valuable. They often trade with the conventional starfaring races. There is no Jindarian government; every “caravan” has its own style of operations. Some make (and keep) contracts with various empires. From time to time, a given empire will find one particular caravan to be so injurious that it sends a fleet to wipe them out or force them to depart.

The Vudar are a Klingon subject race that became semi-independent late in the General War.
The Lyrans and Kzintis are known to be genetically related to each other (and to the Jwarundil and the dog-like Carnivons) and may have been seeded on their planets by a race known only as the "Leopard Kings" at some time perhaps 100,000 years before the General War. Whether any of these races still exist is a matter of conjecture, and great interest to the powers of the SFU.

**Starfaring Races**

These races or empires include the Federation (with its humans, Vulcans, etc.), the Klingon Empire (including their subject races, who arguably did not reach space flight on their own), the Romulans, Kzintis, Gorns, Orions, Hydrans, Lyrans, WYN, ISC, LDR, Jindarians, and Vudar.

The birdlike Paravians and wolf-like Carnivons became extinct early in the history of the *Star Fleet Universe*, although reports of lost colonies of both continue to appear.

A sub-category of starfaring races include the extragalactic races who have appeared in the Alpha Octant from various other locations. The Tholians arrived as refugees from their galaxy, with the Seltorians (their former slaves) in hot pursuit (only a century behind them). The Andromedans are invaders from the M31 galaxy, and their true nature is unknown. (Their robots are commonly seen but only one man, a Federation Marine, has ever seen a living Andromedan and survived, and he could never bring himself to speak of what he saw.) The Xorkaelians are from the Milky Way, and are masters of a huge empire on the opposite edge. They invaded the Alpha Octant much later in history. Dozens of races occupy the Omega Sector and will be presented in a future *GURPS* manual.

**Non-Starfaring Races**

Non-Starfaring races are those which, for whatever reason, have never left their home world. Almost all are of Tech Level 9 or lower, with most being TL 6 or lower. The many empires have different practices when it comes to their encounters with Non-Starfaring races which range from exploitation (Klingons), to enslavement (Kzintis), to patronage (the ISC). The UFP is unusual in that it quarantines Non-Starfaring races under the famous Prime Directive to allow them to develop on their own.

**Astrofauna**

This is a catch-all heading for interstellar life forms, not necessarily intelligent, that can travel through the enormously hostile environment of space under their own power. Some observed types of astrofauna include large clouds known as energy beings, massive protoplasmic beings that resemble single-celled life-forms, and more complex organisms that have been nicknamed "eels", "snakes", or "dragons." Organisms which are powerful enough to qualify as astrofauna are usually powerful enough to pose a threat even to the ships of starfaring civilizations.

A sub-category of astrofauna includes non-living starcraft which appear from time to time. There are many of these (the gamemaster is welcome to borrow them from any source) including the Death Probe and Juggernaut.
THE ERAS OF THE STAR FLEET UNIVERSE

Although the Star Fleet Universe covers some two hundred-odd years of history, those years are not monolithic, and scholars have divided history into seven distinct eras. The default assumption is that players of GURPS Prime Directive will be members of the UFP adventuring during the Main Era years. Most of the maps and equipment descriptions are created with this phase of history in mind. However, the SFU is a big universe, and campaigns in other eras, or as other races, are certainly possible.

Precontact Era (ends Y4, Tech Level 8)
The Precontact era is the earliest phase of UFP history. Most of the planets that would reach the stars during the next era managed to resolve their problems (usually after new energy sources made competition for resources less intense), form world governments of various types, and reach warp-capable star flight. The Vulcans had been in space for centuries (but as explorers uninterested in economic development), and the Klingons and Hydrans had been in space as the crews of alien starships.

Adventures in the Precontact Era are possible, but would be limited by the available means of travel to the single star system of the adventurers. The first crude power cells made energy weapons practical for the first time during this period. Space ships are slow, limited in range, and rely on spin chambers for artificial gravity.

Non-Tactical Warp Era (Y6-Y61, Tech Level 9)
The Non-Tactical Warp Era represents two trends, inward and outward. In this era, the UFP grew from an alliance into a government. The term “non-tactical warp” refers to the primitive first starships which could move at trans-light speeds but could only fight at sub-light speeds.

Two very significant events mark the Non-Tactical Warp Era: the first contact with the Orions (Y21) which brought about the first major interstellar trade agreements, and the contact with the Romulans (Y40) which resulted in the Federation’s first interstellar war. Orion support was needed for the survival of the Federation, but then, the Orions had provoked the war by trying to colonize planets in space claimed by the Romulans.

Adventures (for UFP members) in this Era are best centered around contacts with the Orions and the Romulans. (Using other sourcebooks, adventures among “the Four Powers” are equally plausible.) Gamemasters interested in a military campaign have the exciting backdrop of the First Federation-Romulan War, while those interested in exploration can have players interact with the Byzantine machinations of the Orions, who will doubtless in time have players saying, “With allies like these...”

The first primitive starships can make about nine parsecs per day, enough to reach hundreds of new worlds, but can only fight at sublight speeds. Gravity compensation allows high-G maneuvers. While military and government starships will have crews from a single world, the first of the free traders may have crewsman from many planets. An adventurer during this period would hang his beam pistol in a holster from his fabric body armor, have a rather simple PADD, and carry a communicator good for 25 miles.

Tactical Warp Era (Y62-Y78, Tech Level 10)
The Tactical Warp Era was marked by few political developments, but many technological ones. The chief development was, of course, the invention of the Tactical Warp engine, which allowed combat at warp speeds, though only up to Warp 3.2. While the Federation was the first to develop this technology, other races developed it on their own or copied it quickly, and the Federation (even if it wanted to) could not have conquered anyone else before they matched the technology. This development drove the Federation into full power as a government, since only ships of the Federation fleet (not individual planets) initially had the technology. Star Fleet assumed the official duty of defending all member planets, but those planets eventually built their own tactical warp ships for local defense and to train recruits for Star Fleet.

Adventures in this Era can center around the developments of Tactical Warp drive and Star Fleet. A good campaign could center around the crews of the first Star Fleet ships, with true artificial gravity, tractor beams, low-tech replicators, and the first finicky transporters. These ships will have to contend with disunity among multi-racial crews concerned over the erosion of planetary sovereignty.

An adventurer in this period would holster his phaser pistol next to the earliest “scanner” (or “monocorder”) and would have a limited translator next to his communicator.

The Early Years Era (Y79-Y119, Tech Level 11)
The Early Years Era marked the beginnings of the UFP’s interactions with the wider galaxy. This was the era in which the Federation encountered powers which could not be absorbed (as had the Orions) or defeated and ignored (as had the Romulans). These included the recluse Tholians, and the militaristic Klingons (who were involved in other wars and became tacit allies of the Federation, providing advisors to those Star Fleet ships fighting the Kzintis).

Unfortunately, good relations between the Klingons and the Federation did not last due to competition over colony worlds between expanding outposts. UFP efforts to define a border in Y102 succeeded a decade later at a cost in blood. The Romulans nearly invaded the Federation in Y110 but called off the offensive at the last minute when Emperor Ramillus died without an heir. The Federation did not learn of this event until decades later. During this period, Orion starships began to disappear from their enclave and take up piracy as a vocation.

The wars with the Kzintis and Klingons led to several important changes within the Federation. Star Fleet formed its own Marine Corps, Prime Teams (a trouble-shooting unit of commandoes, scientists, and diplomats), and the National Guard (a formal command structure for the nearly-forgotten vestiges of member planet military forces).
Adventures in this era could focus on the first interactions with the Tholians, Kzintis, and Klingons. Much could be made of a UFP-Klingon campaign, with mutual cooperation marred by growing competition and mistrust. Hunting (or roleplaying) Orion pirates becomes a favorite activity for adventurers. During this period, the high technology planet Cygnus changed from being a Kzinti slave world to a Federation member (due to the border declaration).

The adventurer in this era will find his equipment lighter and more efficient, and his Monocorder has become a Biocorder able to collect and interpret two different types of data at the same time. Starships are fully capable of tactical war combat, with improved tractor beams and reliable transporters. The first mature replicator designs are able to transmute elements, rather than simply reprocess feedstocks. Powerful sub-space transmitters allow admirals to interfere in the daily lives of starship captains, and allow adventurers to gather news of opportunities on distant planets.

**The Main Era (Y120-Y179, Tech Level 12)**

The Main Era is the default setting for GURPS Prime Directive, and most equipment descriptions in this book are set to it. This is also the time that will be most familiar to players familiar with the earliest television series (Y156-Y159). The Main Era is a time of Federation expansion, exploration, and conflict, and ends during the gigantic General War (Y168-Y185) that affected nearly every political entity in known space. In some sources, the period from Y120-Y150 is known as "The Middle Years".

The Main Era was a time, paradoxically, of both territorial solidification and expansion for the Federation. Like its neighbors, it began building a network of huge starbases and smaller border stations. As the UFP had no hostile neighbors in the forward direction, it began a massive program of exploration in that region in Y125. Furthermore, although most of the millions of stars within the territorial borders of the UFP had been surveyed, only a handful had received detailed exploration and study, and UFP also began more intense efforts to map out its own "internal" territories. Inconclusive wars were fought with the Kzintis (Y136-Y142), Romulans (Y154-Y155), and Klingons (Y156). The war with the Klingons ended when the god-like Organians stopped a major fleet battle near their planet and brokered a treaty covering the entire Neutral Zone. This was followed by a Klingon-Romulan alliance, which brought the Romulans at a stroke from TL9 (where Gorn commandoes had left them) to the TL12 enjoyed by the rest of the galaxy. Faced with this situation, the Federation formed alliances with the Gorns and their previous rivals, the Kzintis. These interlocking alliances ensured that the next Lyran-Kzinti border skirmish would explode into the General War, covering the entire Alpha Octant. This war lasted beyond the Main Era, ending in stalemate, exhaustion, and ruin in Y185.

Almost unnoticed during the General War were two events of future import, the first scouts from the Andromedan invasion, and the first efforts by the Interstellar Concordium to build a fleet that could enforce neutral-
SOME MYSTERIES OF THE SFU

There are many mysteries of the Star Fleet Universe that have been left undefined. There are no “official” answers to the following questions, but enterprising game masters might want to take a stab at handling them in their own campaigns. Indeed, solving one of these mysteries might be the focus of an entire campaign.

Why is Everybody Always Fighting All the Time?
If there is any constant in the Star Fleet Universe, it is that of war. At any given point in the 200+ years of SFU history, there is usually a border skirmish or outright war going on between at least two powers. This may be because all of the starfaring races (including humans) are descended from predators, but it is more likely a contest over control of potential resources (the cause of most wars on Earth). It should also be noted that any given border is quiet at least three or four times as often as there is a war in progress, and before the General War there was a booming industry of Federation tourists visiting Klingon worlds.

Why Are Psychic Abilities So Rare?
Of all the member races of the UFP, only the Vulcans display psychic abilities as a racial trait. Individual psychics are found among most races with varying degrees of frequency. Certainly, the inhabitants of the Star Fleet Universe regard this as “the way it is” and do not find it any great mystery at all. But perhaps you do? Is there some force, some entity, some genetic quirk, that is restricting the latent psychic abilities of all races? Or did some long-forgotten race give the Vulcans a unique gift?

Why is Romulan and Gorn Space So Empty?
The Romulan Star Empire occupies an area of space that stretches for thousands of parsecs to the galactic rim, and the Gorns occupy a somewhat smaller area toward the galactic center. While there are many Class-M planets in that area, there are no known intelligent races there, despite the fact that the neighboring Federation and ISC are populous powers with many sentient races who became starfaring races independently. Could the claims of conspiracy theorists that the Romulans (and Gorns) engage in systematic genocide have any truth to them? (GURPS Romulans has surprising new information on this mystery.)

Who Built the Planet Killers?
At several times in history, the empires have encountered cone-shaped planet destroyers and huge starships known as Juggernauts. Who constructed these monstrosities, and why? Was it the same race, or two different races? If it was two races, did they fight each other, or did they never even meet? Are the planet killers advance probes from an invasion, or hellish leftovers from some now-extinct race that fought a now-forgotten war? And why would any race create such a destructive weapon? What threat did they fear that was worse than these weapons?

Where Did the Disappearing Planets Go?
There are numerous cases of lost colonies. Some examples include Aberdeen III (a Federation colony that disappeared in Y105), Aurora (an entire Federation star system that disappeared in Y130), Stuplich’s Ark (a chain of colonies planned by an explorer named Stuplich, the last of which were never located), the ISC mining colony of PX13, and the Klingon penal colony at Kraknor. Where did they go? Are any other colonies missing?
Did the Tholians, the only race known to have moved a planet, have anything to do with it?
For that matter, the Carnions are thought to be extinct, but did any of their colonies survive in the far-flung reaches of space? While the Paravians were known to have never planted colonies and to have become extinct when their homeworld was destroyed, did any of their raiders avoid the Gorn blockade and found new colonies in distant realms?
Some of these answers will be in the future sourcebook GURPS Omega Sector but gamemasters need not wait for those answers and can develop their own.

Where’s the Transhumanist Future?
The Star Fleet Universe appears somewhat “retro” given current trends in science fiction. Where is the large-scale genetic manipulation? Where are the nano-machines? How about the sapient computers and robots? They simply do not exist to any extent beyond artificial limbs and organs. The inhabitants of the Star Fleet Universe do not find this to be a mystery, but just the way things turned out. Genetic manipulation was found to cause more problems than advantages, nano-machines never really worked out, and “intelligent computers”, contrary to expectations, simply didn’t work very well. But is there some force at work? Or is there some distant planet where these things did work?

Where Are the Precursors?
The Leopard Kings, Spirit Kings, Old Kings, and Lizard Kings are just the best-known of the races that ran the Milky Way before the rise of the Federation. They all left, to parts unknown, for reasons unknown. Where are they now, and are they likely to return? Is there any way to contact them? Would anybody really want to?

Why the Convergent Technological Evolution?
Most of the powers of the Star Fleet Universe attained similar levels of technological development at roughly the same time. No race made any significant advance without other races copying it within a few years. This seems very convenient to conspiracy buffs, although industrial and intelligence analysts find it unremarkable. They note that spies, combat reports, and good old-fashioned research can ensure that one race copies any new technology before the originally-discovering race can deploy enough of it to gain a decisive advantage in war or trade. This creates no end of opportunities for adventurers to steal alien technology, or discover the secret conspiracies behind the overall question.
Creating a character is the first part of the game, and one of the most important. The whole idea of roleplaying is to take the part of another person — a "character" that you create. GURPS lets you decide exactly what kind of hero you will become.

The usual way to create a character is to design him or her, just as though he was a character in a story you were writing. Start by deciding what type of person you want to be. You can take your inspiration from a fictional hero or heroine — or create your new "self" from the ground up. Once you have some idea what sort of person you want to play, it's time to bring him to life!

A "character story" is the history of a game character, written by the person who plays that character. This is a great aid to roleplaying. You may even want to write the story first (or at least some of it), and then work out your character's actual stats. A story can really help bring your character to life. You don't have to do it — but it's recommended. If you write the story down, you should show it to the GM, but not necessarily to the other players. After all, your character probably has some secrets, even from his friends.

The following sections describe things you can spend your character points on. Positive traits (e.g., great strength, wealth, better than average appearance, skills) cost points in proportion to their value. Negative traits (e.g., weakness, bad sight, poverty, fear of heights) give you extra points that can be used to buy more positive traits.

In a standard GPD campaign, each character receives 125 character points to be spent on designing and building their character. GMs may set the tone of the campaign differently by selecting a different number of starting character points, but this should be approached with caution. Normally, all player characters in a given campaign are given the same number of points to spend. There could be exceptions to this in some cases (if the GM agrees), to preserve logical consistency. A starship captain would probably have more points than most of his officers.

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<td>Cadet</td>
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<td>Green</td>
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<td>Elite</td>
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<td>Heroic</td>
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To get into the game quickly, you could use the sample characters found on pages 196-197 of this book.

**ADVENTURE PARTY FORMATS**

You have gotten together a group of players and are ready to begin adventuring in the Star Fleet Universe. You dream of rescuing attractive people, fighting the Klingons, finding ancient civilizations, and maybe grabbing some loot (or at least a good time) along the way. Just how do you organize your team (group, party, or whatever)? Just who are you?

Well, in case it hasn't been mentioned, you can be anyone or anything you want to be. Here are a few suggestions; feel free to ignore or modify them. It should be noted that in rare cases one or more characters might have more points than the baseline for your campaign. While these are written for Federation characters, they can be easily adapted to any race or empire. Future books will include more suggestions for party creation and campaign frames to fit a variety of backgrounds and power levels.

**The Bridge Crew: Officers on Call**

You are the officers of a starship, including the captain, his first officer, the department heads (engineering, science, medical, marines, navigation), and perhaps a visiting civilian expert. Your missions include space combat, scientific exploration, a little diplomacy and bar hopping, and so forth. Fussy realists will complain that the bridge crew of a starship just doesn't do a lot of planetside adventuring, but they are only angry that you are hogging all the fun for yourselves. Your ship has a few hundred people on board, so you can usually borrow an NPC expert for any mission, and there are tons of equipment so you can load up with whatever today's adventure requires. In this case, somebody will need to be the captain (perhaps with an extra 25 points of skills related to space combat and command) and the first officer (perhaps an extra 15 points), while everyone else will have to buy at least some skills related to their real job (e.g., medical, engineering, etc.). Having to pay for these shipboard skills may make your characters harder to play in a planetside adventure, but then you have a starship load of help not far away. You are all military personnel, and you won't have to pay for fuel and upkeep for your ship (although your GM may limit how much of either you can have).

A variation of this is that you are a group of junior officers or senior petty officers on a starship whom the captain often calls upon to go run errands or attend to special missions. And while on a mission, things might turn up that you need (or want) to look into. The group in the story *Rescue on Roon* fits this category. The players and GM
might or might not agree that one character will get a few extra points and be one rank higher than the others.

**Special Assignment: Ready for Anything**

You are a group of Star Fleet officers and senior petty officers on a continuing special assignment doing "odd jobs" for the Federation. (One or more characters might be Federation Marshals — civilian law enforcement officers empowered to investigate crimes. One or more could be a civilian specialist.) You have a small ship; you might be the entire crew, or there might be a small number of NPCs who handle things like cooking and laundry and actually driving the spaceship around. While you are your own boss, you do keep getting assignments from Fleet HQ. Your group could focus on missions of its liking (science, diplomacy, commando, espionage, etc.) or seek a wider variety of possible missions.

A variant of this concept is that you are all "retired" or "reserve" military personnel who own the ship and make a living out of odd jobs (transportation, profit-making adventures). You do receive occasional contracts from Star Fleet HQ or a Federation planet to do special jobs for them, and they will pay to get the jobs done right. On time. You need to avoid actually committing a felony on a Federation planet or your contracts won't be renewed. (At least, don't get caught.)

**Prime Team: The Best of the Best**

You are the elite of Star Fleet, a Prime Team, a small band of multi-tasking experts who are the best that the Federation can send on various special missions. A Prime Team [see page 165] is a combination of a commando team, gang of spies, diplomatic negotiating group, scientific exploration party, hostage rescue squad, and special missions force. Members of a Prime Team are 175-point characters with a wide variety of skills; they take the toughest jobs. As you are military personnel, you don't pay for transportation (and Prime Teams don't have to ask for high speed travel) and you are issued all of the equipment you need. Some Prime Teams are assigned to key starships (which often leave them on one planet to solve one problem while the ship goes to another planet to solve another problem), others have their own (small) ship to carry them from job to job, and others hitch a ride with whatever starship is going in the general direction of their next assignment. Some Prime Teams specialize in certain areas, but all are expected to be ready for any kind of mission.

**Fighter Pilots: Wild Dogfights, Wild Parties**

In the Star Fleet Universe, the key starships of a fleet are the carriers, loaded with specially-bred shuttlecraft that function as fighters. Your group is as rowdy a bunch of fighter jockeys as you have ever seen, as likely to get into a bar fight as a dogfight, and as likely to sneak off and try to find a little fun (or a few souvenir) as they fly off and attack a Klingon dreadnought. You can easily use Star Fleet Battles to portray your fighter combat missions. (See Chapter 8.) As pilot characters are still limited to the standard number of points for your campaign (e.g., 125), the points spent for pilot skills won't be available for planetside skills (or just don't count these points). Otherwise you function as a group of officers on a starship. Just remember the three things every pilot needs when entering a dive: mirrored sunglasses, an expensive watch, and lots of cash.

**Freelancers: Have Phaser, Will Travel**

You are civilians, perhaps with a military background but probably not currently members of the military; others might have a scientific, criminal, business, or other background. Your group might own a ship or buy passage on other ships. You are looking for profit, adventure, and high-risk work. You might be described as mercenaries or freebooters. The government, the military, or even the Galactic Intelligence Agency might hire you now and then for something, but mostly you are on your own. (The less attention you pay to the law, the less likely you will get government contracts. You can always turn down an offered contract, unless the government "has something on you" and can force you to agree.)

In this kind of group, you might want to buy advantages like "warrant for your arrest" on some Federation planet. This would be handled as the disadvantage "Enemy (UFP law enforcement, 6 or less)" worth -10 points. A minor "wanted for questioning" type of Enemy might be worth -5 points. Your past can then come back to haunt you during any adventure, perhaps requiring you to spend time in jail while some distant government decides whether or not they want to extradite you (probably not) or a shorter time in police custody giving yet another version of the statement you have given on two or three other planets. Your friends might even have to break, bribe, or bail you out of the hoosegow, or perhaps the government will offer you a dangerous contract that will clear your record.

One or more characters could have been cashiered (i.e., thrown out of the military for some offense). This is handled as "Reputation -2 (Dishonorably discharged; only to the military, 10 or less)" [-2]. A civilian scientist might have a similar disadvantage, having once had his tenure revoked, or having been fired from a job, for faking research data, making other scientists less likely to listen when you discover something new.

This type of group could focus on exploration, larceny, missionary or humanitarian work, archaeology, investigative journalism, smuggling, or anything else that suits your fancy. And of course, that might be just a cover story for your real mission (which even the GM might not know).

**Other Parties and Times**

The above is obviously not a complete list. A campaign can be anything that keeps the players interested. If you think of something not on this list, tell us and, if we like the idea, we will print it in a future product.

The Star Fleet Universe includes a Timeline (page 174). You are free to set your campaign at any point in the Timeline (or to ignore the Timeline entirely and write your own history to suit your campaign). This book assumes the period just before the General War for most cases.
CHARACTER CREATION

BASIC ATTRIBUTES

Four numbers called “attributes” define your basic abilities: Strength (ST), Dexterity (DX), Intelligence (IQ), and Health (HT). A score of 10 in any attribute is free, and represents the human average.

Strength (ST) ±10 points/level

Strength measures physical power and bulk. High ST lets you dish out and absorb more damage in hand-to-hand combat. Any adventurer will find ST useful for lifting and throwing things, moving quickly with a load, etc. ST directly determines Basic Lift, Basic Damage, and Hit Points, and affects your character’s Build.

Dexterity (DX) ±20 points/level

Dexterity measures a combination of agility, coordination, and fine motor ability. It controls your basic ability at most athletic, fighting, and vehicle-operation skills, and at craft skills that call for a delicate touch. DX also helps determine Basic Speed and Basic Move.

Intelligence (IQ) ±20 points/level

Intelligence broadly measures brainpower, including creativity, intuition, memory, perception, reason, sanity, and willpower. It rules your basic ability with all “mental” skills — sciences, social interaction, etc. Any scientist needs a high IQ first of all. The secondary characteristics of Will and Perception are based on IQ.

Health (HT) ±10 points/level

Health measures energy and vitality. It represents stamina, resistance (to poison, disease, radiation, etc.), and basic “grit.” HT determines Fatigue Points, and helps determine Basic Speed and Basic Move.

SECONDARY CHARACTERISTICS

“Secondary characteristics” are quantities that depend directly on your attributes. You can raise or lower these scores by adjusting your attributes. You can modify some of them directly: start with the value calculated from your attributes and spend the required points to adjust it away from that base level. This does not affect the related attribute scores.

Damage (Dmg)

Your ST determines how much damage you do in unarmed combat or with a melee weapon. Two types of damage derive from ST:

Thrusting damage (abbreviated “thrust” or “thr”) is your basic damage with a punch, kick, or bite, or an attack with a thrusting weapon such as a spear or a rapier.

Swinging damage (abbreviated “swing” or “sw”) is your basic damage with a swung weapon, such as an axe, club, or sword — anything that acts as a lever to multiply your ST.

Consult the Damage Table for your basic damage. Note that specific attack forms and weapons can modify this! Damage is often abbreviated “Dmg.” On your character sheet, list thrust followed by swing, separated by a slash; e.g., if you had ST 13, you would list “Dmg 1d/2d-1.”

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<th>Damage Table</th>
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Federation Battlecruiser

GURPS PRIME DIRECTIVE 4E
Basic Lift (BL)

Basic Lift is the maximum weight you can lift over your head with one hand in one second. It is equal to (ST x ST)/5 lbs. If BL is 10 lbs. or more, round to the nearest whole number. Doubling the time lets you lift 2 x BL overhead in one hand. Quadrupling the time, and using two hands, you can lift 8 x BL overhead.

The amount of equipment you can carry – armor, backpacks, weapons, etc. – is derived from BL. For more on this, as well as a ST-to-BL table, see Encumbrance and Move.

### Basic Lift and Encumbrance Table

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<th>BL</th>
<th>Encumbrance levels</th>
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### Hit Points (HP)

**±2 points per ±1 HP**

Hit Points represent your body’s ability to sustain injury. By default, you have HP equal to your ST. You can temporarily lose HP to physical attacks, energy attacks, disease, poison, hazards, and anything else that can injure or kill. You can also “burn” HP to power certain abilities. If you lose enough HP, you will eventually fall unconscious; if you lose too many HP, you will die.

Lost HP do not reduce ST, despite being based on ST. Injury is often compared to a multiple of your HP; e.g., "2 x HP" or "HP/2." When this is the case, use your basic HP score in the formula, not your current HP total. Those with nonhuman physiologies may, with the GM’s permission, buy additional HP with the following limitation:

**Size:** Large creatures may purchase HP more cheaply. -10% x Size Modifier, to a maximum limitation of -80% (for Size Modifier +8 or higher).

### Will

**±5 points per ±1 Will**

Will measures your ability to withstand psychological stress (brainwashing, fear, hypnotism, interrogation, seduction, torture, etc.) and your resistance to psionic attacks. By default, Will is equal to IQ. You cannot raise Will past 20, or lower it by more than 4, without GM permission.

### Perception (Per)

**±5 points per ±1 Per**

Perception represents your general alertness. The GM makes a “Sense roll” against your Per to determine whether you notice something. By default, Per equals IQ. You cannot raise Per past 20, or lower it by more than 4, without GM permission.

### Fatigue Points (FP)

**±3 points per ±1 FP**

Fatigue Points represent your body’s “energy supply.” By default, you have FP equal to your HT.

You burn FP gradually during strenuous activity. Disease, heat, hunger, missed sleep, and the like can also sap FP. You can deliberately “spend” FP to fuel extra effort and psionic powers. As well, some attacks cause FP damage instead of or in addition to HP damage. If you lose enough FP, you will slow down or fall unconscious – and if you lose too many, you may die from overexertion! Lost FP do not reduce HT, despite being based on HT.

Fatigue is often compared to a multiple of your FP; e.g., “2 x FP” or “FP/2.” Where this is the case, use your basic FP score in the formula, not your current FP total.

### Basic Speed

**±5 points per ±0.25 Speed**

Your Basic Speed is a measure of your reflexes and general physical quickness. It helps determine your running speed (see Basic Move, below), your chance of dodging an attack, and the order in which you act in combat (a high Basic Speed will let you “out-react” your foes).

To calculate Basic Speed, add your HT and DX together, and then divide the total by 4. Do not round it off. A 5.25 is better than a 5!

### Dodge

Your Dodge defense equals Basic Speed +3, dropping all fractions. For instance, if your Basic Speed is 5.25, your Dodge is 8. Encumbrance reduces Dodge; see Encumbrance and Move. You must roll under your Dodge on 3d to duck or sidestep an attack.

### Basic Move

**±5 points per ±1 yard/second**

Your Basic Move is your ground speed in yards per second. This is how fast you can run – or roll, slither, etc. – without encumbrance (although you can go a little faster if you “sprint” in a straight line). Basic Move starts out equal to Basic Speed, less any fractions; e.g., Basic Speed 5.75
gives Basic Move 5. An average person has Basic Move 5; therefore, he can run about 5 yards per second if unencumbered.

Your Move score in combat is your Basic Move modified for your Encumbrance Level.

**ENCUMBRANCE AND MOVE**

"Encumbrance" is a measure of the total weight you are carrying, relative to your ST. The effects of encumbrance are divided into five "encumbrance levels." All but the lowest level will reduce your actual Move to a fraction of your Basic Move and give a penalty to Dodge, as follows:

- **No Encumbrance (0):** Weight up to Basic Lift. Move = Basic Move. Full Dodge.
- **Light Encumbrance (1):** Weight up to 2 x BL. Move = Basic Move x 0.8. Dodge -1.
- **Medium Encumbrance (2):** Weight up to 3 x BL. Move = Basic Move x 0.6. Dodge -2.
- **Heavy Encumbrance (3):** Weight up to 6 x BL. Move = Basic Move x 0.4. Dodge -3.
- **Extra-Heavy Encumbrance (4):** Weight up to 10 x BL. Move = Basic Move x 0.2. Dodge -4.

Drop all fractions. Encumbrance can never reduce Move or Dodge below 1. Note that these levels are numbered from 0 to 4. When a rule tells you to add or subtract your encumbrance level from a die roll, this is the number to use. For instance, encumbrance gives a penalty to Climbing, Stealth, and Swimming skills.

**Home Gravity**

Gravity is measured in "Gs." The gravity of your home world is specified in the Racial Template for all races.

All weights are multiplied by local gravity, so to function like someone with a given BL on Earth, multiply the desired BL by your home gravity and buy the ST corresponding to the adjusted BL. For instance, to operate in 1.2G as if you were a ST 10 person in 1G, start with BL for ST 10, which is 20 lbs., and multiply by 1.2 for gravity to get a BL of 24 lbs. This BL corresponds to ST 11, so you'd need ST 11 in 1.2G to function as well as a ST 10 person in 1G.

**Move in Other Environments**

**Water:** Move is normally Basic Move/5, rounded down. You can increase water Move directly for 5 points per yard/second, or reduce it for -5 points per yard/second. Members of land-dwelling races must have Swimming skill to increase water Move, and cannot buy more than +2 yards/second. If you're Amphibious, both water and ground Move equal Basic Move, and changes to Basic Move adjust both scores. If you're Aquatic, your move equals Basic Move and ground Move is 0.

**Air:** Move is 0 without special advantages. If you have Flight, air Move equals Basic Speed x 2 (not Basic Move x 2). You can increase air Move directly for 2 points per yard/second, or reduce it for -2 points per yard/second.

**BUILD**

You are free to select any height and weight the GM deems reasonable for a member of your race. These choices do occasionally matter in play — for instance, when you attempt to impersonate an enemy, wear someone else's armor, cross a rickety bridge, reach a high ledge, or hide behind cover. If you are lighter or heavier than usual for your ST, you may qualify for a build-related disadvantage. The following table gives the thresholds for these disadvantages for normal humans.

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<th>Build Table</th>
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Build-related disadvantages are described below. In some settings, the GM may require you to take reaction modifiers if you select these traits, but this is not automatic.

**Skinny**

You have approximately 2/3 the average weight for your ST. This gives you -2 to ST when you resist knockback. You get -2 to Disguise — or to Shadowing, if you are trying to follow someone in a crowd. Your HT may not be above 14.

**Overweight**

You have approximately 130% the average weight for your ST. You get -1 to Disguise — or to Shadowing, if you are trying to follow someone in a crowd. However, your extra fat gives you +1 to Swimming rolls, and +1 to ST when you resist knockback.

**Fat ***

You have approximately 150% the average weight for your ST. You get -2 to Disguise — or to Shadowing, if you are trying to follow someone in a crowd. However, your extra fat gives you +3 to Swimming rolls, and +2 to ST when you resist knockback. Your HT may not be above 15.

**Very Fat ***

You have approximately twice the average weight for your ST. You get -3 to Disguise — or to Shadowing, if you...
are trying to follow someone in a crowd. However, the extra fat gives you +5 to Swimming rolls, and +3 to ST when you resist knockback. Your HT may not be above 13.

SIZE MODIFIER (SM)

Size Modifier rates a person or object’s most significant dimension: length, width, or height. It is a modifier to rolls to hit you in combat and to Vision rolls made to spot you. Thus, it is a bonus for large creatures, a penalty for small ones. Although large creatures are easier targets, a positive SM qualifies them to buy ST and HP more cheaply by taking the “Size” limitation. Most humans – and humanoid robots, etc. that can pass for human – have SM 0, and can ignore this rule. Nonhumans use the SM on their racial template.

Size Modifier Table

<table>
<thead>
<tr>
<th>Longest Size Dimension</th>
<th>Modifier</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.05 yard (1.8&quot;)</td>
<td>-10</td>
</tr>
<tr>
<td>0.07 yard (2.5&quot;)</td>
<td>-9</td>
</tr>
<tr>
<td>0.1 yard (3.5&quot;)</td>
<td>-8</td>
</tr>
<tr>
<td>0.15 yard (5&quot;)</td>
<td>-7</td>
</tr>
<tr>
<td>0.2 yard (7&quot;)</td>
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<tr>
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</tr>
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<td>-2</td>
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<tr>
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</tr>
<tr>
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</tr>
<tr>
<td>3 yards (9')</td>
<td>+1</td>
</tr>
<tr>
<td>5 yards (15&quot;)</td>
<td>+2</td>
</tr>
<tr>
<td>7 yards (21')</td>
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<tr>
<td>10 yards (30')</td>
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</tr>
<tr>
<td>15 yards (45&quot;)</td>
<td>+5</td>
</tr>
<tr>
<td>20 yards (60')</td>
<td>+6</td>
</tr>
<tr>
<td>30 yards (90')</td>
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</tr>
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</tr>
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<td>70 yards (210')</td>
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</tr>
<tr>
<td>100 yards (300')</td>
<td>+10</td>
</tr>
<tr>
<td>150 yards (450')</td>
<td>+11</td>
</tr>
</tbody>
</table>

STARTING AGE

You are free to pick any age within the usual lifespan for your race. Humans usually fall somewhere between 18 to 70, but fiction is full of heroic youths and sharp 90-year-old veterans.

For nonhumans, adjust the age categories in proportion to the race’s rate of development.

If you start at an advanced age, you have no special disadvantages. Not everyone ages well, but heroes are exceptional, and you are free to make elderly characters as fit and as capable as you wish.

PHYSICAL APPEARANCE

There is more to appearance than good (or not-so-good) looks. You may take any combination of the following traits in conjunction with any appearance level. Appearance is mostly a “special effect” – you may choose any physical appearance you like. At minimum, note the color of your skin, hair, and eyes (or other features appropriate to your race: scales, feathers, paint job, etc.). However, certain traits count as advantages or disadvantages.

Appearance Levels

**Variable**

Appearance is rated in levels. Most people have “Average” appearance, for 0 points.

Reaction modifiers due to appearance only affect members of your own race, a very similar race, or a dissimilar race that finds your race attractive (for whatever reason). In all cases, the GM’s word is final; humans are “very similar” to Alpha-Centaurans, but Klingons are unlikely to care about a human’s appearance.

- **Horrid:** ★ You are indescribably monstrous or unappealably foul, and cannot interact with normal mortals. This gives -6 on reaction rolls. **-24 points.**
  - **Monstrous:** ★ You are hideous and clearly unnatural. Most people react to you as a monster rather than a sapient being. This gives -5 on reaction rolls. **-20 points.**
  - ** Hideous:** ★ You have any sort of disgusting looks you can come up with: a severe skin disease, wall-eye, perhaps several things at once. This gives -4 on reaction rolls. **-16 points.**
  - **Ugly:** As above, but not so bad – maybe only stringy hair and snaggle teeth. This gives -2 on reaction rolls. **-8 points.**
  - **Unattractive:** You look vaguely unappealing, but it’s nothing anyone can put a finger on. This gives -1 on reaction rolls. **-4 points.**
  - **Average:** Your appearance gives you no reaction modifiers either way; you can blend easily into a crowd. **0 points.**
  - **Attractive:** You don’t enter beauty contests, but are definitely good-looking. This gives +1 on reaction rolls. **4 points.**
  - **Handsome (or Beautiful):** You could enter beauty contests. This gives +4 on reaction rolls made by those attracted to members of your sex, +2 from everyone else. **12 points.**
  - **Very Handsome (or Very Beautiful):** You could win beauty contests – regularly. This gives +6 on reaction rolls made by those attracted to members of your sex, +2 from others. **Exception:** Members of the same sex with reason to dislike you (more than -4 in reaction penalties, regardless of bonuses) resist your good looks, and react at -2 instead. As well, talent scouts, friendly drunks, slave traders, and other nuisances are liable to become a problem for you. **16 points.**
  - **Transcendent:** You are an “ideal specimen.” This gives +8 (!) on reaction rolls made by those attracted to members of your sex, +2 from others, and all the troublesome side effects of Very Handsome. **20 points.**

Federation Battlecruiser

**CREATING A CHARACTER**
OTHER PHYSICAL FEATURES

Fashion Sense

5 points

Your look is always one step ahead of the crowd. You have the ability to create a fashion statement out of the cheapest and most nondescript materials. This gives +1 to reaction rolls in social situations when you have a chance to plan your attire in advance. You can also give someone else a +1 reaction bonus when you put together the outfit.

Odious Personal Habits ★

-5, -10, or -15 points

You usually or always behave in a fashion repugnant to others. An Odious Personal Habit (OPH) is worth -5 points for every reaction to reaction rolls made by people who notice your problem. Specify the behavior when you create your character, and work out the point value with the GM.

Examples: Body odor, constant scratching, or tuneless humming would give -1 to reactions, and are worth -5 points apiece. Constant bad puns or spitting on the floor would give -2 to reactions, worth -10 points apiece. We leave -15-point habits (-3 to reactions) to the imagination of those deprived enough to want them!

The reaction penalty for an OPH applies only to members of your race. It is up to the GM to handle the reactions of other races. A constant drool will irritate other humans, but a Kzinti might not even notice — and a Vergarian might think it was cute!

Of course, an entire race can behave in a manner repugnant to most other races. These “Odious Racial Habits” are priced identically to OPHs.

Pitiable

5 points

Something about you makes people pity you and want to take care of you. You get +3 on all reaction rolls from those who consider you to be in a position of helplessness, weakness, or need (which never includes those with the Callous disadvantage). Taken in conjunction with above-average looks,

Unnatural Features ★

-1 point/level

You are superficially “normal” but have one or more disturbing cosmetic features. To qualify for points, these must be unnatural for your race. Pointed ears and eyes like hot coals would be unnatural for a human, but not for a Lyran! You must specify the origin of your Unnatural Features. Each level, to a maximum of five levels, gives -1 to your Disguise and Shadowing skills and +1 to others’ attempts to identify or follow you (including their Observation and Shadowing rolls), unless almost everyone else in the crowd happens to share your features.

Handedness

Decide whether you are right-handed or left-handed. Whenever you try to do anything significant with the other hand, you are at -4 to skill. This does not apply to things you normally do with your “off” hand, like using a shield. GURPS assumes you are right-handed unless you decide otherwise or buy Ambidexterity. If you choose to be left-handed, any combat result that would damage your right hand affects your left instead, and vice versa. Left-handedness is a feature worth 0 points.

SOCIAL BACKGROUND

The next few sections discuss your society’s level of technological development, cultures, and languages. It is an advantage to be technologically advanced, culturally literate, or linguistically talented. Inadequacy in these areas can be a crippling disadvantage.

TECHNOLOGY LEVEL (TL)

“Technology level” (or “tech level”) is a number that rates technological development. The more advanced the society, the higher its TL; see Tech Level and Starting Wealth. The GM will tell you the TL of your homeworld. Be sure to note this, as it affects your access to certain traits — notably skills — and equipment. Characters also have a TL, equal to that of the technology with which they are most familiar. Unless you are especially primitive or advanced, you should record the TL of your game world as your personal TL and move on.

Low TL ★

-5 points/TL below campaign TL

Your personal TL is below that of the campaign world. You start with no knowledge (or default skill) relating to equipment above your personal TL. You will be able to learn DX-based technological skills (pertaining to vehicles, weapons, etc.) in play, if you can find a teacher, but fundamental differences in thinking prevent you from learning IQ-based technological skills. To overcome this limitation, you must buy off this trait, increasing your personal TL. This usually requires a lengthy period of re-education.

High TL

5 points/TL above campaign TL

Your personal TL is above that of the campaign world. You may enter play with skills relating to equipment up to your personal TL. This is most useful if you also have access to high-TL equipment, but the knowledge of a high-tech doctor or scientist can be very useful in a low-tech setting, even without specialized equipment!

CULTURE

You are automatically familiar with the social peculiarities of one major culture of your choice. You suffer no skill penalties when interacting with people from that culture. The GM will provide a list of cultures to choose from (or let you invent your own — many GMs appreciate players’ contributions to the game world!). When dealing with an unfamiliar culture, you have -3 to use any skill with a significant cultural component. To get rid of this penalty, buy the following advantage:
Cultural Familiarity 1 or 2 points/culture

You are familiar with cultures other than your own, and do not suffer the -3 penalty for unfamiliarity. This costs 1 point per culture of the same (or very similar) race, or 2 points per alien culture. To prevent point-cost inflation, the GM should use broad definitions of culture.

LANGUAGE

The rest of this section is only important if you can communicate in more than one language (an advantage) or have difficulty with your native tongue (a disadvantage).

How GURPS Works: IQ, Sentence, and Sapience

Sentence is self-awareness. Any being with a GURPS IQ of at least 1 is sentient for purposes of this rule.

Sapience is defined as the ability to use tools and language. In GURPS, this requires at least IQ 6. Those with IQ 5 or less cannot learn technological skills or possess Languages — not even the initial Language that most characters get for free. They can still communicate primitive concepts (such as hunger or danger) through gesture or vocalization, and may be trained to respond to a few commands. See page 167 for specific SFU definitions.

The Language rules are for sapient characters. You must have at least IQ 6 to receive a native tongue for free and be able to learn new languages. Sapience does not guarantee the physical capacity for speech, though — you might need to rely on sign language. Those with IQ 5 or less do not get a native tongue for free and cannot learn languages. They can only communicate basic concepts. They can be taught a few commands, however. GURPS assumes that most characters can read and write their "native" language. This ability costs no points, but you should note your native language on your character sheet. All Federation characters have both their planetary language and Federation Standard for free.

Comprehension Levels

The point cost to learn an additional language depends on your “comprehension level”: a measure of how well you function in that language overall. There are four levels:

None: You are completely incapable of functioning in the language. If you do not spend points on a non-native language, this comprehension level is assumed — there is no need to note it for every language you don’t know! 0 points/language.

Broken: You can recognize important words and understand simple sentences if they are spoken slowly. You have -3 when using skills that depend on language. This doubles to -6 for artistic skills that rely on the beauty of the language (Poetry, Singing, etc.). In stressful situations — e.g., encounters involving combat or reaction rolls — you must roll against IQ to understand or make yourself understood in the language.

On a failure, you convey no information, but you may try again. Critical failure means you convey the wrong information! For hurried speech, bad phone connections, etc., this roll is at -2 to -8! Native speakers who already dislike foreigners (see Intolerance) react to you at an extra -1. 2 points/language.

Accented: You can communicate clearly, even under stress. However, your speech and writing are idiosyncratic, and it is obvious that this is not your native language. You have -1 when using skills that depend on language, doubled to -2 for artistic skills. You receive no reaction penalty from native speakers, but you will be unable to pass for a native (this can be a major problem for would-be spies!). 4 points/language.

Native: You have full mastery of the language, including idioms. You can think in the language. You have no penalty to use skills that depend on language. You start with one language at this level for free. If you buy Native comprehension in a foreign tongue, you can pass for a native speaker. 6 points/language.

Learning Languages

To learn a new language, use the rules for learning skills: 200 hours of learning gives you one point to spend. Note that language study is four times as hard without a teacher! If you live on another world and speak its language at all times, that is the automatic equivalent of 4 hours/day of training; there is no need to allocate specific study time unless you want to get more than this default. Thus, every 50 days, you get a character point to spend in that language.

Note that as a side-effect of this rule, any character that has purchased an Academy Template is assumed to have learned the primary language of that academy upon completion. For example, a Tellarite who left his homeworld speaking Tellar would, upon graduation from Star Fleet Academy, be assumed to have learned Federation Standard (a variant of English) at Native level.

WEALTH

Wealth is relative. A middle-class American lives in more luxury than a medieval king, though he may have fewer gold coins in his basement. It all depends on the game world — see Tech Level and Starting Wealth. In most worlds, the range of standard starting wealth and income is relatively great, and your skills determine your job and income; see Economics for more information.

Personal wealth is rated in “wealth levels.” A level of “Average” costs no points, and lets you support an average lifestyle for your game world.

Wealth Variable

Above-average Wealth is an advantage; it means you start with two or more times the average starting wealth of your game world. Below-average Wealth is a disadvantage; it means you start with only a fraction of average starting wealth.

Dead Broke: You have no job, no source of income, no money, and no property other than the clothes you are wearing. -25 points.

Poor: Your starting wealth is only 1/5 of the average for your society. -15 points.
Struggling: Your starting wealth is only 1/2 of the average for your society. - 10 points.
Comfortable: Your starting wealth is twice the average. 10 points.
Wealthy: Your starting wealth is 5 x average. 20 points.
Very Wealthy: Your starting wealth is 20 x the average. 30 points.
Filthy Rich: Your starting wealth is 100 x average. 50 points.
Multimillionaire: For every 25 points you spend beyond the 50 points to be Filthy Rich, increase your starting wealth by another factor of 10. 50 points.

Starting Wealth
“Starting wealth” covers both money and property. Start with the amount of money your wealth level entitles you to. Buy the possessions you want to start with. Any unspent money is your bank account.

Tech Level and Starting Wealth
Tech level determines starting wealth, as technologically advanced societies tend to be richer. Below is a comparison of TLs and suggested starting wealth.

TL0: $250.
TL1: $500.
TL2: $750.
TL3: $1,000.
TL4: $2,000.
TL5: $5,000.
TL6: $10,000.
TL7: $15,000.
TL8: $20,000.
TL9: $30,000.
TL10: $50,000.
TL11: $75,000.
TL12: $100,000.

Double the starting wealth for each TL over TL12. For example, TL14 has a starting wealth of $400,000. GURPS gives wealth and prices in “$” for convenience.

Tech Level and Equipment
You enter play with “starting wealth” appropriate to the campaign TL. If you are from a higher TL, you may start with access to the equipment of your personal TL. However, the price of an item of equipment is doubled for every TL by which its TL exceeds that of the campaign!

Independent Income
You have a source of income that does not require you to work. Your monthly income is 1% of your starting wealth per level of this trait, to a maximum of 20%. This trait assumes that you cannot or will not invade your capital. Independent Income most often means your occupation is something like dilettante, retiree, or welfare recipient — not an actual “job.” However, you can have Independent Income and a job; just add the income from both sources. The cost is 1 point per level.

CREATING A CHARACTER
Frequency of Recognition

Either your name or your face is enough to trigger a "reputation roll" to see if the people you meet have heard of you. Roll once for each person or small group you meet. For a large group, the GM may roll more than once if he likes. The frequency with which you are recognized modifies the cost of your reputation:

All the time: x 1.
Sometimes (roll of 10 or less): x 1/2 (round down).
Occasionally (roll of 7 or less): x 1/3 (round down).

Of course, your reputation extends only within a certain area. If you travel far enough away, the GM may require you to "buy off" the disadvantage points you received for a bad reputation. (There is no corresponding bonus for losing a good reputation.)

You may have more than one reputation, and your reputations can overlap; for example, military personnel will have both Professional Reputation and Heroic Reputation. The GM should check each one before determining how an NPC reacts to you. Your total reaction modifier from reputations cannot be better than +4 or worse than -4 in a given situation.

A single reputation can give different reaction modifiers with different groups, provided the groups do not overlap. Set the reaction modifier for each group, modify the cost for the size of the group, and then add up the resulting costs. Modify this total for frequency of recognition. The reputation is an advantage if the net point cost is positive, a disadvantage if negative. The final point cost may be 0, but you should still record it on your character sheet!

Federation Frigate

Orion Battlecruiser

Creating A Character

Importance

Your formally recognized place in society is distinct from your personal fame and fortune. To influence others through established channels (as opposed to relying on popularity or bribery), you must purchase one or more types of social rank, each of which has unique benefits and drawbacks.

Status

5 points/level

Status is a measure of social standing. If you do not specifically buy Status, you have Status 0. Status costs 5 points per level. Status also costs money to maintain.

Status is not the same as personal popularity (see Reputation) or the popularity of your racial or ethnic group (see Social Regard and Social Stigma). Status can sometimes influence others' reactions, but its main effect is to spell out where you stand in the social pecking order. In short, Status represents power.

High Status: Status greater than 0 means you are a member of the ruling class in your culture. As a result, others in your culture only defer to you, giving you a bonus on all reaction rolls. Note that any high-status person is a likely target for kidnappers and social climbers, and that some criminal types hate "the ruling class."

Low Status: Status less than 0 means you are a serf or a slave, or simply very poor. Members of Subjugated or Subject races often have Low Status. This is not the same thing as Social Stigma.

Rank

5 or 10 points/level

Specific sectors of society - e.g., the civil service, the military, and certain powerful religions - often have internal ranking systems, distinct from Status. If an organization like this has significant social influence, or access to useful resources, then its members must pay points for their rank within the organization.

Rank comes in levels. Each Rank has authority over those of lower Rank - regardless of personal ability. In most cases, there are six to eight levels of Rank. The GM should determine the highest Rank available to starting characters, usually Rank 3-5.

Unlike Status, Rank costs no money to maintain. On the other hand, almost all forms of Rank come with a Duty. Rank often has stringent prerequisites, too - typically one of the traits given under Privilege or a minimum skill level. These things have their own point costs, not included in the cost of the Rank.

Rank may coexist with Status. If so, then high Rank grants additional Status at no extra cost: +1 to Status at Rank 2-4, +2 Status at Rank 5-7, and +3 Status at Rank 8 or higher. This represents society's respect for senior members of important social institutions. If you hold multiple types of Rank, then you may claim a Status bonus for each of them.

Alternatively, one form of Rank might replace Status; for instance, Religious Rank in a theocracy. In societies...
like this, Status does not exist. Each level of Rank gives all its usual benefits plus the effect of an equivalent level of Status (page 34).

Rank is worth 5 points per level if it coexists with Status, or 10 points per level if it replaces Status. Common varieties of Rank include:

Administrative Rank: Position within a governmental bureaucracy. When dealing with other administrators, differences in Rank work just like differences in Status. At TL5 and higher, a large bureaucracy might have several varieties of Rank: one per government department, and possibly extra categories for the senate, judiciary, etc. (Defense or law-enforcement officials use Military or Police Rank instead.) Note this on your character sheet; e.g., Administrative Rank (Judiciary).

Merchant Rank: Position within a national or transnational organization of merchants. This could be anything from the mercantile culture of the Aztecs (where Merchant Rank verged on being Status) to the “merchant marine” of a modern or futuristic society (where Merchant Rank often parallels Military Rank during wartime).

Military Rank: Position within a military organization. Each organization is structured differently. In general, personnel that are not specifically leaders will be Rank 0-2, while low-level officers and senior enlisted men will be Rank 3-4. Rank 5 and higher is normally limited to major commands and duties where the officer is responsible for extremely valuable or rare resources. Limited-duty officers, specialists, and personnel with little actual responsibility or command authority have a lower Rank in GURPS terms, despite possibly possessing titles identical to those of a higher Rank; represent this with one or more levels of Courtesy Rank.

Police Rank: Position in a police force. Each agency has its own variety of Rank. You must buy Legal Enforcement Powers before you can buy Police Rank; this is the difference between a patrol officer (Police Rank 0, for 0 points) and an ordinary citizen (no Police Rank, also 0 points). Note that in a police state, there is no difference between Police Rank and Military Rank.

Temporary Rank: Those of higher Rank may temporarily increase your Rank for a predetermined amount of time — until the end of a project, battle, etc. This process is called brevetting in the case of Military Rank. To keep temporary Rank, you must meet all the usual requirements and pay the appropriate point cost.

Courtesy Rank: Those who have formerly held Rank may retain that Rank as “Courtesy Rank” for only 1 point per level. Those who currently hold a title that carries little real authority may also take Courtesy Rank. Courtesy Rank is for social situations only; it gives you a fancier title.

Rank for Spies: Officers of intelligence services often possess a special category of Military Rank, distinct from that of line soldiers. Employees of civilian intelligence agencies usually possess some variety of Administrative Rank instead. Finally, some counterintelligence officers are actually police, and hold Police Rank.

MILITARY RANKS, GRADE, & SENIORITY

NOTE: This section only applies to characters who are in Star Fleet or some other military organization (i.e. characters that have bought one of the Academy templates). If you are generating a nonmilitary character, feel free to skip this section!

Just as Status (page 34) reflects your position in society, Military Rank reflects your position in a military or paramilitary organization. Each level of Military Rank encompasses one or more grades, which are commonly referred to as ranks. They are called grades here to help avoid confusion with the Rank advantage. Each grade has authority over lesser grades, regardless of personal ability.

All military characters are assumed to have bought an Academy or other Template which gives them the specified starting grade, Military Rank, Professional Reputation, and Seniority Points.

Players may improve their starting grade by buying the Military Rank advantage appropriate for the desired grade; see Rank in Chapter 3. Players should check with the GM to determine what grades and corresponding levels of Military Rank are suitable for the campaign. If the group is playing a rough and tumble squad of Marine grunts, the GM may limit them to a max grade of E6 and Military Rank 1; whereas if they are playing the command staff of a sector admiral, then they should buy a much higher grade and Military Rank. Players should also buy additional levels of Professional Reputation as required by the Promotion Table for their service at this time, at the cost of 2.5 points per level. They may buy more or less than this with the GM’s approval, if doing so fits the character’s background. In addition, they start with a number of Seniority Points as required for their desired grade. (Note: The basic GURPS rules provide only eight military ranks; the Star Fleet Universe uses more than 20 grades. The costs are adjusted in GPD so that it all comes out the same, but you get to hold a promotion party much more often!)

Example: A player decides to create a character that is a Marine 1st Lieutenant (O2). He must buy three levels of Military Rank, and while he has the opportunity during character generation also buys three levels of Professional Reputation with the GM’s approval, representing several incidents of exemplary service in the character’s young career (perhaps two Commendation Medals and a Bronze Star or MSM; see Chapter 6). The GM and player discuss what these were, and their impact on the character. This costs him 22 character points (15 + 7.5, rounded down), not including the cost of the Academy template. The character starts with 10 Seniority Points, and some big expectations from his superiors.

Note that unlike the other Federation services, the GIA has no enlisted personnel; GIA agents are always officers.
Promotion/Grade Table

This table is used for Federation military services and others with a similar grade structure. Other empires may have their own Promotion Tables representing the unique nature of their services, which will be presented in future sourcebooks.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Rank</th>
<th>Seniority</th>
<th>Reputation</th>
<th>Status</th>
</tr>
</thead>
<tbody>
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<td>0</td>
<td>0</td>
<td>0</td>
</tr>
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<td>E8</td>
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<td>75</td>
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<td>E9</td>
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</tr>
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<td>WO*</td>
<td>3</td>
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<td>1</td>
</tr>
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<td>O5</td>
<td>5</td>
<td>70</td>
<td>+2</td>
<td>2</td>
</tr>
<tr>
<td>O6</td>
<td>6</td>
<td>90</td>
<td>+2</td>
<td>2</td>
</tr>
<tr>
<td>O7</td>
<td>7</td>
<td>110</td>
<td>+3</td>
<td>2</td>
</tr>
<tr>
<td>O8</td>
<td>8</td>
<td>130</td>
<td>+3</td>
<td>3</td>
</tr>
<tr>
<td>O9</td>
<td>8</td>
<td>150</td>
<td>+4</td>
<td>3</td>
</tr>
<tr>
<td>O10</td>
<td>8</td>
<td>200</td>
<td>+4</td>
<td>3</td>
</tr>
<tr>
<td>O11</td>
<td>**</td>
<td>**</td>
<td>+4</td>
<td>4</td>
</tr>
</tbody>
</table>

Explanation of Terms and Notes:

- **Rank:** The number of levels of the Military Rank advantage needed to advance to this grade.
- **Seniority:** The number of Seniority Points needed to advance to this grade.
- **Reputation:** The level of the Professional Reputation advantage needed to advance to this grade.
- **Status:** The number of free levels of Status this grade receives.

*WO = Warrant Officer. In Star Fleet, Warrant Officers are civilians who are given temporary status as officers for the duration of a specific mission. In other services, a Warrant Officer was previously Enlisted and due to seniority and high levels of competence was granted a commission. Warrant Officers generally specialize in one skill or area of competence, for example warp engine maintenance, communications, or shuttlecraft pilot.

**There are only three O11s in the Federation: the Grand Admiral of Star Fleet, the Marshal of the Star Fleet Marines, and the Field General of the National Guard. These are normally NPCs, making this rank unobtainable by player characters in most campaigns.

The E10 and O10 ranks are extremely senior and not generally available as player characters.

Fleet Captain and Regimental Colonel are honorary titles used in special cases.

Gurps Prime Directive 4e

Hydran Mongol War Cruiser

Creating a Character
ABOUT THE RACIAL TEMPLATES

Every player character (indeed, every character) in GURPS Prime Directive comes from a race (i.e., is a member of a specific species from a specific planet, or in some cases, from a group of nearby planets where they were seeded by a precursor race).

Members of a race have certain general traits that apply to almost all members of that race. Hence, to play a Klingon, you start out with a list of attribute modifiers and other information. In most cases, you can “buy off” (spend points to remove) a given trait. For example, most of the Baggantine race freeze up in combat, but a few with natural abilities and a few thousand more who have undergone rigorous training (which few of their race pass) can function normally in combat.

A given player character might be given an “unusual background” with the permission of the GM. This might be a matter of genetics (e.g., human dwarves exist as a subset of the human racial genome), previous damage or injury (e.g., loss of limbs), psychological damage (e.g., fear of combat), unusual upbringing (e.g., a Klingon who was lost on Vulcan as an infant and raised by a Vulcan family), special training (e.g., a Star Fleet Marine who went to special forces school before being discharged for failing a psychological evaluation), or as many other unique stories as there are people in the galaxy!

Character Record Sheet

Players can find a downloadable version of the player record sheet for GURPS 4th Edition at:
http://www.sjgames.com/gurps/resources/
CharacterSheet.pdf

United Federation of Planets

The member races of the UFP that appear in GURPS Prime Directive are: Humans, Vulcans, Andorians, Rigellians, Alpha-Centaurans, Cygnars, Tellarites, Brecon, Prellarians, Mynle, Delans, Arcturians, Orions (page 48), and Skoleans (page 47). There are many, many more; their numbers are growing all the time (and will be presented in several future products).

The Federation military consists of Star Fleet (a military force answering to the Federation president and council; much of this force is used in peacetime for exploration and colony building) and the National Guards (planetary self-defense forces including ground-based weapons, fighters, and even some ships controlled by each planet's government). The Federation Marshals Service is a branch of the civilian government which investigates crimes that go from one planet to another; it also handles counter-espionage. The Federation Police (which has numerous small starships) handles tariffs, customs, and most anti-piracy work. (When the pirates in a given area get out of hand, the police call Star Fleet for backup.) The Federation Police could be considered the equivalent of the US Coast Guard. The Galactic Intelligence Agency is a civilian agency focused on spies, covert operations, and intelligence gathering outside of the Federation.

Humans

Humans are the most numerous race in Federation space and among the most adaptable. While most of the other races don't particularly go in for “Terra-forming and don't like to colonize worlds that are drastically different from their home worlds, Humans are willing to settle and work just about anywhere in the galaxy. This, and their strong tradition of innovation and cooperation, has brought Humans to the forefront of the current interstellar situation.

It is considered fortunate by some of Terra's neighbors that Humans are not oriented more towards military expansion. It would be a daunting task for even three or four of the local cultures to halt a determined Human expansion drive if their formidable industrial capacity were tooled up and directed to that end.

Homeworld: Class-M, Gravity 1.00G, Atmospheric pressure 1.00, mean temperature 72°F, Zorski Group I-a.
Vulcans

70 Points

The Vulcans are descended from a much more primitive and warlike race; the Romulans are a parallel but separate spur from a common ancestry, or perhaps a retrograde, atavistic splinter from the current Vulcan stock.

The Vulcans are basically a pacifist people who do not believe in the assertive use of overwhelming force to resolve disputes. Their cultural devotion to pure logic at the cost of greatly repressing their emotional identity is well known. A remarkable side effect of this logic-based rationality is the enormously high incidence of psionic ability found in Vulcans. It is interesting to note that, by way of comparison, Romulans are no more likely to show positive psionic potential than the average rate for the other races, which is about one in every 2.5 million healthy adults. While all Vulcans possess psionic potential, only about one in every 20,000 has the potential to become a true Psionic Master. A Vulcan character created without Psionic Power is still a latent psionic, and may buy Psionic Power during campaigns with no restriction.

Attribute Modifiers: ST+1 [10]; IQ+2 [40].

Advantages: Acute Hearing 1 [2]; Extended Lifespan 1 [2]; Indomitable [15]; Lightning Calculator [2]; Nictitating Membrane 1 [1]; Photographic Memory [10]; Less Sleep 2 [4]; Regeneration (Regular, only while in Autotrance, -30%) [18]; Talent 1 (Vulcan Psi) [5]; Unfazeable [15].

Perk: Autotrance [1].

Disadvantages: Code of Honor (Logical behavior) [-10]; Honesty (12) [-10]; Intolerance (Emotional or illogical behavior) [-5]; No Sense of Humor [-10]; Pacifism (Self Defense Only) [-15]; Truthfulness (12) [-5].

Taboo Traits: all forms of Psi except those included in Talent (Vulcan Psi).

Homeworld: Class-K, Gravity 1.18G, Atmospheric pressure 0.83, mean temperature 92°F, Zorski Group III-a.

Rigellians

11 points

Rigellians are large humanoids, often reaching seven feet or more in height, and are renowned for their strength and stamina. Due to the unusually high UV output of their sun, Rigellians are darkly pigmented. Their skin features a kind of dermal tattooing which shows up as a network of blue lines covering the entire body in a random pattern, and their body hair is often a stark white in coloring.

Rigellians are strongly bound by the notions of “Family and Honor.” Family ties are unusually strong in Rigellian culture, with three or more generations often living and working together. Rigellians mate for life, and husbands and wives never separate, nor do they re-mate if their spouse dies. A Rigellian’s word is his bond, and the whole family shares in the dishonor of any family member’s breaking of a promise or oath. Crime and dishonesty are virtually unheard of in Rigellian culture, and families provide for the material and emotional needs of their members.

The Rigellian Primacy Fathers and members of the society in general were aghast to discover the nature of some of the other interstellar societies, such as the Klingons and the Romulans. They were horrified to find that advanced interstellar empires were founded on the principles of conquest and enslavement, principles abhorrent to Rigellian culture. This caused so much of a cultural fervor that within the first decades of Rigellian membership in the Federation a full 30% of the planetary population applied to join Star Fleet. Even today, while Humans may represent the largest numerical component in the Federation and Star Fleet, the Rigellians have, by far, the largest proportion of their population in service with the Federation. Until the stars are at peace, they say, and all the children of the heavens are together, the Rigellians cannot rest or forsake their greater duties.

Attribute Modifiers: ST+2 [20].

Secondary Characteristic Modifiers: FP+2 [6].

Advantages: Combat Reflexes [15]; Rapid Healing [5].

Perk: Ultraviolet Tolerance [1].

Disadvantages: Fanaticism (Spread of civilization) [-15]; Honesty (12) [-10]; Sense of Duty (to Family) [-5]; Truthfulness (12) [-5].

Quirk: Humble [-1].

Homeworld: Class-M, Gravity 1.05G, Atmospheric pressure 1.04, mean temperature 80°F, Zorski Group I-a.
Cygnans

Cygnans as a race resemble Human albinos with one major difference: where a Human albino's eyes are pinkish, the Cygnan's eyes are jet black, with no discernible whites or pupils. It cannot be confirmed or disproved that Cygnans descended from Earth-human stock, but there are no fossil ancestors on their own planet, meaning they were transplanted there within the last 50,000 years.

The Cygnan sun, Shresha, is a K3 orange dwarf; its output of ultraviolet emissions is much lower than that of the suns of other Federation worlds. As a result, the Cygnans have lost the usual pigmentation that would serve to protect them from the sun's harmful effects. When visiting other worlds, Cygnans protect themselves at all times by the use of a special long-lasting chemical sunscreen.

The Cygnans hold a firm belief that they are the descendents of an extremely advanced, starfaring race. Their religions are centered on the numerous half-remembered myths and legends about the lost Sky Fathers and their gifts and teachings. The gifts are remembered as ones of science and technology; the teachings are remembered as ones enjoining them to explore and share those gifts. Just as the Sky Fathers came from the stars to light the Cygnans' way to a more advanced society, so too do the Cygnans feel the urge to enlighten less advanced peoples. Because of this (and the Kzinti occupation), Cygnus is the Federation member most vocally opposed to the Prime Directive. Despite official policies, Cygnan adherents to The Ways of the Fathers have established illicit "Seranaya Missions" on more than one pre-starlight world.

There are numerous systems and components now in standard use throughout the Federation which are the direct result of Cygnan research and technology. The Cygnans are extremely adept at all forms of technological endeavors, considering them to be forms of art.

The Cygnan homeworld was in Kzinti-dominated space from about Y70 until the Federation took over that area with the Border Declaration of Y102. Cygnan characters during that period must buy the Disadvantage: Subjugated (Kzinti) which reduces the template cost by 20.

**Advantages:** Talent 1 (Mathematical Ability) [10]; Talent 4 (Physical Science) [20]; Versatile [5].

**Disadvantages:** Gregarious [-10]; Weakness (Sunlight; 1d/30 minutes; variable -40%) [-9].

**Homeworld:** Class-M, Gravity 1.10G, Atmospheric pressure 1.03, mean temperature 68°F, Zorski Group I-b.

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**Alpha-Centaurans**

50/24 points

Alpha-Centaurans are almost identical to Humans, and there is little doubt that the two races share recent common ancestry. General motor response in Alpha-Centaurans is markedly higher than in Humans, however: an increased rate of activity in the brainstem and central nervous system seems to be the cause.

The females of the race dominate Alpha-Centauran culture at all levels, and the form of government is definitely a matriarchy. Alpha-Centauran men are not mentally or physically inferior to the women, but their society has evolved along different lines than that of Earth.

Male Alpha-Centaurans are almost never found in the governmental, legal, or military structures of Alpha-Centauran culture, and only rarely in the scientific, technical or mercantile professions. Males are found primarily in the agrarian and unskilled labor forces or are not employed at all. The home planet of the Alpha Centaurans is largely agrarian and pastoral. The population is fairly low, and the planet is not a major economic element of the Federation.

**Females**

50 points

**Attribute Modifiers:** DX+2 [40].

**Advantages:** Charisma 1 [5]; Fit [5].

**Males**

24 points

**Attribute Modifiers:** ST+1 [10]; DX+1 [20].

**Secondary Characteristic Modifiers:** Will-2 [-10].

**Advantages:** Fit [5].

**Quirk:** Humble [-1].

**Homeworld:** Class-M, Gravity 0.98G, Atmospheric pressure 1.05, mean temperature 76°F, Zorski Group I-a.

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**Federation Battlecruiser**
Prellarians

Prellarians are Associate Members of the Federation, renowned for their mastery of high-grav and null-grav technology. A squat humanoid race, they are at home in tunnels. Their powerful frames and technological inclinations are a direct result of their preference for high gravity habitats (some measuring as high as 2.5 G). Rarely growing to a height of greater than four feet, the Prellarians are highly prized not only for their technological knowledge, but also for their ability to crawl through tight conduits and cramped access ports. The Prellarians developed the training environment on Federation Prime Central where new Primes receive their Zero-G Maneuvering training.

Prellarians have a deeply ingrained fear of heights that is difficult for them to overcome, even in low gravity environments. Technicians who insist upon excessive safety tethering when operating over an open area or at some height are often referred to as acting like “scared Prellarians.” The Prellarians have imparted an almost religious significance to many of the minerals and gems that others merely think of as valuable. Their discovery of sigmapostorium, for example, with its unique attraction/repulsion qualities, led to the development of both Null-Grav and High-Grav generators. The Prellarians have a deep reverence for this mineral, while the rest of the Federation who come into contact with it simply look at it as useful.

**Attribute Modifiers:** ST+1 [10].
**Secondary Characteristic Modifiers:** SM-1.
**Advantages:** Improved G-Tolerance (±1.0 G) [15];
Intuition [15]; Pressure Support [5].
**Disadvantages:** Phobia (Heights) [-10].
**Homeworld:** Class-E, Gravity 1.98G, Atmospheric pressure 1.30, mean temperature 82°F, Zorski Group I-b.

Deians

The Deians (pronounced DAY-enz) are an Associate Member Race closely related to humans.

The Deians had established colonies on three planets within their home star system and were actively seeking contact with other races when a Federation Galactic Survey Cruiser, the **USS Magellan** (NCC-1804), entered orbit around their homeworld in Y150. They call their homeworld “Kai’Tyar Seterra Nerillar,” which can be loosely translated as “First and True Home.” It is the third planet of the star known as Paktar.

The first reported contact with the Deians dwelled heavily on their amazing, godlike beauty and the name “Deians” naturally followed. They resemble humans in many ways, although their race does not share the variations in pigmentation found in humans. All Deians have the same pale-blue skin coloring and little or no facial hair. Their overwhelming beauty, both male and female, is also their most daunting disadvantage as they find it difficult to convince others, particularly humans, to take them seriously. They have no problem with those races that do not appreciate humanoid beauty. The Deians refer to themselves as True Nerilarians. In public they use the racial designations Human, Cygnan, etc., but in private refer to them in the order in which they were first encountered; Humans are Second Nerilarians, Cygnans are Third Nerilarians, and so on. Deians believe that all other humanoid races are related to them in some way.

**Attribute Modifiers:** IQ+1 [20].
**Advantages:** Charisma 1 [5]; Handsome/Beautiful [12].
**Homeworld:** Class-M, Gravity 1.08G, Atmospheric pressure 1.13, mean temperature 80°F, Zorski Group I-a.

Mynieni

The Mynieni (pronounced my-NINE-ee) are a non-humanoid Federation Associate Member race resembling upside-down pears supported by many strong ropy tendrils sprouting from the bottom of their bodies (in game terms, 24 effective limbs). The Mynieni’s body, which is most often a purplish-gray color, is about three feet from top to bottom and about four feet in circumference at its widest point. Two very pale, dinner-plate sized eyes complete the picture. They are included here (along with the rules necessary to operate them) as an example of some of the strange races to be found in **GURPS Federation**.

Conditions on their homeworld, Mynie, have caused the Mynieni to develop a completely nocturnal lifestyle.

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**Creating a Character**

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**GURPS Prime Directive 4e**
The Brecon are four-armed, golden-skinned humanoid of average build with an average height of 7 to 8 feet. They are a unique race within the Federation, in that there will always be pairs of Brecon assigned to a ship, or none at all. In the distant past, the Grenpahk and the Sorel (the two warring factions of the Brecon race) finally ended the centuries-long conflict that had ravaged their homeworld by signing the Jyarah Accord. This agreement stated that to ensure that their ethnic differences never again cause them to go to war, they would henceforth have equal standing and representation in all endeavors.

This has led to a voluntary partnership agreement to produce an equal representation within Star Fleet. Since Star Fleet has such rigid requirements for entry (turning away many more applicants than are accepted), the Brecon could not demand that an equal number of Grenpahk be admitted for every Sorel that was accepted. Instead the Brecon apply to Star Fleet in pairs; if either one of the pair fails to gain admittance, the other declines to join as well. In this way the pair are encouraged to form a close interrelation, studying and usually serving together, further cementing the cross-cultural bond that the Brecon have worked so hard to establish. If one of a pair is killed or disabled, he would probably be replaced by another Brecon volunteer, perhaps one whose partner was disqualified.

**Secondary Characteristic Modifiers:** SM+1.

**Advantages:** Extra Arms 2 [20]; Extra Attack [25].

**Homeworld:** Class-M, Gravity 0.98G, Atmospheric pressure 1.10, mean temperature 79°F, Zorski Group I-b.

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Arcturians

With their wide eyes and slight features, the Arcturians can best be described as being similar in appearance to the Elves found in human folklore. Arcturians are a small, yet hardy, race. They rarely exceed 5.5 feet in height, and they average 120 pounds.

Centuries of relying on their wits rather than their size has helped them to develop a proficiency with both weapons and martial arts, and Star Fleet has added Sincant, an Arcturian martial arts philosophy, to curriculum at Prime Central.

All Arcturians in Star Fleet are trained in basic Sincant and are able to aptly defend themselves.

Very, very few Arcturians have any psionic ability; those that do so would be treated as genetic freaks by their own people.

Arcturians of the Ferkite order are trained from birth as warriors and do not share the pacifism disadvantage of their brethren (their template is 50 points). Many of these serve in the Star Fleet Marines and in the Special Forces; some service on Prime Teams. Sadly, a few of that order have joined the Orion pirates.

**Attribute Modifiers:** ST [-10]; DX+2 [40].

**Secondary Characteristic Modifiers:** Basic Speed +1 [20].

**Disadvantages:** Pacifism (Self-Defense Only) [-15].

**Homeworld:** Class-M, Gravity 1.10G, Atmospheric pressure 0.90, mean temperature 65°F, Zorski Group II.

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that “The Burnishers are now known to be returning. We must all be ready to meet them, and on their terms.” The Mynieni refuse to elaborate on this, and many in the Federation Council have dismissed this as being a metaphor. There is no doubt, however, that the Mynieni themselves are taking the ominous pronouncement to heart, and there is evidence that the entire structure of Mynieni society is undergoing drastic changes. Where this change will ultimately take

**Attribute Modifiers:** ST-3 [-30]; DX+1 [20]; IQ+1 [20].

**Secondary Characteristic Modifiers:** SM-1.

**Advantages:** Extra Arms 10 (Short, No physical attack) [20]; Extra Legs (Cannot kick) [8]; Flexibility [5]; High Manual Dexterity 4 [20]; Night Vision 9 [9]; Peripheral Vision [15].

**Disadvantages:** Invertebrate [-20].

**Racial Feature:** Normal light level for Mynieni is very low; Per-8 for humans. Mynieni eyes take a second to adjust to sudden light changes.

**Homeworld:** Class-M, Gravity 0.85G, Atmospheric pressure 1.20, mean temperature 60°F, Zorski Group VI-c.
Andorians

Andorians are tall, slender humanoids, with blue skin, white hair, and obvious "antennae" protruding from the top of their heads. As a race, Andorians are renowned for their heightened perceptive acuity, which stems from the great number of predatory creatures that populate their homeworld. Their "antennae" are actually extensions of their sinus cavities, allowing the Andorian a great sensitivity to minute variations in pressure and temperature. They provide improved hearing and an enormously enhanced sense of smell. The actual receptors are situated within the depressions at the tips of the "antenna" and are protected by the hard cartilaginous tissue that keeps the "antenna" rigid. Their visual ability is also well above humanoid standards.

There is a common misconception about Andorians — that they are humorless and easily irritated; this is not quite correct. The harsh history of early Andorian civilization has left a strong social taboo against the appearance of frivolity or wasted effort. Their curt refusals often make them seem prudish or unsociable, while in fact they simply don't have a strong cultural interest in such activities. They are often considered a "warrior race," but this is not entirely accurate. Many of them are recruited in the Star Fleet Marines, where their perception is a major advantage.

Andorian culture is predicated on the Cooperative. A Cooperative these days is a group of 60 to 100 family groups who have banded together to pool their resources and abilities to provide for the whole of their number. Cooperatives tend to grow around single lines of endeavor or a nucleus or core trait and attract individuals or families that are involved with this sort of endeavor or something closely related to it. There are Technical Cooperatives, Mercantile Cooperatives, Entertainment Cooperatives, Military Cooperatives, and every other sort of cooperative that you could think of. In fact, most Andorians consider Star Fleet to be a form of cooperative; certainly the ones who do join Star Fleet think so!

Attribute Modifiers: DX+1 [20],
Secondary Characteristic Modifiers: Per+5 [25]
Advantages: Discriminatory Smell [15]; Subsonic Hearing [5]; Ultrahearing [5]; Vibration Sense [10],
Disadvantages: Hidebound [-5]; Loner (12) [-5]; Low Pain Threshold [-10]; No Sense of Humor [-10],
Homeworld: Class-M, Gravity 1.07G, Atmospheric pressure 1.15, mean temperature 34°F, Zorski Group III-b.

Tellarites

Tellarites are stocky humanoids with an average height of approximately five feet. They are covered with a small but tough layer of wool-like matting over most of their body, and their hands feature four stubby fingers; their heads and faces are often compared to that of a Terran pig.

The Tellarites are a hardy race, owing to the great abundance of calcium and other heavy minerals in their bodies (resulting in the "Telis" root of their Federation name). Tellarite bone and cartilage structures are much more massive than their Human counterparts, resulting in a much greater physical strength and innate resistance to bodily damage. This also results in their body mass being 1.5 times that of a normal Human of that height.

The Tellarite race regards the planet Hahnrohk-7 as their homeworld. Although overeager Federation representatives conferred the name Tellarites on them before Universal Translators were able to translate their language, the Tellarites refer to themselves simply as "Those of Hahnrohk." There is evidence, however, which suggests that the Tellarites as a race did not originate on this planet. Archaeological digs on the three main continents on Hahnrohk-7 have yielded no evidence of the Tellarite race dating back further than 15,000 years. This is a mystery which fascinates the Federation but which the Tellarites themselves don't seem too concerned about.

Although the Tellarites have petitioned vigorously for Full Membership status in the past, their militant policies, in addition to their continued and virtually undenied contacts with the Orion Pirate Cartels, has not served them well in the halls of the Federation High Council. This is particularly true for the Andorians, who hold a significant and unwavering dislike for the Tellarites. Still, the Tellarites' natural adeptness with mechanical devices has put them in high demand in engineering labs and shipyards throughout the Federation, and beyond.

Attribute Modifiers: ST+1 [10]; HT+2 [20],
Secondary Characteristic Modifiers: HP+3 [6],
Advantages: Fearlessness [2]; Damage Resistance [Tough Skin, -40%] [3]; Resistant to Disease [8] [5],
Perk: Fur [1],
Disadvantages: Bully (12) [-10]; Odious Racial Habit (Argumentative) [-5]; Selfish (12) [-5],
Quirks: Edgy [-1]; Nosy [-1],
Racial Features: Extra dense body structure: add 100 pounds to weight, cannot float,
Homeworld: Class-M, Gravity 1.24G, Atmospheric pressure 0.95, mean temperature 67°F, Zorski Group II.
The Klingon Empire

The Klingon Empire includes at least 12 planets with native sentient races, all of them subservient to the Klingons themselves. The term "ethnic Klingons" is used when it is necessary to differentiate between Klingons and "Klingon Empire Forces." Almost 60% of all Klingon Empire starship crewmen are non-Klingon. The Klingons never really trust the subject races, which is why all Klingon ships have "security stations" and a detachment from the Empire Security Service (an organization that puts the Gestapo to shame). Only a few subject race personnel can receive officer commissions. It is something of a mystery why Klingon warriors would rather fill their crews with politically unreliable non-Klingons than simply draft ethnic Klingon civilians for that role. In early times, the Vergarians (another subject race) revolted and were bombed into the stone age, an example to other subject races to behave.

The Klingons have three major enemies: the Kzintis and the Hydrans, with whom many wars have been fought, and the Federation, which has not often been an active enemy but which threatens the Empire with economic domination. Three minor powers, the Tholians (who occupy stolen Klingon territory), the LDR (a renegade Lyran province), and the WYNs, are on the Klingon borders. The Klingons have alliances with the neighboring Lyrans (a race they have fought in the past) and the Romulans. The Klingons were allied with the Federation during the Early Years and during the Andromedan War.

Ethnic Klingon Warriors

44 points

Attribute Modifiers: ST +1 [10]; DX +1 [20]; HT +1 [10].
Advantages:_fit [5]; High Pain Threshold [10]; Higher Purpose (Improve heroic reputation) [5].
Perk: Alcohol Tolerance [1].
Disadvantages: Callous [-5]; Short Lifespan [-10].
Quirks: Proud [-1]; Staid [-1].
See GURPS KLINGONS for more information.

Klingons are generally regarded as a brutal warrior race, but this characterization is not accurate. There are two primary Klingon social classes: warriors and civilians. Virtually all Klingons encountered, including starship, base, ground crews, Marines, ground forces, etc., will be of the warrior class. Klingon youths must take special training and pass a series of tests to become warriors, and while there are no formal barriers to sons of civilians becoming warriors, few who grow up in a civilian environment show any interest. It is traditional for sons of warriors to follow in their father's footsteps, although such heritage will not make their passage through the ranks any easier.

Most Klingons are born and raised on their home planet, which is known as Klinshai. A few billion live on major Klingon colony worlds. Four colony worlds are run by the military, and one by the police, and are places where retired warriors can run farms or businesses and raise fine children who are strongly encouraged to join the military. Klingons from the three sources (Klinshai, warrior colonies, and other colonies) sometimes regard each other as different social classes.

Note that Klingons in GURPS Prime Directive and the Star Fleet Universe are based on the original source material and appear very much like Humans.

Some ethnic Klingon civilians serve on starships, mostly in technical or support positions (doctors, scientists, supply officers, engineers).

Klingon warriors are not sadistic. They do not hesitate to use force if it is the most appropriate course of action, but do not necessarily think of force as the first or only alternative. Klingons will not attack civilian targets simply for the thrill of killing defenseless people, but neither will they hesitate to attack a military target just because it is surrounded by civilians. The Klingons have been known to destroy Federation civilian colonies in the Neutral Zone (when they can get away with it) to prevent those planets from being claimed as possessions of the Federation.

The Klingon government includes the Emperor, three appointed Princes, the Chancellor (a prime minister who handles civilian and industrial affairs), the Council, and a military headquarters. The Council consists of the most powerful leaders in all fields and has approval over most appointments (including the Princes) and many decisions.

The Klingon military forces include:
- The Deep Space Fleet (DSF), which is the naval (starship) branch of the regular military.
- The Klingon Army, with a hundred divisions of ground troops, handles planetary defense and major invasions.
- The Klingon Marines provided detachments on starships. They serve as boarding parties and raiding forces.
- The Internal Security Forces (ISF), i.e., the police.
- The Empire Security Service (ESS), which is the secret police to prevent treason and insurrection.
- The Klingon Galactic Bureau, the foreign intelligence service, handles covert operations in enemy territory.
- The Galactic Research Unit, the military intelligence branch. It primarily analyzes sensor data and intercepted communications and has little if any involvement on outright espionage.
Dunkars

Dunkars are orange-skinned humanoids whose homeworld has long since been part of the Empire. Dunkars are quiet, genteel people who excel in administration and enjoy above all else the telling of a good tale or yarn.

Of all the subject races controlled by the Klingons, the Dunkars are the most passive and accepting of their situation, and hold a status second only to the ethnic Klingons themselves. Numerous Dunkars have risen to positions of responsibility and even authority in the Empire due to their levelheaded and calm manner. Some even serve as officers.

Attribute Modifiers: ST-1 [-10]; IQ+2 [40].
Advantages: Fearlessness 2 [4].
Disadvantages: Social Stigma (Minority group) [-10]; Status -1 [-5].
Homeworld: Class-M, Gravity 0.98G, Atmospheric pressure 1.01, mean temperature 75°F, Zorki Group II. 

Slirdarians

Slirdarians are a hulking bear-ape race which equals the Gorns and Kzintis for physical size and power in a humanoid lifeform. The Klingons once tried to conquer the Slirdarian home planet, but were defeated after two decades of guerrilla warfare. The fighting between the two races engendered a feeling of mutual respect, and in the end, the Klingons withdrew except for a handful of trading stations, which became the focus for recruitment.

Most Slirdarians are of below-average intelligence, but there are many notable exceptions. There are more Slirdarian sergeants and lieutenants in the Klingon ground forces than any race other than the Klingons themselves, and more than a few have attended the Academy and reached positions of company or even battalion command. The only non-Klingon to ever reach “flag” rank was a Slirdarian: Brigadier General Razmond Kobol Tsumasolin, known to history as Kobol of the Rock. He held the rank of Major but took over an entire division of ground troops when the senior Klingon officers were killed. His personal leadership inspired the division to resist a two-year Kzinti siege of the planet they were defending.

Only the bravest (or craziest) enemy ground troops will accept hand-to-hand combat with Slirdarians. Fast, strong, and able to operate all but the most high-tech equipment, Slirdarians are the first-line shock troops of the Empire.

Attribute Modifiers: ST+2 [18] (-10% for SM+1); DX+1 [20]; IQ-2 [-40].
Secondary Characteristic Modifiers: SM+1; HP+2 [4]
Advantages: Damage Resistance 1 (Tough Skin, -40%) [3]; Sharp Claws [5]; Sharp Teeth [1]; Temperature Tolerance 2 [2]; Very Fit [15].
Perk: Fur [1].
Disadvantages: Berserk [-10]; Bloodlust [-10]; Social Stigma (Minority group) [-10]; Status -1 [-5].
Homeworld: Class-M, Gravity 1.20G, Atmospheric pressure 1.21, mean temperature 88°F, Zorki Group IV-c.

Hilidarians

Hilidarians are a reptilian race similar in outward appearance to the Gorns or Pronhoulites, although closer in physical size to the latter and not directly related to either. Hilidarians are amphibious, with webbed feet and hands, but can function more than adequately on land. While they walk erect when required, they are more comfortable (and much faster) when on all fours. They are capable of great bursts of speed in this mode, although on arrival at the destination they will have to stop and draw their weapons.

Hilidarians are a subject race employed mostly in ground forces, although some serve as technicians in starship crews. A few obtain battlefield commissions, and a handful have attended academies or service schools. It is uncommon for Hilidarians and Slirdarians to be in the same company and very unusual for them to be in the same platoon because of a long-standing rivalry or animosity between them. Those selected for service with special teams (including Dagger Teams) are carefully picked to avoid personality conflicts with other races. Physically equal to Klingons or other humanoids, they are not nearly as powerful as the Slirdarians, but they are more intelligent and clever.

Attribute Modifiers: ST+1 [10].
Advantages: Amphibious [10]; Enhanced Move 1 (Ground, Temporary Disadvantage, No Fine Manipulators, -30%) [14]; Fearlessness 5 [10]; Damage Resistance 2 (Tough Skin, -40%) [6]; Sharp Teeth [1]; Single Minded [5]; Striker (Tail) [5].
Disadvantages: Semi-Upright [-5]; Social Stigma (Minority group) [-10]; Status -1 [-5].
Homeworld: Class-M, Gravity 1.04G, Atmospheric pressure 1.05, mean temperature 89°F, Zorki Group V-b.
Cromargs

Cromargs, humanoid dwarfs whose blotchy skin is a result of too much radiation exposure on their home planet, are the tragic remnants of a once proud race. While Humans were dragging themselves up out of the Dark Ages, the Cromargs were experimenting with atomic energy and electronics.

Having built a technological society, the Cromargs never developed the drive to go into space. They began to bicker among themselves over political matters. In the end, a terrible atomic war ravaged their world, driving the shattered remnants underground. They eked out a marginal existence for hundreds of years until the Klingons arrived. As they had retained high technology, the Cromargs serve the Empire as technicians. Many Klingon gunners controlling a starship phaser have a Cromarg technician to keep the phaser working. Klingon infantry battalions have Cromargs who man the rocket launchers and other heavy weapons.

Attribute Modifiers: IQ+2 [40]; HT-2 [-20].
Secondary Characteristic Modifiers: SM-1; HP-2 [-4]
Advantages: Resistant to Psionics +3 [10]; Talent 1 (Mathematical Ability) [10]; Versatile [5]; Xenoadaptability [20].
Disadvantages: Social Stigma (Minority group) [-10]; Status -1 [-5]; Susceptible to Disease -3 [-12].
Racial Feature: Dying Race [0].
Homeworld: Class-M, Gravity 0.99G, Atmospheric pressure 0.99, mean temperature 69°F, Zorski Group II.

Zoolies

Zoolies are an odd humanoid race recruited by the Klingons for their unusual nighttime capabilities. Zoolies have two sets of eyes, one for daylight and another, larger, pair for use in total darkness. (These eyes can see into the infrared spectrum and can gather more ambient light.)

The Zoolies are highly perceptive. Many Klingon commando teams include Zoolies, and some are composed exclusively of Zoolies, but Zoolies rarely appear anywhere in the Klingon military. A handful serve as mechanics or technicians on starships, where they can use their night vision in the darker bowels of the ship. Many Klingon Dagger Teams include a Zoolie, a prestigious assignment.

Advantages: Acute Vision 5 [10]; Infravision [10]; Night Vision 9 [9].
Disadvantages: Social Stigma (Minority group) [-10]; Status -1 [-5].
Homeworld: Class-M, Gravity 0.95G, Atmospheric pressure 0.96, mean temperature 69°F, Zorski Group I-b.

Yitlians

Yitlians are humanoidoids; their only outwardly distinguishing trait is slightly yellow skin and double nostrils.

Yitlia, their homeworld, is slightly larger than Earth. Rich both agriculturally and in minerals, the planet has vast deposits of strategic minerals. The Yitlian home planet is not inside Klingon territory, but far away in the outer reaches of the Lyran Star Empire where a treaty allows the Klingons to exploit new worlds. It is perhaps fortunate that it was the Klingons, rather than the Lyrans, who made first contact, as the Yitlians have an antipathy to all things feline. The Yitlians are associated by treaty with the Klingon Empire; they are not considered a subject race, but for all intent and purpose might as well be. (The Lyrans do not often allow other species in their territory to leave their planets; the Yitlian situation is unique.)

Recorded Yitlian history goes back about 6,000 years. About 4,000 years ago, the Yitlians began to war with another sentient species that arose on their homeworld. The Akalanaita (“vile ones”) were a species of intelligent felines descended from predatory cats that roamed the vast plains. There is no evidence that Akalanaita were related to the Lyrans or Kzintis, although some Klingon researchers believe they may have been a result of a “seeding” program by the “Leopard Kings”. The war between the species lasted nearly 1,900 years, ending about 2,000 years ago when the Yitlians exterminated the Akalanaita.

Attribute Modifiers: DX+1 [20].
Advantages: Acute Taste & Smell 4 [8]; Discriminatory Smell [15]; High Manual Dexterity 2 [10].
Disadvantages: Impulsiveness [-10]; Intolerance (Felinooids) [-5]; Social Stigma (Minority group) [-10]; Status -1 [-5].
Homeworld: Class-M, Gravity 1.09G, Atmospheric pressure 1.09, mean temperature 79°F, Zorski Group I-b.
Romulan Star Empire

Romulans are a more warlike offshoot of the Vulcans, with pointed ears and copper-based blood. Over thousands of years, they have become a separate species, with physical as well as cultural differences, as a study of the Racial Templates will reveal. Romulans lack the psionic abilities of Vulcans, as well as the regenerative powers. They are, however, not bound by rigid logic, far less pacifistic, enjoy a good joke, lie to their enemies without a second thought, and are (in some cases) capable of drinking too much Romulan ale.

The Romulan Code of Honor is detailed in Chapter 8. Two Romulans could have honest disagreements as to how best to serve it, and some simply don’t subscribe to it. The Romulans are the most aggressive of the empires. Their territory includes even fewer habitable planets than the Gorns and no other sentient races. The Romulans seem to honestly believe that they are destined to rule the Galaxy and are constantly working toward this end.

Kzinti Hegemony

The Kzintis are large (seven feet tall and over 300 pounds) humanoids of clear feline ancestry.

The Kzinti government is a monarchy; the ruling hereditary sovereign is known as the Patriarch. There are four principal divisions of Kzinti territory, ruled by the Duke (Klingon border), the Marquis (Federation border), the Count (Lyran border), and the Baron (newly explored territory). Countless civil wars, coups, and assassinations play a role in selecting the successor to any hereditary post.

There have been numerous wars with the Klingons, Lyrans, and (in earlier times) with Federation.

Just before the General War began in Y166, the Kzintis allied with the Federation against the Klingons.

Note: Despite superficial similarities, these Kzintis are not the Kzin found in another science fiction universe. The Kzintis of the SFU have cat ears and no tails. Kzintis in the SFU will almost never allow their true names to be known by outsiders, and each adopts a “battlename” by which he is known to foreigners. See GURPS Feline Empires.

Attribute Modifiers: ST+1 [10]; DX+1 [20]; IQ+1 [20]; HT+1 [10].
Advantages: Acute Hearing 1 [2]; Extended Lifespan 1 [2],
Disadvantages: Code of Honor (Romulan) [-10]; Duty (Romulan Empire, 12 or less) [-10]; Intolerance (non-Romulans) [-10].
Quirks: Careful [-1].
Homeworld: Class-M, Gravity 1.05G, Atmospheric pressure 1.02, mean temperature 79°F, Zorski Group III-a.

See GURPS Romulans for more information.

Males

Attribute Modifiers: ST+2 [18] (-10% for SM+1),
Secondary Characteristic Modifiers: SM+1; Basic Speed +2 [40].
Advantages: Damage Resistance 1 (Tough Skin, -40%) [3]; Night Vision 9 [9]; Parabolic Hearing 2 [8]; Sharp Claws [5]; Sharp Teeth [1].
Perk: Fur [1].
Disadvantages: Bad Temper [-10]; Impulsiveness [-10]; Increased Consumption 1 [-10]; Intolerance (Lyran, Carnivores) [-5]; Odious Racial Habits (Eat other sentient beings) [-3] [-15].

Females

Attribute Modifiers: ST+1 [9] (-10% for SM+1).
Secondary Characteristic Modifiers: SM+1.
Advantages: Attractive (Area Effect, 4 yards, +100%); Accessibility: own species only, -10%; Emanation, -20%; Sense-Based: smell, -20%][6] and Affliction (Area Effect, 4 yards, +100%); Disadvantage: Lecherousness, +10%; Accessibility: own species only, -10%; Emanation, -20%; Sense-Based: smell, -20%][16], total [22]; Damage Resistance 1 (Tough Skin, -40%) [3]; Empathy (Sensitive) [5]; Fearlessness 3 [6]; Night Vision 9 [9]; Parabolic Hearing 2 [8]; Sharp Claws [5]; Sharp Teeth [1].
Perk: Fur [1].
Disadvantages: Intolerance (Lyran, Carnivores) [-5]; Odious Racial Habits (eat other sentients) [-3] [-15].
Quirks: Chauvinistic [-1].
The Confederation of the Gorn

Gorns are reptilian humanoids, taller than (and with perhaps twice the bulk) of Humans. The Gorn Confederation consists of three sentient races joined into a single political unit. All developed on separate planets but are so nearly identical that they must have come from common stock; their templates are identical. These are known as the Gray Scales (who had reached the highest technological level and built the starships that reunited the races), the Brown Scales (who had reached TL8 before being contacted), and the Green Scales (who were a TL6 agrarian race). It took nearly a century before the original social stereotyping was eliminated by intensive programs to bring the Green Scales and Brown Scales up to the level of the Gray Scales. During the first decades, Brown Scale businessmen took passage on Gray Scale ships to the Green Scale homeworld, where they set up industries using cheap Green Scale labor. Prior to Y120, you could still find resentment and prejudice in some areas and individuals.

The Gorns were not always the only sentient race in their space. The Paravians were descended from a species of Gorns destroyed by an asteroid impact, and other planets were found to have extinct populations of transplanted Gorns. A unknown precursor race, generally labeled "Lizard Kings," is thought to have transplanted the Gorns to these worlds from some unknown birthplace. The Gorns are very interested (but not obsessive) about this. Many adventurers and scientists search planets for signs of the Lizard Kings or other extinct Gorn relatives in Gorn as well as Federation and Romulan territory. See GURPS Gorns for more information on the Gorns, Skoleans, and Paravians.

Gorns

18 Points

**Attribute Modifiers:** ST+3 [27] (-10% for SM+1); DX-1 [-20].

**Secondary Characteristic Modifiers:** SM+1; HP+2 [4]; Basic Move-2 [-10].

**Advantages:** Damage Resistance 2 (Tough Skin, -40%); [6]; High Pain Threshold [10]; Sharp Teeth [1].

**Homeworld (there are three):** Class-M, gravity 1.06-1.09g, atmospheric pressure 1.08-1.11, mean temperature 82-87°F, Zorski Group V-b.

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Skoleans

Skoleans are a Federation Associate Member race. Their homeworld Skoleos is in Federation space, very close to the border with the Gorns. They resemble a Terran chameleon both in appearance and in special abilities. While they rarely exceed five feet in height and are not particularly strong, their lean and wiry build allows them to react quickly with a high level of eye-hand coordination.

When the various galactic powers began development of fighters, the Gorns realized that they had a big problem — themselves. A fighter built large enough to fit a Gorn pilot would lack maneuverability and speed, factors essential to success. Skolean mercenaries had been serving with Gorns for years, and there was a strong bond between the two unrelated reptilian races. It would have made good sense for the Gorns to design and build their fighters around a Skolean pilot, but the Gorns went one better and simply built Federation fighters under license. (They also bought the entire assembly line for the Federation F-12 fighter after the Federation picked the rival F-18, building thousands as G-12s.)

While there might have been legal problems involved with Federation citizens serving in the Gorn military, this was carefully ignored by both sides in a fashion reminiscent of American pilots serving in Britain's Royal Air Force during the early years of WWII on Earth, or with Gurkhas serving in the British and Indian Armies.

Skoleans are sometimes found serving in Star Fleet or other Federation jobs, and are rarely found serving in the Marines and other highly physical occupations. They can be considered available as another Federation member race, although most Skoleans who serve off planet do so with the Gorns, not the Federation. Skolean mercenaries serve the Gorns in many capacities, not just as fighter pilots. Some serve as naval crewman and a few hold commissions or even command ships.

**Attribute Modifiers:** ST-1 [-10]; DX+1 [20]; HT-1 [-10].

**Advantages:** Chameleon 2 [10]; Enhanced Tracking [5]; Peripheral Vision [15]; Resistant to Acceleration +8 [3].

**Disadvantages:** Unfit [-5]; Vulnerability (cr x2) [-30].

**Homeworld:** Gravity Class-M, 0.81G, Atmospheric pressure 0.96, mean temperature 72°F, Zorski Group V-c.
Tholian Holdfast

The Tholians are crystalline creatures who live in very high temperatures. They are not native to our galaxy, but once dominated the MB1 Galaxy. A small group of Tholians escaped the Seltorian Revolution and brought their “planet,” which was a small Dyson sphere (i.e., a huge hollow structure with a small artificial star inside) with them, arriving in Y79. While the original group of Tholians was small and their only starships were tiny police cutters, their technology was so superior that they were able to conquer a small piece of Klingon territory, destroying (or enslaving?) several Klingon colonies in the process. The Federation, which was briefly allied to the Tholians in the General War, never asked what had happened to the Klingon colonists. The Klingons maintained a perpetual state of war against the Tholians and the Klingon fleet on the Tholian border was used for combat training due to the constant fighting there.

During the General War, the original Tholians were joined by a fleet of their original warships (known at first as “Neo-Tholians” to Star Fleet Intelligence). Not long after that, an expedition of Seltorians arrived and (with Klingon help) set up a base and began attacking the Tholians in a combination of a religious crusade and a big game hunt.

The Tholians are masters of playing off one side against the other, not from cowardice but necessity (their forces are too small to stand losses). The first principle taught in their academy is “Let’s you and him fight.”

Attribute Modifiers: IQ+1 [20]; HT-1 [-10].
Secondary Attribute Modifiers: High TL +2 (Tholian physiology and medicine only, -50%) [5].
Advantages: Body of Stone [140]; the DR 5 is Flexible (-20%) and Semi-ablative (-20%) [-10]; Detect (Electric and Magnetic fields) [20]; Flight (paramagnetic, -25%; low ceiling, 5 feet, -25%; visible, -20%) [12]; Ultrahearing [5].
Disadvantages: Increased Life Support (Extreme Heat) [-10]; Intolerance (Non-Tholians) [-10]; No Legs (aerial) [10]; Weakness (Oxygen/Aerobic, 1d per minute, very common) [-60].
Quirk: Outside of their native environment, Tholians radiate heat (and light as a soft glow) which makes them easier to see: +1 indoors, +4 in darkness, and +10 with Infravision [-1].
Homeworld: Class-T, Gravity 0.88G, Atmospheric pressure 0.85, mean temperature 400°F, Zoroki Group X.

Orion Pirates

The Orions are a green-skinned race resembling the Humans.

Although the Orions as a race are members of the United Federation of Planets (and some serve on Star Fleet ships), the Orion Pirates are fiercely independent. Officially, the pirates are simply privateers and criminals. It is believed, however, that the original Orion Pirates were a clandestine arm of the Orion government, using ships provided to them and manned by regular officers and crewmen of their own fleet. Since those early years, the Orion Pirates have extended their operations to cover most known areas of the Alpha Octant. If the Orion government ever did control the pirates, it controlled only a few of them by the time of the General War (Y168).

The pirates are organized into cartels, each controlling a given area; see page 135. Each cartel will have many ships under its direct control, although two-thirds of all Orion Pirate ships are independents.

Note: Many people on Orion Pirate ships are not “ethnic Orions” but other races (Humans, Romulans, Klingons, and even Vulcans). Some pirate ships have no ethnic Orions at all! Pirates (of any race) are required to take the disadvantage Social Stigma (outlaw) [-15 points].

See the future book GURPS Orion Pirates.

Males or Females of the “Pirate” caste

Attribute Modifiers: DX+1 [20].
Advantages: Fearlessness [2]; Xeno-Adaptability [20].
Disadvantages: Greed [-15]; Intolerance (Legal systems) [-5].
Racial Quirk: Extravagant [-1].

Females of the Courtesan (“Slave Girl”) caste

Attribute Modifiers: ST-1 [-10]; DX+1 [20].
Advantages: Fashion Sense [5]; Fearlessness [2]; Pitable [5]; Very Beautiful [16].
Disadvantages: Jealousy [-10]; Lecherousness [-15].
Homeworld: Class-M, Gravity 0.95G, Atmospheric pressure 1.03, mean temperature 75°F, Zoroki Group III-b. Note that “Slave Girl” is a job (for a fee, and for a time) not actually “slavery.”

Other Orions use a template in GURPS Federation.
Hydran Kingdom

10 points

Hydrans are small (4.5 feet tall) beings, greenish-gray in color, with a barrel-shaped body, three stubby legs, three equally spaced tentacles, and no necks.

Their methane atmosphere would be uncomfortable (or fatal) to most other species. They breathe methane (which provides most of their food) and could survive on virtually any methane planet. Their homeworld is somewhat smaller than Uranus and of lower density. They are highly intelligent. Their small stature puts them at a minor disadvantage in ground combat, but their starships are among the most respected in space and are designed for close-range combat.

The Hydrans have never gotten along well with the Klingons or Lyrans. While Hydrans and Klingons (or Lyrans) cannot live on the same worlds, neither has been willing to share systems with the other. The Hydran Kingdom was conquered by the Klingons and Lyrans in Y87 and held as a client state until Y135. Powerful merchant guilds established themselves on three colony planets (Altoroth, Minxitith, and Krooth) that the Klingons and Lyrans had overlooked. These were known at the time as the Lost Colonies and came to be known after the re-establishment as the Old Colonies, terms that have become interchangeable.

Hydrans come in three sexes: Male, Female, and Matriarchal. As the Matriarchs have the intelligence of a sheepdog, they are not often seen as player characters. The template below works for males or females.

The Hydran government is a monarchy, but the bureaucracy holds the real power as dozens of royal princes conspire for the throne.

The Hydran fleet uses vast numbers of fighter-shuttles, and most of their ships are hybrid warship-carriers.

Attribute Modifiers: ST-1 [-10]; IQ+1 [20].
Advantages: Ambidexterity [5]; Extra Arms 1 (Extra Flexible +50%, Long (SM+1) +100% [25]; two modified arms Extra Flexible and Long) [30]; Extra Legs 1 [5]; Injury Tolerance (no neck) [5].
Disadvantages: Increased Life Support (Nitrogen-methane atmosphere at cryogenic temperatures) [-10]; Weakness (Oxygen/Aerobic, 1d per minute, very common) [-60].

Andromedan Invaders

The Andromedans arrived from the M31 galaxy about Y166 and were little more than a nuisance until the end of the General War, when they launched a major invasion that very nearly conquered the Milky Way Galaxy. Intelligence estimates that several dozen ships were launched from Andromeda two centuries prior to Y166. Analysis indicates that the Andromedans have secured a base in the Lesser Magellanic Cloud and began probes into the Milky Way Galaxy itself sometime in late Y165.

Their weapons are largely of unknown types and technologies that will be detailed in a future book.

Nothing is known about the Andromedans as beings; the only Star Fleet Marine who ever saw one and lived could not speak of it, nor could medical science help him do so. Andromedan boarding parties are composed entirely of robotic combat systems, leading some to theorize that the Andromedans are themselves robots or computer software. Other theories run the gamut from plants to animals to minerals to evil spirits.

There are no Andromedan characters in GURPS Prime Directive. Andromedan robots may be approximated for use as NPCs. As there are dozens of types, GMs may use their imagination until the future GURPS Robots 4e provides the basis for designing them. One might imagine that any robot doesn't need air, has communications (radio) to other robots, is immune to disease, and cannot "learn". Three common Andromedan robot includes:

**General Boarding Robot**: This floats on anti-grav systems (six yards per turn), has two manipulator arms, has armor equal to Marine Battle Armor, and has four phaser pistols built in (each with a 90⁰ arc of fire).

**Small Scout Drone**: This floats on anti-grav systems (ten yards per turn), has sensors equal to a tricorder, is only lightly armored, and has one phaser pistol built in.

**Heavy Weapons Robot**: Heavily armored, this walks on legs (some have tracks or wheels, all are fairly noisy) at three yards per turn. It has five metal tentacles (3 yards long) plus a heavy weapon (and enough power to fire it ten times). It is fairly rare; at most 10% of boarding robots in any given group will be of this or similar heavy types.
Lyran Star Empire

The Lyran Star Empire is located on the far side of the Klingon Empire from the Federation. The Lyrans are Klingon allies, originally of convenience and by the time of the General War firm friends with the mutual respect of warriors. The empire is divided into 21 counties (one of which rebelled to become the neutral LDR). One county is run by the King-Emperor, with the others divided into four Duchies (each run by a Duke). The Lyrans (like the Kzintis, and unlike the Klingons) do not allow sentient races within their empire into space.

Lyran

43 points

The Lyrans (pronounced Lear-uhns) are Human-sized cat-like humanoids with great physical strength. Their fur coats and features bear a striking resemblance to those of a Terran lynx with some variations, and their temperaments are also similar. Lyrans have short fur-covered tails. Males and Females are equals. Federation scientists have determined that the Lyrans and Kzintis are descended from common stock seeded by "the Leopard Kings" countless year ago. The hatred of these two races is so tremendous that every attempt at peace negotiations breaks down into hand-to-hand combat. (Kzintis and Lyrans somehow coexist peacefully inside the WYN Cluster, to the embarrassment of both empires.)

There is a good deal of conflict within the Lyran Empire, which has kept the race as a whole from dominating a much larger area of the galaxy. The main enemy of the Lyrans (other than each other) is the Kzinti Hegemony, but they also fight the Hydrans and joined in the Coalition invasion of the Federation in Y171.

Attribute Modifiers: ST+1 [10]; DX+1 [20]; IQ+1 [20].

Advantages: Damage Resistance 1 (Tough Skin, -40%) [3]; Discriminatory Smell [15]; Night Vision 9 [9]; Sharp Claws [5]; Sharp Teeth [1].

Perk: Fur [1].

Disadvantages: Callous [-5]; Curious [-5]; Gregarious [-10]; Intolerance (Kzintis, Carnivores and other Lyran clans) [-5]; Odious Racial Habits (Eats other Sentient beings) -3 [-15].

Quirk: Chauvinistic [-1].

Homeworld: Class-M, Gravity 1.10G, Atmospheric pressure 1.02, mean temperature 70°F, Zoskri Group IV-a.

Peladine Republic (Conquered)

Peladine is a class-M planet within Lyran territory. It gave birth to two races, the Ranel and the Phelen. After several wars, they achieved a unified Peladine Republic and had achieved TL9 when they were discovered by the Lyran Empire in Y130. The Lyrans quickly reduced them to a subject race. Since then, Ranel and Phelen are rarely found offworld. A few are recruited into Lyran service; a few who cannot tolerate Lyran rule join the Orion Pirates.

Ranel

10 points

The Ranel are humanoids resembling Terran raccoons and share that species' habit of curiosity. The Ranel are mute, and all know the Ranel sign language (their native language, no cost). Those Ranel who must interact with alien species wear a translator device. As a Mute race, all Ranel receive a +3 to Sign Language rolls.

Attribute Modifiers: DX+1 [20].

Advantages: Brachiator [5]; Catfall [10]; Damage Resistance 1 (Tough Skin, -40%) [3]; Flexibility (Double-Jointed) [15]; Sharp Teeth [1].

Perk: Fur [1].

Disadvantages: Mute [-25]; Social Stigma (subjugated by Lyrans) [-20].

Language: Ranel Sign Language (native) [0].

Phelen

40 points

The Phelen resemble Terran dolphins. As their flippers have Bad Grip, they built TL8 artificial hands (and used their mouth for fine manipulation). Later, the Ranel made TL9 artificial arms for them. They can speak in their own tongue to the mute Ranel.

Attribute Modifiers: ST+2 [20]; HT+2 [20].

Secondary Characteristic Modifiers: Water Move +2 [10].

Advantages: Damage Resistance 2 (Tough Skin, -40%) [6]; Doesn't Breathe (Oxygen Storage, 200x normal, -20%) [16]; Pressure Support 2 [10]; Speak Underwater (Interface Crossing, +50%) [8]; Striker (Tail) [5].

Disadvantages: Bad Grip 2 [-10]; Dependency (Immersion in water, daily) [-15]; No Legs (Aquatic) [0]; Short Arms [-10]; Social Stigma (subjugated by Lyrans) [-20].

Homeworld: Class-M, Gravity 0.97G, Atmospheric pressure 0.95, mean temperature 72°F, Zoskri Group IV-c.

Other subject races will be in GURPS Feline Empires.

CREATING A CHARACTER

GURPS PRIME DIRECTIVE 4E
The WYN Cluster

The WYN Star Cluster stands as a huge (50-parsec diameter) beacon at the crossroads of the galaxy. Marking the point where the Klingon, Lyran, and Kzinti borders meet, the cluster itself was long considered uninhabitable. Surrounded by a dense cloud of highly radioactive dust, it was assumed that the entire cluster was saturated with deadly radiation. The planets and asteroids within the cluster are rich in rare metals and isotopes, making the WYNs a wealthy race.

There is no racial template for the WYN because there are no ethnic WYN. All residents of the WYN Cluster are immigrants from other races and empires described in this book. Kzinti and Lyran characters from the WYN Cluster do not have the mutual Intolerance rating toward each other. They both have a -5-point Intolerance rating toward all Kzintis and Lynars from outside of the WYN Cluster. Characters from Klingon "subject races" who were "free born" in the cluster do not have the Social Stigma or Low Status disadvantages. Klingons born in the cluster do have the same reputation toward subject races.

In Y116, the Kzinti Duke failed in an effort to seize the Patriarchal throne. Pursued by the victorious Patriarch, the Usurper led the ragged survivors of his fleet to the edge of the WYN Cluster and plunged directly into it, believing it better to die than be taken prisoner. But the Usurper survived. The radioactive clouds were a relatively thin shell, but only by driving into them at warp 7 could even that brief exposure be tolerated. Once inside, the people were safe. Given up for dead by his race, the Usurper secretly began constructing a society within the cluster.

Later, a large group of Lynars (on the losing side of one of their civil wars) also flew into the cluster to die, and, surprisingly, made an alliance with their hated enemies, the Kzintis. Later, Klingon renegades also joined the mix. When Orions (fleeing pursuit) entered the cluster (expecting to die) they found the WYNs ready to deal. Once the Orions were involved (an entire Orion cartel operates from the cluster), renegades from virtually every sentient species in the galaxy joined the WYNs.

The WYN position was perfect for defense for two reasons. First, until they recovered from the effects of the radiation, invading ships would suffer continuous malfunctions that drastically reduced their effectiveness in combat, and the small WYN fleet could easily defeat much larger forces. The second reason for WYN defensive success was that none of the bordering races could afford to see the others gain control of the fabulously wealthy area.

The Interstellar Concordium (ISC)

The Interstellar Concordium (ISC) is an organization of several races associated by treaty, similar to the Federation. As is typical of the eastern regions of the Alpha Sector (page 156), all of these races are native to different planets, but most of these systems are within a relatively small area at the center of ISC territory. The various races discovered each other, fought several minor wars, and formed the ISC before the era of warp-powered starships.

The ISC became aware of the Gorns and Romulans in Y160 when the energy flashes of a battle were detected by a far-ranging survey mission. As the ISC are singularly pacificist anyway (having found wars very unprofitable), their first encounter with the two warring races left a scar on the ISC psyche. They had assumed that the development of warp-power would lead all races to a higher understanding based on the realization that there were enough worlds for everyone. The "outsiders" were considered to be dangerously violent and not entirely sane.

The ISC treated both neighbors with the same disdain and considered both to be dangerous lunatics who could never be trusted. There was never any thought of allying with one against the other; both were considered (metaphorically speaking) to be wild animals that should be kept outside of the civilized area of the ISC itself. The Romulans and Gorns, however, constantly tried to enlist the ISC on their side. The two ancient enemies never had enough combat power to spare to make any serious move against the ISC (beyond responding to their incursions).

During this period ISC diplomats met with both races, and ambassadors were sent to the Federation and other capitals. What the ISC found shocked them even more deeply. The galaxy had not just two dangerous lunatic races on the loose but, in fact, had at least eight, and they apparently became more and more barbaric the farther they were from the ISC. The ISC built a huge fleet and, at the end of the General War (Y185), imposed themselves as peacekeepers between the warring factions. (Those factions regarded the ISC forces as buying them time to build new fleets.) With their forces scattered as they were, the huge ISC fleet (which might have defended the sector) became easy prey for the invading Andromedans.
The Velressai are humanoids and the clear leaders of the ISC. The policy of stopping conflicts emanates from their original role in uniting many races into the ISC.

**Attribute Modifiers:** ST -1 [-10]; IQ +2 [40].

**Advantages:** Common Sense [10]; Fearlessness 2 [4]; Intuition [15]; Xeno-Adaptability [20].

**Homeworld:** Class-M, Gravity 0.78G, Atmospheric pressure 0.95, mean temperature 77°F, Zorshki Group II.

**Velressai Quads**

One of every 20 Velressai births consists of identical quadruplets who are empathetically and telepathically linked and, while four individuals, have one personality. Anything known or felt by one is relayed telepathically to the others (within 15 miles maximum) within minutes and is part of their common experience. A memory buffer allows the four individuals to function without distraction, maintain peripheral contact, and "catch up" at convenience. If separated by distance, unconsciousness, or a telepathic shield, each Quad functions independently but the "Telepathic Addiction" penalty starts after 24 hours. As soon as the lone Quad re-establishes contact, it will merge back into the group mind and exchange memories quickly. Medications with a psychological effect will affect all four when they Mindshare; one HT role is made for all four Quads. If one Quad dies, the survivors cannot spend character points for anything until they buy off a portion of the Advantage: Ally Group. If one player character is a member of a quad, the GM controls the other three (of the same point level).

**Advantages:** Ally Group (3 allies, same point cost, appearing almost all the time, x3), Sympathy. Medications with psychological effects have same effect on other Quad members when mindlinked, -10% [41]; Mindlink (Only to other members of Quad, Nuisance Effect; distracted during periodic telepathic contact with other members, -10%) [9]; Telesend (Broadcast, +50%, Accessibility, Only to other members of the Quad, -60%) [27].

**Disadvantages:** Addiction (Mindlinking with other Quad members, expensive, can only link with other members of Quad, totally additive, legal) [-15]; Chummy [-5].

**Q'Naabian**

The Q'Naabians joined the ISC more out of a sense of curiosity than anything else and are its top historians. They tend to keep to themselves, giving the impression that they are snobs, but in fact they simply prefer the company of their own race — in their own environmentally controlled, sub-zero, nitrogen/ammonia atmosphere living cabins.

**Attribute Modifiers:** IQ+2 [40]; HT+1 [10].

**Advantages:** Extended Lifespan 1 [2]; Higher Purpose (Information gathering) [5]; Intuition [15]; Racial Memory [15].

**Disadvantages:** Curious [-5]; Honesty [-10]; Increased Life Support (Nitrogen-ammonia atmosphere at sub-zero temperatures) [-10]; Weakness (Oxygen/Aerobic, 1d per minute, very common) [-60].

**Homeworld:** Class-R, Gravity 0.88G, Atmospheric pressure 1.33, mean temperature -200°F, Zorshki Group VIII-a.

**Pronhoulites**

The Pronhoulites are land-based, bipedally erect, reptilian humanoids, perhaps distantly related to the Gorns (or not). Pronhoulites are not as powerful as the Gorns, but are much faster. They are not technologically advanced or numerous enough to become a major power within the ISC, but they are aggressive and adaptable and are very adept at military matters.

**Attribute Modifiers:** ST+1 [10]; DX+1 [20].

**Secondary Characteristic Modifiers:** Basic Speed +1 [20].

**Advantages:** Damage Resistance 1 (Tough Skin, -40%) [3].

**Disadvantages:** Cold Blooded [-10].

**Taboo Trait:** Temperature Tolerance.

**Homeworld:** Class-M, Gravity 1.45G, Atmospheric pressure 1.25, mean temperature 95°F, Zorshki Group V-b.

**Rovillians**

The Rovillians are a psionically active aquatic race, something like a cross between a turtle and a dolphin. They have vestigial exo-chitins on their backs and heads and possess articulated digits on their flippers. While ungainly on dry land, the Rovillians are inhumanly graceful and acrobatic in their native element.

All Rovillians have latent psionic abilities. Many (but not all) Rovillians who make it into space have developed them to some extent, especially telepathy (to improve communication with the "dry" ISC races) and Psychokinesis (to compensate for their lack of fine manipulators). Players who wish to buy these skills should see Chapter 4.

**Attribute Modifiers:** ST+2 [20]; HT+2 [20].

**Secondary Characteristic Modifiers:** Water Move +4 [20].

**Advantages:** Doesn't Breathe (Oxygen Storage, 200x normal, -20%) [16]; Pressure Support 2 [10];
Telesend (Telepathic, -10%) [27]; Telekinesis 5 (Psychokinesis, -10%) [23]; Striker (Tail) [5].

Disadvantages: Bad Grip 2 [-10]; Dependency (Immersion in water, daily) [-15]; No Legs (Aquatic) [0]; Cannot Speak (mute) [-25]; Short Arms [-10].

Homeworld: Class-N, Gravity 1.51G, Atmospheric pressure 1.47, mean temperature 79°F, Zorski Group IV-d.

Korlivilar

The Korlivilar are a feline race; their height often measures less than 6 feet. The Korlivilar are the undisputed masters of speed and reaction time, and most often serve in ground combat and special forces units.

Attribute Modifiers: ST+2 [-20]; DX+4 [80].

Secondary Characteristic Modifiers: Per+2 [10].

Advantages: Absolute Direction [5]; Claws (Sharp) [5]; Combat Reflexes [15]; Damage Resistance 1 (Tough Skin, -40%) [3]; Enhanced Move 1 (Ground) [20]; Infravision [10]; Very Fit [15].

Perk: Fur [1].

Disadvantages: Fearfulness [-2]; Light Sleeper [-5]; Loner [-5]; Sleepy [-16].

Homeworld: Class-M, Gravity 0.98G, Atmospheric pressure 1.05, mean temperature 75°F, Zorski Group IV-a.

Lyran Democratic Republic

One of the 21 Lyran counties rebelled in Y145 and became the independent and neutral Lyran Democratic Republic. The tiny enclave remained independent mostly because Foremost Duchy welcomed the reduction in power of its rival, the Enemy’s Blood Duchy (of which the LDR had been a part). The LDR later acquired some Hydran technology; the Hydrans were bribing them to stay neutral in the General War.

Ethnic Lyrans from the LDR will be identical to other Lyrans, except that they will average about an inch shorter in height. LDR Lyrans will have the same bad reaction to Kzintis as other Lyrans; they would have the same bad reaction to the Carnivons if any had been still alive when the LDR was established.

Some Ranel and Phelen work in the LDR in various jobs.

Seltorian Tribunal

The Seltorians resemble large humanoid insects. They reach a height of 5-6 feet and weigh 100-150 pounds at full maturity. This seems to be a racial constant, except for the large Queens. There are two sexes and five castes. The Seltorian race resides in the original Tholian Home Galaxy (M81). Prior to the downfall of the Tholians, the Seltorians (genetically-engineered by the Tholians for loyalty) occupied the position of “most trusted subject race” within that galaxy and enforced Tholian rule of their other subject races.

About a decade before the Revolution, Seltorian scientists stumbled upon a weapon that would disrupt webs. When the Tholians realized what was going on, they destroyed the starbase that had originally invented the weapon. But hundreds of the components (and blueprints to build more) had already been distributed to other bases and were quickly fitted to Seltorian ships. The entire Seltorian Revolution lasted only a few years, as the Tholians lost base after base to growing rebel fleets. After the revolution was complete, the Seltorians simply replaced the Tholians as masters of a galaxy-wide empire.

It was known that some Tholian forces had escaped the debacle. Various factions of the Seltorians debated what should be done, with one group wanting to let the surviving Tholians go in peace while others wanted to hunt down the hated overseers. Several groups were known to have escaped to (or at least toward) other nearby galaxies, and the Tribunal resolved to track them down.

Hive Ships of incredible size were assembled and sent on long voyages to many different galaxies, including both the Milky Way and Andromeda galaxies. With the exception of the Hive Ship that reached the Milky Way galaxy, nothing is known of the other expeditions (although it can be imagined that the Hive Ship that went to Andromeda did not fare well).

Scouts from this Hive Ship, following the ion trail left by the Tholian 312th Battle Squadron, contacted the Klingons in Y182. They announced their presence and mission, and the Klingons were only too happy to point out the location of the Tholian Holdfast.
Sages

Those Rams who do not mate within a few weeks of sexual maturity become infertile and live for two centuries or more as Sages (thus they do not have to make Aging rolls until they reach 200). The Sages run the government, have the highest intelligence, provide most of the starship officers and industrial administrators, and take a much longer view of racial development. While it would seem that the choice between the short lifespan of a fertile Ram and the longer, more fulfilling lifespan of a Sage would be a simple one, this choice is not one given to the Rams. It is more a case of not being in the right place at the right time.

Attribute Modifiers: IQ+2 [40].
Advantages: Damage Resistance 2 (Tough Skin, -40%) [6]; Extended Lifespan 2 [4].
Disadvantages: Incurious (6) [-10]; Self-Destruct [-10].
Racial Feature: Sterile [0].

Workers

The infertile females are the Workers, who make up more than 95% of the population and live only a few years; one authoritative source cites a life span of five years but suggests that few Workers die natural deaths. Workers are reasonably intelligent and provide most of the starship crews, a job for which they are trained practically from birth. They are born with the knowledge that they will not lead long lives, but they work mostly without complaint. They reach maturity in only a few months.

Attribute Modifiers: ST+2 [20]; DX+1 [20]; IQ+1 [20]; HT+2 [20].
Advantages: Damage Resistance 2 (Tough Skin, -40%) [6].
Disadvantages: Incurious (6) [-10]; Self-Destruct [-10]; Short Lifespan 4 [-40]; Workaholic [-5].
Racial Feature: Sterile [0].

Experts

For unknown reasons, a tiny percentage of the female Workers have lifespans as long as the male Sages, and due to their years of experience become Experts in their tasks. Never aspiring to leadership (not that Sages would tolerate it anyway), Experts continue their hard work without complaint.

Attribute Modifiers: ST+2 [20]; DX+1 [20]; IQ+1 [20]; HT+2 [20].
Advantages: Damage Resistance 2 (Tough Skin, -40%) [6]; Extended Lifespan 2 [4].
Disadvantages: Incurious (6) [-10]; Self-Destruct [-10]; Workaholic [-5].
Racial Feature: Sterile [0].

All Seltorians
Homeworld: Unknown, data is from ships: Gravity 0.98G, Atmospheric pressure 1.01, mean tempera
ture 65°F, Zoski Group VI-b.
Jindarian Caravans

141 points

The Jindarians are an ancient race, well adapted to living in widely-varying gravitational conditions. Of particular note is the Jindarian skeleton (composed of an intricate variably-ossiform cartilage) and an advanced respiratory system that actively adapts to the oxygen/carbon dioxide ratio of the surrounding atmosphere.

The Jindarians have been in space for perhaps 100,000 years, and have no known homeworld (or indeed, no known “national government”). It is not known if they originated within our sector of the Galaxy or arrived from elsewhere. To some extent, the Jindarians appear to operate as “Gypsies,” establishing themselves in a system’s asteroid field and later moving on.

The larger Jindarian ships are built from asteroids riddled with tunnels and fitted with warp engines and other systems. These asteroid ships are virtually indistinguishable from other asteroids, at least until they start moving or fighting.

The Jindarians appear to operate in groupings referred to as “caravans,” which can be anywhere from 3 to 12 of their asteroid ships. For reasons that are unknown, it appears that any caravan about to become larger than 12 ships will subdivide into two or more caravans, each moving in a different direction.

Most Jindarian caravans operate in systems that are not inhabited, hence their activities go on almost unnoticed. When they move into an inhabited system, however, problems quickly result. When Jindarians move into a system, they try to drive out any miners already there rather than tolerate interference with “their” claims. In an uninhabited system, the prospectors simply move on to less disputed stakes. In an inhabited system, the effect is generally ruinous to the local economy, as the Jindarians keep most of the fruits of their labors and what they sell is at prices just below what the material can be imported for.

Most Jindarian asteroid ships have only very small amounts of gravity (0.1G or less), and in many areas this falls to as low as 0.02G. While walking is possible, most Jindarians move around inside their own ships by “swimming” through the air. The Jindarians use a “gravity suit” when forced to go to another ship or a planet. This suit is good for at most a few hours of operations in an environment up to 1.5G. The Jindarians have had this technology for thousands of years, but the Galactic Powers have never matched its quality.

Attribute Modifiers: DX+3 [60].
Advantages: Ambidexterity [5]; Doesn’t Breathe (Oxygen Storage, 200x normal, -20%) [16]; Extended Lifespan 1 [2]; Extra Arms 2 (Foot Manipulators, -30%; No Physical Attack, -50%) [4]; Flexibility [15]; G-Experience (All) [10]; Immunity (to adverse effects of Micro-Gravity) [5]; Peripheral Vision [15]; Radiation Tolerance 20 [20]; Sealed [15]; 3D Spatial Sense [10]; Vacuum Support [5].
Disadvantages: Bad Smell [-10]; Dependency (Microgravity, common, constantly, mitigator, uses gravity suit to interact with other races; -60%) [-20]; Miserliness [-10].
Quirk: Acceleration Weakness [-1].
Homeworld: Class unknown, Gravity 0.08G, Atmospheric pressure 0.67, mean temperature 55°F, Zorski Group V-c.

Vudar Enclave

65 points

The Vudar, a bipedal reptilian race, live near the edge of the galaxy in an area where a weakness in the energy barrier known as “The Hole” produced ionizing radiation that was hazardous to most species, but on which the Vudar thrived.

The Klingons had to police and colonize the area, but the radiation made this dangerous for them, so they reached an accord of necessity unique in the history of the Klingon Empire. They allowed the Vudar to build and operate armed starships (up to destroyers before the General War, to light cruisers as the General War dragged on).

What the Klingons did not realize was that the radiation field made it impossible to accurately track Vudar ships. So long as the Klingons could not track more than the authorized number at any one time, the Vudar could build as many as they wanted. The Vudar built a rather large fleet, and this resulted in Vudar independence in Y178.

Attribute Modifiers: IQ+1 [20].
Advantages: Acute Vision 2 [4]; Amphibious [10]; Nictitating Membrane 1 [1]; Radiation Tolerance 200 [35]; Resistant to Poison +3 [5].
Disadvantages: Short Lifespan [-10].
Homeworld: Class-M, Gravity 0.89G, Atmospheric pressure 1.01, mean temperature 75°F, Zorski Group V-c.
NOTE: Prior to Y177, the Vudar were a Subject Race of the Klingon Empire; characters from this period must take Status -1 [-5] and Social Stigma (Minority Group) [-10].
Paravian Raiders

The Paravians were a bipedal birdlike race, whose homeworld was in a system located between the Gorn homeworlds and the Galactic Core. They lost a savage war with the Gorns, and the race is extinct in the Alpha Sector.

The Gorns and Paravians first met in Y24, at the very start of the space exploration period for both races, the first contact for each race. Early discussions exposed that both shared a great mystery: they were not from their home worlds. The fossil record indicated that both had been transplanted to their planets by forces or beings unknown about 13,400 years earlier. Further explorations provided an even greater surprise: the Paravians were descended from a species virtually identical to the Gorns which had become extinct after an asteroid impact on their homeworld 12,600 years earlier. The Paravian reaction to the paleontological evidence was a fanatical hatred for the Gorns, as the fossil Gorns of their own world had for centuries held the position of demons and devils. The Paravians launched a campaign of hatred such as the known galaxy had never seen before and has only rarely seen since. The War lasted for 10 years until the Gorns succeeded in blockading the Paravian homeworld in Y85 and then hunting down all of the surviving raiders. Rather than wipe out the Paravians (who refused to negotiate), the Gorns eliminated all Paravian facilities related to space travel. A squadron of warships then kept the Paravians neatly trapped on their homeworld. This plan worked for a dozen years, but in Y94 a Sunsnake dove into the Paravian star, causing it to go nova. The Gorn garrison ships were unable to even attempt a rescue, and the Paravians would not have accepted their help. There were occasional reports of Paravians after the nova incident. Perhaps these were the descendants of raiders who had escaped the Gorns. None of these reports were ever confirmed.

While Paravians have wings, their ability to fly was limited. Most could glide from a height or running start; some athletic individuals could actually fly for several dozen meters. Some non-athletic individuals could not fly at all.

**Attribute Modifiers:** ST-1 [-10]; DX+1 [20]; HT+1 [10].

**Secondary Characteristic Modifiers:** Basic Speed +1 [20].

**Advantages:** Flight (Gliding, -50%; Winged, -25%) [10].

**Disadvantages:** Intolerance (Gorns) [-5]; Vulnerability (cr x2) [-30].

**Skill:** Flight at HT [2].

**Homeworld:** Class-M, Gravity 0.80G, Atmospheric pressure 1.33, mean temperature 90°F, Zorski Group V-a.

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Carnivon Horde

The Carnivons were exterminated by the Lyrans and Kzintis about Y110. This data applies before that date.

The Carnivon race was often described as "wolf-like," but they were in fact genetically related to the Kzintis and Lyrans and all three apparently descended from some ancestral race. Curiously, the felinoid races (descended from solitary hunters) were able to create fairly unified stellar empires, while the Carnivons (descended from pack hunters) were a species rather than a nation.

Carnivons stood about 4 feet tall and massed about 120 pounds, and were covered with coarse fur that ranged from black to gray to brown. Carnivons walked erect and had opposable thumbs, just as their felinoid cousins do. Carnivons reached physical maturity within a year, but were regarded as juveniles until their hormones balanced at three years old. Carnivons were regarded as too old to fight by their 25th birthday and few survived into their 30s.

There was no such thing as a Carnivon government. There were, at any given time, from a dozen to two dozen Hordes (each of millions of members) subdivided into Packs. Each Pack was a feudal state, with its own ships, colonies, and interests. Some were autocratic, some democratic, and others had familial structures. Packs (and even Hordes) were known to divide or merge, sometimes violently. Warlords tried to unify the Hordes but none succeeded in merging more than a few, and none of the mergers survived the warlord. There was no single "home planet" for Carnivons.

The only thing the Lyrans and the Kzintis ever agreed upon was their hatred of the Carnivons, who hated them in return. The felinoid races destroyed all of the Carnivon worlds and inhabitants they could find by Y110. Rumors that Carnivons survive in remote areas are unconfirmed.

**Attribute Modifiers:** ST+1 [10]; DX+1 [20]; HT+1 [10].

**Advantages:** Combat Reflexes [15]; Damage Resistance 1 (Tough Skin, -40%) [3]; Discriminatory Smell [15]; Night Vision 9 [9]; Teeth (Sharp) [1].

**Perk:** Fur [1].

**Disadvantages:** Gregarious [-10]; Intolerance (Kzintis, Lyrans, and other Hordes) [-5]; Short Lifespan 2 [-20].

**Quirk:** Chauvinistic (other packs within your Horde) [-1].

**Homeworld:** Class-M, Gravity 1.18G, Atmospheric pressure 1.15, mean temperature 75°F, Zorski Group IV-a.
ACADEMY TEMPLATES

A character may buy an Academy Template, but is not required to do so. Normally only one may be purchased. Characters who are initially generated as enlisted characters and later attend officer training should only pay the difference in character point cost between the enlisted and officer templates which were purchased.

All of these templates give the character some level of Resistant to Disease; this represents the immunizations and other preventative medical treatment received during training. The benefit granted by Resistant to Disease (and its cost) is dependent upon the Tech Level of the society; as a result, the level of Resistant to Disease granted in these templates is at the most basic level, which is TL 9. GMs should feel free to increase the level of Resistant to Disease if their campaign is set at a higher Tech Level.

The symbol ★ indicates items not allowed for military personnel; the symbol ◆ indicates items not allowed for Merchant Marine personnel. In most cases, racial trait disadvantages are not a bar to such service. Note that if the character should acquire such a disadvantage during the course of play, the character is no longer qualified to remain in that service. The character must either buy off the disadvantage or leave the service, possibly as a medical retiree. GMs have some latitude on this. The individual might be kept on duty because of his extraordinary skills, or could be retired, then hired as a civilian advisor and given a “warrant” rank and allowed to stay with his group.

Other Academies

The academies listed above are found within the Federation. Other races and empires have their own academies, which will be detailed in their sourcebooks and in other supplements. Each planet has its own self-defense military force with its own Academy; these will be detailed in GURPS Federation but are basically Star Fleet Academy packages without some items such as xenology, research, or diplomacy; their security clearances are limited to their own National Guard forces.

Star Fleet Academy

Graduates become officers at Grade O1 (Ensign); players may increase the starting Grade of their characters but not beyond O5 (Commander).

Suggested Minimums: ST 9, DX 9, IQ 12, HT 9
Advantages: Fit [5]; Military Rank 3 [15]; Resistance (Disease) [3]; Social Regard (Respected) [15]
Disadvantages: Code of Honor (Star Fleet) [-10]; Duty (Star Fleet) (15 or less) [-15]; Sense of Duty (Federation) [-10]
Skills: Administration IQ-1 [1]; Astronomy/TL IQ-2 [1]; Beam Weapons/TL (Pistol) DX [1]; Computer Operation/TL IQ [1]; Computer Programming/TL IQ-2 [1]; Diplomacy IQ-2 [1]; Electronics Operation/TL (Transporter) IQ [2]; Electronics Operation/TL (Tricorder) IQ [2]; Engineer/TL (choose one) IQ-2 [1]; Engineer/TL (Electronics) IQ-2 [1]; Expert Skill (Xenology) IQ-2 [1]; First Aid/TL IQ [1]; Free Fall DX-1 [1]; History (Recent Federation) IQ-2 [1]; Judo DX-2 [1]; Law (Federation Military) IQ-2 [1]; Leadership IQ-1 [1]; Mathematics/TL (Applied) IQ-2 [1]; Mechanic/TL (choose one) IQ-1 [1]; Navigation/TL (Space) IQ [2]; Operations (Space) H IQ-1 [2]; Physics/TL (specialty optional) IQ-3 [1]; Piloting/TL (Aerospace) DX-1 [1]; Research/TL IQ-1 [1]; Savori-Faire (Military) IQ [1]; Shiphandling/TL (Starship) IQ-1 [2]; Space/TL IQ [1]; Strategy (Space) IQ-2 [1]; Survival (choose one) A Per-1 [1]; Tactics IQ-2 [1]; Vacc Suit/TL IQ-1 [1].

Federation Marine Academy

Graduates become officers at Grade O1 (Ensign); players may increase the starting Grade of their characters but not beyond O5 (Commander).

Suggested Minimums: ST 10, DX 10, IQ 12, HT 12
Advantages: Fearlessness 3 [6]; Military Rank 3 [15]; Resistance (Disease) [3]; Social Regard (Respected) [15]; Very Fit [15]
Disadvantages: Code of Honor (Star Fleet Marines) [-10]; Duty (Star Fleet Marines) (15 or less) [-15]; Sense of Duty (Federation) [-10]
Skills: Administration IQ-1 [1]; Armory/TL (Small Arms) IQ-1 [1]; Beam Weapons/TL (Pistol) DX+2 [4]; Beam Weapons/TL (Rifle) DX+2 [4]; Camouflage IQ [1]; Climbing DX [2]; Computer Operation/TL IQ [1]; Electronics Operation/TL (Communications) IQ [2]; First Aid/TL IQ+1 [2]; Free Fall DX-1 [1]; Gunner/TL (Beams) DX [1]; History (Recent Federation) IQ-2 [1]; Karate DX-2 [1]; Knife DX [1]; Law (Federation Military) IQ-2 [1]; Leadership IQ-2 [1]; Operations (Land) H IQ-1 [2]; Parachuting/TL DX [1]; Running HT-1 [1]; Savori-Faire (Military) IQ [1]; Space/TL IQ [1]; Stealth DX-1 [1]; Strategy (Land) IQ-1 [2]; Swimming HT [1]; Survival (choose two) Per-1 [2]; Tactics IQ-1 [2]; Throwing DX-1 [1]; Tonfa DX-1 [1]; Vacc Suit/TL IQ-1 [1].

Federation Marine Boot Camp

Graduates become enlisted personnel at Grade E1 (Private); players may increase the starting Grade of their characters but not beyond E5 (Team Sergeant).

Suggested Minimums: ST 10, DX 10, IQ 12, HT 12
Advantages: Fearlessness 2 [4]; Military Rank [0]; Resistance (Disease) [3]; Social Regard (Respected) [15]; Very Fit [15].
Disadvantages: Code of Honor (Star Fleet Marine) [-10]; Duty (Star Fleet Marines) (15 or less) [-15]; Sense of Duty (Federation) [-10]
Skills: Administration IQ-1 [1]; Beam Weapons/TL (Pistol) DX+2 [4]; Beam Weapons/TL (Rifle) DX+2 [4]; Camouflage IQ [1]; Climbing DX [2]; Computer Operation/TL IQ [1]; Electronics Operation/TL (Commo) IQ [2]; First Aid/TL IQ [2]; Free Fall DX-1 [1]; Gunner/TL (Beams) DX [1]; History (Recent Federation) IQ-2 [1]; Karate DX-2 [1]; Knife DX [1]; Law (Federation Military) IQ-2 [1]; Leadership IQ-1 [1]; Parachuting/TL DX [1]; Running HT-1 [1]; Savori-Faire (Military) IQ [1]; Space/TL IQ [1]; Stealth DX-1 [1]; Strategy (Land) IQ-1 [2]; Swimming HT [1]; Survival (choose two) Per-1 [2]; Tactics IQ-1 [2]; Throwing DX-1 [1]; Tonfa DX-1 [1]; Vacc Suit/TL IQ-1 [1].
Graduates become officers at Grade O1 (Ensign); players may increase the starting Grade of their characters but not beyond O5 (Commander).

**Suggested Minimums:** ST 8, DX 8, IQ 10, HT 8.

**Advantages:** Merchant Rank 3 [15]; Resistance (Disease) [3].

**Disadvantages:** Code of Honor (Merchant Marine) [-5]; Duty (Merchant Marine) (12 or less) [-10]; Sense of Duty (Merchant Marine Crew) [-5].

**Skills:** Accounting IQ-2 [1]; Administration IQ [2]; Astronomy/TL IQ-2 [1]; Beam Weapons/TL (Pistol) DX [1]; Brawling DX [1]; Computer Operation/TL IQ [1]; Diplomacy IQ [4]; Economics IQ-2 [1]; Electronics Operation/TL (choose one) IQ [2]; Electronics Operation/TL (Tricorder) IQ [2]; Expert Skill (Xenology) IQ-2 [1]; Fast-Talk IQ-1 [1]; First Aid/TL IQ [1]; Freefall DX-1 [1]; Freight Handling IQ-1 [1]; Law (Federation Trade) IQ [4]; Leadership IQ-1 [1]; Mathematics/TL (Applied) IQ-2 [1]; Mechanic/TL (choose one) IQ-1 [1]; Merchant IQ [2]; Navigation/TL (Space) IQ [2]; Shiphandling/TL (Starship) IQ-2 [2]; Savoir-Faire (Merchant Marine) IQ [1]; Spacer/TL IQ [1]; Vacc Suit/TL IQ-1 [1].

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**PROFESSIONAL CERTIFICATIONS**

Unlike the Academy Templates above, these professional certifications list the minimum skill levels that a person should have for a given position. No cost can be given for them, as the cost for these skills are completely dependent on the characters' attributes. However, at least one character point must be spent on the skill in question; simply having a high-enough default is not sufficient.

Players who wish to have their characters considered "competent" in their profession should purchase the skills below; there is no absolute requirement to do so, but a character with low levels of Navigation/TL (space) is likely to end up a cook's assistant, not a Helmsman!

**Communications Officer:** Cryptography/TL-12; Electronics Operation/TL (Communications) [15]; Electronics Repair/TL (Communications) [15]; Mathematics/TL (Cryptography)-12

**Damage Control Technician:** Armoury/TL (choose one)-12; Electronics Repair/TL (choose one)-15; Electronics Repair/TL (choose one)-12; Mechanic/TL (choose one)-15; Spacer/TL-15

**Helms/Navigation:** Astronomy/TL-12; Electronics Operation/TL (Sensors)-15; Electronics Repair/TL (Sensors)-15; Navigation/TL (Space)-15; Piloting/TL (Aerospace)-15

**Medical Assistant:** Diagnosis/TL-12; Electronics Operation (Medical)-12; Electronics Repair (Medical)-12; First Aid/TL-15; Physician/TL-12; Physiology/TL (native race)-12

**Medical Doctor:** Diagnosis/TL-15; Electronics Operation (Medical)-12; Electronics Repair (Medical)-12; First Aid/TL-18; Physician/TL-18; Physiology/TL (native race)-15; Physiology/TL (one other race, if applicable to Imperial)-12; Surgery/TL-15

**Operations Officer:** Computer Operation/TL-18; Electronics Operation (choose one)-15; Electronics Operation (choose two)-12; Electronics Repair (choose one)-15; Electronics Repair (choose one)-12

**Propulsion Engineer:** Electrician/TL-15; Engineer/TL (Electrical)-12; Mechanic/TL (Warp Engine)-15; Mechanic/TL (Impulse)-15

**Science Officer:** Computer Operation/TL-15; Electronics Operation (Scientific)-18; Electronics Repair (Scientific)-12; Any one science skill (primary discipline)-15; Any two science skill (secondary disciplines, or related)-12

**Special Forces Training:** Armoury/TL (Small Arms)-15; Beam Weapons/TL (Pistol)-15; Beam Weapons/TL (Rifle)-15; Camouflage-15; Climbing-15; Electronics Operations/TL (Communications)-12; Engineer/TL (Combat)-12; Explosives/TL (Demolition)-12; First Aid/TL-15; Forward Observer/TL-12; Jumping-12; Karate-15; Knife-15; Navigation (Land)-12; Operations-12; Stealth-15; Strategy-12; Swimming-12; Tactics-12; Throwing-12; Traps-12

**Transporter Operator:** Electronics Operation/TL (Sensors)-15; Electronics Operations/TL (Transporter)-18; Electronics Repair/TL (Transporter)-16; Electronics Repair/TL (Sensors)-12

**Weapons (Tactical Officer):** Armoury/TL (Heavy Weapons)-12; Armoury/TL (Small Arms)-12; Electronics Operation (Electronic Warfare)-12; Electronics Operation (Force Shields)-12; Electronics Operation (Sensors)-12; Electronics Repair (choose two of the above)-12; Gunner (Pick one of: phaser, racial heavy weapon, racial seeking weapon)-15; Gunner (Pick remaining two of: phaser, racial heavy weapon, racial seeking weapon)-12; Tactics-12.
ADVANTAGES

An “advantage” is a useful trait that gives you a mental, physical, or social “edge” over someone else who otherwise has the same abilities as you. Each advantage has a cost in character points. This is fixed for some advantages; others can be bought in “levels,” at a cost per level (e.g., Acute Vision costs 2 points/level, so if you want Acute Vision 6, you must pay 12 points). Advantages with “Variable” cost are more complicated; read the advantage description for details.

You can start out with many advantages as you can afford — although some advantages are forbidden to certain kinds of characters. You can also add advantages in play, if the GM permits. For instance, all the beneficial social traits (Status, Wealth, etc.) are advantages, and you could realistically acquire any of these in the course of the game.

TYPES OF ADVANTAGES

Advantages fall into several broad categories, each of which has affects who can possess those advantages and how they work in play.

Mental advantages originate from your mind. They stay with you even if your mind ends up in a new body. Most mental advantages work automatically, but a few require a roll against IQ, Perception, or Will to use. Mental advantages are marked with ♦.

Physical advantages are part of your body. You lose these traits if your mind moves to a new body — and if another mind takes over your body, the body’s new owner gains your physical advantages. Advantages provided by bionics and similar implants usually fall into this category. Make a HT roll to activate any physical advantage that does not work automatically. Physical advantages are marked by the strongman symbol ⚹.

Social advantages are associated with your identity. This category includes Rank, Status, Wealth, and related traits. Social advantages are marked by a handshake symbol ✹.

Exotic advantages are traits that ordinary humans cannot have (in most cases). Non-humans will often have exotic advantages as part of their racial templates, but this does not entitle them to add other exotic traits freely. You need the GM’s permission to add exotic traits that do not appear on your racial template. Exotic advantages are marked with the alien symbol ◆.

Many exotic and advantages could belong to more than one of these categories. This is noted (e.g., as ♦/◆) where especially appropriate. The GM has the final say. The ♦, ♦, and ◆ markers are meant to assist GM judgment, not replace it.

NOTE TO PLAYERS

The rules in this chapter (as well as Chapters 4 and 5) are taken straight from GURPS 4th Edition. For players of G4e, these will be a convenient extract of standard rules, including only those rules that would apply to a science-fiction universe. For new players, these are all of the G4e rules that you need. We have set these in a smaller type size to reduce the amount of repetition.

ADVANTAGES LIST

Absolute Direction ♦ 5 or 10 points

You have an excellent sense of direction. This ability comes in two levels:

Absolute Direction: You always know which way is north, and you can always retrace a path you have followed within the past month, no matter how faint or confusing. This ability does not work in environments such as interstellar space or the limbo of the astral plane, but it does work underground, underwater, and on other planets. This gives +3 to Body Sense and Navigation (Air, Land, or Sea). 5 points.

3D Spatial Sense: As above, but works in three dimensions. This ability is useful in deep space — although it does not help you if you travel across dimensions. You get the skill bonuses given for Absolute Direction, plus +1 to Piloting and +2 to Aerobatics, Free Fall, and Navigation (Hyperspace or Space). 10 points.

Requires Signal: You rely on signals from a navigational satellite network (like Earth’s GPS) or similar system. Your ability does not function in the absence of such a system, and it can be jammed. -20%.

Acute Senses ♦

You have superior senses. Each Acute Sense is a separate advantage that gives +1 per level to all Sense rolls you make — or the GM makes for you — using that one sense.

Acute Hearing gives you a bonus to hear something, or to notice a sound (for instance, someone taking the safety off a gun in the dark), 2 points/level.

Acute Taste and Smell gives you a bonus to notice or smell (for instance, poison in your drink), 2 points/level.

Acute Touch gives you a bonus to detect something by touch (for instance, a concealed weapon when patting down a suspect), 3 points/level.

Acute Vision gives you a bonus to spot things visually, and whenever you do a visual search (for instance, looking for traps or footprints), 2 points/level.

With the GM’s permission, you may also buy Acute Sense advantages for specialized sensors such as Scanning Sense and Vibration Sense. You cannot usually buy Acute Senses in play — raise your Perception instead.

Affliction ♦

You have an attack that causes a baneful, nondamaging effect: blindness, paralysis, weakness, etc. Specify the details when you buy the advantage. By default, Affliction is a ranged attack with 1D D10, Max 100, Acc 3, RoF 1, Shots N/A, and Recoil 1, although you can apply modifiers to change these statistics.

If you hit, your victim gets a HT+1 roll to resist. Apply a penalty equal to the level of the Affliction (so Affliction 1 gives an unmodified HT roll). The victim gets a bonus equal to his DR
unless the Affliction has one of the following modifiers: Blood Agent, Contact Agent, Follow-Up, Maleficent, Respiratory Agent or Sense-Based. The victim gets a further +3 if he is beyond 1/2D range.

If the victim makes his HT roll, he is unaffected. If he fails, he suffers the effects of the Affliction. By default, he is stunned. He may roll vs. HT+1 once per second to recover, but once again at a penalty equal to the level of the Affliction (DR has no effect on this roll). If your Affliction causes an effect other than stunning, this is a special enhancement (see below). You can inflict more than one effect by giving your Affliction multiple special enhancements. These effects occur simultaneously, except where noted.

Successive Afflictions that produce the same effects are not normally cumulative; use the single worse effect. Use the special enhancements below to create specific Afflictions.

If an Affliction produces two or more effects due to the special enhancements below, some of these effects may be secondary. Secondary effects occur only if the victim fails his HT roll by 5 or more, or rolls a critical failure. A secondary effect is worth 1/5 as much; e.g., Secondary Heart Attack is +60% rather than +300%.

Advantage: The victim immediately experiences the effects of a specific physical or mental advantage. Advantages with instantaneous effects affect the target once, as soon as he is hit, if he fails his HT roll. Advantages that can be switched on and off (such as Insubstantiality) are automatically “on” for one minute per point by which the victim fails his HT roll, and are not under the subject’s control: 19 is worth +10% per point the advantage is worth! If the advantage comes in levels, specify the level.

Attribute Penalty: The victim suffers temporary attribute loss. This is +5% per -1 to ST or HT, or +10% per -1 to DX or IQ. For instance, an attack that caused DX-3 and IQ-2 would be +50%. Lower all skills based on reduced attributes by a like amount. ST penalties also reduce BL and damage, while IQ reductions also apply to Will and Perception. Secondary characteristics are not otherwise affected; for instance, HT reduction does not affect Basic Speed or FP. Penalties last for one minute per point by which the victim fails his HT roll.

Coma: The victim collapses, profoundly unconscious, and will likely die in days unless treated. +250%.

Cumulative: Repeated attacks are cumulative! You must take this in conjunction with Attribute Penalty, or with an Advantage, Disadvantage, or Negated Advantage Enhancement that inflicts a “leveled” trait. +400%.

Disadvantage: The victim temporarily gains one or more specific physical or mental disadvantages (but not self-imposed mental disadvantages). This is worth +1% per point the temporary disadvantages are worth; e.g., Paranoia [-10] is worth +10%. If a disadvantage comes in levels, specify the level. The disadvantages last for one minute per point by which the victim fails his HT roll.

Heart Attack: The victim suffers an incapacitating heart attack, and will die in minutes unless treated. +300%.

Incapacitation: The victim is incapacitated for a number of minutes equal to the margin of failure on his HT roll. After that, he is stunned until he can make a HT roll (roll once per second). If you combine Incapacitation with other effects (such as Irritant), those effects occur after the Incapacitation wears off; they replace the stunning and last for the same length of time the incapacitation did. Incapacitation can take the form of any of the following: Daze, +50%; Hallucinating, +50%; Retching, +50%; Agony, +100%; Choking, +100%; Ecstasy, +100%; Seizure, +100%; Paralysis, +150%; Sleep, +150%; or Unconsciousness, +200%.

Irritant: The victim suffers an impairing but non-incapacitating condition instead of being stunned. It lasts for a number of minutes equal to the margin of failure on his HT roll. The possibilities are Tipsy, +10%; Coughing, +20%; Drunk, +20%; Moder-
find the cost of the group, adjust the total cost for frequency of appearance, and then apply any special modifiers.

For a group of more than five identical and interchangeable allies that share a single character sheet — for instance, an army of low-grade thugs or a swarm of robot drones — find the point cost to have one member of the group as an Ally, and then multiply that cost as follows to find the cost of the group:

<table>
<thead>
<tr>
<th>Size of Group</th>
<th>Multiplier</th>
</tr>
</thead>
<tbody>
<tr>
<td>6-10</td>
<td>x6</td>
</tr>
<tr>
<td>11-20</td>
<td>x8</td>
</tr>
<tr>
<td>21-50</td>
<td>x10</td>
</tr>
<tr>
<td>51-100</td>
<td>x12</td>
</tr>
</tbody>
</table>

Add x6 to the multiplier per tenfold increase in number.

The GM may require an Unusual Background if you wish to have hordes of Allies, or even prohibit groups larger than a certain size — although he might permit an arm or other large group as a Patron. Frequency of appearance multipliers and special modifiers (if any) apply to the final cost of the entire group.

Choose a frequency of appearance. If your Ally appears at the start of an adventure, he accompanies you for the duration of that adventure.

**Ambidexterity**

You can fight or otherwise act equally well with either hand, and never suffer the -4 DX penalty for using the "off" hand. Note that this does not allow you to take extra actions in combat — that's Extra Attack. Should some accident befall one of your arms or hands, assume it is the left one.

5 points

**Amphibious**

You are well-adapted to movement in the water. You do not suffer skill penalties for working underwater, and you can swim at your full Basic Move. You still require air. Typical features include smooth, seal-like skin and webbed fingers and toes. If you can move only in the water, take the Aquatic disadvantage instead.

10 points

**Brachiator**

You can travel by swinging on vines, tree branches, ropes, chandeliers, etc. You get +2 to Climbing skill, and can move at half your Basic Move while brachiating.

5 points

**Body of Stone**

Your body is made of rock. This meta-trait includes the following advantages: Doesn't Breathe [20]; DR 5 [25]; Immunity to Metabolic Hazards [30]; Injury Tolerance (Homogenous, No Blood) [45]; Pressure Support 3 [15]; Sealed [15]; Vacuum Support [5]; and Fragile (Brittle) [-15].

140 points

You subtract five yards from a fall automatically (treat this as an automatic Acrobatics success — don't check again for it). In addition, a successful DX roll halves damage from any fall. To enjoy these benefits, your limbs must be unbound and your body free to twist as you fall.

10 points

**Chameleon**

You can change your surface pattern to blend into your surroundings. In any situation where being seen is a factor, you get +2 per level to Stealth skill when perfectly still, or +1 per level if moving. Clothing reduces this bonus to +1 per level when you are motionless, with no bonus if you are moving (unless the clothing is, in the GM's opinion, camouflaged relative to your current environment).

Chameleon does not normally help in the dark or against someone relying upon senses other than sight. However, you can specify that your ability is effective against a particular visual or scanning sense (e.g., Infravision or Radar) instead of normal vision.

**Extended:** Your ability affects more than one visual or scanning sense. Each sense beyond the first is -20%.

**Always On:** You cannot turn this ability off. Strangers react at -1; the flickering effect is irritating, -10%.

5 points/level

**Charisma**

You have a natural ability to impress and lead others. Each level gives +1 on all reaction rolls made by sapping beings with whom you actively interact (converse, lecture, etc.); +1 to Influence rolls; and +1 to Fortune-Telling, Leadership, Panhandling, and Public Speaking skills. The GM may rule that your Charisma does not affect members of extremely alien races.

20 points

**Clinging**

You can walk or crawl on walls and ceilings. You can stop at any point and stick to the surface without fear of falling. Neither feat requires a roll against Climbing skill, provided the surface is one you can cling to. Move while clinging is half your Basic Move.

If you are falling and try to grab a vertical surface to break your fall, the GM must first decide whether there is anything in reach. If there is, make a DX roll to touch the surface, and then make a ST roll at -1 per 5 yards already fallen. If you succeed, you stop your fall. Otherwise, you continue to fall — but you may subtract 5 yards from the height of the fall thanks to the slowing effect of the failed Clinging attempt.

Variations in gravity affect these distances; e.g., in 0.5G, the ST roll would be at -1 per 10 yards.

**Claws**

You have claws. This advantage modifies all your hands and feet; there is no discount for claws on only some of your limbs. There are several variations:

**Blunt Claws:** Very short claws, like those of a dog. Add +1 per die to the damage you inflict with a punch or kick; e.g., 2d-3 becomes 2d-1. 3 points.

**Hooves:** Hard hooves, like those of a horse. Add +1 per die to the damage you inflict with a kick, and give your feet (only) +1 DR. 3 points.

**Sharp Claws:** Short claws, like those of a cat. Change the damage you inflict with a punch or kick from crushing to cutting. 5 points.

**Talons:** Longer claws — up to 12" long. Change the damage you inflict with a punch or kick from crushing to your choice of cutting or impaling (choose before you roll to hit). 8 points.

**Long Talons:** Huge claws, like sword blades extending from your body! Treat these as Talons, but damage is +1 per die. 11 points.

15 points

**Combat Reflexes**

You have extraordinary reactions, and are rarely surprised for more than a moment. You get +1 to all active defense rolls, +1 to Fast-Draw skill, and +2 to Fright Checks. You never "freeze" in a surprise situation, and get +6 on all IQ rolls to wake up, or to recover from surprise or mental stun. Your side gets +1 on initiative rolls to avoid a surprise attack, +2 if you are the leader.

Combat Reflexes is included in Enhanced Time Sense.
Common Sense ★ ★ ★

Any time you start to do something the GM feels is STUPID, he will roll against your IQ. A successful roll means he must warn you: “Hadn’t you better think about that?” This advantage lets an impulsive player take the part of a thoughtful character.

Cultural Adaptability ★★★

You are familiar with a broad spectrum of cultures. When dealing with those cultures, you never suffer the -3 “cultural unfamiliarity” penalty. Point cost depends on the scope of your familiarity:

- Cultural Adaptability: You are familiar with all cultures of your race. 10 points.
- Xenos-Adaptability: You are familiar with all cultures in the Star Fleet Universe, regardless of race. 20 points.

Damage Resistance ★★★

Your body itself has a Damage Resistance score. Subtract this from the damage done by any physical or energy attack after the DR of artificial armor (you can normally wear armor over natural DR) but before multiplying the injury for damage type.

Normal humans cannot purchase DR at all. Creatures with natural armor can buy DR 1 to 5. Thick skin or a pelt would be DR 1; a heavy pelt, or scales like those of a lizard would be DR 2; armor plates would be DR 3; alligator scales or elephant hide would be DR 4; and a giant tortoise would have DR 5.

Many special modifiers are available to change the basic assumptions of this advantage.

- Absorption: You can absorb damage and use it to enhance your abilities. Each point of DR stops one point of damage and turns it into one character point that you can use to improve traits (anything but skills) temporarily. You store these points in a “battery” with capacity equal to DR. Once this battery is full, each point of DR will still stop one point of damage, but will not convert it into a character point. You do not have to use stored points immediately, but you cannot reallocate points once used. You lose absorbed points — unused ones first — at the rate of one point per second. You lose enhanced abilities as the points drain away. Exception: If you are missing HP or FP, you can heal yourself. Restoring one HP drains 2 stored points immediately; restoring one FP drains 3 points. Such healing is permanent. Only HP or FP in excess of your usual scores drain away.) You cannot absorb damage from your own ST or attack abilities. +80% if absorbed points can only enhance one trait (determined when you create your character) or can only heal; +100% if you can raise any trait.

- Force Field: Your DR takes the form of a field projected a short distance from your body. This protects your entire body — including your eyes — as well as anything you are carrying, and reduces the damage from attacks before armor DR. Effects that rely on touch only affect you if carried by an attack that does enough damage to pierce your DR. +20% per level.

- Hardened: Each level of Hardened reduces the armor divisor of an attack by one step. These steps are, in order: “ignores DR,” 100, 10, 5, 3, 2, and 1 (no divisor). +20% per level.

- Ablative: Your DR stops damage once. Each point of DR stops one point of basic damage but is destroyed in the process. Lost DR “heals” at the same rate as lost HP (including the effects of Regeneration). -80%.

- Can’t Wear Armor: Your body is designed in such a way that you cannot or will not wear body armor or clothing. -40%.

- Directional: Your DR only protects against attacks from one direction. -20% for the front (F); -40% for the back (B), right (R), left (L), top (T), or underside (U). Humanoids may only take this limitation for front and back.

Flexible: Your DR is not rigid. This leaves you vulnerable to blunt trauma. -20%.

Limited: Your DR applies only to certain attack forms or damage types.

Partial: Your DR only protects a specific hit location. This is worth -10% per -1 penalty to hit that body part. For instance, an animal with butting horns and a thick skull might have “Skull only,” for -70%. “Torso only” is -10%, and also protects the vital organs. When you take this limitation for arms, legs, hands, or feet, the DR protects all limbs of that type. If it only protects one limb, the limitation value doubles (e.g., arms are -2 to hit, so a single arm would be -40%). If you have arms, legs, etc. with different penalties, use the least severe penalty to calculate limitation value.

Semi-Ablative: When an attack strikes semi-ablative DR, every 10 points of basic damage removed reduces one point of DR, regardless of whether the attack penetrates DR. Lost DR “heals” as for Ablative (and you cannot combine the two). -20%.

Tough Skin: By default, Damage Resistance is “hard”: armor plate, chillin, etc. With this limitation, your DR is merely tough skin. Any effect that requires a scratch (e.g., poison) or skin contact (e.g., electrical shock or Pressure Points skill) affects you if the attack carrying it penetrates the DR of any armor you are wearing — even if it does exactly 0 damage! Your natural DR, being living tissue, provides no protection at all against such attacks. This limitation includes all the effects of the Flexible limitation (see above); you cannot take both. It is mutually incompatible with Force Field. -40%.

You may have multiple “layers” of DR with different combinations of modifiers. You must specify the order of the layers — from outermost to innermost — when you create your character. You may not change this order once set.

Detect ★★★

You can detect a specific substance or condition, even when it is shielded from the five human senses. This requires one second of concentration, after which the GM will secretly make a Sense roll for you. The range modifiers from the Size and Speed Range Table apply. You may buy a special Acute Sense to improve the roll, thereby increasing your effective range.

On a success, the GM tells you the direction to the nearest significant source of the substance, and give you a clue as to the quantity present. On a failure, you sense nothing.

Detect also includes the ability to analyze what you detect. This requires an IQ roll; the better the roll, the more precise the details. For instance, if you had Detect (Metal), you could tell gold from iron on a successful IQ roll, and might learn details — such as whether the is is in the form of ore or bars, and its precise purity — on a critical success.

The base cost of Detect is as follows:

- Rare (dilithium, gold, radar, radio): 5 points.
- Occasional (precious metal, electric fields, magnetic fields, radar and radio): 10 points.
- Common (humans, supernatural phenomena, supernatural beings, metal, electric and magnetic fields): 20 points.
- Very Common (all life, all supernatural phenomena, and beings, all minerals, all energy): 30 points.
- Precise: On a successful Sense roll, you also learn the distance to whatever you detect. +100%.

Signal Detection: You can detect an active transmission from some sort, such as a radio, radar, or laser; see Scanning Sense and Telecommunication (page 72). You suffer no range penalties, but must be within twice the signal’s own range and (if the signal is directional) within in its path. +0%.

Vague: You can only detect the presence or absence of the target substance. Direction and quantity are revealed only on a critical success, and you cannot analyze what you detect. This limitation is mutually exclusive with Precise. -50%.
Discriminatory Hearing ★ ★

You have a superhuman ability to distinguish between sounds. You can always identify people by voice, and can recognize individual machines by their "sound signature." You may memorize a sound by listening to it for at least one minute and making a successful IQ roll. On a failure, you must wait at least one full day before making a repeated attempt.

You get +4 (in addition to any Acute Hearing bonuses) on any task that utilizes hearing, and receive +4 to Shadowing skill when following a noisy target.

To simulate the passive sonar used by submarines, add a -30% Accessibility limitation, "Only underwater."

Discriminatory Smell ★ ★

Your sense of smell is far beyond the human norm, and can register distinctive odors for practically everything you may encounter. This allows you to recognize people, places, and things by scent. You may memorize a scent by sniffing it for at least one minute and making a successful IQ roll. On a failure, you must wait at least one full day before making a repeated attempt.

You get +4 (in addition to any Acute Taste and Smell bonuses) on any task that utilizes the sense of smell, and receive +4 to Tracking skill.

Emotion Sense: You can detect a person or animal's emotional state by odor. This functions as the Empathy advantage, but you must be within 2 yards of the subject. +50%.

Discriminatory Taste ★ ★

This talent functions in ways like Discriminatory Smell (above), but enhances the sense of taste instead, so tracking is not possible. You must ingest a small quantity of the material to be examined; for a living subject, this means bodily fluids. This gives you an IQ roll to recognize the taste, identify whether a substance is safe to eat, etc. You can perform a detailed "analysis" with a roll against a suitable skill (Chemistry, Cooking, Pharmacy, Poisons, etc.). You get +4 (in addition to any Acute Taste and Smell bonuses) on any task that utilizes the sense of taste.

Doesn't Breathe ★ ★

You do not breathe or require oxygen. Choking and strangulation attempts cannot harm (or silence) you, and you are immune to inhaled toxins.

Gills: You can extract oxygen from water, allowing you to remain submerged indefinitely. You are immune to strangulation and "the bends." If you can only survive underwater, and suffocate in air as quickly as a normal human would drown underwater, Doesn't Breathe (Gills) is a 0-point feature; otherwise, -50%.

Oxygen Absorption: As Gills, but you can absorb oxygen through the surface of your body. Your body does not absorb poisonous gases, but you will suffocate if there is no oxygen available. You can use breathing equipment in space (your lungs are capable of working normally). You may not have the Sealed advantage, -25%.

Oxygen Combustion: As Oxygen Absorption, but you cannot breathe underwater or anywhere else fire cannot burn. -50%.

Oxygen Storage: You need to breathe, but you can go for extended periods of time without doing so. This differs from Breath-Holding in that you are completely immune to "the bends" while your oxygen supply holds out. If you can effectively "hold your breath" for 25 times as long as usual, this is -50%; 50 times, -40%; 100 times, -30%; 200 times, -20%; 300 times, -10%.

Doesn't Sleep ★ ★

You do not have to sleep at all. You can ignore all ill effects from missed nights of rest.

Eidetic Memory ★

You have an exceptionally good memory. Anyone may attempt an IQ roll to recall the general sense of past events—the better the roll, the truer the memory, but details are often sketchy. With this talent, you automatically succeed at these "memory rolls," and you often recall precise details. This trait comes in two levels:

Eidetic Memory: You automatically remember the general sense of everything you concentrate on, and can recall specific details by making an IQ roll. It is possible to "learn" this advantage in play (bards and skalds often acquire it to recall poems and songs), 5 points.

Photographic Memory: As above, but you automatically recall specific details, too. Any time you, the player, forget a detail your character has seen or heard, the GM or other players must remind you—truthfully! 10 points.

This trait affects recall, not comprehension, and so does not benefit skills. However, it gives a bonus whenever the GM requires an IQ roll for learning: +5 for Eidetic Memory, +10 for Photographic Memory.

Empathy ★

You have a "feeling" for people. When you first meet someone—or are reunited after an absence—you may ask the GM to roll against your IQ. He will tell you what you "feel" about that person. On a failed IQ roll, he will lie! This talent is excellent for spotting impostors, possession, etc., and for determining the true loyalties of NPCs. This advantage comes in two levels:

Sensitive: Your ability is not entirely reliable; the IQ roll is at -3. You get +1 to your Detect Lies and Fortune-Telling skills, and to Psychology rolls to analyze a subject you can converse with. 5 points.

Empathy: Your ability works at full IQ, and the bonus to Detect Lies, Fortune-Telling, and Psychology is +3. 15 points.

This advantage works only on sapient (IQ 6+), natural beings. The equivalent talents for animals, plants, and supernatural entities are Animal Empathy, Plant Empathy, and Spirit Empathy, respectively.

Enhanced Move ★

Each level of Enhanced Move doubles your top speed in one environment: Air, Ground, Space, or Water. You may also take a half-level of Enhanced Move, either alone or with any whole number of levels; this costs 10 points and multiplies Move by 1.5. Your multiplied Move is your top speed. Record it in parentheses after your Enhanced Move trait.

Enhanced Move does not affect Basic Speed, Basic Move, or Dodge. Its benefits apply only when moving along a relatively straight, smooth course.

Most forms of Enhanced Move have prerequisites. Enhanced Move (Water) requires Amphibious or Aquatic. Enhanced Move (Air) requires Flight.

Enhanced Tracking ★

You can "track" more than one target—whether with a built-in sensor array or eyes that can swivel independently, like those of a chameleon. An Aim or Evaluate maneuver normally applies to a single target. Each level of Enhanced Tracking allows your maneuver to apply to one additional target. You can only track

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targets that you can detect, and you cannot Aim at more targets than you have ready weapons to Aim with.

Extended Lifespan 2 points/level

An average life cycle is defined as maturity at age 18, with aging effects starting at age 50 and accelerating at ages 70 and 90. Each level of Extended Lifespan doubles all these values.

Extra Arms Variable

In GURPS, a limb with which you can manipulate objects is an arm, regardless of where it grows or what it looks like. A normal arm can strike a blow that inflicts thrust-1 crushing damage based on ST. The human norm is two arms for 0 points. Extra arms have a base cost of 10 points apiece.

You can use extra arms freely for multiple noncombat tasks. For instance, with three arms, you could perform a one-handed task (e.g., use a computer mouse) and a two-handed task (e.g., type) simultaneously. You need Enhanced Tracking to perform tasks that require attention to events in more than one place at a time, however.

You can also use all of your arms in concert for a single combat maneuver where extra arms would be helpful; e.g., grappling in close combat. If you have at least three arms, you can use a shield normally with one arm and still wield a two-handed weapon, just as a normal human fighter can use a shield and one-handed weapon at the same time. No matter how many arms you have, though, you do not get additional attacks (or other extra maneuvers) in combat unless you buy Extra Attacks (see above).

Extra arms give you a huge advantage in close combat. You cannot punch with more than one arm at a time unless you have Extra Attack, but you may grapple (use Judo) with all of your arms at once. Each extra arm of regular length or longer, over and above the generic set of two, gives +2 to any attempt to grapple or break free from a grapple. Having more arms than your opponent also gives +3 on any attempt to pin or resist a pin.

Extra-Flexible Limbs: With this enhancement, your arms are more flexible than normal arms, like tentacles or an elephant's trunk. These limbs can always reach and work with other limbs, regardless of body positioning, general layout, or "right" and "left." +50%.

Long: Your arm is longer in proportion to your body than a human arm relative to the human body. This increases your effective SM for the purpose of calculating reach with that arm (see Size Modifier, 72, and Reach, 113). This does affect the reach of melee weapons wielded in that hand. Each +1 to SM also adds +1 per die to swinging damage. +100% per +1 to SM.

Foot Manipulators: Your "arm" is really an unusually dexterous leg. You cannot walk while you are manipulating objects with it (although you can sit, float, or fly). This is a Temporary Disadvantage limitation, the disadvantage being Legless. This kind of arm is usually—but not always—Short (see below) -30%.

No Physical Attack: The limb can manipulate but cannot punch or wield melee weapons, and gives no bonus in close combat. It can still wield a firearm or similar ranged weapon. -50%.

Short: The arm has reach "C" (close combat only), and lacks the leverage to use any weapon that must be swung. Subtract one yard from the reach of any melee weapon wielded by that limb. If all of your arms are short, you are at -2 on any attempt to grapple. -50%.

Weak: The arm has less than your full body ST for lifting, striking, and grappling. -25% if the arm has half your body ST, or -50% if it has 1/4 your body ST (round down in both cases).

Beings with one or two arms can use the special modifiers above. Point cost is equal to 1/10 the percentile modifier per affected arm. Thus, enhancements become advantages and limitations become disadvantages. For instance, Short is -50%, so it is worth -5 points per arm. Someone with two short arms would have a -10-point disadvantage.

Those with one arm can only apply these modifiers once, but also get the -20 points for One Arm. For instance, an elephant's trunk would be Extra-Flexible (+50%), Long (+100%), and Weak (-50%). These modifiers total +100%, for a 10-point advantage. The -20 points for One Arm would make the net cost -10 points.

Extra Attack 25 points/attack

You can attack more than once per turn. The "default" assumption in GURPS is that you can make one attack per turn, no matter how many limbs you have. Each Extra Attack allows one additional attack per turn. You may not have more attacks than you have limbs (arms, legs, etc.), natural weapons (Strikers, Teeth, etc.), and attack powers (Afflictions, Bindings, and Innate Attacks) with which to attack. The GM's word on what constitutes an "attack" is final.

A normal human can purchase one Extra Attack. This lets him attack with both hands at once, and represents unusually good coordination; nonhumans have no such limitation (but must get the GM's permission).

Extra Attack is exactly that: an extra attack maneuver on your turn in combat. It does not eliminate the -4 penalty for an "off" hand (see Ambidexterity) or let you take multiple Aim maneuvers (see Enhanced Tracking). You may use some of your attacks for Feint maneuvers, but you may not take multiple actions of other kinds—that requires Altered Time Rate (see G4e).

Extra Legs Variable

If you can walk on a limb but cannot use it to manipulate objects, it is a leg in GURPS (for legs that double as arms, see Extra Arms). A normal leg can kick for thrust/crushing damage at your usual reach (1 yard for a human). The human norm is two legs, which costs 0 points. It costs points to have more than two legs:

Three or four legs: If you lose a leg, you can continue to move at half Move (round down). Loss of a second leg causes you to fall. 5 points.

Five or six legs: Each leg lost reduces Move by 20% until only three legs are left. At that point, your Move is 40% normal. Loss of another leg causes you to fall. 10 points.

Seven or more legs: Each leg lost reduces Move by 5% until only three legs are left. At that point, your Move is 40% normal. Loss of another leg causes you to fall. 15 points.

You can apply the following modifiers to all your legs:

Long: Your legs are longer in proportion to your body than human legs relative to the human body. This increases your effective SM for the purpose of calculating reach when kicking and when clambering over obstacles. +100% per +1 to SM.

Cannot Kick: You cannot use your legs to kick for damage. -50%.

The modifiers above can be applied to creatures with only two legs. Point cost is equal to 1/10 the percentile modifier. For instance, a human with Cannot Kick (-50%) would have a -5 point disadvantage.

Fearlessness 2 points/level

You are difficult to frighten or intimidate! Add your level of Fearlessness to your Will whenever you make a Fright Check or must resist the Intimidation skill or a supernatural power that induces fear. You also subtract your Fearlessness level from all Intimidation rolls made against you.

GURPS Prime Directive 4e
Filter Lungs

Your respiratory system can filter out ordinary contaminants; e.g., dust, pollen, smoke, and even tear gas (but not nerve gas or other contact agents). You suffer no ill effects from such things. This is especially useful in polluted cities and on alien worlds. Note that if you have Doesn't Breathe, you do not need this advantage.

5 points

Fit

You have better cardiovascular health than your HT alone would indicate. This comes in two levels:

Fit: You get +1 to all HT rolls (to stay conscious, avoid death, resist disease or poison, etc.). This does not improve your HT attribute or HT-based skills! You also recover FP at twice the normal rate. 5 points.

Very Fit: As above, but the bonus to HT rolls is +2. In addition, you lose FP at only half the normal rate. 15 points.

In both cases, this advantage applies only to FP lost to exertion, heat, etc. It has no effect on FP spent to power psi.

Flexibility

Your body is unusually flexible. This advantage comes in two levels:

Flexibility: You get +3 on Climbing rolls; on Escape rolls to get free of ropes, handcuffs, and similar restraints; on Erotic Art skill; and on all attempts to break free in close combat. You may ignore up to -3 in penalties for working in close quarters (including many Explosives and Mechanic rolls). 5 points.

Double-Jointed: As above, but more so. You cannot stretch or squeeze yourself abnormally, but any part of your body may bend any way. You get +5 on Climbing, Erotic Art, and Escape rolls, and on attempts to break free. You may ignore up to -5 in penalties for close quarters. 15 points.

Flight

You can fly. The "default" is full-fledged, self-powered flight without wings or gliding surfaces. This works at any altitude where there is still significant atmosphere — but in the upper atmosphere, you'll need a way to survive in very thin, cold air (e.g., Doesn't Breathe and Temperature Tolerance). You cannot fly in a trace atmosphere or vacuum.

Your flight Move is Basic Speed x 2 (drop all fractions). As explained in Move in Other Environments, you can adjust this for ±2 points per ±1 yard/second. For very high speeds, take Enhanced Move (Air). Flight includes the ability to hover at Move 0 as well.

Cannot Hover: You must always move at least 1/4 your top airspeed (round up) when flying. This is incompatible with Controlled Gliding and Gliding. -15%

Controlled Gliding: Like Gliding in most respects, but you can gain altitude by riding updrafts or "thermals." A typical ascent rate is one yard per second. You can locate thermals, if any are present, on a successful IQ or Meteorology roll (one attempt per minute). -45%

Gliding: You cannot gain altitude. With a running leap, you can launch yourself with an air Move equal to Basic Move. Each turn, you can change velocity by up to 10 yards/second x local gravity in Gs. To accelerate, you must descend by 1 yard for each 1 yard/second added to velocity; top speed is Basic Move x 4. To decelerate, you must fly level. If you do not descend at least 1 yard, you automatically decelerate by 1 yard/second that turn. When working out turning radius, your basic air Move is 10 x local gravity in Gs. Each level of Enhanced Move (Air) either doubles top speed or halves deceleration in level flight (e.g., one level means you only lose 0.5 yard/second in level flight); specify which when you buy it. -50%

Winged: You use large wings or skin flaps to fly. Wingspan is at least twice your height. In order to take off, land, or maneuver, you must have an open area with a radius equal to your wingspan in all directions. If your wings are bound, or if a wing is crippled (more than 1/3 of your wings, if you have more than two), you cannot fly. Treat wings as arms for the purpose of targeting and crippling. If you wish to strike blows or manipulate objects with your wings, you must pay for them as Strikers or Extra Arms in addition to the cost of Flight. -25%

G-Experience

You have experience working in one or more gravitational fields other than your native one, and your reflexes adapt quickly to the way objects move and fall in those fields. You suffer only half the usual DX penalty for Different Gravity. In situations where low gravity would make a task easier, you roll at full DX, plus the bonus for low gravity, plus an extra +1. For instance, if a normal person would get +2 to catch a ball in low gravity, you would get +3.

This trait costs 1 point per gravity field with which you have experience. For instance, an Earth native who works on the moon might have G-Experience (0.16G). To enjoy the benefits of G-Experience in all gravity fields, buy G-Experience (All) for 10 points.

High Manual Dexterity

You have remarkably fine motor skills. Each level (to a maximum of four) gives +1 to DX for tasks that require a delicate touch. This includes all DX-based rolls against Artist, Jeweler, Knot-Tying, Leatherworking, Lockpicking, Pickpocket, Sewing, Sleigh of Hand, and Surgery, as well as DX-based rolls to do fine work with Machinist or Mechanic (e.g., on clockwork).

High Pain Threshold

You are as susceptible to injury as anyone else, but you don't feel it as much. You never suffer a shock penalty when you are injured. In addition, you get +3 on all HT rolls to avoid knockdown and stunning — and if you are tortured physically, you get +3 to resists. The GM may let you roll at Will+3 to ignore pain in other situations.

Higher Purpose

You are driven to exceed your normal limits in one specific pursuit. You must state this exactly as if it were a Code of Honor disadvantage: "Defend all women," "Slay all Kzinti," etc. If, in the GM's judgment, you are unfaithful in your pursuit of your Higher Purpose, you get -1 to all die rolls that pertain directly to the pursuit of your cause. If you deviate from your Higher Purpose, you lose this bonus... and the GM is free to penalize you for bad roleplaying just as if you had ignored a Code of Honor.

A Higher Purpose must be specific. In addition, a Higher Purpose must entail genuine risk and inconvenience.

Improved G-Tolerance

You can function under a wide range of gravities. For a normal human, the penalties for non-native gravity accrue in increments of 0.2G; see Gravity: A larger increment costs points: 5 points for 0.3G, 10 points for 0.5G, 15 points for 1G, 20 points for 5G, and 25 points for 10G. Normal humans are limited to 10 points in this trait.
Indomitable 15 points

You are impossible to influence through ordinary words or actions. Those who wish to use Influence skills on you must possess a suitable advantage: *Empathy* if you are a human or similar being. Everyone else – however convincing – fails automatically.

Infravision 0 or 10 points

You can see into the infrared portion of the spectrum, allowing you to detect varying degrees of heat. This lets you fight at no penalty even in absolute darkness, if your target emits heat. It also gives you +2 on all Vision rolls to spot such targets, since their heat stands out from the background. You can follow a heat trail when tracking: add +3 to Tracking rolls if the trail is no more than an hour old.

Infravision does *not* let you distinguish colors, and only allows you to judge the general size and shape of heat-emitting objects, including living beings. Roll at -4 to distinguish between objects of similar size and shape. The GM may also require a Vision-4 roll to read by reflected heat. Sudden flashes of heat (e.g., a flare, fiery explosion, or infrared laser) can blind you, just as a flash of light can blind ordinary vision. Cost depends on your capabilities:

- You can only see using Infravision, and are subject to its limitations at all times: 0 points.
- You can switch freely between normal vision and Infravision: 10 points.

Injury Tolerance Variable

You have fewer physiological weaknesses than ordinary living beings. The cost of this advantage depends on the precise frailties eliminated. Note that some forms of Injury Tolerance include others, and that Diffuse and Homogenous are mutually incompatible.

**Diffuse:** Your body is fluid or particulate, composed of a swarm of smaller entities, or perhaps made of pure energy. This makes you immune to crippling injuries and reduces the damage you suffer from most physical blows. Most foes (GM’s decision) cannot slam or grapple you! Diffuse includes all the benefits of No Blood, No Brain, and No Vitals. 100 points.

**Homogenous:** Your body has no vulnerable internal organs, bones, muscles, or other mechanisms. As a result, you are less susceptible to piercing and impaling attacks. Homogenous includes the benefits of No Blood and No Vitals. This trait is intended for entities such as amoebas, trees, and slimes. 40 points.

**No Blood:** You do not rely upon a vital bodily fluid (like blood) for survival. You do not bleed, are unaffected by blood-borne toxins, and are immune to attacks that rely on cutting off blood to paralyze your body. 5 points.

**No Brain:** Your brain – if you have one – is distributed throughout your body, or isn’t your true seat of consciousness. Your opponents cannot target it for extra damage. You may have a head, but a blow to the skull or eye is treated no differently than a blow to the face (except that an eye injury can still cripple that eye). 5 points.

**No Eyes:** You lack eyes or other vulnerable optics, but can somehow see despite this (unless of course you suffer from Blindness). As you have no eyes, they cannot be attacked. You are also immune to blinding attacks. 5 points.

**No Head:** You have no head at all. This includes the benefits of No Brain. As well, you lack “skull” and “face” hit locations, and have no need for head armor. You can still see, speak, hear, smell, taste, etc. unless you take the appropriate disadvantages. Specify how you do this (technologically, via organs on your torso, etc.). It is common – but not mandatory – for those with No Head to have No Neck, No Eyes, or both. 7 points.

**No Neck:** You have no neck. As a result, you have no “neck” hit location, and cannot be decapitated, choked, or strangled. 5 points.

**No Vitals:** You have no vital organs (such as a heart or engine) that attackers can target for extra damage. Treat hits to the “vitals” or “groin” as torso hits. 5 points.

Intuition 15 points

You usually guess right. When faced with a number of alternatives, and no logical way to choose among them, you can ask the GM to let you use your Intuition. The GM makes a secret IQ roll, with a bonus equal to the number of “good” choices and a penalty equal to the number of “bad” choices. On a success, he steers you to a good choice; on a critical success, he tells you the best choice. On a failure, he gives you no information; on a critical failure, he steers you toward a bad choice. The GM can modify this as he sees fit for other situations where Intuition might logically help. Only one roll per question is allowed.

Language Talent 10 points

You have a knack for languages. When you learn a language at a comprehension level above None, you automatically function at the next-highest level; thus, you can purchase a language at Accent level for 2 points or at Native level for 4 points.

Legal Enforcement Powers 5, 10, or 15 points

You are a law enforcer, with the accompanying powers and restrictions. The point cost depends on the kinds of laws you enforce, the size of your jurisdiction, how answerable you are for your actions, and the degree of respect you must show for the civil rights of others:

- You have local jurisdiction, the ability to arrest suspected criminals, the power to perform searches with an appropriate warrant, and possibly the right to carry a concealed weapon. 5 points.
- As above, but you also have national or international jurisdiction, or are not obligated to respect the civil rights of others, or are free to engage in covert investigations, or may kill with relative impunity. 10 points.
- You have three or more of the above abilities. 15 points.

Legal Enforcement Powers almost always require an appropriate Duty. In some cases, a Reputation (positive, negative, or mixed) is also appropriate. All levels of Legal Enforcement Powers include Police Rank 0. To become a senior law enforcer, buy more Rank.

Less Sleep 2 points/level

You need less sleep than most people. A normal human requires 8 hours of sleep per night. Each level of this advantage – up to a maximum of four levels – lets you get by with one hour less than this, giving you a few extra hours each day in which to study or work on other projects.

Lightning Calculator 2 or 5 points

You have the ability to do math in your head, instantly. This talent comes in two levels:

- **Lightning Calculator:** You, the player, may use a calculator at any time, to figure anything you want – even if your character is fleeing for his life! For simple math problems, the GM may just say that your character knows the answer. 2 points.
- **Intuitive Mathematician:** As above, but your ability is not limited to arithmetic. You can perform astrology without a com-
computer, do any level of engineering design in your head, and solve differential equations almost instantaneously. You never need a calculator; you yourself are far faster than that, and even faster than many computers. 5 points.

Mind Control 50 points
You can mentally dominate those you can see or touch. To use this ability, concentrate for one second and then roll a Quick Contest: your IQ vs. your subject's Will.

Modifiers: Range penalties to the subject: -1 per 1000 feet under your control; -2 if you concentrate for a minute, or +1 if you concentrate for a half hour.

If you win, your victim will obey your every command until you free him. Your control persists as long as you take uninterrupted Concentrate maneuvers. Once you stop, your control lingers for one minute per point by which you won the Quick Contest; to increase this, add Extended Duration. If you are incapacitated (stunned, knocked out, etc.), or attempt to force the subject to act against his principles (e.g., commit suicide or harm a loved one), roll another Quick Contest. If your victim wins, he breaks free. Roll at the moment of truth: you can march him to the edge of a cliff, but he doesn't roll until he's about to leap.

If you lose, you cannot attempt to control that subject again for 24 hours, and he feels a sense of mental coercion emanating from you. On a critical failure, you also lose control of anyone else under the influence of this ability!

Mind Control often has limitations: Accessibility (Only on opposite sex), Sense-Based (for hypnotic voices, eyes, scents, etc.), and so on. It may also have modifiers, subject to the restrictions that apply to attacks with Malediction.

Conditioning: You can reconstruct the subject's psyche and implant suggestions. In effect, you can add or remove any mundane mental disadvantage. Add Delusions for false memories, or Amnesia to wipe memories. Your victim must be under your control, cooperative, and conscious. Roll a second Quick Contest. You are at -1 per full -5 points of disadvantages changed, but you may substitute Brainwashing skill for IQ. Duration in days is equal to your margin of victory. If you win and roll a critical success, the conditioning is permanent! A conditioned subject who is no longer under your direct control imposes no penalty on the use of Mind Control on others. Note that another person with this ability can use it to undo your work. +50%.

No Memory: Your victims have no memory of anything that occurred while under your control. +10%.

Conditioning Only: You cannot use regular Mind Control – only Conditioning (above). Uncooperative victims must be restrained before you can use your ability. -50%.

Puppet: Your victims have no initiative while under your control, and temporarily acquire Slave Mentality. -40%.

Telepathic: Your ability is part of the Telepathy (or Vulcan) psi power. -10%.

Mind Probe 20 points
You can perform a deep "mind probe." In effect, you can force the subject to answer any one specific question that he can answer with a brief sentence. To attempt a probe, you must first either touch your subject or successfully read his mind with Mind Reading (below). You must also share a language with him.

To use Mind Probe, you must concentrate for one second and roll a Quick Contest of your IQ (or Interrogation skill, if higher) vs. your subject's Will. If you win, you rip the answer from his mind. The answer is what the subject believes to be true – if he doesn't know, he'll tell you. If you lose, you may try again, at a cumulative -2 per repeated attempt to ask the same (or very similar) question in the past hour. Should you critically fail, you cannot probe that person again for 24 hours.

You may use Mind Probe to ask as many questions as you wish, but each question is a new use of your ability, and requires a second of concentration and its own Quick Contest.

The special enhancements and limitations given for Mind Reading (below) are also available for Mind Probe.

Mind Reading 30 points
You can eavesdrop on others' surface thoughts. You must be able to see or touch the subject to affect him. Concentrate for one second and roll a Quick Contest of IQ vs. the subject's Will. Modify the roll for range penalties to the subject.

If you win, you can "hear" everything the subject says, subvocalizes, or actively thinks about as a voice in your head. Received thought comes at the speed of speech. If you do not understand the language, or if your subject isn't sapient, you only pick up feelings, images, and general intent. You can maintain Mind Reading for as long as you wish without further concentration. If you switch to another person, you must stop reading your current subject and roll a Quick Contest with the new subject. To read multiple subjects at once, take Compartmentalized Mind.

If you lose, you may try again, at a cumulative -2 per repeated attempt on that subject in the past hour. Should you critically fail, you cannot read that person again for 24 hours.

The Sense-Based limitation – especially Touch-Based – is common. If you take Hearing-Based, you can only read the thoughts of someone whose words you can hear, but can function as a "truthreader" or (with Universal) a "universal translator." Sensory: You can also tap into your subject's senses. This lets you experience everything he experiences. If he is tortured, knocked out, or killed, the GM may require a Will roll to avoid being stunned – or perhaps even a Fright Check! +20%.

Universal: You automatically understand thoughts, even those of non-sapient subjects and those with whom you do not share a language. +50%.

Racial: Your ability only works on those of your own race or a very similar race (for instance, humans are similar to Alphacenturians, but not to dogs or trolls). Combine this with the Sense-Based limitation (Touch or Scent) to represent a race that can share thoughts through biochemical means. -20%.

Sensory Only: As for Sensory, but you can't read thoughts at all. -20%.

Telecommunication: Your ability only works on those with whom you are presently in contact via Telecommunication. -20%.

Telepathic: Your ability is part of the Telepathy (or Vulcan) psi power. -10%.

Mind Shield 4 points/level
You have a "shield" that warns you of and defends against mental attacks. Add your Mind Shield level to IQ or Will whenever you resist an advantage with the Telepathic limitation. Your shield also resists attempts to locate your mind using magic or psionics. Such abilities must win a Quick Contest against your Will + Mind Shield level to find you.

You may voluntarily lower your Mind Shield if you wish – for instance, to let a friend read your mind. Lowering or raising your shield is a free action, but it must take place at the start of your turn. Mind Shield does protect you while you are asleep or unconscious, unless you fell asleep or were knocked out while your shield was voluntarily lowered.

Telepathic: Your ability is part of the Telepathy (or Vulcan) psi power. -10%.

Mindlink
You have a permanent telepathic rapport with someone – often a twin, loved one, hive member, etc. You automatically succ-
ceed at all attempts to contact him with Telesend (see Telecommunication) and Mind Reading, provided he chooses not to resist or has Slave Mentality. Mindlink does not allow automatic contact across interstellar distances (more than 0.1 light-year), nor can it reach other dimensions, parallel worlds, etc.

Mindlink costs 5 points for a single person, 10 points for 2-9 people, 20 points for 10-99 people, 30 points for 100-999 people, and so on — add 10 points per tenfold increase in the number of people.

As a rule, the GM should only permit PCs to buy Mindlinks with Allies, Contacts, and Dependents and other PCs (if their players permit). One exception is married and mind-bonded Vulcan couples.

You may give Mindlink the same modifiers as your Mind Reading or Telesend advantage. In most cases, the GM should require this.

Nictitating Membrane ♧

1 point/level

You have a transparent lens over your eyes that you can open and close like an eyelid. This lets you see normally underwater, and protects your eyes from sand, irritants, etc. Each level of Nictitating Membrane provides your eyes (only) with DR 1 and adds +1 to all HT rolls concerned with eye damage.

Night Vision ♧

1 point/level

Your eyes adapt rapidly to darkness. Each level of this ability (maximum nine levels) allows you to ignore -1 in combat or vision penalties due to darkness, provided there is at least some light. Regardless of level, Night Vision only works in partial darkness. It has no effect on the -10 for total darkness (for that, get Dark Vision).

Parabolic Hearing ♧

4 points/level

You can "zoom in" on a particular sound or area, and can filter out background noise from sounds of interest to you. Each level of Parabolic Hearing doubles the distance at which you can clearly hear any given sound.

Patrons

Variable

A "Patron" is an NPC — or even an entire organization — that serves as your advisor, employer, mentor, or protector. An employer must be exceptional to qualify as a Patron, though; a Patron is much more than an ordinary boss!

The base point cost of a Patron depends on its power. Use the categories below as a guide, but note that some Patrons won't fit neatly into any of them. The GM's word is final.

A powerful individual (usually built on at least 150% of the PC's starting points) or a fairly powerful organization (assets of at least 1,000 times starting wealth for the world). 10 points.

An extremely powerful individual (built on at least twice the PC's starting points) or a powerful organization (assets of at least 10,000 times starting wealth). 15 points.

An ultra-powerful individual (built on as many points as the GM wants!) or a very powerful organization (assets of at least 100,000 times starting wealth). 20 points.

An extremely powerful organization (assets of at least 1 million times starting wealth). 25 points.

A national government or giant multinational organization (net worth basically incalculable). 30 points.

Choose a frequency of appearance, as explained under Frequency of Appearance. If the GM determines that your Patron appears at the start of an adventure, he may design the adventure to include an assignment or aid from the Patron. He may also choose to leave out your Patron, if its appearance would make no sense or disrupt the adventure.

However, if the GM determined that your Patron could have appeared, and you try to contact your Patron during the adventure (for help, advice, etc.), then the contact is likely to be successful and you may receive aid. (Within reason — if you're locked in a prison without any means of communication, you won't be contacting anybody.) You will not know whether your Patron is available on a given adventure until you attempt to request aid. As a rule, you should only be able to reach your Patron once per adventure.

Remember that a powerful Patron could be helpful without actually intervening! A Chicago hood who can say, "I'm from Big Eddie," or a crimefighter who can flash a Q-clearance card, may carry some extra weight in a tough spot.

Often, several PCs — perhaps the entire party — share a Patron. No matter how many characters share a Patron, the cost is not shared; each character must pay full price for the Patron. On the other hand, the GM will make an appearance roll for each character at the start of each adventure — and if the Patron appears for any of them, then it is usually available for all of them. The GM should scale the quantity and quality of the aid provided in proportion to the number of successful appearance rolls.

If your Patron is an army, corporation, feudal lord, etc., you may owe it a Duty, and also a stringent code of behavior in return for its aid.

A Patron might also have powerful foes that are now your foes; this can give you an Enemy. Such factors can cut the effective cost of a Patron significantly, and turn it from a benefit to a considerable liability!

You can apply the following modifiers after multiplying for frequency of appearance:

Equipment: Your Patron supplies useful equipment that you can use for your own purposes, and that you would otherwise have to buy. This enhancement only applies if the equipment is yours once given. A soldier with a military Patron would not pay extra for his weapons, since when he goes off duty, he can't take them along. An adventurer in the employ of a generous noble who hands out useful "gifts" would pay extra. +50% if the equipment is worth more than the average starting wealth in the campaign, or +100% if it is worth more than that.

Special Abilities: Your Patron wields power out of proportion to its wealth or point value. +50% if your Patron has extensive social or political power (e.g., the Governor of New York or the Pope), or +100% if your Patron has magical powers in a non-magical world, possesses equipment from a TL greater than yours, grants you special powers, or has unusual reach in time or space (e.g., a super, spirit, or god).

Minimal Intervention: Your Patron is less useful than its power level would suggest. On a successful appearance roll, the GM makes a reaction roll for your Patron to determine whether it actually provides aid. On a Neutral or better reaction, you receive the aid your Patron thinks you need — which may or may not be what you want. -50%.

Peripheral Vision ♧

15 points

You have an unusually wide field of vision. You can see a 180° arc in front of you without turning your head, and have 30° of peripheral vision to either side of that. This gives you a 240° "arc of vision" for observation and ranged attacks. The figure above shows the arc of vision for a normal character (white) and for someone with Peripheral Vision (gray plus white).

If you are playing with a battle map, you can make melee attacks into "side" (right and "left") hexes as well as "front" hexes — although a one-handed attack to the opposite side (e.g., attacking your left hex with your right hand) is clumsy and considered a Wild Swing. You still cannot attack a foe directly behind you except with a Wild Swing.

ADVANTAGES, DISADVANTAGES & QUIRKS

GURPS Prime Directive 4E
This also helps on defense! If you are attacked from a “side” hex, you defend at no penalty. Even against attacks from the rear, your active defense is only -2.

Out of combat, you get +3 to all rolls to detect Shadowing attempts or ambushes from behind, and the GM will always make a Vision roll for you to spot dangers “behind your back.”

*Easy to Hit:* Your eyes are on stalks, unusually large, or otherwise more vulnerable to attack. Others can target your eyes from within their arc of vision at only -6 to hit. -20%.

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**Pressure Support**

Pressure Support lets your body stay at a constant internal pressure with respect to a constant and uniform external pressure. This protects against attacks that manipulate ambient pressure or crush the entire body, but provides no defense against localized or transient pressure changes. In particular, Pressure Support does not reduce or prevent damage from crushing attacks or explosions of any kind.

Every character has a “native pressure.” This is listed in each race’s Racial Template.

**Pressure Support 1:** You can survive at pressures between your native pressure and 10 times that. 5 points.

**Pressure Support 2:** You can withstand pressures between your native pressure and 100 times that. 10 points.

**Pressure Support 3:** You are immune to the effects of high pressure. 15 points.

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**Racial Memory**

You have access to the memories of your direct genetic ancestors. This ability comes in two forms:

**Racial Memory (Passive):** Your talent is vague and totally passive. The GM secretly makes an IQ roll for you in any situation that your ancestors might have encountered. On a success, you get a feeling of *déjà vu* about the situation. It is up to you to interpret this. A critical success gives a vivid replay of ancient ancestral memories. On a failure, nothing happens. A critical failure results in a wrong impression. 15 points.

**Racial Memory (Active):** You may use this advantage actively. If you want to know something, the GM first determines whether or not your ancestors knew the answer. Then he rolls against your IQ to see if you can gain access to the information. If your ancestors didn’t have the answer and the roll succeeds, you will know that. On a critical failure, you will believe your ancestors didn’t know, even if they really did. This requires one turn of absolute concentration (the GM may require more elaborate preparations to recall very ancient memories). 40 points.

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**Radiation Tolerance**

Your cells are resistant to radiation. The cost of this advantage depends on the divisor of the effective dose of radiation you receive – after dividing by the Protection Factor (PF) of artificial protection such as armor.

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**Rapid Healing**

Your wounds heal quickly. This trait comes in two levels:

**Rapid Healing:** Whenever you roll to recover lost HP or to see if you can get over a crippling injury, you get +5 to your effective HT. **Prerequisite:** HT 10+. 5 points.

**Very Rapid Healing:** As above, but when you roll to recover lost HT, a successful HT roll means you heal two HP, not one. **Prerequisite:** HT 12+. 15 points.

Note that this advantage does not hasten recovery from the short-term effects of injury, such as stunning and knockout; get Recovery for that.

**Recovery**

You recover from unconsciousness very quickly. When determining the length of time you remain unconscious for any reason, divide by all times by 60: hours become minutes, minutes become seconds ... even a month-long coma becomes a mere 12-hour sleep.

**Reduced Consumption**

You can go for a long time without food and water, or fuel – although you still require these things. (Also see *Doesn’t Eat or Drink in G4e.*) This advantage comes in four levels:

**Reduced Consumption 1:** You require 2/3 as much food and water as usual. 2 points.

**Reduced Consumption 2:** You require 1/3 as much food and water as usual. 4 points.

**Reduced Consumption 3:** You require food and water only once per week. 6 points.

**Reduced Consumption 4:** You require food and water only once per month. 8 points.

**Cast-Iron Stomach:** You require the standard amount of food and water, but the quality is irrelevant. You can eat rotten vegetables and fuzzy bluegreen meat, and drink dishwasher and sour milk. Instead of reducing how often you must eat, reduce your demands on life support (and your food costs) by a like amount: to 2/3 normal at level 1, 1/3 normal at level 2, 5% normal at level 3, and 1% normal at level 4. You get a bonus equal to your level (+1 to +4) to resist the effects of foodborne poisons or diseases not tailored expressly for you, but -3 on reactions from anyone watching you eat! -50%.

**Food Only:** You require less food, but the usual amount of water. -50%.

**Water Only:** You require less water, but the usual amount of food. -50%.
Regeneration

-your wounds heal in mere hours, minutes, or seconds! To regenerate lost limbs, you will also need Regrowth (below) — but Regeneration will greatly accelerate that ability. Regeneration includes Rapid Healing at no extra cost. The cost of this trait depends on your regeneration speed:

- *Regeneration (Slow):* You recover 1 HP every 12 hours, in addition to normal healing. **10 points.**
- *Regeneration (Regular):* You recover 1 HP per hour. **25 points.**
- *Regeneration (Fast):* You recover 1 HP per minute. **50 points.**
- *Regeneration (Very Fast):* You recover 1 HP per second. **100 points.**
- *Regeneration (Extreme):* You recover 10 HP per second. **150 points.**

Heals Radiation: You shed accumulated rads at 10 times the rate at which you heal missing HP. For instance, Regeneration (Regular) removes 10 rads per hour. This will heal persistent radiation damage. **+40%.**

Radiation Only: As Heals Radiation, but you only shed rads — you do not heal HP. **-60%.**

Resistant

-you are naturally resistant (or even immune) to noxious items or substances that are not direct, physical attacks. This gives you a bonus on all HT rolls to resist incapacitation or injury from such things. The bonus from Resistant applies to all rolls to resist noxious effects within a particular category — usually some combination of disease, poison, and environmental syndromes (altitude sickness, the bends, space sickness, etc.). It also applies to rolls to resist attacks that use these effects. This includes Afflictions with one of Blood Agent, Contact Agent, Follow-Up, or Respiratory Agent, and Innate Attacks that have such modifiers and inflict toxic or fatigue damage.

Resistant does not protect against effects that Damage Resistance or Protected Sense either stop or provide a HT bonus to resist. This includes Afflictions and Innate Attacks that do not have any of the modifiers given above.

The base cost for Resistant depends on the rarity of the effects it counteracts:

- Common: A group of related items encountered as often in nature as in an attack, or some other suitably broad subset of "Very Common." Examples: Poison (all toxins, but not asphyxiants or corrosives) or Sickness (all diseases and environmental syndromes). **15 points.**
- Occasional: A group of closely related items more often encountered in nature than as a deliberate attack, or a subset of a "Common" group. Examples: Disease (all bacteria, viruses, fungus infections, etc.) or Ingested Poison. **10 points.**
- Rare: A specific item or environmental syndrome, or a subset of an "Occasional" group. Examples: Acceleration (blackouts due to extreme G-forces), Altitude Sickness, Bends (decompression sickness), Seasickness, or Space Sickness; Nanomachines. **5 points.**

Multiply base cost to reflect your degree of resistance:

You are *totally immune* to all noxious effects, and never have to make resistance rolls (write this as "Immunity" on your character sheet): x1.

- You have +8 to all HT rolls to resist: x 1/2.
- You have +3 to all HT rolls to resist: x 1/3.
- Drop all fractions from the final cost.

Mental Resistance: It is possible to be Resistant to a purely mental threat. This works as described above, except that the bonus applies to resistance rolls against IQ and Will instead of HT. "Psionics" is an allowed category, and is considered Very Common.

Sealed

-you are encased in a gas- and liquid-impermeable layer. This makes you waterproof, and grants complete immunity to corrosive or toxic agents that must touch skin or exposed machinery to work. You must still breathe, unless you also have Doesn’t Breathe, however, your exterior breathing apparatus (nose, snorkel, etc.) is protected by this trait. Likewise, you are not automatically pressurized; for that, take Pressure Support or Vacuum Support.

Security Clearance

-a government agency or corporation trusts you with access to sensitive information that would otherwise be "off limits" to someone of your Rank or Status. For instance, a general "cleared" for military secrets commensurate with his Military Rank would not have to buy Security Clearance separately, but a civilian with exactly the same level of access would have to pay points for the privilege. Point cost depends on your degree of access:

You have access to a relatively narrow range of secrets on a "need to know" basis. **Example:** a starship helmsman, who might know secrets about spacecraft, weapons, and targets. **5 points.** You have either free access to a narrow range of secrets or "need to know" access to a broad range of secrets. **Example:** a counterintelligence officer, who would have limited access to many secrets, as part of his job is to protect them. **10 points.** You have free access to a broad range of secrets. **15 points.**

You cannot receive a security clearance without a thorough background check. The GM is free to forbid this advantage to any PC who has a suspicious past (including such traits as Debt or Secret) or an unstable personality (for instance, Paranoia or Sadism).

Single-Minded

-you can really concentrate! You get +3 to success rolls for any lengthy mental task you concentrate on to the exclusion of other activities, if the GM feels such focus would be beneficial. You tend to ignore everything else while obsessed (roll vs. Will to avoid this), and have -5 to all rolls to notice interruptions.

The GM may rule that certain complex tasks require you to divide your attention. This trait has no effect in such situations.

Social Regard

-you are a member of a class, race, sex, or other group that your society holds in high regard. To be an advantage, this must be obvious to anyone who meets you. This is the opposite of Social Stigma; membership in a given social group cannot result in both Social Regard and Social Stigma.

Social Regard costs 5 points per +1 reaction rolls. To a maximum of +4. This is not a Reputation, despite the similarities in cost and effect. You are treated well because of what you are, not because of who you are. Think of it as "privilege by association." The way you are treated on a good reaction roll will depend on the type of Regard:

Feared: Others will react to you much as if you had successfully used Intimidation skill. Those who like you stand aside, while those who dislike you flee rather than risk a confrontation. You are met with silent deference, and perhaps even respect, but never friendly familiarity. **Examples:** a Klingon ESS agent in an Army barracks.

Respected: You receive polite and obsequious deference, much as if you had high Status, regardless of your actual Status.

**ADVANTAGES, DISADVANTAGES & QUIRKS**
Social interactions other than combat usually go smoothly for you—but there will be times when the kowtowing gets in the way. *Examples:* a member of a ruling caste or a ruling race.

*Venerated:* Total strangers react to you in a caring way. They give up seats, let you ahead of them in lines, and receive your every word as pearls of wisdom. They also take great pains to prevent you from putting yourself in danger or even discomfort—even when you need to do so! *Example:* an elderly person in many societies.

**Speak Underwater**

You can talk normally while submerged, and you can understand what others say while underwater.

*Interface Crossing:* You can talk to those outside of the water while submerged, and can understand people on the surface talking to you. +50%.

**Special Rapport**

You have a unique bond with another person. This acts as a potent version of Empathy that works only with one person, without regard to distance. You *always* know when your partner is in trouble, in pain, lying, or in need of help, no matter where he is. This requires no IQ roll. Your partner receives the same benefits with respect to you.

*Both* partners in a Special Rapport must buy this advantage. Your partner need not be a lover, or even a close friend, but the GM has the final say. In particular, the GM may wish to forbid PCs from buying Special Rapports with powerful NPCs who would otherwise qualify as Patrons (or allow it, but require an Unusual Background).

**Striker**

You have a body part that you can use to strike an aimed blow, but not to manipulate objects (see Extra Arms) or walk on (see Extra Legs). This might be a set of horns or protruding tusks, a heavy tail, a stinger, or any number of other natural weapons.

Your Striker can attack at reach C ("close combat only"), inflicting thrust damage at +1 per die; e.g., 2d-1 becomes 2d-1. Damage is crushing for 5 points, large piercing for 6 points, cutting for 7 points, or impaling for 8 points. See also *Innate Attack* in G4e.

Roll against DX or Brawling to hit with your Striker. You can also use it to parry as if you had a weapon. Use the higher of (DX/2) + 3 or your Brawling parry.

*Long:* Your Striker is long relative to your body. This increases your effective SM for the purpose of calculating reach. +100% per +1 to SM if you can attack at any reach from C to maximum, or +75% per +1 to SM if you can only attack at maximum reach (and never in close combat).

*Cannot Parry:* You cannot parry with your Striker. -40%.

*Clumsy:* Your Striker is unusually inaccurate. This is common for tails and similar Strikers aimed from outside your usual arc of vision. -20% per -1 to hit.

*Limited Arc:* Your Striker can only attack straight ahead, straight behind, etc. Specify a direction when you buy the Striker. If your target isn't in the right place, and you cannot maneuver to put him there, *you cannot attack him at all.* -40%.

*Weak:* Your Striker is unusually blunt or light, or simply incapable of using your full ST. It inflicts only basic thrust damage, without the +1 per die. -50%.

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**Subsonic Hearing**

You can hear very low-frequency sounds (under 40 Hz), such as the rumble of distant storms, the vibrations from incipient earthquakes, and the approach of stampeding herd beasts, armored vehicles, or dragons. This gives +1 to Tracking skill if your quarry is moving on the ground. Cost depends on your capabilities:

You can hear very low-frequency sounds only: 0 points.

You can hear very low-frequency sounds and other sounds: 5 points.

Note that Subsonic Hearing is included in the cost of Subsonic Speech; you cannot take both traits.

**Talent**

You have a natural aptitude for a set of closely related skills. "Talents" come in levels, and give the following benefits:

A bonus of +1 per level with all affected skills, even for default use. This effectively raises your attribute scores for the purpose of *those skills only*; thus, this is an inexpensive way to be adept at small class of skills. (Generalists will find it more cost-effective to raise attributes.)

A bonus of +1 per level on all reaction rolls made by anyone in a position to notice your Talent, if he would be impressed by your aptitude (GM's judgment). To receive this bonus, you must demonstrate your Talent—most often by using the affected skills.

A reduction in the time required to learn the affected skills in play, regardless of how you learn them. Reduce the time required by 10% per level of Talent; e.g., Animal Friend 2 would let you learn animal-related skills in 80% of the usual time. This has no effect on the *point cost* of your skills.

You may never have more than four levels of a particular Talent. However, overlapping Talents *can* give skill bonuses (only) in excess of +4.

The cost of a Talent depends on the size of the group of skills affected:

- Small (6 or fewer related skills): 5 points/level.
- Medium (7 to 12 related skills): 10 points/level.
- Large (13 or more related skills): 15 points/level.

Skills with multiple specialties are considered to be one skill for this purpose. Once you buy a Talent, the list of affected skills is fixed. *(Exception:* The GM may rule that a Talent affects new skills appearing in later *GURPS* supplements, or skills he invents in the course of the campaign, if the Talent would logically be of value to those skills.)

The following Talents are considered standard, and exist in most campaigns:

*Animal Friend:* Animal Handling, Falconry, Packing, Riding, Teamster, and Veterinary. *Reaction bonus:* all animals. 5 points/level.


*Gifted Artist:* Artist, Jeweler, Leatherworking, Photography, and Sewing. *Reaction bonus:* anyone buying or critiquing your work. 5 points/level.

*Green Thumb:* Biology, Farming, Gardening, Herb Lore, and Naturalist. *Reaction bonus:* gardeners and sentient plants. 5 points/level.

*Healer:* Diagnosis, Esoteric Medicine, First Aid, Pharmacy, Physician, Physiology, Psychology, Surgery, and Veterinary. *Reaction bonus:* patients, both past and present. 10 points/level.

*Mathematical Ability:* Accounting, Astronomy, Cryptography, Engineer, Finance, Market Analysis, Mathematics, and Physics. *Reaction bonus:* engineers and scientists. 10 points/level.

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**GURPS Prime Directive 4E**

**ADVANTAGES, DISADVANTAGES & QUIRKS**
MUSICAL ABILITY: Group Performance (Conducting), Musical Composition, Musical Influence, Musical Instrument, and Singing. Reaction bonus: anyone listening to or critiquing your work. 5 points/level.


PHYSICAL SCIENCE: Astronomy, Chemistry, Geology, Meteorology, and Physics. 5 points/level.

SMOOTH OPERATOR: Acting, Carousing, Detect Lies, Diplomacy, Fast-Talk, Intimidation, Leadership, Panhandling, Politics, Public Speaking, Savor-Faire, Sex Appeal, and Streetwise. Reaction bonus: con artists, politicians, salesmen, etc.—but only if you are not trying to manipulate them. 15 points/level.

At the GM’s option, you may create your own Talent with a custom skill list. However, the GM’s word is law when determining which skills are “related” and how may points the Talent is worth. Talents should always be believable inborn aptitudes. For instance, Sports Talent might make sense—a sports athlete really do seem to have a gift.

PSIONIC TALENTS

This Talent represents natural or learned ability to control psi power. You may have Talent without psi abilities (that is, you are a “latent”) or psi abilities without Talent (you have raw power, but little flair for directing it).

A Talent gives a bonus to any roll to activate or otherwise use that particular psionic power; e.g., Vulcan Psi Talent 2 would give +2 to use any of your Mind Reading abilities. This most often modifies IQ, Will, and Perception rolls.

VULCAN PSI TALENT: Mind Control, Mind Probe, Mind Reading, Mind Shield, Nerve Pinch and Special Rapport. 5 points/level.

VULCAN PSI POWERS

Mind Control (Puppet, -40%; Telepathic, -10%) [25].
Mind Probe (Touch Based, -20%; Telepathic, -10%) [14].
Mind Reading (Touch-Based, touch, -20%; Telepathic, -10%) [21].
Mind Shield (Telepathic, -10%) [3] per level.
Nerve Pinch: Affliction 1 (HT; Accessibility, Hit Location, -4 to hit, -20%; Contact Agent, -30%; Melee Attack, Reach C, -30%; Racial, -20%; Telepathic, -10%; Unconscious, +200%) [19] per level.
Special Rapport (Telepathic, -10%) [4].
For more see GURPS Basic Set or GURPS Federation.

TEETH

0, 1, or 2 points

Anyone with a mouth has blunt teeth that can bite for thrust-1 crushing damage. This costs 0 points, and is typical of most herbivores. You can have a more damaging bite:

Sharp Teeth: Like those of most carnivores. Inflict thrust-1 cutting damage. 1 point.

Sharp Beak: Like that of a bird of prey. Inflicts thrust-1 large piercing damage. 1 point.

Fangs: Like those of a Smilodon. Inflict thrust-1 impaling damage. 2 points.

TELECOMMUNICATION

You can communicate over long distances without speaking aloud. You can send words at the speed of ordinary speech or pictures at the speed at which you could draw them. To establish contact requires one second of concentration and an IQ roll. After that, no concentration is required. You can maintain multiple contacts, but if the IQ roll is at a cumulative -7 per contact after the first. Telecommunication works amid even the loudest noises, although interference and jamming can disrupt your signal. Those with suitable equipment may attempt to locate, intercept, or jam your transmission. This requires an Electronics Operation (Communications) roll for an electromagnetic signal, an Electronics Operation (Psychotronics) roll for a psionic signal, and so forth.

Each variety of Telecommunication is a separate advantage with its own benefits and drawbacks. Some forms have limited range, which you can adjust using Increased Range or Reduced Range.

INFRARED COMMUNICATION: You communicate using a modulated infrared beam. Base range is 100 yards in a direct line of sight. The short range and line-of-sight requirement make jamming and eavesdropping almost impossible under normal circumstances. You can only communicate with those who have this advantage or an infrared communications Talent. 10 points.

LASER COMMUNICATION: You communicate using a modulated laser beam. Base range is 50 miles in a direct line of sight. The narrow beam and line-of-sight requirement make it extremely hard to eavesdrop on you. You can only communicate with people who have this advantage or a laser communicator. 15 points.

RADAR: You communicate using radio waves. Base range is 10 miles. Your signal is omni-directional, but because you can shift frequencies, eavesdroppers must still roll vs. Electronics Operation (Communications) to listen in. Radio does not work at all underwater. 10 points.

TELESEND: You can transmit thoughts directly to others via psi or other exotic means (be specific!). Your subject receives your thoughts even if he lacks this ability. Range is theoretically unlimited, but the IQ roll to use this ability takes the range penalties given under Long-Distance Modifiers. If you cannot see or otherwise sense your subject, you have an additional penalty: -1 for family, lovers, or close friends; -3 for casual friends and acquaintances; or -5 for someone met only briefly. 30 points.

BROADCAST: This enhancement is only available for Telesemd. It lets you send your thoughts to everyone in a radius around you. This requires an IQ roll at the long-distance modifier for the desired radius, plus an additional -4. +50%.

SHORT WAVE: This is only available for Radio. You can bounce your signal off a planet’s ionosphere (if the planet has one). This lets you transmit to (or receive from) any point on the planet. Note that solar flares, weather, etc. can disrupt short-wave communications. +50%.

UNIVERSAL: Your messages are automatically translated into your subject’s language. The GM may limit this enhancement to individuals from advanced tech levels, or restrict it to Telesemd. +50%.

VIDEO: You are not limited to simple pictures! You can transmit real-time video of anything you can see. +40%.

RACIAL: Your ability only works on those of your own race or a very similar race, per Mind Reading. -20%.

RECEIVE ONLY: You can receive but not send. This limitation is not available for Telesemd. -50%.

SEND ONLY: You can send but not receive. This limitation is not available for Telesemd. -50%.

TELEPATHIC: Your ability is part of the Telepathy psi power. -10%.

VAGUE: You cannot send speech or pictures. You can only send a simple code (e.g., Morse code) or general concepts and emotions, in the case of Telesemd. -50%.

GURPS PRIME DIRECTIVE 4e
Telekinesis 5 points/level

You can move objects without touching them. In effect, you manifest an invisible force that acts under your conscious direction at a distant point. Specify how you do this.

You can manipulate distant objects just as if you were grasping them in a pair of hands with ST equal to your Telekinesis (TK) level. You can move any object you have strength enough to lift, at a Move equal to your TK level, modified as usual for encumbrance level. Regardless of level, maximum range is 10 yards; to modify range, take Increased Range or Reduced Range.

Telekinesis requires constant concentration to use. In combat, this means you must take a Concentrate maneuver on your turn. Your TK may then perform one standard maneuver as if it were a disembodied pair of hands at some point within your range: a Ready maneuver to pick up an object; a Move maneuver to lift and carry it; an Attack maneuver to throw it, or to grab or strike directly; and so on.

No rolls are necessary for ordinary lifting and movement. For more complex actions, the GM might require you to make a DX or skill roll. In situations where you would roll against ST, roll against your TK level instead.

All of the above assumes that you are using TK to perform a task at a distance. TK can also discreetly assist you with such skills as Gambling (especially to cheat!), Lockpicking, and Surgery. In general, anything that would benefit from High Manual Dexterity gets a +4 bonus if you can successfully make an IQ roll to use your TK properly. On a failure, the GM may assess any penalty he feels is appropriate.

You can use TK to attack a foe directly. Roll against DX or an unarmed combat skill to hit. Your foe defends as if attacked by an invisible opponent. If you grapple, your foe cannot grab hold of the TK force, but he cannot to break free as usual — and if he also has TK, he can take a Concentrate maneuver and use his TK level instead of his ST. The turn after you grapple a foe using TK, your TK can use a Move maneuver to pick him up off the ground, provided you have enough TK to lift his weight. Someone in this position can’t do anything that relies on ground contact (run, retreat, etc.), but can perform any other action that is possible while grappled.

Levitation: If you have enough TK to lift your own body weight, you can levitate. Take the Concentrate maneuver and have your TK take Move maneuvers to propel your body. For true psychokinetic flight, take Flight with the Psychokinetic limitation (below).

Throwing: By applying a TK impulse for a fraction of a second, you can throw objects faster (and farther) than you can move them. Take a Concentrate maneuver and have your TK take an Attack maneuver. This works just as if you were throwing the object with ST equal to your TK level. Roll against Throwing or Thrown Weapon skill to hit, depending on the object being hurled. For 1D2 and Max purposes, measure range from the object (not yourself) to the target; for the purpose of range penalties, use the sum of the distance from you to the object and from the object to the target. Once you throw something, you have “released” your telekinetic grip — your TK must take a Ready maneuver to pick it up again.

Magnetic: Your TK is “super magnetism,” and only affects ferrous metals: iron (including steel), nickel, and cobalt. -50%.

Psychokinetic: Your ability is part of the Psychokinetic psi power. This makes it mental or physical. -10%.

Temperature Tolerance 1 point/level

Every character has a temperature “comfort zone” within which he suffers no ill effects (such as FP or HP loss) due to heat or cold. For ordinary humans, this zone is 55° wide and falls between 35° and 90°. The center of this zone can be centered anywhere (and is specified in the Racial Template for that race), but this is a 0-point feature for a zone no larger than 55°. A larger zone is an advantage. Each level of Temperature Tolerance adds HT degrees to your comfort zone, distributed in any way you wish between the “cold” and “hot” ends of the zone.

Temperature Tolerance confers no special resistance to attacks by fire or ice unless the only damage is a result of a rise or fall in the ambient temperature. In particular, it cannot help you if your body temperature is being manipulated.

Ultrahearing 0 or 5 points

You can hear sounds in the frequencies above the normal range of human hearing (20 kHz). This allows you to hear dog whistles, sonar, motion detectors, etc. You can detect active sonar at twice its effective range. Cost depends on your capabilities:

- You can hear only high-frequency sounds: 0 points.
- You can hear high-frequency sounds and other sounds: 5 points.

This advantage is included in Ultrasonic Speech; if you have Ultrasonic Speech, you cannot take this as well.

Unfazeable 15 points

Nothing surprises you — at least, nothing that’s not obviously a threat. The world is full of strange, and as long as they don’t bother you, you don’t bother them.

You are exempt from Fright Checks, and reaction modifiers rarely affect you either way. You treat strangers with distant courtesy, no matter how strange they are, as long as they’re well-behaved. You have the normal reaction penalty toward anyone who does something rude or rowdy, but you remain civil even if forced to violence. Intimidation just does not work on you.

You are not emotionless — you just never display strong feelings. You must roleplay this advantage fully, or the GM can declare that it has been lost. This advantage is incompatible with all Phobias.

Universal Digestion 5 points

You have remarkably adaptable digestive processes that let you derive nutrition from any nontoxic animal or plant protein, no matter how alien or fantastic. This enables you to subsist on things that would normally be harmless or non-nutritious. You have no special resistance to poison, though; for that, buy Resistant.

One side benefit of this trait is that you can quickly and safely dispose of any nontoxic, organic evidence by eating it.

Unusual Background 5 points

This is a “catch-all” trait that the GM can use to adjust the point total of any character with special abilities that are not widely available in the game world. “Special abilities” might mean cinematic traits, magic spells, exotic advantages (for a human), supernatural advantages (for anyone), or almost anything else — it depends on the setting. Players are free to suggest Unusual Backgrounds to the GM, but the GM decides whether a proposed Unusual Background is acceptable, and if so, what its cost and benefits are.

Not every unusual character concept merits an Unusual Background. The GM should only charge points when the char-
acter enjoys a tangible benefit. For instance, it would be unusual for a human to be raised by wolves, but unless this gave him special capabilities (such as Speak with Animals), it would be background color, worth 0 points.

**Vacuum Support ★★★**

5 points

You are immune to deleterious effects associated with vacuum and decompression. This advantage does not give you an air supply; buy _Doesn't Breathe_ for that.

**Versatile ★★★**

5 points

You are extremely imaginative. You get a +1 bonus on any task that requires creativity or invention, including most rolls against Artist skill and all Engineer rolls for new inventions.

**Vibration Sense ★★★**

10 points

You can detect the location and size of objects by sensing vibrations with your skin, whiskers, or antennae. You must specify whether this ability works in the air or in the water.

Vibration Sense is not a substitute for vision. You can locate an opponent in the dark, but you cannot detect details (e.g., whether he is armed). In a perfectly still, dark chamber, you would have only a vague notion of the size of the area, but you would be able to sense a barrier before you ran into it, and could find openings by sensing the flow of air or water.

To use Vibration Sense, make a Sense roll. Consult the _Size and Speed/Range Table_ and apply separate bonuses for the target's size and speed, and a penalty for the range to the target. Wind (in air) or swift currents (in water) will generate "noise" that interferes with your sense. Find the speed of the wind or current on the table and assess the relevant speed penalty.

A successful roll reveals the rough size, location, speed, and direction of movement of the target. It does not provide any information about the object's shape, color, etc. Once you have detected something, you may target it with an attack. The modifiers that applied to your Sense roll also apply to your attack roll, but can never give you a bonus to hit.

Note that if you are outside the element (air or water) where your ability functions, or if you are wearing a sealed suit, this ability does not work at all!

_Undead_: Your Vibration Sense works both in the air and in the water. +50%.

**Xeno-Adaptability**

See Cultural Adaptability

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**PERKS**

A "perk" is a very minor advantage, worth only 1 point. Perks cannot be modified with enhancements or limitations, and they can be added in play without upsetting game balance. Otherwise, perks use the same rules as other advantages.

The GM is encouraged to create new perks. No perk should provide wealth, social standing, or combat bonuses. A perk can provide a modest bonus (up to +2) to an attribute, skill, or reaction roll in relatively rare circumstances. The GM may allow more generous bonuses, if they apply only in extremely rare situations.

**Alcohol Tolerance ★★★**

Your body metabolizes alcohol with remarkable efficiency. You can drink steadily for an indefinite period with no major detrimental effects. _Binge_ affects you as it would anyone else. You get +2 on all HT rolls related to drinking.

**Auto trance ★★★**

You can enter a trance at will. This requires one minute of complete concentration and a successful Will roll, at -1 per additional attempt per hour. This trance gives +2 on rolls to contact spirits, etc. You must make a Will roll to break your trance. If you fail, you can try again every five minutes.

**Fur ★★★**

You have fur. This prevents sunburn. Thicker fur might justify 1-3 levels each of Damage Resistance and Temperature Tolerance. You must buy these other traits separately.

**Ultraviolet Tolerance ★★★**

You are immune to the effects of UV radiation, even the intense sunlight of a blue-white star. You do not tan or burn, nor does the radiation cause any other harmful effects.

---

**MODIFIERS**

A modifier is a feature that you can add to a trait to change the way it works. There are two basic types of modifiers: _enhancements_ and _limitations_. Adding an enhancement makes the underlying trait more useful, while applying a limitation attaches additional restrictions to your ability.

Enhancements increase the cost, while limitations reduce the cost. This is expressed as a percentage. For instance, a +20% enhancement would increase the point cost of an advantage by 1/5 its base cost, while a -50% limitation would reduce it by half its base cost.

When applying modifiers, you occasionally need to know the range, area of effect, or duration of an advantage for which one or more of these quantities is not specified - assume that range is 100 yards, area is a circle 2 yards in radius (and 12' high, should volume matter), and duration is 10 seconds, unless the advantage specifies otherwise.

You can apply any number of modifiers to a trait. Total them to find the net modifier, and then apply this modifier to the base cost of the trait. Round the resulting cost up to the next-highest whole number. For example, a +10% enhancement, a +40% enhancement, a -30% limitation, and a -45% limitation would give a net modifier of -25%. This would reduce the cost of a 10-point advantage to 7.5 points, which would round up to 8 points.

Modifiers can never reduce cost by more than 80%. Treat a net modifier of -80% or worse as -80%. Thus, no matter how many limitations you take, you cannot lower the cost of a trait to less than 1/5 its base cost.

Some enhancements and limitations are intended only for
Affliction, Binding, and Innate Attack, and for advantages modified with the Ranged enhancement. They are called “attack” modifiers and are marked *. Certain of these have additional restrictions; e.g., Armor Divisor applies only to Affliction.

**ENHANCEMENTS**

You can apply enhancements to advantages, and more rarely to basic attributes and secondary characteristics. The GM might even permit specific enhancements on certain *skills*, but this is difficult to justify unless the skill functions much as an advantage (which is sometimes true of racially innate skills possessed by nonhumans).

**Accurate**

+5%/level

Your attack is unusually accurate. Each +1 to Accuracy is a +5% enhancement.

**Area Effect**

+50%/level

Your ability works as an area power instead of affecting a single target. Everything in the area suffers the attack’s damage or other effects. On a miss, use the scatter rules to see where the area is centered. Active defenses don’t protect against an area attack, but victims may attempt to dive for cover or dodge and retreat to leave the area. For more information, see *Area Effects*, page 75.

<table>
<thead>
<tr>
<th>Radius</th>
<th>Modifier</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 yards</td>
<td>+50%</td>
</tr>
<tr>
<td>4 yards</td>
<td>+100%</td>
</tr>
<tr>
<td>8 yards</td>
<td>+150%</td>
</tr>
<tr>
<td>16 yards</td>
<td>+200%</td>
</tr>
</tbody>
</table>

Further levels continue to double the radius. If applied to an advantage that already covers an area, each level doubles the base radius.

**Armor Divisor**

Your attack can pierce more armor than its base damage would indicate.

<table>
<thead>
<tr>
<th>Armor Divisor</th>
<th>Modifier</th>
</tr>
</thead>
<tbody>
<tr>
<td>(2)</td>
<td>+50%</td>
</tr>
<tr>
<td>(3)</td>
<td>+100%</td>
</tr>
<tr>
<td>(5)</td>
<td>+150%</td>
</tr>
<tr>
<td>(10)</td>
<td>+200%</td>
</tr>
</tbody>
</table>

Only Innate Attacks and Afflictions can have this enhancement. Armor Divisor is a “penetration modifier”; you cannot combine it with other penetration modifiers, such as Contact Agent and Follow-Up.

**Blood Agent**

+100%

On an attack with Area Effect or Cone, this is an enhancement. See the Blood Agent limitation for details.

**Cone**

Variable

Your attack spreads to affect everyone in a cone-shaped area. Cones use special rules; see *Area and Spreading Attacks*. Decide on the maximum width of the cone, in yards, at the attack’s maximum range. Cone costs +50% plus +10% per yard of maximum width. You cannot combine Cone with Area Effect, Aura, Jet, Melee Attack, Rapid Fire, or Emanation.

**Contact Agent**

+150%

On an attack with Area Effect or Cone, this is an enhancement. See the Contact Agent limitation for more information.

**Cyclic**

Variable

This enhancement is only available for Innate Attacks that inflict burning, corrosion, fatigue, or toxic damage. It represents an attack that persists on the victim: acid, disease, liquid fire, poison, etc. A Cyclic attack damages its target normally — but once the target has been exposed, the attack damages him again each time a set interval passes. All penetration modifiers (e.g., Contact or Follow-Up) continue to apply; for instance, a Cyclic attack with Follow-Up continues to ignore DR. Worst of all, the victim cannot recover HP or FP lost to a Cyclic attack until the attack stops damaging him!

You must specify a reasonably common set of circumstances that halt any further damage from your attack. The base value of Cyclic depends on the damage interval.

<table>
<thead>
<tr>
<th>Interval</th>
<th>Modifier</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 second</td>
<td>+100%</td>
</tr>
<tr>
<td>10 seconds</td>
<td>+50%</td>
</tr>
<tr>
<td>1 minute</td>
<td>+40%</td>
</tr>
<tr>
<td>1 hour</td>
<td>+20%</td>
</tr>
<tr>
<td>1 day</td>
<td>+10%</td>
</tr>
</tbody>
</table>

Burning or corrosion attacks shouldn’t have intervals longer than 10 seconds. At the GM’s option, someone taking damage at one-second intervals might have to make a Fright Check! Multiply the base value by the number of cycles after the first. The GM should consider limiting large numbers of cycles to attacks that do less than 1d damage.

Cyclic attacks are often Resistible; if so, an extra resistance roll is allowed for each cycle, with a success preventing any further damage. If the attack is Resistible, *half* the value of Cyclic.

Some Cyclic attacks are contagious. While affected, the victim can inadvertently infect others, per *illness*. This increases the final cost of the enhancement, after all other factors: +20% for a “mildly contagious” attack or +50% for a “highly contagious” one.

These factors are cumulative. For instance, a resistible disease with 31 daily cycles would cost +10% x 30 x 1/2 = +150%. If it were highly contagious, it would cost +200%.

**Damage Modifiers**

Variable

You may give an Innate Attack one or more of these modifiers to further qualify the way it does damage.

**Double Blunt Trauma (dbt) +20%**: Available for Innate Attacks that do burning, corrosion, cutting, impaling, or piercing damage. Burning and corrosion attacks enhanced this way inflict 1 HP of blunt trauma injury per 10 points of basic damage resisted by flexible armor. Cutting, impaling, and piercing attacks with this enhancement inflict the same blunt trauma as a crushing attack: 1 HP of blunt trauma injury per 5 points of basic damage resisted by flexible armor.

**Double Knockback (dbk) +20%**: This lets a crushing or cutting attack inflict twice as much knockback as usual; see Knockback.

**Explosion (exp) +50%/level**: The attack produces an explosion at the point of impact (on a miss, check for scatter). The target takes damage normally; anything nearby receives “collateral damage” equal to basic damage divided (3x the distance in yards from the blast). If the attack also has an Armor Divisor, it does not apply to this collateral damage. You can take up to two additional levels of Explosion if you desire a blast that isn’t as
affected by distance. The second level divides basic damage by twice the distance in yards and is +100%; the third level divides damage by the distance in yards and is +150%. Explosion is usually limited to crushing and burning attacks, but the GM may permit other combinations.

**Fragmentation (frag) +15% per die:** The attack scatters damaging fragments on impact. Decide on the dice of fragmentation damage and note this in brackets after the attack's basic damage. Everyone within 5 yards per die of fragmentation damage is attacked with effective skill 15, modified by range penalties from the point of impact; see **Fragmentation Damage**.

Fragments inflict cutting damage. If you add Fragmentation to a burning attack or one with the Incendiary enhancement (below), the fragments are Incendiary at no extra cost. If you apply it to an attack with Follow-Up, penetration indicates the fragments automatically hit the victim but no one else. Fragmentation often accompanies Explosion (above), but this is not required.

Fragmentation costs +15% per die of fragmentation damage. A damage of [2d] or [3d] is typical of a grenade-sized blast. Maximum fragmentation damage is [12d] or the attack's basic damage, whichever is less.

**Hot Fragments:** The fragments inflict burning damage with the modifiers Cyclic (Six 10-second cycles) and Armor Divisor (0.2) instead of cutting damage. Cost is unchanged.

**Hazard Variable:** You may give an Innate Attack that inflicts fatigue damage one of these enhancements: Dehydration, +20%; Drowning, +20%; Freezing, +20%; Missed Sleep, +50%; Starvation, +40%; or Suffocation, +10%. Treat FP lost to the attack identically to FP lost to the relevant hazard for all purposes, notably Recovery.

Traits that protect the target from the hazard in question also shield him from this damage. For instance, a Starvation attack would inflict FP that could only be recovered by eating a meal, but someone who Doesn't Eat or Drink would be immune.

**Incendiary (inc) +10%:** An Innate Attack other than a burning attack may be Incendiary. This gives the damage a secondary flame effect that can ignite volatile material (fuel, dry tinder, etc.).

**Radiation (rad) +25% or +100%:** The attack irradiates the subject. Roll damage normally, but whether or not the attack penetrates DR, it inflicts 1 rad per point of basic damage rolled. See **Radiation** for effects. For a toxic attack, this dosage is instead of regular damage, and the enhancement is worth +25%; this is typical of "ordinary" radioactivity. For a burning attack, the radiation dose is as well as regular damage, and the enhancement is +100%; use this for particle beams. Other damage types cannot have this enhancement.

**Surge (sur) +20%:** The attack produces an electrical surge or pulse that can disable electronics or anything with the Electrical disadvantage.

**Follow-Up**

Your attack's effects are delivered by a "carrier." Use this to represent poison on a dart, an explosive in an armor-piercing shell, etc. Pick a different attack as the carrier. This can be either body weaponry (e.g., Claws or Teeth) or an Innate Attack (usually one that does cutting, impaling, or piercing damage). A Follow-Up attack need only list its damage amount and type. All other details depend on the carrier attack. The Follow-Up attack only hits if the carrier attack hits. If the carrier attack penetrates the target's DR, DR has no effect on the Follow-Up attack's damage or HT rolls.

If the carrier attack is a natural weapon, such as Claws or Teeth, Follow-Up is a +0% enhancement. (Exception: On a passive carrier attack such as Spines, Follow-Up is a -50% limitation.) If the carrier attack is an Innate Attack, the cost of Follow-Up depends on the modifiers on the carrier attack. The cost of Follow-Up equals the sum of the costs of whichever of the following modifiers apply to the carrier attack: Always On, Aura, Cone, Drifting, Emanation, Emergencies Only, Extra Recoil, Guided, Homing, Increased Range, Jet, Limited Use, Malediction, Melee Attack, Preparation Required, Rapid Fire, Reduced Range, Takes Extra Time, Takes Recharge, Unconscious Only, Uncontrollable, or Unreliable. If none of these modifiers apply to the carrier attack, Follow-Up costs +0%. Note that the Follow-Up attack itself cannot take any of these modifiers. Only its carrier attack may have them.

Follow-Up is a "penetration modifier"; you cannot combine it with other penetration modifiers (although the carrier attack can have them).

**Increased Range**

+10%/level

You may add this enhancement to any advantage that has a range; e.g., Innate Attack or Scanning Sense. Each level increases range as follows:

- If applied to a ranged attack, each level increases 1/2D and Max. You may increase 1/2D or Max individually at half cost (that is, "Increased 1/2D" and "Increased Max" are +5%/level). However, you cannot increase 1/2D past Max. At most, you can make 1/2D equal to Max — this means the attack has no 1/2D range. For attacks that already have no 1/2D range, you can increase Max for +5%/level.

<table>
<thead>
<tr>
<th>Range Multiple</th>
<th>Modifier</th>
</tr>
</thead>
<tbody>
<tr>
<td>2x</td>
<td>+10%</td>
</tr>
<tr>
<td>5x</td>
<td>+20%</td>
</tr>
<tr>
<td>10x</td>
<td>+30%</td>
</tr>
<tr>
<td>20x</td>
<td>+40%</td>
</tr>
<tr>
<td>50x</td>
<td>+50%</td>
</tr>
<tr>
<td>100x</td>
<td>+60%</td>
</tr>
</tbody>
</table>

**Jet**

+0%

Your attack is a continuous stream, like a flamethrower. Treat it as a melee weapon with a very long reach rather than as a ranged weapon. Do not apply penalties for target range and speed. An attack with Jet has no Acc, and has 1/2D 5 and Max 10 instead of its usual range. Increased Range increases range by 100% per level instead of its usual effects. Jet is incompatible with Area Effect, Aura, Cone, Follow-Up, Melee Attack, and Rapid Fire.

**Malediction**

Variable

Your attack is not a conventional ranged attack. It lacks Malt, 1/2D, Max, Acc, RoF, Shots, and Recoil statistics, and cannot have any enhancement or limitation that modifies those statistics. Most importantly, the target's DR has no effect on the attack's damage, resistance roll, or other effects!

Malediction requires a Concentrate maneuver rather than an Attack maneuver to use. It can target any victim you can see or otherwise clearly perceive. To determine if the attack succeeds, roll against your Will, applying the range penalties detailed below. Your foe may choose to resist; if so, resolve the attack as a Quick Contest of Will. You must win to affect the victim.

When enhancing an Affliction, the Quick Contest above replaces the usual resistance roll. You roll against Will, but your target rolls against HT — or other attribute, if the attack has Based on (Different Attribute) — modified as usual for the Affliction. For instance, an Affliction that allows a HT-1 roll to resist would result in a Quick Contest of your Will vs. the target's HT-1.

The value of Malediction depends on the range modifiers it uses. If it takes -1 per yard of range, like a Regular spell, it costs...
+100%. If it uses the range penalties on the Size and Speed/RANGE Table, it costs +150%. And if it uses the penalties given under Long-Distance Modifiers, it costs +200%.

Malediction is a “penetration modifier”; you cannot combine it with other penetration modifiers, nor with modifiers that apply only to conventional ranged attacks.

Persistent \[+40\%\]

You may only add this enhancement to an Area Effect attack. This causes the area of effect to remain in place for 10 seconds, continuing to damage (or attack and possibly damage, if taken with Bombardment) anyone entering or passing through it. Use Extended Duration to increase the duration.

Rapid Fire \[Variable\]

An Innate Attack’s base Rate of Fire (RoF) is 1. Consult the table below to find the cost for a higher RoF:

<table>
<thead>
<tr>
<th>Rate of Fire</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>+40%</td>
</tr>
<tr>
<td>3</td>
<td>+50%</td>
</tr>
<tr>
<td>4-7</td>
<td>+70%</td>
</tr>
<tr>
<td>8-15</td>
<td>+100%</td>
</tr>
<tr>
<td>16-30</td>
<td>+150%</td>
</tr>
<tr>
<td>31-70</td>
<td>+200%</td>
</tr>
<tr>
<td>71-150</td>
<td>+250%</td>
</tr>
<tr>
<td>151-300</td>
<td>+300%</td>
</tr>
</tbody>
</table>

Two special options are available for attacks with this enhancement:

Multiple Projectiles: Each shot splits into multiple projectiles after you attack, like a shotgun blast or forked lightning. Express this as a multiplier following RoF; for instance, RoF 3x4 means each of three shots fired divides into four individual projectiles. Modifier cost is based on the RoF times the multiplier; e.g., RoF 3x4 costs the same as RoF 12.

Selective Fire: You may designate a RoF 5+ attack as Selective Fire, allowing it to fire as if it had RoF 1-3. This costs an extra +10\%.

Reduced Fatigue Cost \[+20\%/level\]

You may only take this enhancement for abilities that cost FP, and never in conjunction with the special modifier “Usually On.” You can take it any number of times. Each level cuts the cost to use the ability by 1 FP. If you must “maintain” the ability by spending FP on a regular basis, reduce this maintenance cost by a like amount.

Respiratory Agent \[+50\%\]

Your attack must be inhaled to have any effect, but it ignores all DR. Only Doesn’t Breathe and Filter Lungs protect completely – although a victim who makes a Sense roll to notice the attack in time may hold his breath (see Holding Your Breath). To make your attack less noticeable, take Low Signature.

You may only add this enhancement to an Affliction or to an Innate Attack that inflicts toxic or fatigue damage, and you must combine it with one of Area Effect, Cone, or Jet. Persistent is common but not required.

Respiratory Agent is a “penetration modifier”; you cannot combine it with other penetration modifiers, such as Follow-Up (see page 116).

Selective Area \[+20\%\]

You may add this enhancement to any Area Effect or Cone attack. It lets you choose which targets within your area are actually affected.

Selectivity \[+10\%\]

This enhancement lets you turn a trail’s other enhancements off and on at will. For instance, if you had an attack with Area Effect, you could turn this enhancement off to affect only one other person. You must specify which enhancements you wish to ignore before you activate the ability. The default assumption is that you are always using all of your enhancements.

By allowing you to select which enhancements you use, Selectivity permits you to have multiple versions of the same ability without having to buy the ability multiple times.

Sense-Based \[Variable\]

Your attack is channeled through your victim’s senses, allowing it to ignore DR! You must specify the sense(s) affected. Examples include vision, hearing, smell, and exotic senses such as Detect. This is worth +150%, plus an extra +50% per sense after the first; e.g., Vision and Hearing-Based would be +200%.

Your attack only affects someone who is using the targeted sense. For instance, a Vision-Based attack cannot affect a blind or someone with his eyes closed, while a Smell-Based attack doesn’t work underwater or on a target with a gas mask. Advantages (such as Protected Sense) and equipment that protect the sense in question either negate the attack completely or, in the case of attacks that allow a roll to resist (such as Afflictions, Maledictions, and Resistible attacks), give a bonus to the resistance roll.

The most common Sense-Based attack is an Affliction that knocks out the sense it is based on; for instance, Affliction (Blindness; Vision-Based) for a blinding flash. However, Sense-Based attacks can also be deadly, like a banshee’s wail or basilisk’s gaze. Sense-Based is a “penetration modifier”; you cannot combine it with other penetration modifiers, such as Follow-Up.

Exception: You can combine Sense-Based with Malediction. In conjunction with Malediction, or when added to an ability that already ignores DR (e.g., Mind Control or Mind Reading), Sense-Based becomes a limitation. It is worth -20% if it works through one sense, -15% if two senses, or -10% if three senses. If it works through more than three senses, it is not a significant limitation.

Side Effect \[Variable\]

You may only add this enhancement to an Innate Attack, and you cannot combine it with penetration modifiers other than Armor Divisor. If any damage penetrates the target’s DR, he must make a HT roll, at -1 per 2 points of penetrating damage, or suffer a “side effect.”

Choose the side effects from the effects described for Affliction. Valid choices are stunning, Attribute Penalty, Disadvantage, and Incapacitation. The cost of Side Effect is a base +50%, plus the cost of the Affliction enhancements. For instance, stunning would be +50%, while Disadvantage (Blindness) would be +100%.

You may specify more than one side effect. If the victim gets a single resistance roll against all of them, treat them as a single Side Effect enhancement, totaling their cost. If the victim must resist each effect individually, take a separate Side Effect enhancement for each effect.

Stunning wears off normally, while other effects last (20 - HT) minutes, minimum 1 minute. If Incapacitation is combined with other effects, the other effects last for another (20 - HT) minutes after the Incapacitation wears off.

GURPS Prime Directive 4e

ADVENTAGES, DISADVANTAGES & QUIRKS
+20%

Attacks are assumed to be usable in air or in vacuum, but ineffective in liquid. This enhancement lets an attack work underwater at 1/10 range.

**LIMITATIONS**

You can apply limitations to almost *any* trait (although as with enhancements, skills are normally off-limits). When you apply a limitation to a disadvantage, you reduce its value as a disadvantage; e.g., a -10% limitation on a -25-point disadvantage would make it a -22.5-point trait, which rounds to -22 points. Limited disadvantages are worth fewer points because they affect you under more restricted circumstances.

When you apply a limitation to a disadvantage, you reduce its value as a disadvantage. Limited disadvantages are worth fewer points because they affect you under more restricted circumstances.

Remember that no matter how many limitations you take, you cannot reduce the cost of a trait by more than 80%. That is, when totaling modifiers, treat net modifiers below -80% as -80%.

**Accessibility**

Accessibility is a catch-all limitation you can use to cover any restriction not specifically defined elsewhere. Accessibility limitations fall into two broad categories: those that limit the targets your ability can affect and those that limit the situations in which it works.

If your ability can only affect certain targets, the limitation depends on how common the target group is. "Only on women," "Only on men," or anything else that covers about half of the population is worth -20%. "Only on Electrical" or "Only on machines" is worth -20% in a technological setting. "Only on sea creatures" is worth -30% - unless the campaign is set on a world mostly covered with water, in which case it isn't worth more than -10%. "Only on aliens" is worth -30% or -40%, depending on the world. "Only on pais" is worth -50% in most settings. "Not on redheads" is identical to "On everyone but redheads," and is worth -10%.

The same yardstick applies to limitations based on the situation. "Only at day" or "Only at night" is worth -20%. "Only in direct sunlight" is worth -30%. "Only in water" is worth -30% on Earth - but more on a desert planet and less on an ocean world. "Only during full moon" or "Only during new moon" is worth -40%. And "Useless under stress" is a whopping -60%, since it makes the ability worthless in most adventuring situations!

You can also link situational Accessibility to your actions. The more unusual, difficult, or obnoxious the required action, the greater the limitation value. Some examples:

- Only in altered body form (Invisible, Insubstantial, etc.): -10%
- Only while playing trumpet: -20%
- Only while flying. Only while swimming. Only in hypnotic trance: -30%
- Only by one side of split personality: -40%
- In all cases, if the ability is only weakened (half power) instead of becoming useless, halve the value of the limitation.

**Always On**

You cannot switch your advantage off. You may only add this to an ability that can normally be switched off and that is inconvenient if you can't turn it off. It is worth -10% if the effects are social or cosmetic, -20% if they are physically inconvenient, and -40% if they are dangerous (to you!). Always On appears as a "special limitation" for most of the traits to which it would apply. The GM can add new costs as appropriate for other abilities.

**Armored Divisor**

<table>
<thead>
<tr>
<th>Divisor</th>
<th>DR Multiplier</th>
<th>Modifier</th>
</tr>
</thead>
<tbody>
<tr>
<td>(0.5)</td>
<td>2</td>
<td>-30%</td>
</tr>
<tr>
<td>(0.2)</td>
<td>5</td>
<td>-50%</td>
</tr>
<tr>
<td>(0.1)</td>
<td>10</td>
<td>-70%</td>
</tr>
</tbody>
</table>

In addition, if you have any level of this limitation, targets that have DR 0 (e.g., bare flesh) get DR 1 against your attack. Only Innate Attacks and Afflictions can have this limitation. Armor Divisor is a "penetration modifier"; you cannot combine it with other penetration modifiers, such as Contact Agent and Follow-Up.

**Blood Agent**

-40%

Your attack must reach a mucous membrane (eyes, open mouth, nose, etc.) or an open wound to have any effect at all. DR always stops it. This limitation is intended for Afflictions, and for Innate Attacks that inflict fatigue or toxic damage. It is especially appropriate for poisonous spit or spray. In conjunction with Aura, it can also represent an attack that is delivered via intimate physical contact.

A few limitations require a specific enhancement. For instance, Emanation always accompanies Area Effect. Such limitations affect the underlying ability. You cannot use this rule to apply them to these limitations.

**Bombardment**

Variable

You may only take this limitation in conjunction with Area Effect or Cone. The attack does not automatically hit everyone in the area. Instead, it attacks each potential target in the area at an effective skill, which sets the value of the limitation.

<table>
<thead>
<tr>
<th>Effective Skill</th>
<th>Modifier</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>-5%</td>
</tr>
<tr>
<td>12</td>
<td>-10%</td>
</tr>
<tr>
<td>10</td>
<td>-15%</td>
</tr>
<tr>
<td>8</td>
<td>-20%</td>
</tr>
</tbody>
</table>

Modify effective skill for target size only - not for range or for any other factor. Determine hit location randomly. If the target is under cover, the cover protects normally against the damage. This limitation is intended for attacks like electrical or ice storms, which could affect some but not all individuals within a given area.

**Contact Agent**

-30%

Your attack must touch bare skin or porous clothing to have any effect at all. DR always stops it. This enhancement is intended for Afflictions, and for Innate Attacks that inflict fatigue or toxic damage. Taken with Aura, it can represent a "contagious" attack that spreads via skin contact.

**Exception:** If the attack also has Area Effect or Cone, Contact Agent lets it ignore a/DR. Only targets with the Sealed Advantage are immune. This powerful ability converts Contact Agent into a +150% enhancement when combined with Area Effect or Cone!

This is a "penetration modifier"; you cannot combine it with other penetration modifiers, such as Follow-Up.
Damage Limitations

You may add the following limitations to an Innate Attack:

No Blunt Trauma (nbt): An attack that inflicts crushing, cutting, impaling, or piercing damage normally inflicts blunt trauma. Add this limitation if it does not. -20%

No Knockback (nk): An attack that inflicts crushing or cutting damage normally inflicts knockback. Add this limitation if it does not. -10%

No Wounding (nw): The attack inflicts basic damage, and may cause knockback and blunt trauma, but its penetrating damage has no wounding effect (HP or FP loss). Apply this limitation to a crushing attack to represent effects such as a mighty gust of wind or jet of water. Use it with impaling, piercing, or cutting attacks that are carriers for Afflictions or Innate Attacks (usually those that inflect fatigue or toxic damage) with the Follow-Up modifier; this represents small poison darts, stings, etc. that can slip through armor without inflicting grievous wounds. -50%

Dissipation

You may only take this limitation in conjunction with Area Effect or Cone. The further the victim is from the center of the area or the apex of the cone, the less effective your attack is. See Area and Spreading Attacks for details.

Extra Recoil

-10% per +1 Recoil

By default, a ranged attack has Recoil 1, making it virtually recoilless. You may give an attack with Rapid Fire a higher Recoil (Rcl) as a limitation.

<table>
<thead>
<tr>
<th>Recoil (rcl)</th>
<th>Modifier</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>-10%</td>
</tr>
<tr>
<td>3</td>
<td>-20%</td>
</tr>
<tr>
<td>4</td>
<td>-30%</td>
</tr>
<tr>
<td>5+</td>
<td>-40%</td>
</tr>
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Limited Use

You can use your ability only a limited number of times in a 24-hour period. For most advantages, each "use" is 1 minute of activation. For an attack, each "use" gives shots equal to your RoF, with a minimum one shot per use; for instance, three uses of an attack with RoF 2 would give six shots. The value depends on the number of uses you get.

<table>
<thead>
<tr>
<th>Uses Per Day</th>
<th>Modifier</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>-40%</td>
</tr>
<tr>
<td>2</td>
<td>-30%</td>
</tr>
<tr>
<td>3-4</td>
<td>-20%</td>
</tr>
<tr>
<td>5-10</td>
<td>-10%</td>
</tr>
</tbody>
</table>

More than 10 uses per day is not a significant limitation. Two special options are available for attacks (and optionally, other abilities) that have this enhancement:

Fast Reload: You can replace all your uses in 3 to 5 seconds simply by replenishing ammunition. The GM determines the weight and cost of the ammunition. This halves the value of the limitation; e.g., three or four uses would be worth only -10%.

Slow Reload: As above, except if you have two or more shots (not uses!) you must reload each shot individually (taking 3 or more seconds per shot). If you have only one shot, it must take at least 6 seconds to reload—possibly longer, if using this limitation to represent a very slow-firing weapon such as a flintlock. This makes the limitation worth 5% less than usual; e.g., three or four uses would be worth only -15%.

Mitigator

You may only apply this limitation to a disadvantage. A particular item or substance—the mitigator—temporarily negates your disadvantage. The more effective the mitigator, the fewer points you get for the disadvantage. Use the following guidelines:

Mitigator is vulnerable, and easily stolen, broken, or misplaced (e.g., a pair of glasses). -65%

Mitigator is a drug or other treatment that you must take daily. -60%

Mitigator is a weekly treatment. -65%

Mitigator is a monthly treatment. -70%

This assumes your treatments are available at pharmacies. If you require a special (and possibly expensive) prescription, add +5% to the values above; e.g., -70% becomes -65%. If you can only get your treatments from one specific source, such as an experimental drug program, add +10%; e.g., -70% becomes -65%.

Example 1: Bad Sight is worth -25 points. Glasses cure Bad Sight while worn, but are breakable, for a -60% Mitigator limitation. This reduces Bad Sight to -10 points.

Example 2: Jan has AIDS, and would die in a month without treatment. This level of Terminally Ill is normally worth -100 points. Fortunately, Jan is on an experimental drug plan that is holding him in remission. The treatments are weekly (-65%) but impossible to find outside his program (+10%), for a -55% Mitigator limitation. This reduces Terminally Ill to -45 points. As long as Jan stays with the program, his countdown to death is halted.

Nuisance Effect

Your ability has a "side effect" that causes you serious inconvenience. The GM must approve this limitation and determine its value in each case, and should ruthlessly forbid effects that are abusive or that do not genuinely limit the ability's value. A few guidelines (a given trait can have more than one of these drawbacks):

Your ability earns a reaction penalty from those around you. Perhaps it makes you look disgusting, or requires you to perform some sort of distressing ritual. -5% per -1 to reactions (maximum -10)

Your ability makes you obvious, limiting stealth and attracting enemies. -5%

Your ability physically inconveniences you—it attracts stinging insects, causes your armor to rust, makes you ravenously hungry, etc. -5%

Reduced Range

-10%/level

You may add this limitation to any advantage that has a range; e.g., Innate Attack or Scanning Sense. It comes in three levels, depending on the range divisor.

<table>
<thead>
<tr>
<th>Range Divisor</th>
<th>Modifier</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>-10%</td>
</tr>
<tr>
<td>5</td>
<td>-20%</td>
</tr>
<tr>
<td>10</td>
<td>-30%</td>
</tr>
</tbody>
</table>

If applied to a ranged attack that has a 1/2D range, each level reduces both 1/2D and Max. You may reduce 1/2D only at half value (that is, "Reduced 1/2D" is -5%/level). You may not reduce Max independently.
Resistible

This limitation is only available for Innate Attacks that inflict fatigue or toxic damage. You must combine it with one of Blood Agent, Contact Agent, Follow-Up, Respiratory Agent, or Sense-Based. It represents poison, disease, or a similar effect that a sufficiently healthy victim can resist or "shrug off."

The victim gets a HT roll to avoid the effect. A resistance roll against HT-5 is worth -5%. Each +1 to the roll is worth another -5% (e.g., HT-4 is -10%, and HT+4 is -50%).

If the attack is also Cyclic, the victim rolls before each cycle (including the first). Success means the attack ends without further injury; failure means the target takes damage normally and the attack continues.

Sense-Based

On an attack with Malediction or an ability that normally ignores DR (e.g., Mind Control), this is a limitation. See the Sense-Based enhancement for details.

DISADVANTAGES

A "disadvantage" is a problem or imperfection that renders you less capable than your attributes, advantages, and skills would indicate. You are probably wondering, "Why would I want to give my character disadvantages?" There are two good reasons: Each disadvantage has a negative cost in character points. Thus, disadvantages give you extra character points, which let you improve your character in other ways. But note that disadvantages limit you in proportion to their cost. Be sure to read the disadvantage description in full to know what you are getting into! Second, an imperfection or two makes your character more interesting and realistic, and adds to the fun of roleplaying!

TYPES OF DISADVANTAGES

Like advantages, disadvantages are classified according to how they work in play and who can have them.

Exotic disadvantages are forbidden to normal humans. Nonhumans may acquire such traits from their Racial Template, but they still need the GM's permission to take additional exotic disadvantages.

Mental disadvantages originate from your mind or soul. They stay with you if your mind ends up in a new body. This category includes the vast majority of "magical," "psionic," and "spiritual" traits.

Physical disadvantages are associated with your body. You can acquire a physical disadvantage during play, most likely due to accident or combat. In this case, you immediately suffer the bad effects of the disadvantage. Unlike starting disadvantages, however, physical handicaps acquired in play do not "give back" points with which to buy abilities — they just lower your point value!

Social disadvantages are associated with your identity. Should it become important to know whether they go with mind or body, the GM's word is final. Note that this category includes below-average Status, Wealth, and so forth.

Supernatural disadvantages are the result of divine intervention, magic, psionics, etc. With the GM's permission, anyone might be cursed in this way — but only if supernatural powers exist in the game world.

Screening disadvantages are those disadvantages which prevent you from taking an Academy Template, for example, Blindness. This does not apply if this disadvantage came to your character via a Racial Template.

Mundane disadvantages are everything else. They are inborn, acquired, or self-imposed handicaps that anyone might have. Mundane disadvantages are not marked in any special way. Assume that disadvantages without a symbol are available to anyone.

The GM is the final judge of which category a disadvantage belongs in. It is possible to interpret certain disadvantages in more than one way!

"BUYING OFF" DISADVANTAGES

You may use bonus points to "buy off" many disadvantages — whether you started with them or acquired them in play. This costs as many points as the disadvantage originally gave you. If the GM permits, you may buy off leveled disadvantages one level at a time. Likewise, you can buy off those with self-control numbers gradually, by raising the self-control number. In both cases, the point cost is the difference between your former level and your current one.

SELF-CONTROL; MENTAL DISADVANTAGES

Many mental disadvantages do not affect you constantly — you may attempt to control your urges. An asterisk (*) appears next to the point cost of any disadvantage that offers a chance to resist. For each disadvantage like this, you must choose a self-control number: the number you must roll on 3d to avoid giving in. This modifies point value as follows:

You resist quite rarely (roll of 6 or less): 2x listed cost.
You resist fairly often (roll of 9 or less): 1.5x listed cost.
You resist quite often (roll of 12 or less): listed cost.
You resist almost all the time (roll of 15 or less): 0.5x listed cost.

Drop all fractions (e.g., -22.5 points becomes -22 points). The "default" self-control number is 12: you must roll 12 or less on 3d to avoid giving in to your problem. This lets you use disadvantage costs as written. Choose a self-control number of 15 if you wish to have a tendency toward a disadvantage instead of a full-blown case. A self-control number of 9 will regularly limit your options. A self-control number of 6 can be crippling (especially with genuine psychiatric problems).

Note your self-control number in parentheses after the name of the disadvantage on your character sheet. For instance, if you can resist Berserk on a roll of 9 or less, write this as "Berserk (9)."
DISADVANTAGE LIST

**Absent-Mindedness ⌁** -15 points
You have trouble focusing on anything not of immediate interest. You have -5 on all IQ and IQ-based skill rolls, save those for the task you are currently concentrating on. If no engaging task or topic presents itself, your attention will drift to more interesting matters in five minutes, and you will ignore your immediate surroundings until something catches your attention and brings you back. Once adrift in your own thoughts, you must roll against Perception-5 in order to notice any event short of personal physical injury.

You may attempt to rivet your attention on a boring topic through sheer strength of will. To do so, make a Will-5 roll once every five minutes. "Boring topics" include small talk, repetitive manual tasks, guard duty, driving on an empty highway...

**Addiction ⌁ / ⌂ ⌂** Variable

You are addicted to a drug, which you must use daily or suffer withdrawal. The value of this disadvantage depends on the cost, effects, and legality of the drug:

- **Cost (per day):** Cheap (up to 0.1% of average starting wealth): -5 points. Expensive (up to 0.5% of average starting wealth): -10 points. Very expensive (more than 0.5% of average starting wealth): -20 points.
- **Effects:** Incapacitating or hallucinogenic: -10 points. Highly addictive (-5 on withdrawal roll); -5 points. Totallly addictive (-10 on withdrawal roll): -10 points.
- **Legality:** Illegal: +0 points. Legal: +5 points.

You can take Addiction to an activity instead of a drug—for instance, telepathic contact or spending time in virtual reality. If this costs money, price the Addiction based on its daily cost. If it is free (e.g., telepathic contact), treat it as "Cheap" if it can do it almost anywhere (telepathic contact with anyone) or as "Expensive" if restrictive conditions apply (telepathic contact with one specific person). Such Addictions almost always cause psychological dependency (see Withdrawal, below).

**Effects of Drugs:** A stimulating drug leaves you feeling energized... until it wears off. Then you are depressed and irritable. An incapacitating drug renders you unconscious (or just blissfully, uselessly drowsy) for about two hours. A hallucinogenic drug renders you useless for work or combat, though you might be active and talkative. Some drugs (e.g., tobacco) have none of these effects, while others have unique effects. Side effects are also possible. For detailed rules, see Addiction.

**Withdrawal:** Sometimes, voluntarily or otherwise, you must try to give up your Addiction. Addiction to a drug that causes psychological dependency is a mental disadvantage; withdrawal from such a drug requires a series of Will rolls, and may result in mental problems. Addiction to a drug that induces physiological dependency is a physical disadvantage; withdrawal is a function of your HT, and may cause physical injury. For details, see Drug Withdrawal. Should you successfully withdraw from an Addiction, you must immediately buy off this disadvantage.

**Minor Addictions:** For an Addiction worth only -5 points, the GM may rule that the expense, stigma, and detrimental long-term effects of use are the whole of the disadvantage, and waive the usual withdrawal rules. This is appropriate for such drugs as tobacco and caffeine. If forced to go without, you must make a Will or HT roll as usual, but the only effects of a failure are general anxiety, irritability, or restlessness. This manifests as a temporary -1 to DX, IQ, self-control rolls, or reaction rolls (GM's choice) — not as insanity or injury. Successive failures prolong the duration of the effects; they do not increase the size of the penalty. If you can make 14 successful rolls in succession, you must buy off your Addiction.

It is also possible to create a 0-point Addiction using these rules. Such Addictions are always Minor Addictions, and you may take them as -1-point quirks (see Quirks).

**Bad Grip ⌁** -5 points/level

You have a penalty on tasks that require a firm grip. Each level (maximum three levels) gives -2 with such tasks. This penalty is overall—not per hand. Affected tasks include melee weapon use, climbing, catching things, and anything else the GM deems requires a firm grip (e.g., an Acrobatics roll to catch a trapeze). This disadvantage is mutually exclusive with No Fine Manipulators.

**Bad Temper ⌂** -10 points

You are not in control of your emotions. Make a self-control roll in any stressful situation. If you fail, you lose your temper and must insult, attack, or otherwise act against the cause of the stress.

**Berserk ⌂** -10 points

You tend to rampage out of control when you or a loved one is harmed, making frenzied attacks against whoever or whatever you see as the cause of the trouble. If you also suffer from Bad Temper (above), any stress may trigger Berserk.

Make a self-control roll any time you suffer damage over 1/4 your HP in the space of one second, and whenever you witness equivalent harm to a loved one. If you fail, you go berserk. You go berserk automatically if you fail a self-control roll for Bad Temper. You may deliberately go berserk by taking the Concentrate maneuver and making a successful Will roll.

You are immune to stun and shock, and your injuries cause no penalty to your Move score. You make all rolls to remain conscious or alive at +4 to HT. If you don't fail any rolls, you remain alive and madly attacking until you reach -5xHP. Then you fall dead.

When you down a foe, you may (if you wish) attempt another self-control roll to see if you snap out of the berserk state. If you fail (or do not roll), you remain berserk and attack the next foe. Treat any friend who attempts to restrain you as a foe! You get to roll again each time you down a foe, and you get one extra roll when no more foes remain. If you are still berserk, you start to attack your friends...

Once you snap out of the berserk state, all your wounds immediately affect you. Roll at normal HT to see whether you remain conscious and alive.

**Battle Rage:** You go berserk in any combat situation, regardless of whether you have been injured. To avoid this, you must make a self-control roll when you first enter combat (even a bathroom brawl or a boxing match). +50%.

**Bloodlust ⌂** -10 points

You want to see your foes dead. In battle, you go for killing blows, and put in an extra shot to make sure of a downed foe. You must make a self-control roll whenever you need to accept a surrender, evade a sentry, take a prisoner, etc. If you fail, you attempt to kill your foe instead—even if that means breaking the law, compromising stealth, wasting ammo, or violating orders. Out of combat, you never forget that a foe is a foe. This may seem a truly evil trait, but many fictional heroes suffer from it.
Bully

You like to push people around whenever you can get away with it. Depending on your personality and position, this might take the form of physical attacks, intellectual harassment, or social "cutting." Make a self-control roll to avoid gross bullying when you know you shouldn’t, but to roleplay your character properly, you should bully anybody you can. Since nobody likes a bully, others react to you at -2.

-10 points*

Callous

You are merciless, if not cruel. You can decipher others' emotions, but you do so only to manipulate them—-you don’t care about their feelings or pain. This gives you -3 on all Teaching rolls, on Psychology rolls made to help others (as opposed to deduce weaknesses or conduct scientific research), and on any skill roll made to interact with those who have suffered the consequences of your callousness in past (GM's decision). As well, past victims, and anyone with Empathy, react to you at -1. But ruthlessness has its perks: you get an extra +1 to Interrogation and Intimidation rolls when you use threats or torture.

-5 points

Cannot Speak

You have a limited capacity for speech. This trait comes in two levels:

**Cannot Speak:** You can make vocal sounds (bark, growl, trill, etc., as appropriate), but your speech organs are incapable of the subtle modulations required for language. You may still have the Mimicry or Voice advantage, or the Disturbing Voice disadvantage (but not Stuttering). Most animals have this trait.

-15 points

* Mute: You cannot vocalize at all. All communications with others must be nonverbal: writing, sign language, Morse code, telepathy, etc. Time spent communicating this way counts at full value for study of the related skills. No roll is required (or allowed) when you try to communicate with PCs who don't know your sign language—roleplay this on your own! You cannot have any other voice-related traits. -25 points.

Chummy

You work well with others and seek out company. This trait comes in two levels:

**Chummy:** You react to others at +2 most of the time. When alone, you are unhappy and distracted, and suffer a -1 penalty to IQ-based skills. -5 points

* Gregarious: You usually react to others at +4. You are miserable when alone, and use IQ-based skills at -2, or at -1 if in a group of four or less. -10 points.

Code of Honor

You take pride in a set of principles that you follow at all times. The specifics can vary, but they always involve "honorable" behavior. You will do nearly anything—perhaps even risk death—to avoid the label "dishonorable" (whatever that means). You must do more than pay lip service to a set of principles to get points for a Code of Honor. You must be a true follower of the Code! This is a disadvantage because it often requires dangerous—if not reckless—behavior. Furthermore, you can often be forced into unfair situations, because your foes know you are honorable.

-5 to -15 points

odds out of duty, not for his personal honor (though of course he would lose honor by fleeing). The risks you take for your honor are solely on your own account.

The point value of a particular Code of Honor depends on how much trouble it is liable to get you into and how arbitrary and irrational its requirements are. An informal Code that applies only among your peers is worth -5 points. A formal Code that applies only among peers, or an informal one that applies all the time, is worth -10 points. A formal Code that applies all the time, or that requires suicide if broken, is worth -15 points. The GM has the final say!

Cold-Blooded

Your body temperature fluctuates with the temperature of the environment. You are less susceptible to damage from high or low body temperature (+2 HT to resist the effects of temperature), and require only 1/3 the food needed by a warm-bodied being of equal mass, but you tend to "stiffen up" in cold weather. After 30 minutes in cold conditions (or one hour if you have any level of Temperature Tolerance), you get -1 to Basic Speed and DX per 10° below your "threshold temperature" (see below). At temperatures below 32°, you must roll vs. HT or 1 HP of damage. Warm clothing gives +2 to this roll. You regain lost Basic Speed and DX at the rate of one point of each per hour once you return to a warm climate. Double this rate in an exceptionally warm environment. Point value depends on your "threshold temperature":

-5 or -10 points

* You "stiffen up" below 50°: -5 points.

* You "stiffen up" below 65°: -10 points.

Combat Paralysis

You tend to "freeze up" in combat situations, and receive -2 to all Fright Checks. This has nothing to do with Cowardice—you may be brave, but your body betrays you.

In any situation in which personal harm seems imminent, make a HT roll. Do not roll until the instant you need to fight, run, pull the trigger, or whatever. Any roll over 13 is a failure, even if you have HT 14+. On a success, you can act normally. On a failure, you are mentally stunned. Make another HT roll every second, at a cumulative +1 per turn after the first, to break the freezing. A quick slap from a friend gives +1 to your cumulative roll.

Once you unfreeze, you will not freeze again until the immediate danger is over. Then, in the next dangerous situation, you may freeze once again.

This trait is the opposite of Combat Reflexes. You cannot have both.

Curious

You are naturally very inquisitive. This is not the curiosity that affects all PCs ("What's in that cave? Where did the flying saucer come from?"); but the read/thing ("What happens if I push this/thing?")).

Make a self-control roll when presented with an interesting item or situation. If you fail, you examine it—push buttons, pull levers, open doors, unwrap presents, etc.—even if you know/could be dangerous. Good roleplayers won't try to make this roll very often...

In general, you do everything in your power to investigate any situation with which you aren't 100% familiar. When faced with a read/mystery, you simply cannot turn your back on it. You try to rationalize your curiosity to others who try to talk you out of it. Common Sense doesn't help—you know you are taking a risk, but you're curious anyway!

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ADVENTURES, DISADVANTAGES & QUIRKS

GURPS PRIME DIRECTIVE 4E

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Variable

You must regularly ingest a substance (e.g., a drug or magic potion), touch or carry an object (e.g., a holy shrine or magical amulet), or spend time in an environment (e.g., your coffin or your home country, planet, or plane) in order to survive. If you fail to do so, you start to lose HP and will eventually die. Point value depends on the rarity of the item you depend on:

Rare (cannot be bought; must be found or made): -30 points.
Occasional (very expensive or hard to find): -20 points.
Common (expensive, somewhat hard to find): -10 points.
Very Common (available almost anywhere): -5 points.

Add -5 points to these values for items that are illegal/in your game world. Apply a multiplier based on the frequency with which you must receive the item:

Constantly: You must carry and use the substance at all times for example, an exotic atmosphere. Lose 1 HP per minute without the substance. x5.

Hourly: Lose 1 HP per 10 minutes after missing an hourly dose. x4.

Daily: Lose 1 HP per hour after missing a daily dose. x3.

Weekly: Lose 1 HP per six hours after missing a weekly dose. x2.

Monthly: Lose 1 HP per day after missing a monthly dose. x1.

Seasonally: Lose 1 HP per three days after missing a seasonal dose (a “season” is three months for this purpose). x1/3 (drop all fractions).

Yearly: Lose 1 HP per two weeks after missing a yearly dose. x1/10 (drop all fractions).

If you need to touch an object or spend time in an environment, you must do so for time equal to your damage interval in order to avoid damage. For instance, to avoid losing 1 HP per hour to a daily Dependency on rest in your coffin, you must spend at least one hour per day in your coffin. To avoid losing 1 HP every two weeks to a yearly Dependency on visiting your home planet, you must visit your home planet for at least two weeks per year.

With the GM’s permission, normal humans may take this disadvantage to represent the special requirements of certain chronic illnesses.

Aging: You age unnaturally without the item you depend on. For each HP lost, you also age two years (even if you are normally Unaging). +30%.

Duty

Variable

If your occupation and social situation saddle you with a significant personal obligation toward others, and occasionally require you to obey hazardous orders, you have a “Duty.” Duty most often accompanies Rank or one of the traits discussed under Privilege.

A particularly arduous job might qualify as a Duty, but most ordinary jobs would not. A wholly self-imposed feeling of duty is not a Duty, either (but it can still be a disadvantage; see Sense of Duty).

The GM may restrict the Duties allowed in a campaign, or even forbid them entirely, if he feels they would unduly disrupt the flow of the adventure.

If you have a Duty, the GM rolls at the beginning of each adventure to see whether it comes into play. Being “called to duty” could delay your plans ... or be the reason for the adventure! Alternatively, your master might give you a secret agenda to pursue, or his associates might harass you while you are officially “on leave.” If you try to avoid your Duty, your GM is within his rights to penalize you for bad roleplaying.

The basic point cost of a Duty depends on the frequency with which comes up in play:

Almost all the time (roll of 15 or less): -15 points. At this level, the GM may rule that you are always on duty. Quite often (roll of 12 or less): -10 points.
Fairly often (roll of 9 or less): -5 points.
Quite rarely (roll of 6 or less): -2 points.

These costs are for an occasionally hazardous Duty imposed through normal social means. If this does not describe your Duty, you should modify the cost:

Extremely Hazardous: You are always at risk of death or serious injury when your Duty comes up. There are significant penalties if you refuse to take these risks; dismissal or imprisonment, perhaps even death. The GM has the final say as to whether a given Duty is “extremely hazardous” in his campaign. -5 points.

Involuntary: Your Duty is enforced by threats to you or your loved ones, or is imposed by exotic mind control, a curse, etc. This is unrelated to how hazardous the Duty is when you carry it out — the danger here lies in what will happen if you don’t carry it out! A Duty can be Involuntary and either Extremely Hazardous or Nonhazardous. -5 points.

Nonhazardous: Your Duty never requires you to risk your life. This option is mutually exclusive with Extremely Hazardous. +5 points. (If this raises the cost of your Duty to 0 points or more, the obligation is too trivial to qualify as a Duty.)

Fearfulness

-2 points/level

You are nervous and timid. Subtract your Fearfulness from your Will whenever you make a Fright Check, and whenever you must resist the Intimidation skill or any power that causes fear. As well, add your Fearfulness level to all Intimidation rolls made against you. You may not reduce your Will roll below 3. For instance, if you have Will 11, you are limited to Fearfulness 8.

Greed

-15 points*

You lust for wealth. Make a self-control roll any time riches are offered — as payment for fair work, gains from adventure, spoils of crime, or just bait. If you fail, you do whatever it takes to get the payoff. The GM may modify this roll if the money involved is small relative to your own wealth. Small sums do not tempt you much if you are rich, but if you are poor, you get -5 or more on your self-control roll if a rich prize is in the offering. If you have Honesty, your self-control roll is at +5 for a shady deal and +10 for outright crime. However, it is almost a foregone conclusion that you will eventually do something illegal.

Gregarious

see Chummy

Hidebound

-5 points

You find it difficult to come up with an original thought. You have a -2 penalty on any task that requires creativity or invention, including most rolls against Artist skill, all Engineer rolls for new inventions, and all skill rolls made to use the Gadgeteer advantage.

Honesty

-10 points*

You must obey the law, and do your best to get others to do so as well. In an area with little or no law, you do not “go wild” — you act as though the laws of your own home were in force. You also assume that others are honest unless you know otherwise (make an IQ roll to realize someone might be dishonest if you haven’t seen proof).

Make a self-control roll when faced with the “need” to break unreasonable laws; if you fail, you must obey the law, whatever
the consequences. If you manage to resist your urges and break the law, make a second self-control roll afterward. If you fail, you must turn yourself in to the authorities!

You may fight (or even start a fight, if you do it in a legal way). You may even kill in a legal duel or in self-defense — but you may never murder. You may steal if there is great need, but only as a last resort, and you must attempt to pay your victims back later. If you are jailed for a crime you did not commit, but treated fairly and assured of a trial, you will not try to escape.

You always keep your word. (In a war, you may act "dishonestly" against the enemy, but you will not be happy about it!) However, you are allowed to lie if it does not involve breaking the law.

Honesty has its rewards, of course. If you stay alive and in one place long enough for your honesty to become known, the GM should give you +1 on any noncombat reaction roll — or +3 if a question of trust or honor is involved. This is essentially a free Reputation.

**Horizontal**

-10 points

You have a horizontal posture, like a cat. You can stand on your hind legs for short periods, but find this very uncomfortable. You can use one hand (if you have hands) while standing on your other limbs, or two hands while sitting on your haunches; in both cases, your ground Move is 0 while doing so. You can carry but not use an object in one hand if moving at half Move. If you are human-sized, you take up two hexes on a battle map.

A horizontal build does not let you put your full weight behind a kick. As a result, your thrusting damage is at -1 per die when you kick. Ignore this penalty if you have Claws — that trait includes the necessary adaptations to strike at full power. The penalty does apply if you have Hooves, however.

**Impulsiveness**

-10 points

You hate talk and debate. You prefer action! When you are alone, you act first and think later. In a group, when your friends want to stop and discuss something, you should put in your two cents' worth quickly — if at all — and then do something. Roleplay it! Make a self-control roll whenever it would be wise to wait and ponder. If you fail, you must act.

**Increased Consumption**

-10 points/level

One "meal" keeps you going for a much shorter period of time than it would a normal human.

- Increased Consumption 1: You must eat six meals a day.
- Increased Consumption 2: You must eat 12 meals a day.
- Increased Consumption 3: You must eat 24 meals a day.

... and so on, doubling consumption and halving endurance for each additional level. A single level of this trait is appropriate for normal humans who have a build of Overweight or heavier (see Build).

**Increased Life Support**

- Variable

Your environmental requirements in a life-support situation are greater than those of a normal human. Some examples:

- Extreme Heat/Cold: You require a temperature above 200°C or below 0°C. -10 points.
- Massive: You require more than a ton of additional weight in order to survive aboard a spacecraft or a submarine, or in any other setting where resources and space are limited. If you can wear an environment suit, this always weighs at least a ton. -10 points.
- Pressurized: You require a separate pressurized compartment to survive. -10 points.

**Radioactive**

You are radioactive or require a radioactive environment. -10 points.

The GM may allow other kinds of Increased Life Support. These should worth no more than -10 points apiece unless they are extremely exotic. Add together the value of multiple special requirements, but note that the total disadvantage value cannot exceed -40 points.

Increased Life Support represents the logistical inconvenience of special life-support requirements, while Dependency and Restricted Diet all reflect the health effects of doing without such requirements. The same requirement can qualify in both categories if it has consequences for both health and logistics. But note that a Dependency you can satisfy with a one-ounce inhaler of a drug does not let you claim Increased Life Support for a pressurized cabin full of the stuff! The GM's word is final.

**Incurious**

-5 points*

You hardly ever notice things unrelated to the business at hand. Make a self-control roll when confronted with something strange. If you fail, you ignore it! You react at -1 to new things.

**Intolerance**

Variable

You dislike and distrust some (or all) people who are different from you. You may be prejudiced on the basis of class, ethnicity, nationality, religion, sex, or species. Victims of your Intolerance will react to you at -1 to -5 (GM's decision). Point value depends on the scope of your Intolerance.

If you are thoroughly intolerant, you react at -3 toward anyone not of your own class, ethnicity, nationality, religion, or species (pick one). On a "Good" reaction, you tolerate the person and are as civil as possible (but are stiff and cold toward him). On a "Neutral" reaction, you still tolerate him, but make it plain in words and deeds that you don't care to be around him and consider him inferior or offensive. On any worse reaction, you attack or refuse to associate with the victim. Total Intolerance of this kind is worth -10 points.

Intolerance directed at only one specific class, ethnicity, nationality, religion, sex, or species is worth from -5 points for a commonly encountered victim to -1 point (a nasty quirk) for a rare victim.

**Invertebrate**

-20 points

You have no spine, exoskeleton, or other natural body support. Use your full Basic Lift for the purpose of pushing, but only 1/4 your BL to calculate the weight you can lift, carry, or pull. This trait has a small side benefit, however: you can squeeze through much smaller openings than your size might suggest.

**Jealousy**

-10 points

You react poorly toward those who seem smarter, more attractive, or better off than you! You resist any plan proposed by a "rival," and hate it if someone else is in the limelight. If an NPC is jealous, the GM will apply a -2 to -4 reaction penalty toward the victim(s) of his jealousy.

**Lecherousness**

-15 points*

You have an unusually strong desire for romance. Make a self-control roll whenever you have more than the briefest contact with an appealing member of the sex you find attractive — at -5 if this person is Handsome/Beautiful, or at -10 if Very Handsome/Very Beautiful.

If you fail, you must make a "pass," using whatever wiles and skills you can bring to bear. You must then suffer the conse-
quences of your actions, successful or not: physical retribution, jail, communicable disease, or (possibly) an adoring new friend.

Unless the object of your affection is Very Handsome/Very Beautiful, you need not roll more than once a day to avoid making a pass. If someone turns you down very firmly (e.g., a black eye, or an arrest for sexual harassment) the GM may give you a bonus to future self-control rolls regarding that individual ...

Light Sleeper
-5 points

You do not sleep as soundly or as easily as most people. Whenever you must sleep in an uncomfortable place, or whenever there is more than the slightest noise, you must make a HT roll in order to fall asleep. On a failure, you can try again after one hour, but you will suffer all the usual effects of one hour of missed sleep (see Missed Sleep).

You usually wake up if there is activity going on around you (but you are stunned unless you have Combat Reflexes). If you wish to continue sleeping, you must fail a Sense roll. If you wake up, you must make HT rolls to get back to asleep, as above. This can occasionally be to your advantage, but the most likely effect is that you miss sleep whenever inconsequential companions trade watches or return from a night on the town.

Loner
-5 points

You require a great deal of "personal space." Make a self-control roll whenever anyone lingers nearby, watches over your shoulder, etc. If you fail, you lash out at that person just as if you had Bad Temper. Loner NPCs always react to others at a penalty.

<table>
<thead>
<tr>
<th>Self-Control Reaction Number</th>
<th>Penalty</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>-4</td>
</tr>
<tr>
<td>9</td>
<td>-3</td>
</tr>
<tr>
<td>12</td>
<td>-2</td>
</tr>
<tr>
<td>15</td>
<td>-1</td>
</tr>
</tbody>
</table>

Low Pain Threshold

You are very sensitive to pain of all kinds. Double the shock from any injury; e.g., if you take 2 HP of damage, you are at -4 to DX on your next turn. You roll at -4 to resist knockdown, stunning, and physical torture. Whenever you take a wound that does more than 1 HP of damage, you must make a Will roll to avoid crying out. This can give away your presence, and may earn you a -1 reaction from others.

Miserliness
-10 points

You are preoccupied with conserving your wealth. You must always hunt for the best deal possible. Make a self-control roll any time you are called on to spend money. If the expenditure is large, this roll may be at -5 or worse (GM's decision). If you fail, you refuse to spend the money. If you absolutely must spend the money, you should haggle and complain interminably. Note that you may have both Greed and Miserliness!

Mute

see Cannot Speak

No Sense of Humor
-10 points

You never get any jokes; you think everyone is earnestly serious at all times. Likewise, you never joke, and you are earnestly serious at all times. Others react at -2 to you in any situation where this disadvantage becomes evident.

Pacifism

You are opposed to violence. This can take several forms. Choose one of the following:

- Reluctant Killer: You are psychologically unprepared to kill people. Whenever you make a deadly attack (e.g., with a knife or a gun) against an obvious person whose face is visible to you, you are at -4 to hit and may not Aim. If you cannot see the foe's face (due to a mask, darkness, or distance, or because you attacked from behind), the penalty is only -2, save in close combat. You have no penalty to attack a vehicle (even an occupied one), an opponent you do not believe is a person (including things with Horrific or Monstrous appearance), or a target you can't actually see (e.g., a set of map coordinates or a blip on a radar screen). If you kill a recognizable person, the effect on you is the same as for Cannot Kill (see below). You have no problem with your allies killing; you may even supply ammo, loaded weapons, and encouragement! You just can't do the killing yourself. -5 points.

- Cannot Harm Innocents: You may fight — you may even start fights — but you may only use deadly force on a foe that is attempting to do you serious harm. Capture is not "serious harm" unless you are already under penalty of death or have a Code of Honor that would require suicide if captured. You never intentionally do anything that causes, or even threatens to cause, injury to the uninvolved — particularly if they are "ordinary folks." This trait is especially appropriate for crimestoppers, etc. -10 points.

- Cannot Kill: You may fight — you may even start fights — but you may never do anything that seems likely to kill another. This includes abandoning a wounded foe to die "on his own"! You must do your best to keep your companions from killing, too. If you do kill someone (or feel responsible for a death), you immediately suffer a nervous breakdown. Roll 3d and be totally morose and useless (roleplay it!) for that many days. During this time, you must make a Will roll to offer any sort of violence toward anyone, for any reason. -15 points.

Self-Defense Only: You only fight to defend yourself or those in your care, using only as much force as necessary (no preemptive strikes allowed!). You must do your best to discourage others from starting fights. -15 points.

Total Nonviolence: You will not lift a hand against another intelligent creature, for any reason. You must do your nonviolent best to discourage violent behavior in others, too. You are free to defend yourself against attacks by animals, mosquitoes, etc. -30 points.

Phobias

Variable

You are afraid of a specific item, creature, or circumstance. Many fears are reasonable, but a Phobia is an unreasonable, unreasoning, morbid fear. The point value depends on how common the object of your fear is — fear of darkness is far more troublesome than fear of left-handed plumbers.

Make a self-control roll whenever you are exposed to the object of your Phobia. If you fail, roll 3d, add the amount by which you failed your self-control roll, and look up the result on the Fight Check Table. The result from the table affects you immediately!

If you succeed, you have successfully mastered your Phobia (for now), but you are still shaken, and have a penalty to all DX, IQ, and skill rolls while the cause of your fear persists. The penalty depends on your self-control number.

<table>
<thead>
<tr>
<th>Self-Control Number</th>
<th>Penalty</th>
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</thead>
<tbody>
<tr>
<td>6</td>
<td>-4</td>
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<tr>
<td>9</td>
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<td>12</td>
<td>-2</td>
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<tr>
<td>15</td>
<td>-1</td>
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</tbody>
</table>

You must roll against the Phobia every 10 minutes to see if it fear over-
comes you. Even the mere threat of the feared object requires a self-control roll, although this is at +4.

A phobic situation is by definition stressful. If you have other mental disadvantages that are triggered by stress, you are likely to have these reactions if you fail to resist a Phobia.

**Self-Destruct ♦ -10 points**

As soon as you reach your aging threshold (age 50 for a normal human), your organs and immune system begin to fail. You start to age rapidly, making aging rolls every day at -3 to HT.

**Selfish ♦ -5 points**

You are self-important and status-conscious, and spend much of your time striving for social dominance. Make a self-control roll whenever you experience a clear social slight or "snub." On a failure, you lash out at the offending party just as if you had Bad Temper — likely resulting in a bad reaction (-3 to the target's reactions toward you) and putting you in an awkward social situation. Selfish NPCs react to perceived slights at a penalty:

<table>
<thead>
<tr>
<th>Self-Control Number</th>
<th>Penalty</th>
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<tbody>
<tr>
<td>6</td>
<td>-5</td>
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<tr>
<td>9</td>
<td>-4</td>
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<td>15</td>
<td>-2</td>
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</table>

**Semi-Upright ♦ -5 points**

You have a semi-upright posture, like a chimpanzee. You can stand up more-or-less comfortably, allowing you to use your forelimbs to bash enemies, hold babies, or even manipulate objects. You can manage a clumsy gait while upright (-40% to Move), but you must use all of your limbs to run at full Move. If you have DX 12 or more, you can carry a small object or two while walking.

**Sense of Duty ♦ -2 to -20 points**

You feel a strong sense of commitment toward a particular class of people. You will never betray them, abandon them when they're in trouble, or let them suffer or go hungry if you can help. This is different from a Duty, which is imposed upon you. A Sense of Duty always comes from within.

If you are known to have a Sense of Duty, the GM will adjust the reactions of others by +2 when rolling to see whether they trust you in a dangerous situation. However, if you go against your Sense of Duty by acting against the interests of those you are supposed to be looking out for, the GM will penalize you for bad roleplaying. The GM will assign a point value to your Sense of Duty based on the size of the group you feel compelled to aid:

- Individual (the President, your wingman, etc.): -2 points.
- Small Group (e.g., your close friends, crewmates, or squad): -5 points.
- Large Group (e.g., a nation or religion, or everyone you know personally): -10 points.
- Entire Race (all humanity, all Klingons, etc.): -15 points.
- Every Living Being: -20 points.

You cannot take a Sense of Duty toward adventuring companions. If you do, you must share equipment with and render aid to the other members of your adventuring party, and go along with majority decisions. The GM might make this mandatory in games where the party needs to get along. This gives everyone a "free" 5 points to spend... but if you start backstabbing, running off on your own, etc., the GM is free to overrule your actions and point to these bonus points as the reason why.

---

**Short Lifespan ♦ -10 points/level**

Your lifespan is much shorter than the human norm. Each level of this disadvantage halves your lifespan (round down). This affects the age at which you reach maturity, the ages at which aging rolls begin and increase in frequency, and the interval between aging rolls; see the table (above right). No more than four levels are possible.

<table>
<thead>
<tr>
<th>Level</th>
<th>Maturity</th>
<th>Aging Frequency of Aging Rolls</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>18 years</td>
<td>50 years [1 year] 70 years [6 months] 90 years [3 months]</td>
</tr>
<tr>
<td>1</td>
<td>9 years</td>
<td>25 years [6 months] 35 years [3 months] 45 years [45 days]</td>
</tr>
<tr>
<td>2</td>
<td>4 years</td>
<td>12 years [3 months] 17 years [45 days] 22 years [22 days]</td>
</tr>
<tr>
<td>3</td>
<td>2 years</td>
<td>6 years [45 days] 8 years [22 days] 11 years [11 days]</td>
</tr>
<tr>
<td>4</td>
<td>1 year</td>
<td>3 years [22 days] 4 years [11 days] 5 years [5 days]</td>
</tr>
</tbody>
</table>

**Shyness ♦ -5, -10, or -20 points**

You are uncomfortable around strangers. Roleplay it! This disadvantage comes in three levels; you can buy it off one level at a time.

- **Mild:** You are uneasy with strangers, especially assertive or attractive ones. You have -1 on skills that require you to deal with people, including Acting, Carousing, Diplomacy, Fast-Talk, Intimidation, Leadership, Merchant, Panhandling, Performance, Politics, Public Speaking, Savoir-Faire, Sex Appeal, Streetwise, and Teaching. -5 points.
- **Severe:** You are very uncomfortable around strangers, and tend to be quiet even among friends. -2 the skills listed above. -10 points.
- **Crippling:** You avoid strangers whenever possible. You may not learn the skills listed above at all, and are at -4 on default rolls on such skills. -20 points.

**Sleepy ♦ Variable**

This is a racial trait. Members of the race need to sleep more than the human norm of 1/3 of the time. Point value depends on the fraction of the time they must spend asleep:

- 1/2 of the time: -8 points.
- 2/3 of the time: -16 points.
- 3/4 of the time: -20 points.
- 7/8 of the time: -26 points.

The race's precise schedule is a "special effect." For instance, a race that sleeps 3/4 of the time might be awake and active for three days straight and then sleep for a full nine days.

**Social Stigma ♦ -5 to -20 points**

You belong to a race, class, sex, or other group that your society deems inferior. To be worth points, this must be obvious from your physical appearance (a visible brand, tattoo, or magical mark counts), dress, manner, or speech; or easily learned by anyone who cares to check you up on (only valid in societies with free and easy access to information); or the result of public denunciation (e.g., by a powerful leader or media figure) that ensures that everyone you meet knows that you, personally, belong to the disdained group.

A Social Stigma gives you a reaction penalty (-1 per -5 points of Social Stigma), restricts your social mobility, or both. Examples include:

- **Criminal Record:** You have been convicted of a crime that...
your society considers serious. You may be prohibited from legally acquiring certain items (e.g., weapons), taking certain kinds of employment, receiving security clearances, or even traveling outside your country. Many noncriminals who learn of your past react at -1; police, judges, vigilantes, and other law-and-order types usually react at -2. If you are also wanted, take an appropriate Enemy. -5 points.

Disowned: Your family has publicly shunned you. This is only worth points in settings where family ties play a significant social role, and never applies to those who voluntarily part ways with their family. This Social Stigma comes in two levels:

• You would normally be an heir in your culture, but someone else has been named in your stead. This is embarrassing, but you may still count yourself as part of the family. This gives -1 on reaction rolls. -5 points.

• The head of your family — or your entire clan — has wholly and publicly disowned you. This gives -2 on reaction rolls. -10 points.

Ignorant: You have not learned a skill required of all responsible adults in your society (that is, you have no points in the skill). Others look down upon you as a slacker or a fool. This gives -1 on reactions for each “expected” skill you lack, up to a maximum of four skills. This is only worth points in highly structured societies, or in primitive ones where individuals depend on one another for survival. -5 points/skill.

Minor: You are underage by your culture’s standards. You suffer -2 on reaction rolls whenever you try to deal with others as an adult; they might like you, but they do not fully respect you. You might also be barred from nightclubs, vehicle operation, war parties, guild membership, etc., depending on the culture and setting. You must buy off this trait when you reach legal age (usually 18) for your time and place. -5 points.

Minority Group: You are a member of a minority that the dominant culture around you regards as “barbarians” or “inferior.” You get -2 on all reaction rolls made by anyone except your own kind. In an area, profession, or situation where your minority is especially rare, you get -3 on reaction rolls made by your own kind. -10 points.

Monster: You are a large carnivore, abomination, or other being that is hated or feared regardless of actual appearance or disposition. This gives you -3 on all reaction rolls, and you are liable to be hunted on sight. However, you get +3 to Intimidation rolls in situations where you have the upper hand (GM’s opinion). Examples: a bear or a vampire. -15 points.

Second-Class Citizen: You belong to a group that receives fewer rights and privileges than "full citizens." This gives -1 on all reaction rolls except from others of your own kind. Examples: a woman in 19th-century America, or members of some religions. -5 points.

Subjugated: You are a member of a slave nation or race. Within the overlords’ culture, you have no rights, and suffer the negative effects of Second-Class Citizen and Valuable Property. If you manage to escape to freedom, you acquire the entire overlords nation or race as an Enemy. -20 points.

Uneducated: You are from a class, race, or subculture that lacks a cultural repository of wisdom, eschews formal schooling, and takes a dim view of activities that do not relate directly to survival or procreation. You receive -1 to reactions from more sophisticated folk in any situation where your lack of schooling would be apparent, and you may not start with any “book learned” skills (GM’s discretion; most IQ/Hard skills qualify). You may buy off this trait once you have lived in “civilized” parts for long enough (GM’s decision). -5 points.

Valuable Property: Your society regards you as somebody’s property rather than as a “legal person.” This takes the form of limited freedom or lack of intellectual respect more than as a reaction modifier. Examples: a woman in 18th-century America or 18th-century Japan. -10 points.

Social Stigmas must bind those who take them. For example, a medieval Japanese lady must pay for her 10-point bonus by giving up her freedom of movement in many cases, and must defer to older male relatives when they are present. A black slave in 19th-century America is allowed to learn very little and own almost no property, and has little freedom of any kind unless he manages to escape. (If he does escape, he has traded his Social Stigma for a powerful Enemy!)

It is possible to have multiple Social Stigmas, provided they do not significantly overlap (GM’s decision). For instance, a teenager who drops out of school and joins a street gang could believably end up with Minor, Uneducated, and Criminal Record.

Susceptible

Variable

You are extremely sensitive to a particular class of noxious items or substances; e.g., disease or poison. You have a penalty to all HT rolls to resist the negative effects of these things. You do not suffer extra damage, however; for that, see Vulnerability.

If you are exposed to trace quantities of an item to which you are Susceptible — a dose so tiny that it would not affect most people — you must roll against HT+1, modified by your usual penalty for this disadvantage. If you fail, you suffer half the effects (fatigue, injury, attribute loss, period of incapacitation, etc.) you would suffer from a full dose. For instance, Susceptible to Poison would require a roll if you ingested highly diluted industrial waste in drinking water, while Susceptible to Disease would require a roll if you received a “live” vaccine (one that contains weakened microbes). Should there be any doubt as to exposure or effects, the GM’s decision is final.

Point cost depends on the item’s rarity in the environment:

Very Common (e.g., Disease, Poison): -4 points/1 HT roll.

Common (e.g., Bacteria, Gases): -2 points/1 to HT rolls.

Occasional (e.g., Intestinal Disease, Ingested Poison): -1 point/1 to HT rolls.

You may not take more than five levels of Susceptible to a given item, or more than two separate Susceptible disadvantages, without the GM’s permission. You cannot take more levels of Susceptible than would reduce your effective HT to 3. For instance, if your HT is 7, you are limited to four levels of Susceptible.

This trait can simulate many common health problems. Use Susceptible to Disease for a weak immune system, Susceptible to Ingested Poison for a tendency not to vomit noxious substances (a “weak vomit reflex”), etc.

Truthfulness

-5 points*

You hate to tell a lie — or you are just very bad at it. Make a self-control roll whenever you must keep silent about an uncomfortable truth (lying by omission). Roll at -5 if you actually have to tell a falsehood! If you fail, you blunt the truth, or stumble so much that your lie is obvious. You have a permanent -5 to Fast Talk skill, and your Acting skill is at -5 when your purpose is to deceive.

Unfit

-5 or -15 points

You have worse cardiovascular health than your HT alone would indicate. This comes in two levels:

Unfit: You get -1 to all HT rolls to remain conscious, avoid death, resist disease or poison, etc. This does not reduce your HT attribute or HT-based skills; as well, you lose FP at twice the normal rate. -5 points.

Very Unfit: As above, but the penalty to HT rolls is -2. In addition, you recover FP at only half the normal rate. You may not purchase any level of Resistant. -15 points.
In both cases, this disadvantage applies only to FP lost to exertion, heat, etc. It has no effect on FP "spent" to power psi or magic spells.

**Unusual Biochemistry**

-5 points

You can subsist on human food, but your biochemistry is sufficiently different from that of humans that drugs intended for humans don't work or have unpredictable effects. Drugs that are specific to your biochemistry work normally, but cost 10 times as much as usual. When you receive a drug intended for humans, roll 1d:

1-3 - Normal effect.
4-5 - Normal effect, plus an additional harmful effect of the GM's choosing: lose 1d FP (sickness and nausea), suffer an amplified version of the drug's usual negative side effects, etc.
6 - No effect at all.

**Vulnerability**

Variable

You take extra damage from a particular attack form. Whenever this type of attack hits you, the GM applies a special wounding multiplier to damage that penetrates your DR. Regular wounding multipliers (for cutting, impaling, etc.) further multiply the damage. Point value depends on the wounding multiplier and the rarity of the attack:

Use the categories under Limited Defenses to assess rarity. The GM has the final say on the rarity of a given attack form. You may not take more than two types of Vulnerability without GM permission.

You cannot have Vulnerability to anything against which you have a specific defense: Resistant, Damage Resistance limited to work only against that attack form, etc. You can have both Vulnerability and Supernatural Durability, but this reduces the utility of Supernatural Durability.

**Fatigue Only:** You are vulnerable to an attack that drains FP instead of HP, or to some form of mundane fatigue loss (e.g., x2 FP from hot weather). -50%.

**Vulnerability Table**

<table>
<thead>
<tr>
<th>Rarity of Attack</th>
<th>Wounding Multiplier (x2)</th>
<th>Wounding Multiplier (x3)</th>
<th>Wounding Multiplier (x4)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rare</td>
<td>-10 points</td>
<td>-15 points</td>
<td>-20 points</td>
</tr>
<tr>
<td>Occasional</td>
<td>-20 points</td>
<td>-30 points</td>
<td>-40 points</td>
</tr>
<tr>
<td>Common</td>
<td>-30 points</td>
<td>-45 points</td>
<td>-60 points</td>
</tr>
<tr>
<td>Very Common</td>
<td>-40 points</td>
<td>-60 points</td>
<td>-80 points</td>
</tr>
</tbody>
</table>

**Weakness**

Variable

You suffer injury merely by being in the presence of a particular substance or condition (which cannot be a food item or something equally easy to avoid). This injury comes off your HP directly, regardless of your DR or defensive advantages. The more quickly you take damage, the more points your Weakness is worth.

**Frequency of Damage Value**

1d per minute -20 points
1d per 5 minutes -10 points
1d per 30 minutes -5 points
Multiply the base value to reflect the rarity of the damaging substance or condition:

- Rare (e.g., exotic radiation or minerals): x1/2
- Occasional (e.g., microwave radiation, intense normal cold, airborne pollen): x1
- Common (e.g., smoke, nearby magic, horses, loud noises): x2

**Very Common** (e.g., sunlight, living plants): x3

**Example:** An anaerobic organism takes 1d per minute from oxygen. The base value of a Weakness that inflicts 1d per minute is -20 points. Since oxygen is "Very Common," final cost is -60 points.

You may not take more than two types of Weakness without GM permission.

**Fatigue Only:** Your Weakness drains FP instead of HP. -50%.

**Variable:** Your Weakness is sensitive to received intensity. You may specify one relatively common class of barriers that halves the rate at which you take damage (e.g., heavy clothing or sunscreen, for sunlight). On the other hand, intense sources (GM's decision) double the rate at which you suffer harm. -40%.

**Workaholic**

-5 points

You tend to drive yourself past your limits, and find it hard to relax and turn away from your work. You always work at least half as long again as a normal working day. This often results in missed sleep. Most people regard you with respect at first (+1 to reaction rolls), but you eventually suffer -1 or -2 to reactions—especially from friends and loved ones who rarely get to spend time with you.

**Quirks**

A "quirk" is a minor feature that sets you aside from others. It has a negative point value, but it is not necessarily a disadvantage. For instance, a major trait like Greed is a disadvantage. But if you insist on being paid in gold, that's a quirk.

You may take up to five quirks at -1 point apiece... and if you do, you will have five more points to spend. You can also "buy off" a quirk later on by paying 1 point, but as a rule, you shouldn't do that. Quirks might have a small cost, but they are a big part of what makes a character seem "real!"

Players are encouraged to invent new Quirks... which must be approved by their GM, of course.

**Mental Quirks**

Mental quirks are minor personality traits. They are a contract between you and the GM: "I agree to roleplay these character foibles. In return, you agree to give me a few extra points to spend." However, you must roleplay them. If you take the quirk "Dislikes heights," but blithely climb trees and cliffs whenever you need to, the GM will penalize you for bad roleplaying. The points you lose this way will cost you much more than you earned for taking the quirk. So don't choose a quirk you aren't willing to roleplay!

This doesn't mean the GM should be inflexible about mental quirks. A player should be allowed to change a quirk if something happens during play to justify a noticeable change in his character's personality. The GM should also allow players to leave a few of their five "quirk slots" open during character creation and fill them in after the first couple of play sessions. The most interesting quirks often emerge as the result of roleplaying!

To qualify as a mental quirk, a personality trait must meet one of two criteria:

- It requires a specific action, behavior, or choice on your part from time to time. This need not take hours, or be especially inconvenient, but it must be something that you can act out in the course of the game; it cannot be totally passive.
- It gives you a small penalty very occasionally, or to a narrow set of actions. Negotiate the game effects with the GM. You may take almost any mundane mental disadvantage at quirk level, in which case the rules for that disadvantage are used as guidelines, although the effects will be much less severe.
Attentive: You tend to stick to one task until it’s done. You get a +1 bonus when working on lengthy tasks, but -3 to notice any important interruption!

Broad-Minded: A trivial form of Xenophobia. You get along well with other races and species, and strange looks rarely bother you.

Careful: A quirk-level version of Cowardice. You are naturally cautious, always on the lookout for danger. You dedicate extra time and money to preparations before venturing into a dangerous situation.

Chauvinistic: An extremely low level of Intolerance. You are always aware of differences in sex, skin color, etc. even if you do not actually react poorly to others. Thin-skinned individuals might occasionally react to you at -1 as a result.

Code of Honor: You may take a minor Code of Honor as a quirk. For instance, you might insist on exhibiting “gentlemanly” behavior towards all females, or spurn “chauvinistic” behavior from all males.

Congenial: This is a milder version of Chummy. You like company and you work well with others. You always choose group action over individual action.

Distractable: Quirk-level Short Attention Span. You are easily distracted, and don’t do well on long-term projects. You are at -1 when rolling to accomplish long tasks.

Dreamer: You have a -1 on any long task, because you tend to spend time thinking of better ways to do it, rather than working.

Dull: You are not quite Hidebound, but you tend to stick with tried and true methods.

Habits or Expressions: Saying “Jehoshaphat!” or “Bless my collar-button!” constantly... or carrying a silver piece that you flip into the air... or never sitting with your back to the door.

Humble: A weak form of Selfless. You tend to put the concerns of others, or of the group, before your own.

Imaginative: You are a font of ideas, and are more than willing to share them with others! They may or may not be good ideas, of course...

Incompetence: You are inept at one specific skill. You cannot learn that skill, and your default is at an extra -4. You cannot be incompetent in a single specialty of a skill; if you are incompetent with Guns, for instance, you are incompetent with all guns. The GM may disallow Incompetence if the skill would be irrelevant to a given character, or is unlikely to play a role in the campaign.

Minor Addiction: You may take Addiction as a quirk, if you are addicted to a drug that causes psychological dependency and works out to 0 points under the Addiction rules.

Nosy: A lesser version of Curious. You are always poking your nose into corners and everyone else’s business (which is likely to result in a small reaction penalty once in a while).

Proud: This is Selfish at quirk level. Individual success, wealth, or social standing concerns you greatly. NPCs with this quirk react at -1 to orders, insults, or social slights.

Staid: You may take this very low level of Incurious as a quirk. You are likely to ignore matters that don’t immediately affect you.

Uncongenial: A lesser version of Loner. You prefer to be alone. You always choose individual action over group action.

Vow: A trivial Vow — e.g., never drink alcohol, treat all ladies with courtesy, or pay 10% of your income to your church — is a quirk.

**PHYSICAL QUIRKS**

Physical quirks are physical disadvantages that are only mildly or rarely limiting. They do not require roleplaying, but they give specific, minor penalties in play. Unlike mental quirks, you cannot normally change physical quirks — that would make no more sense than exchanging One Eye for One Hand, under most circumstances. Also, you must define physical quirks when you create your character; you cannot use them to fill open “quirk slots” once the campaign begins.

Acceleration Weakness: You are susceptible to the bad effects of extreme acceleration, and get -3 to HT rolls to avoid them.

Cannot Float: You always sink in water.

Distinctive Features: You have a physical feature — e.g., “Brillian blue hair” — that makes you stand out in a crowd. This gives -1 to your Disguise and Shadowing skills, and +1 to others’ attempts to identify or follow you. Some Distinctive Features may stem from full-blown disadvantages. For instance, an albino (someone with no natural body pigment, resulting in pink eyes and pinkwhite hair and skin) would also have Weakness (Sunlight).

Nervous Stomach: You have -3 to HT rolls to avoid illness (typically in the form of attribute penalties or vomiting) brought on by rich or spicy food, strong drink, etc.
SKILLS

A “skill” is a particular kind of knowledge; for instance, judo, physics, or auto mechanics. Every skill is separate, though some skills help you to learn others. Just as in real life, you start your career with some skills and can learn more if you spend time training.

A number called “skill level” measures your ability with each of your skills: the higher the number, the greater your skill. For instance, “Shortsword-17” means a skill level of 17 with the shortsword. When you try to do something, you (or the GM) roll 3d against the appropriate skill, modified for that particular situation. If the number you roll is less than or equal to your modified score for that skill, you succeed! But a roll of 17 or 18 is an automatic failure.

Each skill is qualified in several ways to indicate what basic attribute represents talent with that skill, how easy the skill is to learn, any special restrictions on who can learn the skill, and whether the skill is broad or narrow in focus.

CONTROLLING ATTRIBUTE

Each skill is based on one of the four basic attributes or, more rarely, on Perception or Will. Your skill level is calculated directly from this “controlling attribute”: the higher your attribute score, the more effective you are with every skill based on it! If your character concept calls for many skills based on a given attribute, you should consider starting with a high level in that attribute, as this will be most cost-effective in the long run.

ST-based skills depend wholly on brawn, and are very rare.
ST determines the power you can bring to bear with DX-based skills far more often than it affects skill levels directly.

DX-based skills rely on coordination, reflexes, and steady hands. This is representative of athletic and combat skills, and most vehicle operation skills.

IQ-based skills require knowledge, creativity, and reasoning ability. This includes all artistic, scientific, and social skills.

HT-based skills are governed by physical fitness. This includes any activity influenced by hygiene, posture, or lung capacity.

Perception-based skills involve spotting subtle differences. This is typical of skills used to detect clues and hidden objects.

Will-based skills hinge on mental focus and clarity of thought. Most allow one to resist mental attacks, bring about an altered mental state, or focus “inner strength.”

DIFFICULTY LEVEL

Some fields demand more study and practice than others. GURPS uses four “difficulty levels” to rate the effort required to learn and improve a skill. The more difficult the skill, the more points you must spend to buy it at a given skill level.

Easy skills are things that anyone could do reasonably well after a short learning period — whether because they are second nature to most people or because there isn’t a whole lot to learn.

Average skills include most combat skills, mundane job skills, and the practical social and survival skills that ordinary people use daily. This is the most common difficulty level.

Hard skills require intensive formal study. This is typical of most “academic” skills, and complex athletic and combat skills that require years of training.

Very Hard skills have prodigious scope, or are alien, counterintuitive, or deliberately shrouded in secrecy. The most fundamental of sciences are Very Hard.

TECHNOLOGICAL SKILLS

Certain skills are different at each tech level (see Technology Level). These “technological skills” are designated by “/TL”. This means that when you learn the skill, you must learn it at a specific tech level (TL). Always note the TL when you write down such a skill; e.g., “Surgery/TL4” for the TL4 version of Surgery skill. Surgery/TL4 (cut his arm off with an axe) is nothing like Surgery/TL9 (graft on a cloned replacement arm)!

You learn technological skills at your personal TL. You may also choose skills from a lower TL. You can only learn skills from a higher TL in play — and only if you have a teacher and the skill is not based on IQ. To learn IQ-based technological skills from a higher TL, you must first raise your personal TL.

Technological skills rely on language, tool use, or both. This means that only sapient characters with IQ 6 or higher may learn them. Technological skills work best with the specific artifacts and techniques of their own TL. When you work with equipment or concepts of a TL different from that of your skill, you suffer a penalty to your skill roll.

IQ-based technological skills represent a studied technical understanding of the specific methods and tools common at a particular TL. There is a penalty to your skill roll when you use these tools with the equipment of a higher TL (which relies on scientific and engineering principles unknown to you) or a lower TL (which depends on principles that technological skills based on attributes other than IQ let you use technology; they do not assume any real understanding of the science or engineering behind the tools).

<table>
<thead>
<tr>
<th>Skill's TL+4 or more</th>
<th>Impossible!</th>
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</thead>
<tbody>
<tr>
<td>Skill's TL+3</td>
<td>-15</td>
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<tr>
<td>Skill's TL+2</td>
<td>-10</td>
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<td>Skill's TL+1</td>
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<td>Skill's TL</td>
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<td>Skill's TL-1</td>
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<td>Skill's TL-2</td>
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<td>Skill's TL-3</td>
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<tr>
<td>Skill's TL-4</td>
<td>-7</td>
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<tr>
<td>Per extra -1 to TL</td>
<td>-2</td>
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</tbody>
</table>

Grouped Skills

A set of distantly related skills that use identical rules may appear under a single heading to avoid repetition. If a skill description does not say that you must specialize, and indicates that it represents a collection of skills, then the subentries represent stand-alone skills — not specialties. Use only the name of the relevant subentry when you refer to such skills.
Example: Hand-to-hand weapon skills are grouped under *Melee Weapon*, but if you learn to use a shortsword, write "Shortsword," not "Melee Weapon Shortsword," which may let you purchase additional specialties more cheaply.

Optional Specialties

Many IQ-based skills — notably "academic" skills such as Literature and Physics — have countless subfields but do not require you to select a specialty. As written, if you learn a skill like this, you are a generalist, knowledgeable about every aspect of the skill. However, you may opt to specialize in a single, narrow area. You may only do this with an Average or harder IQ-based skill, and only if the GM agrees that the chosen subfield is logical given the skill and your TL.

PREREQUISITES

Some skills have other skills as prerequisites. This is the case when an advanced skill is based on, and in some ways an outgrowth of, a basic one. To study the advanced skill, you must have at least one point in the prerequisite skill.

Certain skills also require that you know a prerequisite skill at a minimum skill level. Where this is the case, you must spend the points required to learn the prerequisite skill at the specified level before you can learn the advanced skill.

A few skills have advantages as prerequisites. In order to learn such a skill, you must possess the required advantage. If you do not have the advantage, and cannot acquire it in play, you can never learn that skill.

SPECIALTIES

An entry on the skill list may represent an entire category of closely related skills that share a single skill name. Examples include Armoury and Survival. Skills like this are marked with a dagger (†). The skills within such a category are called "specialties." When you buy a general skill of this kind, you must specify which specialty you are learning. On your character sheet, note the name of the specialty in parentheses after the general skill name; e.g., "Armoury (Small Arms)" or "Survival (Arctic)."

You may learn skills like this any number of times, with a different specialty each time, because each specialty is a different skill. There is usually a favorable "default" between specialties.

Familiarity

Any skill used to operate equipment — e.g., Beam Weapons/TL11 (Pistol) or Driving/TL7 (Automobile) — takes a penalty when you are faced with an unfamiliar type of item. For instance, if you were trained on a phaser pistol, a disruptor pistol would be "unfamiliar." Assume that an unfamiliar piece of equipment gives -2 to skill except where an individual skill description specifies otherwise.

In general, if you have the skill to use a piece of equipment, you are considered familiar with a new make or model after you have had eight hours of practice with it. Some skills require more or less practice than this, so be sure to read the skill description.

There is no limit to the number of types of gun, car, plane, etc. you can become familiar with. Each of these items is called a "familiarity." If you have at least six familiarities for a given skill, the GM may roll against your skill when you pick up a new piece of equipment. On a success, you are already familiar with something similar and may use the new device at no penalty. The GM may also rule that a new item is so similar to a known one that it is familiar — for instance, two similar models of Colt revolver should be considered identical.

Equipment from another tech level will usually be unfamiliar. This gives both TL and familiarity modifiers. Practice can eliminate unfamiliarity penalties, but to shed TL penalties, you must relearn the operation skill at the equipment's TL. Exception: Improved or obsolete versions of items with which you are already familiar do not give unfamiliarity penalties.

Familiarity for Beginning Characters

Starting characters may specify two familiarities per point spent on a skill. For instance, if you have four points in Guns (Pistol), you can be familiar with up to eight handguns.

Both specialization and familiarity come into play with many skills, but they are not the same thing. Driving (Automobile) is a specialty of Driving: it is a separate skill from Driving (Locomotive), and to know both, you must pay points for both.

BUYING SKILLS

In order to learn or improve a skill, you must spend character points. When you spend points on a skill, you are getting training to bring that skill up to a useful level. Skills are easy to learn at first — a little training goes a long way!

But added improvement costs more. The point cost of a skill depends on two things: its difficulty and the final skill level you wish to attain. Use the Skill Cost Table (below) to calculate a skill's point cost. The first column shows the skill level you are trying to attain, relative to the skill's controlling attribute — DX for DX-based skills, IQ for IQ-based skills, and so forth. For instance, if your IQ was 12, a level of "Attribute-1" would be IQ-12, or 11; "Attribute+0" would be IQ, or 12; and "Attribute+1" would be IQ+1, or 13.

The next four columns show the character point costs to learn skills of different difficulties — Easy, Average, Hard, and Very Hard — at the desired skill level. Harder skills cost more points to learn.

There is no limit (except lifespan) to the amount of improvement possible with any skill. However, the useful maximum for most skills is between 20 and 30. Problems to challenge a greater skill are rare!

<table>
<thead>
<tr>
<th>Skill Cost Table</th>
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<td>Skill Level</td>
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<td>Attribute-3</td>
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<td>Attribute+4</td>
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<td>Attribute+5</td>
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<tr>
<td>Extra +1</td>
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IMPROVING YOUR SKILLS

There are two direct ways to increase your skills in play: spend the bonus points you earn for successful adventuring on new or better skills, or dedicate game time to study, which gives you points you can use to add or improve the skills you studied. In either case, the cost to improve a skill is the difference between the cost of the desired skill level and the cost of your current skill level.

Free Increases in Skills

There is one way to increase many skills at once: pay the points to improve an attribute. If you do this, all your skills based on that attribute go up by the same amount, at no extra cost. For instance, if you raise DX by one level, all of your DX-based skills also go up by one level. Further improvements are based on the new DX value. You can also base skills on "defaults" from other skills; see Skill Defaults (below). Any skill bought up from such a default is likely to enjoy a free increase when you raise the skill to which it defaults.
SKILL DEFAULTS:
USING SKILLS YOU DON'T KNOW

Most skills have a "default level": the level at which you use the skill if you have no training. A skill has a default level if it is something that everybody can do ... a little bit. As a general rule, a skill defaults to its controlling attribute at -4 if Easy, -5 if Average, or -6 if Hard. There are exceptions to this, but not many. Example: The "default" for Broadcast (DX/Average) is DX-5. If your DX is 11, and you have to swing a broadsword without training, then your "default" skill at Broadcast is 11 - 5 = 6. You need a roll of 6 or less to hit.

Some skills have no default level. For instance, Alchemy, Hypnotism, and Karate are complex enough that you cannot use them at all without training. Regardless of your default skill level, you do not get the special benefits of a skill – especially combat bonuses such as improved damage, special defenses, and unpenalized off-hand use – when you use a skill at default. To enjoy these benefits, you must spend at least one point on the skill.

The Rule of 20: If a skill defaults to a basic attribute that is higher than 20, treat that attribute as 20 when figuring default skill.

Who Gets a Default: Only individuals from a society where a skill is known may attempt a default roll against that skill. For instance, the default for Scuba skill assumes you are from a world where scuba gear exists and where most people would have some idea – if only from TV – of how to use it. A medieval knight transported to the 21st century would not get a default roll to use scuba gear the first time he saw it!

Defaulting to Other Skills: Some skills default to another skill instead of or as well as an attribute. Example: Broadcast defaults to Shortsword-2, because the two skills are very similar. A Shortsword skill of 13 gives you a "default" Broadcast skill of 11.

Double Defaults: A skill can't default to another skill known only by default. If Skill A defaults to Skill B-5, and Skill B defaults to IQ-5, does Skill A default to IQ-10? No.

Improving Skills from Default

If your default level in a skill is high enough that you would normally have to pay points for that level, you may improve the skill past its default level by paying only the difference in point costs between your new level and your default level. If you increase a skill, skills that default to it go up as well. However, if you have spent points to improve these defaults, you may not see an increase when you raise the skill to which they default. This is best illustrated with our running example:

When two skills default to one another and you have improved both, you may switch the "direction" of your default if this would give you better skill levels. Redistribute the points spent on both skills as needed. You may never decrease either skill level this way, however; you must always spend enough points to keep each skill at its current level.

SKILL LIST

The skill list is sorted alphabetically by skill name. Each entry gives the following information:

Name: The skill's name. Technological skills are noted as such; e.g., "Machinist/TL." Skills marked with a dagger (†) require you to choose a specialty.

Type: The skill's controlling attribute and difficulty level; e.g., "IQ/Average."

Defaults: The attributes or other skills to which the skill defaults if you have not studied it. Where there is more than one possible default, use the most favorable. Some skills have no default – you cannot attempt to use these skills if you don't know them.

Prerequisites: Traits you must possess before you can spend points on the skill. If the prerequisite is another skill, you must have at least one point in that skill. Not all skills have prerequisites.

Description: An explanation of what the skill is for and how it works in play.

Modifiers: A list of common bonuses and penalties for use of the skill. The GM decides whether a particular modifier applies in a given situation. If an advantage or disadvantage permanently modifies base skill level rather than simply giving a bonus or a penalty for a specific task, add this permanent modifier to the skill level listed on your character sheet.

Acting

IQ/Average

Defaults: IQ-5, Performance-2, or Public Speaking-5.

The ability to counterfeit moods, emotions, and voices, and to lie convincingly over a period of time. The GM may require an Acting roll whenever you try to fool someone, play dead in combat, etc.

Modifiers: +1 for every point of IQ you have over the person you are trying to fool (or the smartest one in the group), or -1 for every point of difference if your victim is smarter than you.

Administration

IQ/Average

Defaults: IQ-5 or Merchant-3.

This is the skill of running a large organization. It is often a prerequisite for high Rank. A successful Administration roll gives you a +2 reaction bonus when dealing with a bureaucrat, and allows you to predict the best way to go about dealing with a bureaucracy.

Anthropology †

IQ/Hard

Defaults: IQ-6, Paleontology (Paleo-anthropology)-2, or Sociology-3.


Archaeology

IQ/Hard

Default: IQ-6.


Area Knowledge †

IQ/Easy

Defaults: IQ-4 or Geography (Regional)-3*

* You have an IQ default only for Area Knowledge of a place where you live or once lived. Geography only gives a default for Area Knowledge of the specialty region.

This skill represents familiarity with the people, places, and politics of a given region. You usually have Area Knowledge only for the area you consider your "home base," whether that's a
single farm or a solar system. If information about other areas is available, the GM may allow you to learn additional Area Knowledge skills.

The GM should not require Area Knowledge rolls for ordinary situations; e.g., to find the blacksmith, tavern, or your own home. But he could require a roll to locate a smith to shoe your horse at 3 a.m., or to find the best ambush spot along a stretch of road. "Secret" or obscure information might give a penalty, requiring a Hidden Lore skill, or simply be unavailable - GM's decision. For instance, Area Knowledge of Vulcan gives you the location of the Lyran Embassy, but not the Klingon General Bureau's current safe house.

The information covered by Area Knowledge often overlaps such skills as Current Affairs, Geography, Naturalist, and Streetwise. The difference is that Area Knowledge works for a single area: you know the habits of this tiger or gang boss, but have no special insight into their behavior in general. You can learn Area Knowledge for any sort of area. The larger the territory, the less "personal" and more general your knowledge becomes. Almost everyone will have Area Knowledge of some type. The 'canonical' area classes are: Neighborhood, Village or Town, City, County, or Small Nation, Large Nation, Planet, Empire.

Your IQ-4 default applies to any of these classes, as long as you have lived in the area. Defaults are limited by "common knowledge" at your tech level! A TL0 hunter would have a default for every level up to "Village or Town," while a TL8 student would have defaults up to "Planet" level. You must live in an interplanetary or interstellar state to have defaults for levels above "Planet."

**Armoury/TL†**

**IQ/Average**

**Defaults:** IQ-5 or Engineer (same)-4.

This is the ability to build, modify, and repair a specific class of weapons or armor. (It does not include skill at design; for that, see Engineer.) A successful roll lets you design a system, if it's obvious; a second roll lets you design it. Time required is up to the GM. You must specialize.

**Modifiers:** -2 for an unfamiliar item within your specialty.

**Artillery/TL†**

**IQ/Average**

**Defaults:** IQ-5.

This is the ability to use a heavy weapon, such as a mortar or a howitzer, for indirect fire - that is, to put fire onto a target area via a high ballistic arc or similar path. For direct fire, use Gunnery skill. You must specialize by weapon type.

There is no default between specialties, some of which cover weapons that bear little or no resemblance to true artillery. Artillery is a single skill only because all the weapons it covers use the same rules. The weapons covered by each specialty will vary by TL.

**Modifiers:** -2 for an unfamiliar fire-control system, or for an unfamiliar weapon of a known type; -4 or more for a weapon in bad repair.

**Astronomy/TL**

**IQ/Hard**

**Default:** IQ-6.

**Prerequisite:** Mathematics (Applied).

This is the study of stars and other extraplanetary objects. An astronomer could answer questions about the Sun, the planets of the solar system, etc.

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**Autohypnosis**

**Will/Hard**

**Default:** Meditation-4.

This skill allows you to tap reserves of inner strength by entering a trance-like state. It requires a concentration period of (20 - skill) seconds, minimum one second. You cannot talk or move during the initiation of the trance state. A successful skill roll allows you to do one of the following:

- **Improve Concentration:** You get +1 to skill to perform a specific, lengthy mental task (e.g., break a code or write a computer program), but -2 to all unrelated IQ, Perception, and skill rolls. The task must be a relatively sedate one, done in a quiet place (library, lab, monastery, or placid wilderness).
- **Increase Will:** You get +2 to Will (+5 on a critical success) for one hour. This applies to all attempts to resist interrogation, torture, or magical or psionic attack. This roll is at -2.
- **Negate Pain/Fatigue:** Cancels the negative effects of being reduced to 1/3 or less of your FP or HP (but not the fatigue or injury itself). This roll is at -4, and you may only make one attempt per hour.

**Beam Weapons/TL†**

**DX/Easy**

**Default:** DX-4.

This is the ability to use beam small arms. You must specialize by beam type. Specialties default to one another at -4. Treat specific beam types (phaser, laser, stunner, etc.) as familiarities. Other modifiers are as per Guns. The Pistol and Rifle specialties of Beam Weapons default to the similarly named Guns specialties at -4, and vice versa. See Artillery and Gunnery for heavier beam weapons.

**Biology/TL†**

**IQ/Very Hard**

**Defaults:** IQ-6 or Naturalist-6.

This is the scientific study of the structure, behavior, and habitats of living organisms. You must specialize in the life of a particular planet type (see page 93). If you do not specify a planet type, your native planet type is assumed. The IQ default applies only to the planet type you grew up on. The default between different planet-type specialties is -4.

At TL6+, most biologists have an optional specialty as well. The most common options are biochemistry, botany, ecology, genetics, marine biology, microbiology, and zoology, but more obscure specialties are possible.

**Boxing**

**DX/Average**

**Defaults:** None.

This is the skill of trained punching. Roll against Boxing to hit with a punch. Boxing does not improve kicking ability - use Brawling or Karate for that. Boxing improves damage: if you know Boxing at DX+1 level, add +1 per die to basic thrust damage when you calculate punching damage. Add +2 per die if you know Boxing at DX+2 or better.

**PLANET TYPES:** Biology, Geology, and Meteorology require you to specialize by "planet type," as does the "Physical" specialty of Geography. If you do not specify a planet type, your native planet type is assumed - for example, Class-M if you are human, or Class-K if you are a Vulcan. Unless otherwise specified, all planet-type specialties for a given skill default to one another at -4.
**Brawling**

**Defaults:** None.

This is the skill of "unscientific" unarmed combat. Roll against Brawling to hit with a punch, or Brawling-2 to hit with a kick. Brawling can also replace DX when you attack with teeth, claws, horns, or other "natural weapons."

Brawling improves damage: if you know Brawling at DX+2 level or better, add +1 per die to basic thrust damage when you calculate damage with Brawling attacks - punches, kicks, claws, bites, etc. Brawling includes the ability to use the blackjack or sap. An attack with such a fist load is considered a punch at +1 to damage.

**Breath Control**

**Defaults:** None.

This is the ability to breathe at maximum efficiency. On a successful skill roll, you can increase the time you can hold your breath for any reason (e.g., underwater) by 50%, or regain one FP in only two minutes.

**Camouflage**

**Defaults:** IQ-4 or Survival-2.

This is the ability to hide yourself, your position, or your equipment. An observer must win a Quick Contest of Vision or Observation skill vs. your Camouflage skill. Apply a penalty equal to an object's Size Modifier (e.g., -5 for a shuttlecraft with SM +5).

**Carousing**

**Default:** HT-4.

This is the skill of socializing, partying, etc. A successful Carousing roll, under the right circumstances, gives you a +2 bonus on a request for aid or information, or just on a general reaction. A failed roll means you made a fool of yourself in some way; you get a -2 penalty on any reaction roll made by those you caroused with. If you do your carousing in the wrong places, a failed roll can have other dangers!

**Modifiers:** Up to +3 for buying drinks or other entertainment for your fellow carousers.

**Chemistry/TL**

**Defaults:** IQ-6.

This is the study of matter. A chemist can identify elements and simple compounds (but not necessarily drugs, magical substances, etc.). Given proper equipment, he could conduct complex analyses and syntheses.

**Climbing**

**Defaults:** DX-5.

This is the ability to climb mountains, rock walls, trees, the sides of buildings, etc.

**Computer Operation/TL**

**Defaults:** IQ-4.

This is the ability to use a computer. It is the only computer skill needed by most end users. Learn Computer Programming (below) to write software and Electronics Repair (Computers) to troubleshoot hardware.

**Modifiers:** -2 or more for an unfamiliar computer, operating system, or program.

**Computer Programming/TL**

**Defaults:** None.

This is the ability to write and debug computer software. A successful roll lets you find a bug in a program, determine a program's purpose by examining the code, answer a question about computer programming, or write a new program (time required is up to the GM).

**Modifiers:** -2 or more for an unfamiliar programming language. When writing a program that deals with a specialized field of knowledge, the GM may require a roll against the lower of Computer Programming and your skill in that field (e.g., a Mathematics specialty for a complex mathematical program).

**Cooking**

**Defaults:** IQ-5 or Housekeeping-5.

This is the skill of being a chef, allowing you to prepare a pleasing meal - you do not need it to cook rat-on-a-stick over your campfire. Many chefs have an optional specialty, such as baking or a particular ethnic cuisine.

**Crewman/TL**

**Defaults:** IQ-4.

This is the ability to serve as crew aboard a specific type of large vehicle. It includes familiarity with "shipboard life," knowledge of safety measures, and training in damage control (the use of emergency equipment to control flooding, fight fires, patch the hull, and so forth). Make a skill roll for basic map or chart reading, practical meteorology, or to recall laws and regulations that pertain to your vehicle.

The average Crewman skill of an entire crew can be used as a measure of overall crew quality. The GM rolls against average skill whenever the vehicle arrives or departs, in unfavorable conditions, or in battle.

There is a separate skill for each class of vessel: Airman/TL, Airshipman/TL, Seaman/TL, Spacer/TL, and Submariner/TL.

**Criminology/TL**

**Defaults:** IQ-5 or Psychology-4.

This is the study of crime and the criminal mind. A successful skill roll allows you to find and interpret clues, guess how criminals might behave, etc. Though this skill does not actually default to Streetwise, the GM might allow a Streetwise roll instead in certain situations - especially to predict or outguess a criminal.
Cryptography/TL

Default: Mathematics (Cryptography)-5.
This is the ability to create and defeat encryption systems, codes, and ciphers. It covers all the techniques of your TL, which can range from unsophisticated substitution ciphers to state-of-the-art tactical encryption schemes.

Knowledge of a specific system, code, or cipher depends on your Security Clearance and allegiances. Some level of Security Clearance is often a prerequisite to learning this skill at all.

Modifiers: A computer with appropriate software gives a bonus (provided you know Computer Operation skill).

Detect Lies

Per/Hard

Default: Perception-6, Body Language-4, or Psychology-4.
This is the ability to tell when someone is lying to you. It is not the same as Interrogation; Detect Lies works in a casual or social situation. When you ask to use this skill, the GM rolls a Quick Contest of your Detect Lies skill vs. your subject's IQ (or Fast-Talk or Acting skill). If you win, the GM tells you whether the subject is lying. If you lose, the GM may lie to you about whether you were lied to ... or just say, "You can't tell."

Modifiers: +1 for Sensitive or +3 for Empathy, or -3 for Low Empathy; +4 if your subject is Easy to Read. If the subject is of a different species, the GM may assess a penalty.

Diagnosis/TL

IQ/Hard

Default: IQ-6, First Aid-8, Physician-4, or Veterinary-5.
This is the ability to tell what is wrong with a sick or injured person, or what killed a dead person. A successful roll gives some information about the patient's problem - limited to realistic knowledge for your tech level.

It might not determine the exact problem (if the GM feels the cause is totally beyond your experience, for instance), but it always gives hints, rule out impossibilities, etc. No Diagnosis roll is required for obvious things, like open wounds and missing limbs!

Modifiers: Equipment modifiers: -5 for internal injuries; -5 more for a rare disease.

Diplomacy

IQ/Hard

Default: IQ-6 or Politics-6.
This is the skill of negotiating, compromising, and getting along with others. You may substitute a Diplomacy roll for any reaction roll in a noncombat situation, as described under Influence Rolls. Unlike other Influence skills, Diplomacy never gives a worse result than if you tried an ordinary reaction roll. Failure with Fast-Talk or Sex Appeal alienates the subject, but Diplomacy is usually safe. A successful roll also allows you to predict the possible outcome of a course of action when you are negotiating, or to choose the best approach to take. If you know Diplomacy at level 20 or better, you get a +2 bonus on all reaction rolls!

Driving/TL

DX/Average

Default: DX-5 or IQ-5.
This is the ability to drive a specific type of ground vehicle. Make an IQ-based Driving roll for basic map reading, to diagnose simple malfunctions, or to recall rules of the road. You must specialize.

Modifiers: -2 or more for bad driving conditions; -2 more for a vehicle in bad repair; -2 for an unfamiliar control system (e.g., automatic when you are used to a manual); -4 more for a vehicle of an unfamiliar type within your specialty (e.g., a race car when you are used to stock cars).

Electrician/TL

IQ/Average

Default: IQ-5 or Engineer (Electrical)-3.
This is the skill of building, maintaining, and repairing electrical systems. Make a skill roll to diagnose an electrical fault, wire a building or vehicle, etc. Adventuring uses include damage control in combat (e.g., to restore power to a damaged vehicle system) and cutting the power to a building prior to clandestine activities.

Electronics Operation/TL

IQ/Average

Default: IQ-5, Electronics Repair (same)-5, or Engineer (Electronics).-5.
This skill lets you use all electronic equipment within a known specialty. Make a skill roll in an emergency situation or for "abnormal" use of equipment — not for ordinary, everyday use. (Exception: Unskilled users must always attempt their default roll!) You must specialize.

Electronics Repair/TL

IQ/Average

Default: IQ-5, Electronics Operation (same)-3, or Engineer (Electronics)-3.
This is the ability to diagnose and repair known types of electronic equipment. Time required for each attempt is up to the GM. You must specialize. These specialties default to one another at -4.

Modifiers: Equipment modifiers: -2 without plans or schematics; -2 for an unfamiliar technology or implementation (as for Electronics Operation); -4 to modify a device away from its intended purpose.

Engineer/TL

IQ/Hard

Default: Special.
Prerequisites: Mathematics (Applied) at TL5+, plus others as noted.
This is the ability to design and build technological devices and systems. A successful roll lets you design a new system, diagnose a glitch, identify the purpose of a strange device, or improvise a gadget to solve a problem. Time required for each attempt is up to the GM.

Note that engineers are designers and inventors; they are not necessarily skilled at the routine operation or maintenance of the things they design! For instance, Engineer (Small Arms) lets you design a new assault rifle, but you need Armoury skill to maintain it and Guns skill to shoot it. You must specialize.

Environment Suit/TL

DX/Average

Default: DX-5 and others.
This is training in the use of a specific class of protective suit designed to shield the wearer from environmental or battlefield hazards. Roll against Environment Suit skill to get into or out of your suit quickly. A successful roll halves the time required. To activate a specific subsystem of a suit, or to gauge whether a suit is in good repair, make an IQ-based skill roll instead.

When rolling against DX or any DX-based skill while suited up, use the power of your Environment Suit skill and your actual skill level. For instance, if you have DX 14, Stealth-15, and Vacc Suit-13, you will function at DX 13 and Stealth-13 while wearing a spacesuit. Particularly unainly suits might give -1 or more to DX on top of this, regardless of skill level. On the other hand, some sleek, ultra-tech suits might not limit skills at all!

However, Environment Suit is strictly the skill of donning and operating the suit. Familiarity with and knowledge of dangerous environments is covered by other skills: Free Fall, Hazardous Materials, Survival, etc.
**Expert Skill**

*Defaults: None.*

An Expert Skill represents cross-disciplinary knowledge of a single, narrow theme. When answering factual questions *on that theme*, you may substitute a roll against your Expert Skill for any IQ-based roll against any skill that has a default. Expert Skills do not exempt you from Cultural Familiarity or Language requirements, and never provide the ability to do practical tasks. Experts sometimes complement Expert Skills with related Area Knowledge skills, but you must learn these separately. You *must* specialize by theme, and the GM is free to forbid any theme he feels is too broad.

**Explosives/TL**

*Defaults: IQ-5 and others.*

This is the skill of working with explosives and incendiaries. You *must* specialize:

**Demolition:** The ability to prepare and set explosives in order to blow things up. Make a roll whenever you use explosives in this way. A failure indicates an error. *Defaults: Engineer (Combat) or (Mining) at -3.*

**Explosive Ordnance Disposal (EOD):** The ability to disarm and dispose of bombs and other explosives. When disarming a trap, roll a Quick Contest of your Explosives (EOD) skill vs. the Explosives (Demolition) skill of the person who created the device. A failure (or even a critical failure) does not necessarily mean an explosion — the GM can be much more creative than that! Sudden hissing noises, mysterious parts falling off, cramps, itches, and alarm bells are all possible in the right circumstances. It is best if the GM rolls the dice and describes the physical circumstances to the victim. Fright Checks are appropriate for the survivors of a failed EOD attempt! *Prerequisite: DX 12+.*

**Nuclear Ordnance Disposal (NOD):** The equivalent of Explosives (EOD) for nuclear devices. Only a critical failure *verified* by a second critical failure will result in a nuclear detonation. Any lesser failure will — at worst — detonate the high explosive trigger and contaminate the immediate area with radioactive material ... not that this is a great deal of consolation to those nearby. This skill includes fission, fusion, and antimatter weapons.

**Underwater Demolition (UD):** The ability to prepare and set explosives underwater. This is otherwise identical to Explosives (Demolition). You usually need Scuba skill or at least Swimming skill to get into a position where you can use this skill. These specialties default to one another at +4 except for Demolition and UD, which default to one another at +2, and EOD and NOD, which also default to one another at +2.

**Modifiers:** -1 to -5 for distractions (e.g., enemy fire or swarms of biting ants) or physical motion (e.g., a rocking boat or speeding bus).

**Fast-Draw**

*Defaults: None.*

This skill lets you quickly draw a weapon from its holster, sheath, or hiding place. A successful roll means you ready the weapon instantly. This does not count as a combat maneuver; you can use the weapon to attack on the same turn. On a failure, you ready your weapon normally but may do nothing else on your turn. A critical failure means you drop the weapon! You *must* specialize in one weapon type.

**Fast-Talk**

*Defaults: IQ-5 or Acting-5.*

This is the skill of talking others into doing things against their better judgment. In any situation that calls for a reaction roll, you may make an Influence roll against Fast-Talk instead. If you have Fast-Talk at level 20 or better, you get +2 on all reaction rolls where you’re allowed to talk!

**First Aid/TL**

*Defaults: IQ-4, Esoteric Medicine, Physician, or Veterinary.*

4.

This is the ability to patch up an injury in the field. Make a skill roll to halt bleeding, suck out poison, give artificial respiration to a drowning victim, etc. Unusual problems must be identified using Diagnosis skill first.

**Forward Observer/TL**

*Defaults: IQ-5, Artillery (any)-5, and others.*

This is the skill of being a “spotter” for artillery. It includes locating targets, marking targets, matching ordnance to target for best effect, and calling in corrections to any fire you personally observe. Failure means the ordnance misses the target; critical failures result in severe “collateral damage” or “friendly fire” incidents. The worst critical failures (GM’s decision) drop the ordnance on your position!

**Free Fall**

*Defaults: DX-5 or HT-5.*

This is the ability to operate in a free-fall (zero-gravity) environment. Roll against the *higher* of HT or Free Fall when you first enter free fall. In addition, whenever you make a DX or DX-based skill roll in free fall, use the lower of Free Fall and your DX or skill. For instance, if you had Free Fall-14 and Karate-16, you would roll at 14 or less to land a punch.

**Freight Handling/TL**

*Defaults: IQ-5.*

This is the skill of supervising the loading and unloading of vehicles (laborers do not require this skill — just their foreman). A successful skill roll cuts the time required by 20%. Also roll against Freight Handling skill any time there is doubt as to whether an item of cargo was lost or damaged; on a success, it made the journey intact.

**Gambling**

*Defaults: IQ-5 or Mathematics (Statistics)-5.*

This is skill at playing games of chance. A successful Gambling roll can (among other things) tell you if a game is rigged, identify a fellow gambler in a group of strangers, or “estimate the odds” in any tricky situation.

When you gamble against the house, make a skill roll. When you gamble against someone else, roll a Regular Contest of Gambling until one of you wins.

**Modifiers:** +1 to +5 for familiarity with the game being played; -1 to -5 if the game is rigged against you.

**Geography/TL**

*Defaults: IQ-6, the relevant Area Knowledge skill at -6.*

This is the study of the physical, political, and economic divisions of a planet, and how they interact. It is part physical science, part social science. You *must* specialize:

**Physical:** The study of the physical properties of a planetary surface. A physical geographer could answer questions about climate, terrain, and so forth. You must further specialize by planet type. *Defaults: Geology (same planet type)-4 or Meteorology (same planet type)-4.*
**Political**: The study of political regions— their borders, natural resources, industries, etc. A political geographer could answer questions about land claims, overpopulation, regional economic disparities, transportation networks, etc. **Default**: Economics-4.

**Regional**: The study of all of the above, but specific to a single region: New York, the United States, planet Earth, etc. The depth of knowledge decreases with the size of the region (see **Area Knowledge**).

These specialties default among themselves at -5.

**Geology/TL**

**Defaults**: IQ-6, Geography (Physical)-4, or Prospecting-5.

This is the science dealing with the structure of planets— their crust, mantle, and core. A geologist knows about minerals, oil, ores, etc.; about earthquakes and volcanoes; and about fossils. In the field, he can attempt to find water by using an "eye for country". You must specialize by planet type (page 93).

**Gunner/TL**

**Defaults**: IQ-6, Strategy (any)-6.

This is the ability to use a heavy weapon, usually one mounted on a tripod or a vehicle, to make a direct-fire attack— that is, to aim and fire at a target to which you have a line of sight. For indirect fire, use Artillery skill. Roll against Gunner skill to hit the target. You must specialize by weapon type. These specialties default to one another at -4.

**History**

**Defaults**: IQ-6.

This is the study of the recorded past (compare Archaeology skill). A successful skill roll lets you answer questions about history, and might (at the GM's option) allow you to remember a useful parallel: "Ah, yes. Hannibal faced a situation like this once, and here's what he did..." You must specialize. There are two general classes of specialty: a limited geographical region— no larger than a small nation— over multiple eras, or a single era and one of a broad geographical region, a culture, or an idea. In general, if two specialties overlap at all, then GM should permit a default at -2 to -4.

**Holdout**

**Defaults**: IQ-5 or Sleight of Hand-3.

This is the skill of concealing items on your person or on other people (usually with their cooperation). An item's size and shape govern its concealability. Some examples:

- **+1**: BB-sized jewel, postage stamp.
- **+2**: pea-sized jewel.
- **+3**: One lockpick, a huge jewel, a dime, a TL9 computer disk, a letter.
- **+5**: set of lockpicks, silver dollar.
- **0**: TL8 floppy disk or CD without case.
- **-1**: dagger, slingshot, the tiniest handgun or grenade.
- **-2**: average handgun, grenade, large knife.

**Submachine gun, shortsword, short carbine.**

**-4**: broadsword, assault rifle.

**-5**: bastard sword, battle rifle.

**-6**: crossbow, heavy sniper rifle.

Things that move or make noise give an additional -1 or more to skill.

Clothing also modifies effective skill. A nun in full habit (+5 to skill) could conceal a bazooka or a battle-axe from an eyeball search. A Las Vegas showgirl in costume (-5 to skill) would have trouble hiding even a dagger. Of course, the showgirl might escape search entirely (unless the guards were bored) because "She obviously couldn't hide anything in that outfit!" Full nudity is -7 to skill. Clothing designed specifically to hide things gives a bonus of up to +4.

To spot a concealed item, roll a Quick Contest of Search skill vs. Holdout. Search defaults to Perception-5 if you haven't studied it.

**Intelligence Analysis/TL**

**Defaults**: IQ-6 or Strategy (any)-6.

This is the ability to analyze and interpret intelligence data. It allows you to deduce enemy plans and capabilities, evaluate the accuracy of information, rate the reliability of sources, etc. In most game worlds, only intelligence, military, and security services teach this skill— only those with a minimum level of Rank or Security Clearance. This skill has nothing to do with gathering intelligence.

The GM makes all Intelligence Analysis rolls in secret. On a success, he provides details about the significance and accuracy of your data, or insights into what it means in terms of enemy planning. When you encounter deliberately falsified data, the GM rolls a secret Quick Contest: your Intelligence Analysis vs. the enemy's skill at disinformation (Forgery, Propaganda, etc.). If you win, the GM provides details on precisely what is wrong with the information. It is up to you to deduce what this means!

You may take an optional specialty in one particular type of intelligence. A useful specialty at TL6+ is Intelligence Analysis (Traffic Analysis): identifying the purpose and organization of targets by examining intercepted communications traffic.

**Modifiers**: -1 to -5 for incomplete information; -3 if all your information comes from a single source; -3 for intelligence concerning an arcane scientific or bureaucratic principle, unless you have skill in that area (e.g., Engineer (Electronics) for intelligence regarding a radar installation).

**Interrogation**

**Defaults**: IQ-5, Intimidation-3, or Psychology-4.

This is the ability to question a prisoner. Only intelligence agencies, police and prison services, the military, and the underground teach this skill. Roll a Quick Contest of Interrogation vs. the prisoner's Will for each question. This requires 5 minutes per question. If you win, you get a truthful answer. If you tie or lose, the victim remains silent or lies. If you lose by more than five points, he tells you a good, believable lie! The GM roleplays the prisoner (or, if you are the prisoner, the GM will roleplay the interrogator) and makes all die rolls in secret.

**Modifiers**: -5 if the prisoner's loyalty to his leader or cause is "Very Good" or "Excellent"; +2 for a lengthy interrogation (over two hours); +3 if you use severe threats; +6 if you use torture. Increase these last two bonuses by +1 if you have the Callous disadvantage!

* "Torture" does not necessarily mean thumbscrews and the rack. Exposing a prisoner to the object of his phobia is an effective torture, as is a believable threat against a loved one. Note that torturing a prisoner is usually considered vile behavior, likely bringing retribution.*
Karate improves damage: if you know Karate at DX level, add +1 per die to basic thrust damage when you calculate damage with Karate attacks: punches, kicks, elbow strikes, etc. Add +2 per die if you know Karate at DX+1 or better.

Karate allows you to parry two different attacks per turn, one with each hand. Your Parry score is (skill/2) + 3, rounded down. This parry is not at the usual -3 for parrying a weapon barehanded, greatly reducing the likelihood of injury when you defend against an armed foe. In addition, Karate gives an improved retracting bonus when you parry.

To use Karate, any hand with which you wish to strike or parry must be empty (but you are free to wear heavy gauntlets, brass knuckles, etc. to increase damage). Because Karate relies heavily on footwork, all Karate attacks and parries take a penalty equal to your encumbrance level. For instance, Heavy encumbrance would give you -3 to hit or to parry an enemy attack.

**Law**

**Default:** IQ-6.

This skill represents knowledge of law and jurisprudence. A successful roll lets you remember, deduce, or figure out the answer to a question about the law. Few legal questions have clear-cut answers, however — even an expert will hedge his advice! You must specialize. There are two general classes of specialty:

- The laws of a particular political region within a specific field (constitutional, contract, criminal, police, etc.).
- A specialized body of law not associated with a political region. Examples: Law (Catholic Canon).

Specialties within the same region, such as Law (British Criminal) and Law (British Police), or field, such as Law (British Criminal) and Law (French Criminal), default to one another at -4. If both region and field differ, the default is -6 or worse.

In some times and places, a Quick Contest of Law (Criminal) between the defense and prosecution will determine the outcome of a trial. In others, Law functions as an Influence skill used to sway the rulings of the judge.

**Leadership**

**Default:** IQ-5.

This is the ability to coordinate a group. Make a Leadership roll to lead NPCs into a dangerous or stressful situation. PCs can decide for themselves if they want to follow you!

You may attempt a Leadership roll in combat if you spend your turn doing nothing but giving orders and encouragement. On a success, everyone on your side who can hear you (including PCs) has +1 on all combat-related Fright Checks and morale checks, and on self-control rolls for disadvantages that would reduce combat efficiency (such as Berserk and Cowardice — or Bloodlust, if you wish to take prisoners). A critical success gives +2.

The bonus lasts until your next turn, at which time you may roll again. A group can have only one leader, however! If multiple people attempt Leadership rolls, no one gets a bonus.

**Modifiers:** Any bonus for Charisma; -5 if the NPCs have never been in action with you; -5 if you are sending them into danger but not going yourself; +5 if their loyalty to you is “Good”; +10 if their loyalty is “Very Good.” If their loyalty is “Excellent,” you do not have to roll!

**Linguistics**

**Default:** None.

This is the study of the principles upon which languages are based. A successful skill roll lets you identify a language from a snatch of speech or writing. As well, make a skill roll once per month when learning a language without a teacher. On a success, you learn at full speed rather than at 1/4 speed.
Machinist/TL

Defaults: IQ-5 or Mechanic (any)-5.

This is the skill of making and modifying mechanical parts and tools. A successful skill roll lets you build parts from raw materials, manufacture tools for use with another skill (such as Armoury or Lockpicking), or modify any simple mechanical device not explicitly covered by another skill. The GM may require an inventor to make one or more Machinist rolls before attempting an Engineer roll to assemble a gadget.

Mathematics/TL

Defaults: IQ-6 and others.

This is the scientific study of quantities and magnitudes, and their relationships and attributes, through the use of numbers and symbols. You must specialize. These specialties default to one another at -5.

Mechanic/TL

Defaults: IQ-5, Engineer (same)-4, or Machinist-5.

This is the ability to diagnose and fix ordinary mechanical problems. A successful skill roll will let you find or repair one problem. You must specialize.

Mechanic specialties default to one another at -4, although the GM may modify this for particularly close or distant specialties. The systems covered by each specialty vary by TL.

Melee Weapon

DX/Varies

This is not one skill, but an entire collection of skills — one per class of closely related melee weapons. Melee Weapon skills are based on DX, and default to DX-4 if Easy, DX-5 if Average, or DX-6 if Hard. See specific skill descriptions for other details. Make a Melee Weapon roll to hit an opponent in combat. You may also use these skills to parry. Your Parry defense is (skill/2) + 3, rounded down. Melee weapons (page 128) fall into broad categories on the basis of overall balance and function. When a rule refers to one of these categories, it applies to all weapons in that category and all Melee Weapon skills used to wield them. For instance, “fencing weapons” means “all weapons used with any of Main-Gauche, Rapier, Saber, or Smallsword skill.”

The following is only a partial list of all possible weapons; entire books have been written to cover all of the possibilities!

Rapier (DX/Average): Any long (over 1 yard), light thrusting sword. Default: Broadsword-4.


Smallsword (DX/Average): Any short (up to 1 yard), light thrusting sword or one-handed short staff (such as the sticks used in the martial arts). Default: Shortsword-4.

Tonfa (DX/Average): A police baton with a protruding handle on one side, allowing you to jab for thrusts+1 or parry at 2/3rds skill (rounded down). Default: shortsword-3.

Axe/Mace (DX/Average): Any short or medium-length, one-handed impact weapon. Default: Flail-4.


Staff (DX/Average): Any long, balanced pole without a striking head. This skill makes good use of the staff’s extensive parrying surface when defending, giving +2 to your Parry score. Defaults: Polearm-4 or Spear-2.

Broadsword (DX/Average): Any balanced, 2-4-foot blade wielded in one hand — broadsword, saber, etc. This skill also covers any stick or club of similar size and balance to these blades, as well as two-handed weapons used one-handed. Defaults: Rapier-4, Saber-4, Shortsword-2, or Two-Handed Sword-4.

Knife (DX/Easy): Any rigid, hilted blade less than one foot long, from a pocketknife to a Bowie knife. A knife has a very small parrying surface, which gives you -1 to your Parry score. Defaults: Force Sword-3, Main-Gauche-3, or Shortsword-3.

Shortsword (DX/Average): Any balanced, one-handed weapon 1-2 feet in length — including the shortsword and any club of comparable size and balance (e.g., a police baton). Defaults: Broadsword-2, Jitte/Sai-3, Knife-4, Saber-4, Smallsword-4, or Tonfa-3.

Two-Handed Sword (DX/Average): Any balanced, two-handed blade over 4 feet in length. This skill also covers quarterstaves wielded like swords (e.g. Klingon two-handed swords), as well as bastard swords, katanas, and longswords used two-handed. Defaults: Broadsword-4.

Merchant

Defaults: IQ-5, Finance-6, or Market Analysis-4.

This is the skill of buying, selling, and trading retail and wholesale goods. It covers all types of merchandise, but many merchants have an optional speciality in a single class of goods. Make a skill roll to judge the value of any piece of common goods, find out where any commodity is bought and sold, find the local fair market value of any commodity, etc.

When two merchants haggle, the GM may set it up with a Quick Contest. The winner adds or subtracts 10% of fair value, depending on whether he was trying to sell or buy.

If you have this skill at any level, you get +1 on reaction rolls when buying or selling. If you have this skill at level 20 or better, you get +2.

Modifiers: -3 for illegal goods, unless you have Streetwise at 12+ or specialize in such goods; -2 in an unfamiliar area, until you have had time to familiarize yourself with local market conditions; Cultural Familiarity modifiers. These last two modifiers "stack," and frequently occur together.

Metallurgy/TL

Defaults: Chemistry-5, Jeweler-8, or Smith (any)-8.

This is the study of metals and their properties. A successful roll lets you identify metals or alloys, or solve a problem concerning metals, their use, mining, or refining.

Meteorology/TL

Defaults: IQ-5.

This is the study of the weather, and the ability to predict it. When you wish to predict the weather, the GM rolls against your skill in secret. On a success, he tells the truth; on a failure, he answers randomly, or lies. Each skill roll predicts the weather for one day. If one day’s roll fails, subsequent ones can’t succeed.

At TL6+, Meteorology is a scientific skill and you must specialize by planet type; see Planet Types (page 93) for details.

Modifiers: Time is a major factor! There is no penalty to predict tomorrow’s weather, but you have -1 for 2 days, -2 for 3 days, and an additional - per day for each further day.

Mind Block

Defaults: Will-5 or Meditation-5.

This ability allows you to establish a mental block against attempts to eavesdrop on your thoughts and emotions. The techniques involved are wholly mundane — for instance, doing complicated mathematical calculations, or repeating poetry over and over again. With sufficient training, anyone can learn this skill.

To maintain a block, you must make a Mind Block roll once per minute. You must roll every second in combat or other stressful situations. If you succeed, anyone who reads your mind must
win a Quick Contest of his mind-reading ability vs. your Mind Block skill in order to get useful information. Otherwise, he gets nothing but poetry, multiplication tables, etc. However, if you ever critically fail a Mind Block roll, you thought about precisely what the mind reader wanted to know – in detail – right there in the forefront of your mind!

This skill only works against mind reading, not mind control or other mental attacks. If you have a mind shield, Mind Block acts as a last-ditch defense: only mental probes that pierce your defenses and contact your mind will encounter the block.

Modifiers: +2 if you do nothing but concentrate on blocking; -3 if you are mentally or physically stunned; -2 or more to hide emotions rather than thoughts, depending on how strong the GM rules your emotions are – it’s hard to block your emotions while sneaking up on your most hated enemy!

**Naturalist†**

*IQ/Hard*

**Defaults:** IQ-6 or Biology-3.

This skill represents *practical* (as opposed to scientific) knowledge of nature in its many forms. It includes just enough Biology to tell different plants and animals from benign ones; just enough Geology to locate a cave to shelter in; and just enough Meteorology to know when to take shelter. Roll vs. skill to do any of these things. You must specialize by *planet*. The specialties for planets of the same type default to one another at -4. Any larger difference results in no default.

**Navigation/TL†**

*IQ/Average*

**Defaults:** Special.

This is the ability to find your position through careful observation of your surroundings and the use of instrumentation. A successful roll tells you where you are, or lets you plot a course. You must specialize.

- **Sea:** Navigation by the stars and ocean currents. **Defaults:** Astronomy-5 or Seamanship-5.
- **Air:** Navigation by the stars and by the terrain below. Modifiers are as for Navigation (Sea). **Default:** Astronomy-5.
- **Land:** Navigation using landmarks and the stars; also called “orienteering.” **Defaults:** IQ-5, Cartography-4, or Mathematics (Surveying)-4.
- **Space:** Navigating through space. **Defaults:** Astronomy-4 or Mathematics (Applied)-4.

Modifiers: -1 to -10 for being in an unfamiliar area (GM’s discretion, but an unfamiliar world, star system, etc. should give at least -5).

**Observation**

*Per/Average*

**Defaults:** Perception-5 or Shadowing-5.

This is the talent of observing dangerous or “interesting” situations without letting others know that you are watching. Use this skill to monitor a location, a group of people, or your immediate surroundings for concealed or tactically significant details. A successful skill roll lets you gather information that is not specifically hidden. The GM may require an Intelligence Analysis roll to interpret what you observe.

To spot deliberately hidden details, you must win a Quick Contest of Observation skill vs. the Stealth, Shadowing, or Camouflage skill (as appropriate) of the other party. The GM should roll the Contest in secret. If your attempt fails, you get no details on an obvious item, or fail to spot a hidden one. On a critical failure, someone spots you and reacts poorly to the attention ...

Modifiers: cover, darkness, or size; -1 to -10 if the target is concealed by high-tech camouflage or “stealth” technology; +1 to +10 if you possess suitable surveillance devices and succeed at the skill roll to operate them.

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**Skills**

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**Operations/TL**

*IQ/Very Hard*

**Defaults:** Tactics-6, IQ-6, or Strategy-6

Operations represents skill in coordinating multiple tactical missions to achieve the goals of a strategic plan (see Strategy). Majors and Lieutenant Commanders begin learning this skill, which higher officers must know at increasing levels. The usual unit sizes involved are anywhere from a battleship to an army corps.

The skill includes operating, commanding, and supplying units on this scale. It requires specialization by medium: Air, Land, Sea, or Space. Officers in non-standard units may instead specialize in a combination medium; for instance, a marine major would have operations (Space-Land). All specialties default to one another at -3.

**Physician/TL**

*IQ/Very Hard*

**Defaults:** IQ-7, First Aid-11, or Veterinary-5.

This is the ability to aid the sick and the injured, prescribe drugs and care, etc. Make a skill roll to hasten natural recovery from injury (see Recovery), and whenever the GM requires a roll to test general medical competence or knowledge. Apply physiology modifiers if your patient is of a different species from you (see Interspecies Medicine).

**Physics/TL**

*IQ/Very Hard*

**Default:** IQ-6.

**Prerequisite:** Mathematics (Applied) at TL5+.

This is the science dealing with the properties and interactions of matter and energy. Beyond the basics (such as the behavior of moving bodies), a physicist’s knowledge includes whatever is understood about electricity, gravity, heat, light, magnetism, radiation, and sound at his tech level.

**Physiology/TL†**

*IQ/Very Hard*

**Defaults:** IQ-6, Diagnosis-5, Physician-5, or Surgery-5.

This is the study of the human body and its function. A physiologist knows how bones, muscles, and organs work, and where they are located. You must specialize by race (see Interspecies Medicine).

**Piloting/TL†**

*DX/Average*

**Default:** IQ-6.

This is the ability to operate a specific type of aircraft or spacecraft. The default is IQ, because it takes intelligence to figure out the controls in an emergency, but when you learn this skill, always base it on DX.

Roll against Piloting for takeoffs and landings, and in any hazardous situation. Failure by 1 indicates a rough job; failure by more indicates damage to the vehicle. A critical failure is a crash! If you have skill 15+, a critical failure requires an immediate second roll. Only if the second roll is a failure does a mishap occur. Otherwise, it was a “near thing,” averted by experience.

Air combat requires frequent Piloting rolls as well. Make an IQ-based Piloting roll for basic map reading or practical meteorology, or to recall aviation laws and regulations. You must specialize.

- **Aerospace:** Any vehicle capable of atmospheric flight to and from orbit. **Defaults:** High-Performance Airplane-2 or other Piloting at -4.
- **Helicopter:** Any aircraft that uses rotors for both lift and thrust. **Defaults:** other Piloting at -5.
- **High-Performance Airplane:** Any winged aircraft capable of flying faster than 600 mph. **Defaults:** Aerospace, Heavy Airplane,
or Light Airplane at -2, or other Piloting at -4.

Light Airplane: Any winged aircraft weighing 10 tons or less and flying at 600 mph or slower. Defaults: Glider, Heavy Airplane, High-Performance Airplane, or Ultralight at -2, or other Piloting at -4.

Shuttlecraft: Defaults: Aerospace-4 or Starship-2.

Starship: Defaults: Aerospace-4 or Shuttlecraft-2.

Ultralight: Any winged aircraft weighing 0.5 tons or less and flying at 200 mph or slower. Defaults: Glider or Light Airplane at -2, other Airplane specialties at -4, or other Piloting at -5.

Modifiers: -2 for an unfamiliar vehicle within your specialty; -2 or more for unusually primitive or extremely complex controls; -4 or more for a plane in bad repair; -2 or more for bad flying conditions.

Professional Skill

Defaults: Special.

Many realistic job skills are more useful for making a living than for adventuring. Most such skills do not appear in this skill list – but you can still learn them if you want! Each is a separate Professional Skill. If your “adventuring” skills aren’t useful for earning money, a Professional Skill can help you earn a steady income. To qualify for most jobs, you will need the relevant Professional Skill at 12+ (unless you really are supposed to be somewhat incompetent!)..

Most professions encompass a body of knowledge. The associated Professional Skills are IQ/Average and default to IQ-5, because the smarter you are, the better you can recall and employ the techniques used at your job. Examples include accountant, air traffic controller, archaeologist, anthropologist, journalist, physicist, sociologist, zookeeper.

A few professions – glassblower, tailor, weaver, etc. – focus more on precision than on recall. These Professional Skills are DX/Average and default to DX-5. At the GM’s option, a given Professional Skill might also default to other skills. For instance, “Journalist” would logically default to Writing-3.

You are free to create your own Professional Skills, subject to GM approval.

Prospecting/TL

Defaults: IQ-5 or Geology (any)-4.

This is the skill of finding valuable minerals. A successful Prospecting roll lets you locate minerals, judge good ore from a small sample (and gauge its commercial value), and find water by using an “eye for country,” as described for Survival skill.

This skill is “applied geology,” and requires on-site examination. Prospecting from a distance – using maps, instrument readings, and extrapolation – uses Geology skill instead.

Modifiers: -1 in a new area of a familiar type, or -2 or more in an unfamiliar type of area, until you have been there for at least a month.

Research/TL

Defaults: IQ-5 or Writing-3.

Prerequisite: literacy in at least one language; at TL8+, Computer Operation is also a prerequisite.

This is the ability to do library and file research. Roll against skill to find a useful piece of data in an appropriate place of research ... if the information is there to be found. At the GM’s option, when researching material connected with a “booklearned” skill such as Forensics, Literature, or Physics, you may roll against that skill at -2 instead, if that would be better than your Research skill or default (but this is not a general default level).

Modifiers: Language modifiers, for research materials in a foreign tongue.

Savoir-Faire

Defaults: IQ-4 and others.

This is the skill of appropriate behavior in a subculture that has an established code of conduct – for instance, high society or the military. When dealing with that social group, a successful skill roll lets you interact without embarrassing yourself, detect pretenders to high standing, and so on. You may also substitute an Influence roll against Savoir-Faire for any reaction roll required in a social situation involving that subculture. Roll once per encounter, You must specialize. Common specialties include:

High Society: The manners of those of “good” birth and breeding. Status determines relative standing. Roll against skill whenever you must impersonate someone more than three Status levels away from your own. If your Status is negative and you are trying to pass yourself off as someone of Status 1+, or vice versa, this roll is at -2.

Military: The customs, traditions, and regulations of military service. This also includes knowledge of the unwritten rules: what is acceptable even if not regulation, and what is forbidden although there is nothing in writing against it. Military Rank determines relative standing.

Pirate: Proper conduct within a formal criminal organization such as an Orion Pirate cartel. This includes such things as codes of silence and showing proper deference to “made men.” These protocols often ape those of high society ... but the penalties for misconduct are far more severe. Default: Streetwise-3.

Police: As Savoir-Faire (Military), but for civilian police service. This gives knowledge of the social/protocols for police officers; use Law (Police) for the legal/protocols. Police Rank determines relative standing.

Servant: Knowledge of how to serve the upper class. Certain procedures are always done just so (the salad fork goes outside the dinner fork, the Duke is announced before the Earl, etc.), and certain attitudes in a servant are unacceptable.

Modifiers: +2 if you are of higher standing than those you are trying to impress, or -2 if you are of lower standing (“standing” might mean Rank, Status, skill level, or something else). +2 if you seem to have important friends.

Search

Defaults: Perception-5 or Criminality-5.

This is the ability to search people, baggage, and vehicles for items that aren’t in plain sight. The GM rolls once – in secret – per item of interest. For deliberately concealed items, this is a Quick Contest of your Search skill vs. the Holdout or Smuggling skill used to hide the item. If you fail, the GM simply says, “You found nothing.” (It defeats the purpose to say, “You don’t find the gun under his jacket.”) If more than one person is searching, roll separately for each searcher.

Modifiers: +1 for a “pat-down” of an unresisting person (takes one minute), +3 for a thorough “skin search” of a person’s hair and clothing (takes three minutes), or +5 for a complete search, including body cavities (takes five minutes). On a successful Electronics Operation (Security) roll, specialized sensors – metal detectors, X-ray machines, etc. – give from +1 to +5 to find items they can detect.

Shiphandling/TL

Defaults: IQ-6 and others.

Prerequisites: see below.

This is the ability to act as the master of a large vessel. It involves directing the crew in the tasks necessary to control the vehicle’s speed and direction. It also covers such duties as keeping the captain’s log and inspecting the crew. Someone with Shiphandling skill (at better than default!) should stand watch at all
times when the vessel is underway. Roll vs. skill when encountering hazards or maneuvering for battle.

A failed roll when encountering hazards means the vessel is damaged. This might mean anything from scratched paint to crippling damage that requires extensive repairs. A failed roll in battle means the vessel did not go exactly where intended. The details depend on the vessel, the tech level, and the GM’s judgment.

A critical failure under any circumstances means an appropriate disaster. Depending on the TL and situation, this could mean running aground, colliding with another vessel, being dismayed, losing your screws or rudder, or simply giving an order that your crew disregards. Whether they then save your ship for you, or mutiny and flee, is up to the GM. You must specialize.

Ship: "wet-nvy" vessels from tugboats to carriers. Prerequisites: Leadership, Navigation (Sea), and Seamanship. Defaults: Seamanship-5, or to Boating (Large Powerboat)-5 for ships with engines or Boating (Sailboat)-5 for tall ships.

Spaceship: Slower-than-light spacecraft. Prerequisites: Leadership, Navigation (Space), and Spaceman. Defaults: Space-5 or any spaceship Piloting-5.

Starship: Faster-than-light spacecraft. Prerequisites: Leadership, Navigation (Space), and Spaceman. Defaults: Space-5 or any spaceship Piloting-5.

Submarine: All forms of large subs or smaller. Prerequisites: Leadership, Navigation (Sea), and Submariner.

Modifiers: +2 to master an unfamiliar vessel (e.g., a airplane carrier when you’re used to a battleship); -2 for an unfamiliar crew; -2 or more for a vehicle in bad repair.

Smuggling

Default: IQ-5.

This is the ability to conceal items in baggage and vehicles. You can also use it to hide an object in a room or a building. Roll against skill to hide an item from casual inspection. In an active search, the searchers must win a Quick Contest of Search vs. your Smuggling skill to find the item.

Modifiers: Specialized smuggling gear. The difference between the Size Modifier of the package, vehicle, or room in which you are hiding the item and that of the item itself; e.g., to hide a bottle of liquor (SM-5) in a family car (SM +3), you would roll at +8.

Sociology

Default: IQ-6, Anthropology-3, or Psychology-4.

This is the study of societies and social relationships. A successful skill roll lets you judge how well a large group of people will work together; deduce the social pressures contributing to a crime wave, revolution, war, etc.; or predict the most probable outcome of dissimilar societies coming into contact.

Soldier/TL

Default: IQ-5.

This skill represents a combination of basic military training — the lessons taught at "boot camp" or its equivalent — and actual combat experience.

The GM may require a Soldier roll whenever circumstances would test your battlefield discipline (knowing when to shoot, use concealment, take cover, etc.) or skill at practical field survival (e.g., keeping your feet dry and eating when you get the chance). Roll daily during prolonged military action. Failure means an inconvenience — perhaps a minor piece of equipment fails. Critical failure indicates a disaster: “friendly fire” incident, trench foot, etc.

Soldier includes basic lessons in many fields covered by other skills. For instance, a TL8 soldier learns to strip his rifle without learning Armoury (Small Arms), to use a radio without learning Electronics Operation (Comm), to dig a foxhole without learning Engineer (Combat), and so forth. In a situation where someone with one of those skills would roll at +4 or better for a routine task, the GM may let you roll against Soldier skill instead. You do not receive the bonus that someone with the full-fledged skill would get, but you do suffer any situational penalties.

Soldier can only substitute for skill rolls to do things that would be a believable part of basic training. This means the routine use of standard equipment by ordinary troops — not research, improvisation, or design, and never the operation of new or secret technologies! Soldier cannot replace weapon skills, either; you must buy all such skills separately.

Stealth

Defaults: DX-5 or IQ-5.

This is the ability to hide and to move silently. A successful roll lets you conceal yourself anywhere except in a totally bare room, or move so quietly that nobody will hear you, or follow someone without being noticed. If someone is specifically watching for intruders, the GM will roll a Quick Contest between your Stealth and the sentry’s Perception.

You can also use this skill to stalk game. A successful roll (and about 30 minutes) gets you within 30 yards of most animals. Another roll, at -5, gets you within 15 yards.

Modifiers: A penalty equal to your encumbrance level. -5 to hide in an area without “natural” hiding places, or +3 or more if there are many hiding places. -5 to move silently if you are moving faster than Move 1. -5 to fool those with Discriminatory Smell.

Strategy

Defaults: IQ-6, Intelligence Analysis-6, or Tactics-6.

This is the ability to plan military actions and predict the actions of the enemy. In most settings, only the military teaches this skill. A successful Strategy roll lets you deduce, in advance, enemy military plans unless another person with this skill leads them. In that case, the GM rolls a Quick Contest of Strategy. The amount of information gained depends on how well you roll (but not on the quality of the foe’s plans). If you fail an uncontested roll or lose a Quick Contest, the GM gives you false information.

You must specialize — Land, Naval, Space, etc. These specialties default to one another at -4. The specific units being commanded are less important; even the units of another nation or tech level would give -1 or -2 at most (GM’s judgment), as long as you had accurate information about their capabilities.

Streetwise

Default: IQ-5.

A successful Streetwise roll might let you learn (among other things) where any sort of illegal "action" is; which local cops or bureaucrats can be bought, and for how much; and how to contact the local underworld. This skill is a measure of your ability to make new connections as needed. You may substitute an Influence roll against Streetwise for any reaction roll made in an underworld or "bad neighborhood" situation; see Influence Rolls.

Modifiers: +3 if you have a tough reputation (either "good" or "bad") in the area; -3 if you are obviously a stranger in the area.

Surgery/TL

Defaults: First Aid-12, Physician-5, Physiology-8, or Veterinary-5.

Prerequisites: First Aid or Physician.

This is the skill at using invasive medical techniques to treat sickness or injury. Roll once per operation. On a success, the opera-
tion proceeded without complications. On a failure, the patient took damage — 2d for a simple amputation, 3d for other procedures. Surgery rolls can also facilitate recovery from wounds.

This skill represents general surgical expertise, which is relatively rare in real life. Most surgeons have an optional specialty in a certain part of the body (brain, heart, etc.) or a specific type of surgery (cosmetic surgery, microsurgery, transplant surgery, etc.) or on a Zorski Group (see Interopers Medicine), or even a specific race.

Modifiers: -3 if the area or equipment cannot be properly cleaned and sterilized; -3 for head or chest surgery; -5 for undiagnosed problems. If you lack Physician skill, you are at -5 to do anything but "field-expedient" surgery (e.g., stitch wounds or extract arrowheads, bullets, and shards).  

Survival ♦  
Per/Average  
Defaults: Perception-5 or Naturalist (same planet)-3.

This is the ability to "live off the land," find safe food and water, avoid hazards, build shelter, etc. You may look after up to 10 other people. To live safely in a wilderness situation, you must make a successful Survival roll once per day. Failure inflicts 2d-4 injury on you and anyone in your care; roll separately for each victim.

This skill also gives an "eye for country." A successful roll shows you the best direction of travel to find flowing water, a mountain pass, or whatever other terrain feature you desire — assuming that it exists.

Finally, you can use this skill to trap wild animals. (A city-bred thief could use Traps skill, but he's used to different game ... so the roll would be at -5.) Make one roll per trap. It takes about 30 minutes to improvise a trap from ordinary materials, or 10 minutes to set and hide a commercial steel trap. Pit traps for large game take several hours to dig.

Survival often requires skill rolls based on scores other than Perception. The GM might ask for a ST-based roll to dig a pit trap or erect a log shelter, a DX-based roll to start a fire using primitive techniques (flint sparking, bow and palette, etc.), or even a HT-based roll to avoid nutritional deficiencies from an improvised diet.

You must specialize by terrain type. You must also specialize by planet. Each Survival specialty defaults to the same terrain type for a different planet at -4. There is no default at all between Survival skills for two planets of different planet types.

Swimming
Default: HT-4.

This is the skill of swimming (whether on purpose or to keep afloat in emergencies) and lifesaving. Roll against the higher of Swimming or HT to avoid fatigue while swimming or injury due to aquatic misfortunes. When racing someone of equal water Move, roll a Quick Contest of Swimming to determine the winner.

Tactics
IQ/Hard  
Defaults: IQ-6 or Strategy (any)-6.

This is the ability to outguess and outmaneuver the enemy in small-unit or personal combat. In most settings, only the military teaches this skill.

When commanding a small unit, roll against Tactics to place your troops correctly for an ambush, know where to post sentries, etc. At the GM's option, a successful roll might even provide clues as to immediate enemy plans. To outmaneuver enemy units, you must win a Quick Contest of Tactics with their leader. All of this only applies when you lead a group small enough that you can give each warrior orders personally — or through at most one subordinate. Thus, radio and similar technologies can greatly enhance your command abilities!

In personal combat, you may make a Tactics roll before the fight begins if you had any time to prepare. On a success, you start the fight in an advantageous position — e.g., behind cover or on higher ground — as determined by the GM. The better the roll, the greater your advantage. If you fail, or do not attempt a Tactics roll, you are in a random location (or one of the GM's choosing) when combat begins. Fighters without Tactics skill always start combat this way.

Even in an ambush or similar "surprise" situation, the GM will use the better of your Tactics skill and your Perception to see if you spotted the danger on time.

Throwing
DX/Average  
Defaults: DX-3 or Dropping-4.

This is the ability to throw any small, relatively smooth object that fits in the palm of your hand. Examples include baseballs, hand grenades, and rocks. (Boomerangs, javelins, knives, etc. require their own specialized skills; see Thrown Weapon.)

Roll against skill to hit. Furthermore, if you know Throwing at DX+1 level, add +1 to ST when figuring throwing distance (but not damage). Add +2 to ST for Throwing at DX+2 or better. If you do not have this skill, roll against your default to hit a specific target, but against full DX to lob an object into a general area.

Thrown Weapon ♦  
DX/Easy  
Defaults: DX-4 and others.

This is the ability to hurl any one type of thrown weapon. You must specialize.

Tracking
Per/Average  
Defaults: Perception-5 or Naturalist-5.

This is the ability to follow a man or an animal by its tracks. Make a Tracking roll to pick up the trail, then roll periodically to avoid losing it. The frequency and difficulty of these rolls depend on the terrain:

- Jungle, Plains, or Woodlands: Roll every 30 minutes.
- Arctic, Desert, Island/Beach, or Mountain: Roll at -2 every 15 minutes.
- Swampland: Roll at -4 every 5 minutes.
- Urban: Roll at -6 every minute!

You may also use this skill to cover your tracks. This doubles your travel time! A successful roll means you have hidden your tracks well enough that only someone else with this skill can see them. If another tracker follows you, the Tracking rolls above become Quick Contests of Tracking skill. If he loses any of the Contests, he loses your trail.

Modifiers: -5 if the trail is more than a day old, or -10 if more than a week old. +3 if you are following a man, or +6 if following a group of men.

VaccSuit/TL  
See Environment suit.

Wrestling
DX/Average  
Defaults: None.

This skill represents training at grappling and pinning. Roll against the higher of DX or Wrestling to hit with a grapple, or to make or resist a takedown. Furthermore, if you know Wrestling at DX+1 level, add +1 to ST for the purpose of making or resisting any choke, grapple, neck snap, takedown, or pin, and whenever you attempt to break free. Add +2 to ST for Wrestling at DX+2 or better.
DICE ROLLING BASICS

SUCCESS ROLLS

Whenever a character attempts to perform an action (e.g., use a skill), roll three dice to determine the outcome. This is called a success roll. The task in question succeeds if the total rolled on the dice is less than or equal to the number that governs the action — most often a skill or an attribute. Otherwise, it fails.

Regardless of the score you are rolling against, a roll of 3 or 4 is always a success, while a roll of 17 or 18 is always a failure. In general, the player makes the die rolls for his character’s actions. However, the GM may always choose to roll the dice in secret.

Default Rolls

When a task calls for a skill roll, you must have some ability with the required skill in order to attempt the task. Ideally, you want points in that skill ... but an untrained person can take a stab at most tasks. For instance, anyone can swing a sword — although only a trained warrior is likely to have much success at it.

A skill that anyone can attempt without study is said to “default” to an attribute or another skill. This means you can attempt the desired action by rolling against one of your attributes or other skills at a penalty. This “default roll” is just an ordinary success roll.

Example: Lockpicking skill defaults to “IQ-5”; that is, anyone can open a lock, without training, by making a success roll against 5 less than his IQ. If your IQ is 10, you can open an ordinary lock on a roll of 5 or less on 3d. The smarter you are, the better your chances — but training is always preferable.

The description of each skill shows what skills or attributes it defaults to, and at what penalties. If a skill offers multiple defaults, always choose the best one.

Example: Interrogation defaults to “IQ-5, Intimidation-3, or Psychology-4.” If you’re not a trained interrogator, you can still get answers out of a prisoner by outthinking him (IQ-5), frightening him (Intimidation-3), or playing “mind games” with him (Psychology-4). If you had IQ 12, Intimidation at 14, and Psychology at 13, your defaults would be 7, 11, and 9, respectively. Roll against 11, the highest of the three.

The Rule of 20

If you have a basic attribute over 20, treat it as 20 for default purposes. For instance, if you have IQ 25, your default Lockpicking skill (IQ-5) is 15 — not 20. No such limit applies to defaults to other skills.

“No Default”

Some actions are impossible without training. Skills like Fast-Draw, Karate, and Computer Programming have no default. If you lack the proper training, you can’t attempt these things at all.

DEGREE OF SUCCESS OR FAILURE

Once you have calculated effective skill by applying all relevant modifiers to base skill, roll 3d to determine the outcome. If the total rolled on the dice is less than or equal to your effective skill, you succeed, and the difference between your effective skill and your die roll is your margin of success. Example: If you have effective skill 18 and roll a 12, you succeed; your margin of success is 6.

If you roll higher than your effective skill, you fail, and the difference between the die roll and your effective skill is your margin of failure. Example: If you have effective skill 9 and roll a 12, you fail; your margin of failure is 3.

Always note your margin of success or failure, as many rules use these margins to calculate results that matter in play. Even when the rules don’t call for these numbers, the GM might wish to reward a large margin of success with a particularly favorable outcome, or assess especially dire consequences for a large margin of failure. Extremely high or low rolls have special effects — beyond those for normal success and failure — regardless of your exact margin of success or failure.

Critical Success

A critical success is an especially good result. You score a critical success as follows:

- A roll of 3 or 4 is always a critical success.
- A roll of 5 is a critical success if your effective skill is 15+.  
- A roll of 6 is a critical success if your effective skill is 16+.

When you roll a critical success, the GM determines what happens to you. It is always something good! The lower the roll, the better “bonus” he gives you. A critical hit is a critical success scored on an attack. The GM does not determine the result. Instead, use the Critical Hit Table.

Critical Failure

A critical failure is an especially bad result. You score a critical failure as follows:

- A roll of 18 is always a critical failure.
- A roll of 17 is a critical failure if your effective skill is 15 or less; otherwise, it is an ordinary failure.
- Any roll of 10 greater than your effective skill is a critical failure: 16 on a skill of 6, 15 on a skill of 5, and so on.

When you roll a critical failure, the GM determines what happens to you. It is always something bad – the higher the roll, the worse the result. A critical miss is a critical failure scored on an attack. The GM does not determine the result. Instead, use the Critical Miss Table.
CRITICAL HIT TABLE

All doublings or triplings of damage refer to basic damage (not injury). In all cases, the target gets no active defense against the attack.

3 - The blow does triple damage.
4 - The target's DR protects at half value (round down) after applying any armor divisors.
5 - The blow does double damage.
6 - The blow does maximum normal damage.
7 - If any damage penetrates DR, treat it as if it were a major wound, regardless of the actual injury inflicted.
8 - If any damage penetrates DR, it inflicts double normal shock (to a maximum penalty of -8). If the injury is to a limb or extremity, that body part is crippled as well. This is only a "funny-bone" injury: crippling wears off in (16 - HT) seconds, minimum two seconds, unless the injury was enough to cripple the body part anyway.
9, 10, 11 - Normal damage only.
12 - Normal damage, and the victim drops anything he is holding, regardless of whether any damage penetrates DR.
13, 14 - If any damage penetrates DR, treat it as if it were a major wound, regardless of the actual injury inflicted.
15 - The blow does maximum normal damage.
16 - The blow does double damage.
17 - The target's DR protects at half value (round down) after applying any armor divisors.
18 - The blow does triple damage.

CRITICAL MISS TABLE

3, 4 - Your weapon breaks and is useless. Exception: Certain weapons are resistant to breakage. These include solid crushing weapons (maces, flails, mauls, metal bars, etc.); firearms (other than wheel-locks, guided missiles, and beam weapons); and fine and very fine weapons of all kinds. If you have a weapon like that, roll again. Only if you get a "broken weapon" result a second time does the weapon really break. If you get any other result, you drop the weapon instead. Note that many items and weapons built by a high-tech civilization are fine or very fine by default; only weapons built specifically for export ("Monkey Models") are normal grade.
5 - You manage to hit yourself in the arm or leg (50% chance each way). Exception: If making an impaling or piercing melee attack, or any kind of ranged attack, roll again. If you get a "hit yourself" result a second time, use that result - half or full damage, as the case may be. If you get something other than "hit yourself," use that result.
6 - As 5, but half damage only.
7 - You lose your balance. You can do nothing else (not even a free action) until your next turn, and all your active defenses are at -2 until then.
8 - The weapon turns in your hand. You must take an extra Ready maneuver before you can use it again.
9, 10, 11 - You drop the weapon. Exception: A cheap weapon breaks; see 3.
12 - As 8.
13 - As 7.
14 - If making a swinging melee attack, your weapon flies 1d yards from your hand - 50% chance straight forward or straight back. Anyone on the target spot must make a DX roll or take half damage from the falling weapon! If making a thrusting melee attack or any kind of ranged attack, or parrying, you simply drop the weapon, as in 9.
15 - You strain your shoulder! Your weapon arm is "crippled." You do not have to drop your weapon, but you cannot use it, either to attack or defend, for 30 minutes.
16 - You fall down! If making a ranged attack, see 7 instead.
17, 18 - Your weapon breaks; see 3.

REPEATED ATTEMPTS

Sometimes you will only get one chance to do something (defuse a bomb, jump over a crevasse, remove an inflamed appendix). Other times you can try over and over again until you succeed (pick a lock, catch a fish, analyze a poison). Still other times you will not know whether you succeeded or failed until it's too late to try again (translate an ancient Vulcan scroll, order in a French restaurant, build a ship). Finally, there are times when you are injured by failure but can afford to fail a few times (climb a wall, impress a savage tribesman).

The GM must use common sense to distinguish between these cases, according to the exact situation in which the players find themselves. As a rule:
  • If the first failure kills them or destroys the object of the attempt, that's that.
  • If a failure causes damage of some kind, assess the damage and let them try again after a "reasonable" time passes.
  • If a failure causes no damage, let them try again after a reasonable time, but at -1 per repeated attempt - that is, -1 on the second attempt, -2 on the third, and so on - until they succeed or give up.
CONTESTS

Sometimes a situation will arise in which two characters must compare attributes, skills, or other traits to settle a competition. The one with the highest score doesn’t always win ... but that’s the way to bet. A “Contest” is a quick way to handle such a competitive situation without playing it out in detail. In a Contest, each competitor attempts a success roll against the ability being tested — with all applicable modifiers — and then compares his result to his opponent’s. There are two different ways to make this comparison.

Regular Contests

A “Regular Contest” is a slow competition with much give and take — for instance, arm wrestling. Each character attempts his success roll. If one succeeds and the other fails, the winner is obvious. If both succeed or both fail, the competitors’ relative positions are unchanged and they roll again. Eventually, one character succeeds when the other fails. At this point, the one who made his roll is the winner.

The length of game time each attempt takes depends on the activity, and is up to the GM. In a combat situation, each attempt takes one second ... but in a library-research contest, with the fate of the galaxy hanging on who finds a certain obscure reference first, each attempt could represent days of time.

Quick Contests

A “Quick Contest” is a competition that is over in very little time — often in one second, perhaps even instantly. Examples include two enemies lunging for a phaser, or two knife throwers seeing who gets closer to the bull’s-eye. Each competitor attempts his success roll. If one succeeds and the other fails, the winner is obvious. If both succeed, the winner is the one with the largest margin of success; if both fail, the winner is the one with the smallest margin of failure. A tie means nobody won (in the examples above, both fighters grabbed the weapon at once, or the knives hit the same distance from the bull’s-eye).

Margin of Victory

The amount by which the winner beat the loser is often important — success by 5 vs. failure by 5 generally means more than success by 2 vs. success by 1! The winner’s “margin of victory” is the difference between his margin of success and the loser’s margin of success if both succeeded, the sum of his margin of success and the loser’s margin of failure if he succeeded and the loser failed, or the difference between the loser’s margin of failure and his margin of failure if both failed.

Resistance Rolls

Most abilities that can affect an unwilling subject offer the subject an attempt to resist using an attribute, skill, or supernatural ability. This is sometimes a Quick Contest between the attacking ability and the defender’s resistance, in which case two special rules apply:

1. The attacker must succeed to win. He cannot win by having the smallest margin of failure. If he fails his roll, he loses automatically and his subject does not need to attempt a resistance roll.

2. The attacker must win to affect the subject. All ties go to the defender.

PHYSICAL FEATS

CLIMBING

To climb anything more difficult than a ladder, roll against Climbing skill; this defaults to DX-5. Modifiers to the roll depend on the difficulty of the climb (see below). In all cases, subtract your encumbrance level from your roll as well. Climbing while heavily laden is a dangerous matter!

Make one roll to start the climb and another roll every five minutes. Any failure means you fall. If you secured yourself with a rope, you will fall only to the end of the rope unless you rolled a critical failure.

The table below gives skill modifiers and climbing speeds for some common climbs. In most cases, use the speeds in the “Regular” column. The “Combat” column is for climbs inspired by rage or terror, which always cost at least 1 FP — or double the FP cost given in an adventure or assessed by the GM. Climbs in combat require a Move maneuver.

<table>
<thead>
<tr>
<th>Type of Climb</th>
<th>Modifier</th>
<th>Combat Rungs/sec</th>
<th>Combat Feet/min</th>
<th>Regular Rungs/sec</th>
<th>Regular Feet/min</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ladder going up</td>
<td>no roll</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Ladder going down</td>
<td>no roll</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Ordinary tree</td>
<td>+5</td>
<td>1</td>
<td>1/2</td>
<td>1</td>
<td>1/3</td>
</tr>
<tr>
<td>Ordinary mountain</td>
<td>0</td>
<td>1</td>
<td>1/2</td>
<td>1</td>
<td>1/3</td>
</tr>
<tr>
<td>Vertical stone wall</td>
<td>-2</td>
<td>1</td>
<td>1/2</td>
<td>1</td>
<td>1/3</td>
</tr>
<tr>
<td>Modern building</td>
<td>-3</td>
<td>1</td>
<td>1/5</td>
<td>1</td>
<td>1/10</td>
</tr>
<tr>
<td>Rope-up</td>
<td>-2</td>
<td>1</td>
<td>1/10</td>
<td>1</td>
<td>1/20</td>
</tr>
<tr>
<td>Rope-down (w/o equipment)</td>
<td>-1</td>
<td>2</td>
<td>2/3</td>
<td>30</td>
<td>20/3</td>
</tr>
<tr>
<td>Rope-down (w/equipment)</td>
<td>-1</td>
<td>12</td>
<td>15</td>
<td>30</td>
<td>20/3</td>
</tr>
</tbody>
</table>

DIGGING

Digging rate depends on the type of soil, the digger’s Basic Lift (that is, ST x ST/5), and the quality of the tools available.

Loose Soil, Sand, etc.: A man can dig 2 x BL cubic feet per hour.

Ordinary Soil: A man can dig BL cf/hr. One man with a pick can break up 4 x BL cubic feet per hour, making it into loose soil, which is easier to remove. The most efficient way to dig is with one man with a pick, and two shovelers clearing behind him.

Hard Soil, Clay, etc.: Must be broken up first by a pick, and then shoveled at 2x BL cubic feet per hour.
JUMPING

When you want to jump over something with a Size Modifier 3 less than yours or smaller (which encompasses most "ordinary" obstacles), the GM should say, "Okay, you jumped over it," and get on with play. Such jumps succeed automatically. But when the obstacle seems really significant, or if the GM puts it there as a deliberate hazard, use the following rules:

Jumping Distance

Your Basic Move determines jumping distance, as follows:
- **High Jump**: (6 x Basic Move) - 10 inches. For example, a Basic Move of 6 lets you jump 25" straight up. For a running jump, add the number of yards you run to Basic Move in this formula. Maximum running high jump height is twice standing high jump height.
- **Broad Jump**: (2 x Basic Move) - 3 feet. For example, a Basic Move of 6 lets you jump 9 feet from a standing start. For a running jump, add the number of yards you run to Basic Move in this formula. Maximum running broad-jump distance is twice standing broad-jump distance.

HIKING

Sustainable cross-country speed on foot depends on ground Move. Start with Basic Move and reduce it for encumbrance, injury, and exhaustion, as applicable.

The distance in miles you can march in one day, under ideal conditions, equals 10 x Move.

If you have the Enhanced Move (Ground) advantage (page 63), you may apply your movement multiple to this distance. For instance, Enhanced Move 1 (Ground) multiplies Move by two, doubling daily marching distance.

A successful roll against Hiking skill increases marching distance by 20%; Hiking defaults to HT-5 for those who have not studied it. Roll daily. A group led by someone with Leadership skill at 12+ may make a single roll against the group's average Hiking skill. Success lets the entire group march 20% farther; failure means the whole group must forgo the bonus. When these rules result in different speeds for different members of a party, the party must either move at the speed of its slowest member or split up. Note that a party that has opted to make a single Hiking roll for the entire group has already chosen not to split up!

Terrain

Once you know your ideal daily mileage, modify it for terrain as follows:
- **Very Bad**: Deep snow, dense forest, jungle, mountains, soft sand, or swamp. x 0.20.
- **Bad**: Broken ground (including streams), forest, or steep hills. x 0.50.
- **Average**: Light forest or rolling hills x 1.00.
- **Good**: Hard-packed desert or level plains. x 1.25.

Weather

Weather conditions can further modify distance traveled:
- **Rain**: Rain halves off-road speed in any terrain. See Roads (below) for the effects of rain on roads.
- **Snow**: Ankle-deep snow halves speed in any terrain. Anything deeper divides speed by 4 or more. **Exception**: Skis allow travelers to treat any depth of snow as Average terrain. Replace Hiking skill with Skiing skill when traveling on skis.
- **Ice**: Cold combined with moisture — due to rain, sleet, snowmelt, etc. — results in ice. A coating of ice halves speed in any terrain. **Solid Ice**, such as a frozen lake or river, is effectively its own terrain type; treat it as Bad terrain. **Exception**: Treat solid ice as Good terrain for those with skates. Skating skill replaces Hiking skill when traveling on skates.

Roads

In fine weather, most roads count as Average terrain, regardless of the surrounding terrain. The best roads might even count as Good terrain, giving a bonus. In rain, low-quality roads — unsurfaced dirt or gravel — turn to mud. Treat them as Very Bad terrain. Better roads behave as Average (but never Good) terrain in the rain. In snow or ice, treat roads as Average terrain, but apply the movement penalties given under **Weather** (above) unless the road is cleared.

Time Required and Fatigue Cost

These rules assume you spend the entire day preparing for your hike, hiking, or resting, leaving no time for study or other activities. This is true however small your daily mileage — the heavier your load and the worse the traveling conditions, the more slowly you walk and the more frequently you stop to rest. Should you interrupt your travels for adventuring matters, you will be missing FP when you stop.

LIFTING AND MOVING THINGS

Basic Lift — ST x ST/5 pounds (page 28) — governs the weight you can pick up and move. The GM may let multiple characters add their BL to the ST when it seems reasonable; e.g., to carry a stretcher or pull a wagon.

- **One-Handed Lift**: 2 x BL (takes two seconds).
- **Two-Handed Lift**: 8 x BL (takes four seconds).
- **Shove and Knock Over**: 12 x BL. Double this if you have a running start. The GM can also make allowances for precariously balanced objects, to make them easier to tilt.
- **Carry on Back**: 15 x BL. Thus, you can carry more than you can lift by yourself ... but every second that your encumbrance is over 10 x BL (that is, Extra-Heavy encumbrance), you lose 1 FP.

**Shift Slightly**: Depending on your footing and the way you are braced, you could shift or rock 50 x BL.

Pulling and Dragging

When you pull a load behind you unassisted, use its full weight. Halve effective weight if you are pulling a sled over snow or ice, divide effective weight by 10 for a two-wheeled cart, and divide effective weight by 20 for a four-wheeled wagon. (Remember to add the weight of the sled, cart, or wagon to that of the load before dividing!)

In all cases, if the surface is smooth and relatively level — for instance, a concrete floor, a proper road, or a frozen lake — **halve** the effective weight of the load. This is cumulative with the effects of a sled, cart, or wagon.

Final effective weight pulled, after all modifiers, cannot exceed 15 x BL if you are to have any hope of moving the object at all. Determine your encumbrance level using effective weight, and work out Move normally.
RUNNING

Your running speed, or ground Move, is equal to your Basic Move score modified for encumbrance. In combat, running is just a series of Move maneuvers. Use the more detailed rules below when it is important to know whether the heroes catch the shuttle to Antares, escape the berserk Slirdarians, or whatever.

Sprinting

Sprinting is all-out running. It is very fast, but also fatiguing. Use it when you need to cover a short distance quickly, and can afford to arrive at your objective somewhat fatigued. You can sprint if you run *forward* for two or more seconds. Add 20% to your Move after one second. For instance, with a Move of 7, you could sprint at 8.4 yards/second after running for one second at 7 yards/second.

On a battle map, where movement involves discrete one-yard hexes, drop all fractions to get a round Move score; in the example above, you would have Move 8. Assume that even the slowest sprinter gets +1 Move. Thus, sprinters with Move 9 or less can move one extra hex on a battle map. If you have Enhanced Move (Ground), you can accelerate by your Basic Move every second until you reach top speed. Use your Enhanced Move multiplier instead of the 20% bonus above.

You may only move at your maximum sprinting speed if the ground is good and you are running more or less straight at some goal. Any deviation from "forward" movement requires you to run at normal ground Move for one second before you can resume sprinting.

Paced Running

If you need to run a long distance, you will want to pace yourself to avoid exhaustion. Paced running averages exactly half the sprinting speed calculated above.

Fatigue Cost

After every 15 seconds of sprinting or every minute of paced running, roll against the *higher* of HT or Running skill. On a failure, you lose 1 FP. Once you are reduced to 1/3 or less your FP, halve your Move for any kind of running. Note that since paced running is half as fast as sprinting but burns FP at one-quarter the rate, you can run twice as far before you run out of energy.

SWIMMING

Unless you are Amphibious or Aquatic, you must roll against Swimming skill any time you enter water over your head; Swimming defaults to HT-4. Roll when you first enter the water, and again every five minutes. *Modifiers:* +3 if you entered the water intentionally; a penalty equal to twice your encumbrance level (e.g., Heavy encumbrance gives -6); +1 if you are Overweight, +3 if Fat, or +5 if Very Fat.

On a failure, you inhale water! Lose 1 FP and roll again in five seconds — and so on, until you drown, are rescued (see *Life-saving*, below), or make a successful Swimming roll and get your head above water. If you successfully recover, roll again in one minute; if you succeed, go back to making rolls five minutes apart.

Yes, you can shout for help! You may try to get rid of armor, etc. after making your first successful Swimming roll. Roll vs. DX for each item you try to remove; roll at -4 to remove shields, helmets, or torso armor. A failed roll means you inhale water, with penalties as above.

Once you reach 0 FP, you must make a Will roll every second or fall unconscious, and are likely to die unless you are rescued. See *Suffocation* page 123.

Swimming Speed

Land-dwellers such as humans have water Move equal to Basic Move/5 (round down), although it is possible to modify this slightly; see *Move in Other Environments* (page 29). Minimum water Move for such characters is 1 yard/second. Amphibious and Aquatic beings have water Move equal to their full Basic Move.

When swimming long distances, use a 10-second time scale. The number of yards you can swim in 10 seconds is equal to 10 times your water Move, modified downward for encumbrance. For instance, water Move 1 and Heavy encumbrance would let you swim four yards in 10 seconds.

Fatigue Cost

After every minute of top-speed swimming, roll against the *higher* of HT or Swimming skill. On a failure, you lose 1 FP. Once you are reduced to 1/3 or less your FP, halve your water Move. If you are swimming slowly, or just staying afloat, make this roll every 30 minutes.

Life-saving

You can use the Swimming skill to rescue a drowning person. Make a Swimming roll at -5, plus or minus the difference in ST between you and the person you are rescuing. If the players think of good lifesaving techniques, the GM may give them a bonus to this roll. On a failure, you inhale water and lose 1 FP, but may try again after one minute. On a critical failure, the victim nearly drowned you! This costs 6 FP, and you must break off the rescue attempt.

FLYING

When flying, use the *Hiking* and *Running* rules with these changes:

- Substitute "air Move" (equal to twice Basic Speed, dropping all fractions) for "ground Move" (equal to Basic Move). Apply modifiers for encumbrance, injury, and fatigue exactly as you would for ground Move.
- Substitute "Enhanced Move (Air)" for "Enhanced Move Ground." For high-speed flight ("running"), handle acceleration with Enhanced Move as described under *Sprinting*.
- Substitute "Flight skill" for "Hiking skill" and "Running skill."
- Ignore terrain, but note that wind and other weather conditions can have comparable effects.
THROWING

You can throw anything you can pick up – that is, anything with a weight of 8 x BL or less. If the object you wish to throw is not already in your hands, you must take one or more Ready maneuvers to pick it up.

Throwing an object during combat – whether an attack or not – requires an Attack maneuver. You can throw objects that weigh up to 2 x BL using one hand; heavier objects require a two-handed throw. Roll against DX-3 to hit a specific target, or against DX to lob something into a general area. Apply the usual modifiers for target size, speed, and distance.

Throwing Distance

To avoid slowing down the game with math, the GM should allow any throw he deems reasonable ... but when you need to know the exact distance you can throw an object, use the following procedure:
1. Divide the object’s weight in pounds by your Basic Lift to get the “weight ratio.”
2. Find the weight ratio in the Weight Ratio column of the table below. If it falls between two values, use the higher value.
3. Read across to the Distance Modifier column and find the “distance modifier.”
4. Multiply your ST by the distance modifier to find the distance in yards you can throw the object.

<table>
<thead>
<tr>
<th>Weight Ratio</th>
<th>Distance Modifier</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.05</td>
<td>3.50</td>
</tr>
<tr>
<td>0.10</td>
<td>2.50</td>
</tr>
<tr>
<td>0.15</td>
<td>2.00</td>
</tr>
<tr>
<td>0.20</td>
<td>1.50</td>
</tr>
<tr>
<td>0.25</td>
<td>1.20</td>
</tr>
<tr>
<td>0.30</td>
<td>1.10</td>
</tr>
<tr>
<td>0.40</td>
<td>1.00</td>
</tr>
<tr>
<td>0.50</td>
<td>0.80</td>
</tr>
<tr>
<td>0.75</td>
<td>0.70</td>
</tr>
<tr>
<td>1.00</td>
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<td>1.50</td>
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<tr>
<td>2.00</td>
<td>0.30</td>
</tr>
<tr>
<td>2.50</td>
<td>0.25</td>
</tr>
<tr>
<td>3.00</td>
<td>0.20</td>
</tr>
<tr>
<td>4.00</td>
<td>0.15</td>
</tr>
<tr>
<td>5.00</td>
<td>0.12</td>
</tr>
<tr>
<td>6.00</td>
<td>0.10</td>
</tr>
<tr>
<td>7.00</td>
<td>0.09</td>
</tr>
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<td>8.00</td>
<td>0.08</td>
</tr>
<tr>
<td>9.00</td>
<td>0.07</td>
</tr>
<tr>
<td>10.0</td>
<td>0.06</td>
</tr>
<tr>
<td>12.0</td>
<td>0.05</td>
</tr>
</tbody>
</table>

Damage From Thrown Objects

Thrown objects inflict thrust damage for your ST (see Damage Table), modified for weight as shown on the table below. Damage is usually crushing, but the GM may rule that a sharp object does cutting, piercing, or impaling damage instead. A fragile object (or a thrown character) takes the same amount of damage it inflicts; roll damage separately for the object and target.

<table>
<thead>
<tr>
<th>Weight</th>
<th>Damage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Up to BL/8</td>
<td>-2 per die</td>
</tr>
<tr>
<td>Up to BL/4</td>
<td>-1 per die</td>
</tr>
<tr>
<td>Up to BL/2</td>
<td>Unchanged</td>
</tr>
<tr>
<td>Up to BL</td>
<td>+1 per die</td>
</tr>
<tr>
<td>Up to 2 x</td>
<td>Unchanged</td>
</tr>
<tr>
<td>Up to 4 x</td>
<td>-1/2 per die</td>
</tr>
<tr>
<td>Up to 8 x</td>
<td>-1 per die</td>
</tr>
</tbody>
</table>

CATCHING

If someone throws an object at you, you may make an active defense roll to avoid it. However, if he deliberately throws it to you – by successfully lobbing it into your general area – you can try to catch it. Roll against DX or a suitable Sports skill to make the catch, at -4 if you are not taking a Wait maneuver, but at +1 per two full points by which the thrower made his roll. This counts as a parry with your catching hand.

You can also attempt to intercept a thrown object on route to a catcher. Treat this as a parry against a thrown weapon. On a success, you snatch the thrown object out of the air.

EXTRA EFFORT

Through sheer force of will, you can push your body past its usual limits when you perform physical tasks. This is called "extra effort." You can use extra effort to increase Basic Lift (but not ST itself) when digging or lifting; daily mileage when hiking; Move when running or swimming; distance (but not Basic Move itself) when jumping; and ST for the purposes of throwing, making a single ST roll, or drawing or cocking a bow or crossbow that’s too strong for you.

You cannot use extra effort to increase the time you can hold your breath – that would be self-defeating!

To apply extra effort, make a Will roll. Modifiers: -1 per 5% increase in capabilities (e.g., to add 10% to ST, roll at -2). If you are fatigued, apply a penalty equal to the missing FP. Roll at +5 if you are motivated by fear, anger, or concern for a loved one (GM’s decision, but you must usually fail a Fright Check or a self-control roll for a suitable disadvantage, or be the victim of a successful Intimidation attempt, to get this bonus).

Extra effort costs FP whether you succeed or fail. Instantaneous feats (e.g., jumps and throws) cost a flat 1 FP per attempt. Ongoing tasks (digging, running, swimming, etc.) require repeated extra effort rolls, and cost 1 FP per roll. Hiking works differently – see below. Pay the FP cost for extra effort immediately after you attempt your Will roll. Note that the FP spent on extra effort do not penalize this attempt, but give a penalty to future attempts until you recover the FP.

On a success, you gain the desired increase in your physical capabilities. This does not guarantee success at the task at hand – you could still fail the DX roll for an extra-effort jump, for instance. On a critical success, you do not have to pay FP for your extra effort.

On a failure, you achieve only what you would have accomplished without extra effort. A critical failure means you lose HP equal to the FP spent on the attempt – including any FP the task would have cost without extra effort – and the task fails automatically! If you roll a natural 18, you must also make an immediate HT roll to avoid acquiring a temporary disadvantage appropriate to the task (see below for examples). Handle recovery as described in Duration of Crippling Injuries. A sufficiently bad HT roll can result in a permanent disadvantage!
DIFFERENT GRAVITY

A world's gravity is measured in "Gs," with 1G being Earth-normal conditions. In comparison, Mars has 0.38G and the Moon has 0.17G. Microgravity is extremely low gravity (e.g., that of an asteroid or small moon) -- for game purposes, anything below 0.1G. Zero gravity is weightlessness, or "free fall," as found in space and aboard any spacecraft not spinning, accelerating, or otherwise generating artificial gravity. In higher or lower gravity, mass stays the same, but weight changes.

Encumbrance and Move in Different Gravity

If local gravity is more than 1G, multiply the sum of your body weight and the weight of everything you're carrying by (local gravity in Gs)-1. This is the extra weight you're carrying due to high gravity. Add this to your encumbrance when determining Move. Example: You weigh 150 lbs. and are carrying 30 lbs. of gear. On a 1.2-G world, that amounts to an extra weight of (150 + 30) x (1.2 - 1) = 36 lbs. Since you're already carrying 30 lbs., your total encumbrance is 66 lbs.

If local gravity is less than 1G, multiply the weight of the gear you're carrying by the local gravity, and use the modified weight to determine your encumbrance. There is a similar reduction in your body weight; this does not affect encumbrance, but it lets you jump further.

In very low gravity, you may be able to move faster than your Basic Move by making a series of running broad jumps instead of walking! In zero gravity, you float in space (unless using magnetic boots, thrusters, etc.). If you can't fly, you must push off from a solid surface to move. Your Move when doing so is equal to ST/2, rounded down. You will keep going at that speed until you grab or collide with something!

Actions in Different Gravity

In gravities other than 1G, the jumping rules need modification. Multiply your normal jumping distances by the ratio of 1G to local gravity. For instance, under 1.25G, you jump 1/1.25 = 0.8 times as far, while under 0.2G, you jump 1/0.2 = 5 times as far. (Exception: Do not multiply the bonus high-jump distance you get from a running start!) When throwing, multiply distance by the ratio of 1G to local gravity, just as you would for jumping.

Damage from thrown objects does not change, as this is based on mass.

Gravity also affects falls. Multiply terminal velocity by local gravity.

In zero gravity, your skills and DX rolls are affected as well; see Free Fall. This does not apply when firing beam weapons (unless they have Recoil 2 or more) or operating vehicles or tools specifically designed for zero gravity (e.g., a spacecraft).

G-Increments and Attribute Penalties

If local gravity differs from your home gravity, you might become disoriented and suffer physiological effects. The change in gravity you can tolerate without penalties is your "G-Increment." This is 0.2G unless you have the Improved G-Tolerance advantage. In higher or lower gravity than usual, count the number of G-Increments from your home gravity, rounding down. This determines the penalties you suffer. For instance, an Earth native used to 1G treats 0.81G to 1.19G as zero G-Increments, but 0.8G or 1.2G counts as one G-Increment.

DX: You are at -1 DX per G-Increment of difference (-1 per two full G-Increments, if you have the G-Experience advantage). This applies to activities that require agility or judging ballistic trajectories; it affects Broadsword, Driving, and Guns, but not Beam Weapons or Lockpicking.

IQ: You are at -1 IQ per two full G-Increments of higher gravity, due to reduced blood flow to the brain and general fatigue. Lower gravity has no effect.

HT: You are at -1 HT per two full G-Increments of higher gravity, because the heart has to work harder. Lower your FP score by the same amount. There is no effect in lower gravity -- although microgravity or zero gravity might cause space sickness, or even have lasting ill effects in the long term.

HOLDING YOUR BREATH

Adventurers often need to hold their breath -- whether to dive or to survive poison gas, strangulation, vacuum, etc. Your HT determines the length of time you can hold your breath, as follows:

No Exertion (e.g., sitting quietly or meditating): HT x 10 seconds.

Mild Exertion (e.g., operating a vehicle, treading water, or walking): HT x 4 seconds.

Heavy Exertion (e.g., climbing, combat, or running): HT seconds.

These times assume you have one second to take a deep breath (requires a Concentrate maneuver in combat). Multiply all times by 1.5 if you hyperventilate first -- or by 2.5 if you hyperventilate with pure oxygen. A successful roll against Breath Control skill multiplies these times by a further factor of 1.5. However, if you are surprised and don't have a chance to take a deep breath -- e.g., when a gas grenade goes off in combat -- halve these times instead. Regardless of circumstances, each level of the Breath-Holding advantage doubles the time you can hold your breath.

At the end of this time, you start to lose 1 FP per second. At 0 FP, you must make a Will roll every second or fall unconscious, and are likely to die unless you are rescued. See Suffocation page 123.

SENSE ROLLS

"Sense rolls" include Vision rolls, Hearing rolls, Taste/Smell rolls, and all rolls to use special senses such as Scanning Sense and Vibration Sense. To notice something using a given sense, roll against your Perception score, modified by the applicable Acute Senses advantage: Acute Vision for Vision rolls, Acute Hearing for Hearing rolls, and so on.

Comprehension Rolls: A successful Sense roll means you noticed something. That is often sufficient, but in some cases, the GM may require a second roll to understand what you have sensed; e.g., to realize that the "hiss" you heard is really a Klingon warrior's battle language, or that the faint scent you noticed belongs to the flower of a man-eating plant. This roll is against IQ for details that anyone could figure out, or against an appropriate skill if the significance would be lost on anyone but an expert.

Danger Sense: If you have the Danger Sense advantage and fail a Sense roll or comprehension roll to notice something dangerous, the GM will secretly make a Perception roll for you. On a success, you sense the danger anyhow!

VISION

Make a Vision roll whenever it is important that you see something. Modifiers: Any Acute Vision bonus +3 for Hyperspectral Vision; modifiers for the size and range of the target; -1 to -9 in partial darkness. In total darkness, Vision rolls are impossible without special advantages or technological aids. To spot something in plain sight -- e.g., a car coming toward you on the road -- roll at +10. This does not apply to attempts to spot hidden objects, read text, identify faces, etc.

When you try to spot something that is deliberately hidden, the GM may treat this roll as a Quick Contest against a concealment skill (Camouflage, Holdout, etc.), and may allow -- or require -- a skill such as Observation or Search to replace Perception for the roll.
HEARING

Make a Hearing roll whenever it is important that you hear a sound. The GM will often require a separate IQ roll to make out speech, especially in a foreign language.

Modifiers: Any Acute Hearing bonus; +4 for Discriminatory Hearing; -4 for Hard of Hearing. The GM may make this roll easier or harder, depending on the loudness of the sound, surrounding noises, etc. The range at which you can hear a sound at no penalty is given on the table below. For each step by which you are closer than this, apply +1 to the roll, while for each step by which you are more distant, apply -1.

For instance, to hear normal conversation at 8 yards would require a roll at -3. When you try to hear someone who is attempting to move silently, the GM may treat this roll as a Quick Contest against his Stealth skill. If you are actively listening for such activity, the GM may allow you to substitute Observation skill for Perception.

Hearing Distance Table

<table>
<thead>
<tr>
<th>Sound Range</th>
<th>(yards)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leaves rustling</td>
<td>1/4</td>
</tr>
<tr>
<td>Quiet conversation</td>
<td>1/2</td>
</tr>
<tr>
<td>Normal conversation</td>
<td>1</td>
</tr>
<tr>
<td>Light traffic</td>
<td>2</td>
</tr>
<tr>
<td>Loud conversation</td>
<td>4</td>
</tr>
<tr>
<td>Noisy office</td>
<td>8</td>
</tr>
<tr>
<td>Normal traffic</td>
<td>16</td>
</tr>
<tr>
<td>“Quiet” rock band</td>
<td>32</td>
</tr>
<tr>
<td>Heavy traffic</td>
<td>64</td>
</tr>
<tr>
<td>Jet takeoff</td>
<td>128</td>
</tr>
<tr>
<td>Very loud rock band</td>
<td>256</td>
</tr>
<tr>
<td>Metallica</td>
<td>512</td>
</tr>
</tbody>
</table>

TASTE/SMELL

Taste and smell are two manifestations of the same sense. Make a Taste roll to notice a flavor, or a Smell roll to notice a scent. Modifiers: Any Acute Taste and Smell bonus; +4 for Discriminatory Smell or Taste (as applicable). The GM may modify this roll for a particularly strong or weak taste or odor, and may apply a penalty if it is specifically disguised.

INFLUENCE ROLLS

An ‘Influence roll’ is a deliberate attempt to ensure a positive reaction from an NPC. A PC with an appropriate ‘Influence skill’ can always elect to substitute an Influence roll for a regular reaction roll in suitable circumstances (GM’s decision). See Reaction Rolls for more on NPC reactions.

Decide which Influence skill you are using: Diplomacy, Fast-Talk, Intimidation, Savoir-Faire, Sex Appeal, or Streetwise. Choose wisely! The GM may allow other skills to work as Influence skills in certain situations (e.g., Law skill, when dealing with a judge). Then roll a Quick Contest: your Influence skill vs. the subject’s Will. Modifiers: All your personal reaction modifiers (although the GM or the skill description may rule that some modifiers do not apply); any specific modifiers given in the skill description; -1 to -10 for using an inappropriate Influence skill (GM’s decision).

If you win, you get a “Good” reaction from the NPC — “Very Good” if you used Sex Appeal. On any other outcome, the NPC resents your clumsy attempt at manipulation. This gives you a “Bad” reaction — “Very Bad” if you attempted specious intimidation. Exception: If you used Diplomacy, the GM will also make a regular reaction roll and use the better of the two reactions. Thus, Diplomacy is relatively safe...

WILL ROLLS

When you are faced with a stressful situation or a distraction, the GM may require you to roll against your Will to stay focused. On a success, you may act normally. On a failure, you submit to the fear, give in to the pressure, are distracted from your task, etc. The effects of a failed Will roll in a stressful situation are often identical to those of a failed self-control roll for a mental disadvantage. This does not make Will rolls and self-control rolls interchangeable.

Which kind of roll you must make depends on the cause of the stress, not on its effects. If a game-world event causes negative effects (distraction, stunning, etc.) for anyone who fails a Will roll, you roll against Will just like anyone else — even if your self-control roll to resist identical effects from a mental disadvantage would be easier or harder.

If a mental disadvantage causes a negative effect on a failed self-control roll, you roll against your self-control number to resist — even if your Will roll to avoid that same effect under other circumstances would differ. However, modifiers to self-control rolls and Will rolls to resist a particular effect are usually interchangeable. For instance, a drug that gives +2 to Will rolls to resist distraction would also give +2 to self-control rolls to resist disadvantages that result in distraction.

FRIGHT CHECKS

A Fright Check is a Will roll made to resist fear. Fright Checks can occur as often or as rarely as the GM wishes. In a horror campaign where ordinary people meet shockingly gruesome Things, Fright Checks might be very common! With only minor adaptation, the GM can use these rules for awe, confusion, etc. as well as fear. As a general rule, “ordinary” frightening things do not require Fright Checks.

Fright Checks are for events so unusual and terrifying that they might stun or even permanently scare someone. What counts as “ordinary” depends on the characters and the setting. This is one place where a character’s story can be helpful! An ordinary, 21st-century American might have to make Fright Checks for encounters with extra-terrestrials, dead bodies, and the supernatural. A battle-hardened commando in the same game might not have to roll for dead bodies. And in a fantasy campaign, all these things may be quite normal... threatening, but normal. On the other hand, a fantasy character might have to make a Fright Check if transported to the 21st century and given a ride down the interstate.

Fright Check Modifiers

The following modifiers are cumulative.

Advantages and Disadvantages: Any Fearlessness bonus or Fearfulness penalty; +2 for Combat Reflexes, or -2 for Combat Paralysis. Other modifiers are conditional: -1 to -4 for Cowardice when your physical safety is at risk; +1 for Daredevil when charging into a scary situation; +1 for Higher Purpose when confronting threats you are sworn to oppose; +1 to +4 for Xenophilia when confronting monsters. Unfazeable characters don’t make Fright Checks!

Bodies: +5 for a peaceful-looking body, prepared for burial; +2 for a dead body with no signs of violence; no modifier for most victims of violence; and from -1 to -3 for grisly mutilations. Apply another -6 if the victim was your Dependent!

Heat of Battle: +5 if you are in combat when the terrifying thing happens or you first notice it.

Monsters: A given monster might give a basic -1 to -10 to Fright Checks. For hordes of monsters, roll at -1 for 5 monsters, -2 for 10, -3 for 20, -4 for 50, and -5 for 100 or more. This could apply to aliens (of a frightening nature) with which your species or empire is not familiar.

Physical Circumstances: -1 if the body, monster, etc. touches
you; +1 if you witness it at a great distance (at least 100 yards); or +3 if you view it remotely (using Clairsentience, closed-circuit TV, etc.). Apply -1 if the area is physically isolated, -1 at night or in the dark (or in daylight, if you're a night-dweller!), and -2 if you are (or think you are) alone.

Preparation: +1 if you have previous personal experience with this kind of threat; +1 per exposure to this particular threat in 24 hours; +1 to +3 (depending on the quality of the report) if you learned the details of this particular situation before you witnessed it.

**The Rule of 14:** If final, modified Will exceeds 13, reduce it to 13 for the purpose of the Fright Check. This means that a roll of 14 or more is automatically a failure. This rule does not apply to other Will rolls (resistance rolls, rolls to avoid distraction, etc.) — only to Fright Checks.

**Fright Check Table**

When you fail a Fright Check, roll 3d, add your margin of failure on the Fright Check, and consult the table below. This sometimes gives implausible results. The GM should either reroll these or change them to something more appropriate — especially for Fright Checks stemming from awe (e.g., divine beauty) or mind-warping complexity (e.g., otherworldly geometry or radical philosophical concepts) instead of fear.

Many of these results give a new mental quirk or disadvantage. The GM assigns this trait, which must be related to the frightening event. If possible, it should also be related to the victim's existing mental traits! Traits acquired this way reduce the victim's point value.

- 4, 5 - Stunned for one second, then recover automatically.
- 6, 7 - Stunned for one second. Every second after that, roll vs. unmodified Will to snap out of it.
- 8, 9 - Stunned for one second. Every second after that, roll vs. Will, plus whatever bonuses or penalties you had on your original roll, to snap out of it.
- 10 - Stunned for 1d seconds. Every second after that, roll vs. modified Will, as above, to snap out of it.
- 11 - Stunned for 2d seconds. Every second after that, roll vs. modified Will, as above, to snap out of it.
- 12 - Lose your lunch. Treat this as retching for (25 - HT) seconds, and then roll vs. HT each second to recover. Depending on the circumstances, this may be merely inconvenient, or humiliating.
- 13 - Acquire a new mental quirk. This is the only way to acquire more than five quirks.
- 14, 15 - Lose 1d FP, and take 1d seconds of stunning as per 10.
- 16 - Stunned for 1d seconds, as per 10, and acquire a new quirk, as per 13.
- 17 - Faint for 1d minutes, then roll vs. HT each minute to recover.
- 18 - Faint as above, and roll vs. HT immediately. On a failed roll, take 1 HP of injury as you collapse.
- 19 - Severe faint, lasting for 2d minutes. Roll vs. HT each minute to recover. Take 1 HP of injury.
- 20 - Faint bordering on shock, lasting for 4d minutes. Also, lose 1d FP.
- 21 - Panic. You run around screaming, sit down and cry, or do something else equally pointless for 1d minutes. At the end of that time, roll vs. unmodified Will once per minute to snap out of it.
- 22 - Acquire a -10-point Delusion.
- 23 - Acquire a -10-point Phobia or other -10-point mental disadvantage.
- 24 - Major physical effect, set by GM: hair turns white, age five years overnight, go partially deaf, etc. In game terms,

acquire -15 points worth of physical disadvantages (for this purpose, each year of age counts as -3 points).

- 25 - If you already have a Phobia or other mental disadvantage that is logically related to the frightening incident, your self-control number becomes one step worse. If not, or if your self-control number is already 6, add a new -10-point Phobia or other -10-point mental disadvantage.
- 26 - Faint for 1d minutes, as per 18, and acquire a new -10-point Delusion, as per 22.
- 27 - Faint for 1d minutes, as per 18, and acquire a new -10-point mental disadvantage, as per 23.
- 28 - Light coma. You fall unconscious, rolling vs. HT every 30 minutes to recover. For 6 hours after you come to, all skill rolls and attribute checks are at -2.
- 29 - Coma. As above, but you are unconscious for 1d hours. Then roll vs. HT. If the roll fails, remain in a coma for another 1d hours, and so on.
- 30 - Catatonia. Stare into space for 1d days. Then roll vs. HT. On a failed roll, remain catatonic for another 1d hours, and so on. If you have no medical care, lose 1 HP the first day, 2 the second, and so on. If you survive and awaken, all skill rolls and attribute checks are at -2 for as many days as the catatonia lasted.
- 31 - Seizure. You lose control of your body and fall to the ground in a fit lasting 1d minutes and costing 1d FP. Also, roll vs. HT. On a failure, take 1d of injury. On a critical failure, you also lose 1 HT permanently.
- 32 - Stricken. You fall to the ground, taking 2d of injury in the form of a mild heart attack or stroke.
- 33 - Total panic. You are out of control; you might do anything (the GM rolls 3d: the higher the roll, the more useless your reaction). For instance, you might jump off a cliff to avoid the monster. If you survive your first reaction, roll vs. Will to come out of the panic. If you fail, the GM rolls for another panic reaction, and so on!
- 34 - Acquire a -15-point Delusion.
- 35 - Acquire a -15-point Phobia or other mental disadvantage worth -15 points.
- 36 - Severe physical effect, as per 24, but equivalent to -20 points of physical disadvantages.
- 37 - Severe physical effect, as per 24, but equivalent to -30 points of physical disadvantages.
- 38 - Coma, as per 29, and a -15-point Delusion, as per 34.
- 39 - Coma, as per 29, and a -15-point Phobia or other -15-point mental disadvantage, as per 35.
- 40+ - As 39, above, but victim also loses 1 point of IQ permanently. This automatically reduces all IQ-based skills by 1.
COMBAT

The "combat" system is not just about fighting, but can be used in any situation in which the characters must move around in a relatively small defined area (a room or several rooms) and it becomes important to know who is standing where, who can see what, and who is in between you and something you want to look at or touch. And of course, it works really well in such cases when people are trying to shoot at you (or you at them).

HEXES AND FACING

One hex on the combat map represents one yard (or meter if you like) of distance. It is also the basic unit of movement; the number of hexes you can move on your turn depends on your Basic Move (see page 28).

Each human-sized or smaller fighter must occupy one hex; an exception is "close combat," which is any situation in which you occupy the same hex as your foe. A human-sized fighter who is lying down or possesses the Horizontal disadvantage occupies two hexes.

Treat a fractional hex (e.g., one cut in half by a wall) as though it were a full hex.

You must "face" toward one of the six hexes adjacent to your hex at all times.

REACH

Each melee weapon has a defined "reach" which defines the hexes into which you can attack with it, as shown below:

- Reach "C" ("Close"): You can strike only at targets in your own hex.
- Reach 1 (1 yard): You can strike into any hex marked "Front" in the diagram. This would, perhaps, involve a sword or any other convenient object.
- Reach 2 (2 yards): You can strike into any hex marked "2" in the diagram. This would require a spear or some similar weapons of about six-feet in length.
- Reach 3 (3 yards): You can strike into any hex marked "3" in the diagram. This would involve a polearm such as a halberd or pike.

Most melee weapons (swords, or anything handy you pick up) have a 1-yard reach, and can hit only your three front hexes. Some weapons have more than one reach. For example, a knife can slash at "close" and one-yard reach. With a spear, you can have a reach of either one or two yards, depending on how you hold it, but you'd have to change holds (one second) to change this.

TURN SEQUENCE

The "turn sequence" is the order in which active characters take their turns. It is set at the start of the fight and does not change during combat. The combatant with the highest Basic Speed goes first and takes his turn, then the one with the next-highest Basic Speed, and so on, in descending order by Basic Speed. Once every active character has taken his turn, one second has passed and another second begins.

Tied Speeds: If multiple NPCs on the same side have the same Basic Speed, the GM simply decides who goes first — it isn't really important. If PCs are involved, ties go to the highest DX. If there's still a tie, GM should roll randomly at the start of the combat to determine who acts first, and use that order throughout the combat.

Sequence Chart: If a combat has many participants, the GM may find it useful to make a quick list of the order in which the combatants take their turns.

"Your Turn"

A given participant's turn is the one-second period that stretches from when he chooses a maneuver until his next opportunity to select a maneuver. This overlaps the turns of other characters.

Active Defense and Maneuvers

The maneuver you choose affects your "active defenses"—your ability to dodge, parry, or block attacks. You only have to select an active defense if you are attacked. Most recent maneuver governs the active defenses you can use.

For the purpose of active defenses, your maneuver is considered to be in effect until you select another maneuver on your next turn. For instance, if you chose All-Out Defense (which gives a defensive advantage), its benefits would apply if you were attacked after you took your turn, and would persist until it was your turn again and you took a different maneuver.

If you're attacked before you've had a chance to choose a maneuver—usually at the start of combat—you're considered to be taking a Do Nothing maneuver.

Free Actions

"Free actions" are things you can do during any maneuver. Some examples:

- **Talk.** You can always talk. If the GM wants to be realistic, he should allow only one sentence of communication per second... but it is usually more fun when you ignore this limitation!
- **Maintain psi.** As long as you remain active, you can maintain an ongoing psi ability, no matter what else you do. (This also applies to "magic spells."

- **Drop an item.** You can drop any "ready" item at any time during any maneuver. If you're moving, you may drop it at any point within your reach during your movement.

- **Crouch.** If standing, you may opt to crouch (to make yourself a smaller target for ranged attacks) at the beginning of your turn. This will usually slow your movement speed, and you cannot crouch and sprint. If you were already crouching, it is a free action to rise from a crouching position at the start of your turn.

Gorn Destroyer
OTHER ACTIONS

MOVE: Move, but take no other action except those specified under Free Actions. You may move any number of yards up to your full Move score. Most other maneuvers allow at least some movement on your turn; take this maneuver if all you want to do is move.

CHANGE POSTURE: This maneuver lets you switch between any two "postures" (stances in which you can pose your body). Valid postures are standing, sitting, kneeling, crawling, lying prone (face down), and lying face up. Any posture other than standing slows your movement and penalizes your attack and defense rolls, but also makes you a smaller target for ranged attacks.

AIM: This is a full-turn maneuver used to aim a ranged weapon (or a device such as a camera or telescope). You must choose a specific target. You can't aim at something that you can't see or otherwise detect. Specify the weapon you're aiming.

EVALUATE: This maneuver is the melee combat equivalent of Aim. It lets you take time to study an adversary in order to gain a combat bonus on a subsequent attack. You must specify one visible opponent who is close enough to attack unarmed or with a ready melee weapon, or whom you could reach with a single Move and Attack maneuver. You are sizing him up and looking for the right moment to strike.

ATTACK: Use this maneuver to make an armed or unarmed attack in melee combat, or to use a thrown or missile weapon in ranged combat. To use a weapon to attack, it must be ready.

FEINT: "Fake" a melee attack. You cannot Feint someone unless you could have hit him with a melee attack — that is, your weapon is ready and your foe is within reach. This maneuver is not an attack, though, and does not make your weapon unready.

ALL-OUT ATTACK: Attack any foe with a ready weapon, making no effort to defend against enemy attacks. If you are making a melee attack, you must specify one of these four options before you attack:
- Determined: Make a single attack at +4 to hit!
- Double: Make two attacks against the same foe, /you have two ready weapons or one weapon that does not have to be readied after use. Attacks with a second weapon held in the off hand are at the usual -4 unless you have Ambidexterity.
- Feint: Make one Feint and then one attack against the same foe. The Feint applies to this attack instead of one you make on your next turn.
- Strong: Make a single attack, at normal skill. If you hit, you get +2 to damage — or +1 damage per die, if that would be better. This only applies to melee attacks doing ST-based thrust or swing damage, not to weapons such as force swords. If you are making a ranged attack, you must specify one of these two options before you attack:
  - Determined: Make a single attack at +1 to hit.
  - Suppression Fire: Take the entire turn to spray an area with automatic fire. This is a full-turn maneuver, and you can only choose this option if your weapon has RoF 5+. See Attacking an Area on page 117.

MOVE AND ATTACK: Move as described for the Move maneuver, but during or after your move, make a single, poorly aimed attack — either unarmed or with a ready weapon. You attack as described for the Attack maneuver (above), but at a penalty. If you are making a ranged attack, you have a penalty of -2 or the weapon's Bulk rating, whichever is worse — and if you took an Aim, you lose all of its bonuses.

DEFENSE: This is the maneuver to choose when you're beset by foes — especially foes who like All-Out Attacks! You must specify one of the following two options:
- Increased Defense: Add +2 to one active defense of your choice: Dodge, Parry, or Block. This bonus persists until your next turn.
- Double Defense: Apply two different defenses against the same attack. If you fail your defense roll against an attack, you may try a second, different defense against that attack. For instance, if you fail a block, you may try a dodge or a parry. If you try a parry (armed or unarmed) with one hand and fail, a parry using the other hand does count as a "different defense."

CONCENTRATE: You concentrate on one primarily mental task (even if it has a minor physical component, like operating controls, gesturing, or speaking). This may be using a psi ability, making a Sense roll to spot an invisible warrior, making a Leadership roll to give orders, making an Electronics Operation roll to operate a sensor, or any similar action, including most IQ-based skill rolls. This is a full-turn maneuver.

READY: Take Ready maneuver to pick up or draw any item and prepare it for use; e.g., to pull a sword from its sheath or a gun from its holster, or to Reload a firearm. In some cases, you may also need a Ready maneuver to regain control of an unwieldy weapon after a swing, or to adjust the reach of a long weapon.

WAIT: Do nothing unless a particular event you specified in advance occurs before your next turn; e.g., a foe moves into range.

LONG ACTIONS
You must take a Ready maneuver each second. The times required for long actions are realistic, but they can also sideline a player. Typical Long Action Times include:
- Pick up an object in one hand (weight up to 2x BL): 2 sec.
- Pick up an object in two hands (weight up to 8x BL): 4 sec.
- Open an unlocked box, briefcase, chest, door, etc.: 1 sec.
- Find a loose item in a box, etc. (if it's not hidden): 2d sec.
- Find an item in your own pocket: 1d seconds
- Write a brief note: 5 sec. per sentence
- Read a brief note: 2 sec. per sentence
- Swallow a pill: 2 sec.
- Light a candle, cigarette, fuse, match, torch, etc.: 2 sec.
- Replace a phaser in its holster: 2 sec.
- Drop a small item into your pocket: 2 sec.
- Search an unresisting person fairly thoroughly: 1 min.
- Put on a vacc suit: 30 sec. per piece

ATTACKING
An "attack" is an attempt to hit a foe or other target. If you execute an Attack, All-Out Attack, or Move and Attack maneuver (or convert a Wait into any of these), you may try to hit a foe. You can only attack with a weapon if it's ready.

The GM always has the option of ruling, for any reason having to do with the situation, that some fighters cannot attack certain opponents. For instance, eight attackers could not hit one human-sized foe at the same time. (Even three or four attackers at once would be unlikely, unless their victim had no allies!) There are two basic types of attacks: melee attacks (hitting him with something, see page 27) and ranged attacks (throwing or shooting something at him, see pages 109 and 148).

Your target must be within reach if you're making a melee attack, or within range if you're making a ranged attack. Resolving either type of attack takes three die rolls:
- First is your attack roll. If your roll is successful, your attack was a good one.
- Now your foe must make a defense roll to see if he can defend against your blow. If he makes this roll, he evaded or stopped the attack, and is not hit.
- If he misses his defense roll, your blow struck home and you roll for damage.

Some advantages and combat options let you attack more than once. Resolve such attacks one at a time.
ATTACK ROLL

Your "attack roll" is a regular success roll. Figure your effective skill (base skill plus or minus any appropriate modifiers) with the weapon you are using.

If your roll is less than or equal to your "effective" skill, your attack will hit unless your foe successfully defends. If he fails to defend — or if he can’t — you’ve hit him.

If your roll is greater than your effective skill, you missed!

No matter what your effective skill, a roll of 3 or 4 always hits, and is a "critical hit".

A roll of 17 or 18 always misses.

DEFENDING

If you make your attack roll, you have not (yet) actually struck your foe, unless you rolled a critical hit. Your attack is good enough to hit him — if he fails to defend. There are three "active defenses" that a fighter can use to evade or ward off an attack: Dodge, Block, and Parry.

If a foe makes a successful attack roll against you, you may choose one active defense and attempt a "defense roll" against it. The active defense you choose depends on your situation — especially the maneuver you chose last turn. You get no active defense if you’re unaware of the attack.

ACTIVE DEFENSE ROLLS

The defender rolls 3d against his active defense score. If his roll is less than or equal to his effective defense, he dodged, parried, or blocked the attack. Otherwise, his active defense was ineffective and the attack struck home. If this occurs, roll for damage. If you are stunned, any active defense is at -4. See Effects of Injury.

Dodge: A "dodge" is an active attempt to move out of the perceived path of an attack. Dodge is normally the only active defense you can take against firearms. A dodge represents an attempt not to be where you think your opponent will shoot, by weaving or ducking at the right moment. Your Dodge active defense is Basic Speed + 3, dropping all fractions, less a penalty equal to your Encumbrance level (see Encumbrance and Move).

Block: A "block" is an attempt to interpose a shield, bar tray, cloak or blanket, or similar large object between yourself and an attack. In general, you can block any melee attack, thrown weapon, or muscle-powered missile weapon. You cannot block bullets or beam weapons. Your Block active defense is 3 + half of your Shield skill, dropping all fractions.

Parry: A "parry" is an attempt to deflect a blow using a weapon or your bare hands. You can parry with anything of suitable size and shape, using the closest weapon skill. A parry won’t stop anything except melee attacks or thrown weapons, unless you have special skills. If you are fighting without weapons, or with at least one hand free, you may choose to parry barehanded. You can use Boxing, Brawling, Judo, or Karate skill — or DX, if higher — to parry with one hand. Your Parry active defense is 3 + half your skill, dropping all fractions. For instance, Broadsword-13 would give a Parry of 9.

DAMAGE AND INJURY

If your attack roll succeeds and your target fails his defense roll (if any), you hit him! If your attack is one that can do damage, you must now make a "damage roll." This tells you how much basic damage you deal to your target.

Your weapon (and, for muscle-powered weapons, your ST), or your natural or Innate Attack, determines the number of dice you roll for damage.

If your target has any Damage Resistance (DR) — from armor, the Damage Resistance advantage, etc. — he subtracts this from your damage roll. If your attack has an armor divisor, this modifies your target’s DR.

If your damage roll is less than or equal to your target’s effective DR, your attack failed to penetrate — it bounced off or was absorbed. A cutting, crushing, impaling, or piercing attack can sometimes cause damage without penetrating.

If your damage roll exceeds your target’s DR, the excess is the penetrating damage. If your foe has no DR, the entire damage roll is penetrating damage.

Once you know the penetrating damage of your attack, apply the wounding modifier for damage type (this matters only for cutting, impaling, and certain types of piercing damage. This gives the injury the foe suffers, which is subtracted from his Hit Points.

DAMAGE ROLL

You usually make your own damage rolls, and the GM rolls for NPCs. Damage rolls are expressed as a number of dice, sometimes with a modifier; e.g., "6d-1" or "2d+4." A negative modifier can’t reduce damage below 0 if the attack does crushing damage, or below 1 if it does any other type of damage.

High-damage attacks may express damage as a number of dice with a multiplier. For instance, "6d x 3" means "roll 6d and multiply the total by 3." If those six dice came up 21, you would do 63 points of damage. This is just a quick way to roll lots of dice.

The result of the damage roll (after any additive or multiplicative modifiers, as explained above) is the hit’s "basic damage."

Halt Damage (1/2D) for Ranged Weapons

If a ranged weapon has two range statistics, the first is its Halt Damage (1/2D) range, in yards. If the target is at or beyond 1/2D range, divide basic damage by 2, rounding down.

Some ranged weapons (e.g., grenades) do not suffer a reduction in damage; these do not list a 1/2D range.

Finally, if an attack has a 1/2D range but requires a resistance roll to avoid an affliction of some sort, add +3 to the resistance roll instead of halving damage (if any).

DAMAGE RESISTANCE AND PENETRATION

Damage Resistance (DR) rates the degree of protection that natural or worn armor, a force field, tough skin, etc. affords against damage. Objects and vehicles have their own DR values that protect against any damage they suffer — and if you take cover behind or inside them, their DR also protects you.

Subtract DR from basic damage. The result is the "penetrating damage" that punched through or deformed the armor enough to cause a significant injury. For instance, if you are hit by an attack that inflicts 6 points of basic damage and you’re wearing mail with DR 4, you take 2 points of penetrating damage.
In general, DR from multiple sources is additive; e.g., if you have a natural DR of 2 and put on a tactical vest with DR 15, your total DR is 17. Exceptions will always be noted. The DR of armor often varies by body part. If you are not using the hit location rules in G4e, just assume that any hit strikes the torso, and apply its DR. Finally, note that DR from certain sources may provide differing degrees of protection against different damage types.

**Armor Divisors and Penetration Modifiers**

An “armor divisor” indicates that an attack is especially good (or bad) at penetrating Damage Resistance. Armor divisors appear on weapon tables as numbers in parentheses after damage dice; e.g., “3d(2) pi” means 3d piercing damage with a (2) armor divisor. A divisor of (2) or more means that DR protects at reduced value against the attack. Divide the target’s DR by the number in parentheses before subtracting it from basic damage; e.g., (2) means DR protects at half value. Round DR **down**. Minimum DR is 0.

**Knockback**

When you hit someone very hard, you may knock him away from you! This is called “knockback.” Only *crushing* and *cutting* attacks can cause knockback. A crushing attack can cause knockback regardless of whether it penetrates DR. A cutting attack can cause knockback only if it *fails* to penetrate DR. Knockback depends on basic damage rolled *before* subtracting DR. For every full/multiple of the target’s ST-2 rolled, move the target one yard away from the attacker. If the target has ST 3 or less, knockback is one yard per point of basic damage! If the target has no ST score at all (like a wall), or is not resisting, use its HP instead.

Anyone who suffers knockback must attempt a roll against the *highest* of DX, Acrobatics, or Judo. If he is knocked back more than one yard, he rolls at -1 per yard after the first. Perfect Balance (p. 74) gives +4 to this roll. On a failure, he falls down.

If you knock your foe into something solid, the result – including damage to him and whatever he hit – is as if he had collided with it at a speed equal to the yards of knockback.

**Knockback Only**: Some attacks – a jet of water, a shove, etc. – do knockback but no damage. Roll the listed damage and work out knockback as usual, but no actual injury occurs (unless the target collides with something!).

**Flexible Armor and Blunt Trauma**

Flexible armor doesn’t stop the full force of blows it stops. An attack that does cr, cut, imp, or pi damage may inflict “blunt trauma” if it *fails to penetrate* flexible DR; if even one point of damage penetrates, you do not suffer blunt trauma.

For every 5 full points of cr, or 10 points of cut, imp, or pi damage stopped by flexible DR, you suffer one point of injury.

**Wounding Modifiers and Injury**

Any damage left over after subtracting DR from basic damage is “penetrating damage.” If there is any penetrating damage, multiply it by the attack’s “wounding modifier.” This is a multiplier that depends on damage type:

- Small piercing (pi): x 0.5.
- Burning (burn), corrosion (cor), crushing (cr), fatigue (fat), piercing (pi), and toxic (tox): x 1 (damage is unchanged).
- Cutting (cut) and large piercing (pi+): x 1.5.
- Impaling (imp) and huge piercing (pi++): x 2.

The damage after this multiplier determines the injury: the HP lost by the target. Round fractions down, but the minimum injury is 1 HP for any attack that penetrates DR at all.

Reduce the victim’s current HP total by the injury sustained. Note that blunt trauma injury has no wounding modifier.

**How To Play The Game**

**Effects of Injury**

If you are injured, subtract the points of injury from your Hit Points. Usually, you are still in the fight as long as you have positive HP. The most important effects are:

- If you have 1/3 or less of your HP remaining, you are reeling from your wounds. Half your Basic Speed and Move (round up), which also reduces your Dodge.
- If you have zero or fewer HP left, you are hanging onto consciousness through sheer willpower and adrenaline. You must roll vs. HT **each turn** to avoid falling unconscious. If you pass out, see **Recovering from Unconsciousness** for how long it will take to recover.
- If you go to fully negative HP (for instance, -10 if you have 10 HP), you risk death! You must make an immediate HT roll to avoid dying. You must make another HT roll to avoid death each time you lose an extra multiple of your HP — that is, at -2 x HP, -3 x HP, and so on. If you reach -5 x HP, you die automatically.

The sudden loss of HP can have additional effects:

**Shock**: Any injury that causes a loss of HP also causes “shock.” Shock is a penalty to DX, IQ, and skills based on those attributes **on your next turn** (only). This is -1 per HP lost unless you have 20 or more HP, in which case it is -1 per (HP/10) lost, rounded down. The shock penalty cannot exceed -4, no matter how much injury you suffer.

**Major Wounds**: Any single injury that inflicts a wound in excess of 1/2 your HP is a **major wound**. For a major wound to the torso, you must make a HT roll. Failure means you’re stunned and knocked down; failure by 5+ means you pass out.

**Stunning**: If you’re stunned, you are -4 to active defenses and cannot retreat, and must Do Nothing on your next turn. At the end of your turn, attempt a HT roll to recover. If you fail, you’re still stunned and must Do Nothing for another turn. And so on.

**Special Damage**

Certain attacks have “special effects”: poison, electrical shocks, stunning, setting the victim on fire, etc.

**Follow-Up Damage**

Some attacks, such as poison darts and exploding bullets, have “follow-up” damage: a second type of damage that occurs an instant after the primary effect. The primary effect is always ordinary damage of some type – piercing, impaling, etc.

If the primary damage penetrates the target’s DR, the follow-up effect occurs inside the target. DR has no effect! Follow-up effects that occur internally never inflict knockback or blunt trauma – even if their damage type usually does.

If the primary damage fails to penetrate DR, the follow-up effect occurs outside the target, if appropriate, as if the target had been touched – like a linked effect (see below). Thus, poison that must enter the bloodstream would have no effect if the arrow that carried it failed to penetrate. On the other hand, an explosive projectile would still do damage… but the DR that stopped the primary damage would protect against it.

**Linked Effects**

Some attacks have a linked effect. This is a second type of damage or other effect that occurs simultaneously with the primary effect. Make one roll to hit, but resolve all damage and resistance rolls separately for the primary effect and the linked effect. An example of a linked effect is a grenade that inflicts both a crushing explosion and a blinding flash of light on detonation. A person in armor might be blinded but unhurt, while an unarmed person with eye protection might be wounded but not blinded.
MALFUNCTIONS

This optional rule applies only to firearms, grenades, and incendiaries. A "malfunction" is a mechanical failure of the weapon; e.g., a misfire or a jam. Unlike a critical failure, a malfunction does not normally endanger the user.

For the purpose of this rule, firearms, grenades, and incendiaries have a "malfunction number," or "Malf.," a function of TL.

<table>
<thead>
<tr>
<th>TL</th>
<th>Malf.</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>12</td>
</tr>
<tr>
<td>4</td>
<td>14</td>
</tr>
<tr>
<td>5</td>
<td>16</td>
</tr>
<tr>
<td>6 or higher</td>
<td>17</td>
</tr>
</tbody>
</table>

A fine or very fine firearm gets +1 to Malf.; a cheap weapon gets -1. Specific types of weapons might have a higher or lower Malf., as indicated in their descriptions. The GM is free to lower a weapon's Malf. for mistreatment, lack of maintenance, or damage.

Regardless of the attacker's skill, a weapon will malfunction instead of firing on any unmodified attack roll equal to or greater than its Malf. The exact effects depend on the weapon.

Firearm Malfunction Table

When a weapon malfunctions, roll 3d on the following table:

3-4 = Mechanical or electrical problem.
5-8 = Misfire.
9-11 = Stoppage.
12-14 = Misfire.
15-18 = Mechanical or electrical problem, and possible explosion.

Mechanical or Electrical Problem: The weapon fails to fire. A successful Armoury or IQ-based weapon skill roll (takes a Ready maneuver) can restore normal function.

SPECIAL RULES FOR RAPID FIRE

The following additional rules are for use in conjunction with Rapid Fire. They only apply when making a ranged attack at RoF 2+.

Automatic Weapons and Full-Auto Only

Automatic weapons — firearms with RoF 4+ — use the Rapid Fire rules. Most can fire both controlled bursts and "full auto" (that is, for as long as the trigger is held down). Some automatic weapons (e.g., machine guns) can only fire full auto; they lack a semi-automatic or limited-burst setting ("selective fire"). A weapon that is "full-auto only" has a "1" after its RoF statistic. The only way to fire a short burst with such a weapon is to hold down the trigger for a fraction of a second. Minimum RoF is one-quarter full RoF (round up) or shots remaining, whichever is less.

Rapid Fire vs. Close Stationary Targets

Rapid fire generally results in only a fraction of the shots fired hitting the target. This is realistic ... except when the target is up close and unable to move. This situation arises when shooting your way through a wall, door, or parked car with a shotgun or assault rifle — or when performing an execution.

If your target is totally immobile (for instance, an inanimate object, or someone who is completely restrained or unconscious) and has a Size Modifier high enough to completely counteract the range penalty, a successful attack roll means that half the shots fired (round up) hit. If the attack succeeds by the weapon's Recoil or more, all of the shots hit.

SHOTGUNS AND MULTIPLE PROJECTILES

A weapon with a RoF followed by a multiplier (e.g., RoF 3x9) fires shots that release multiple, smaller projectiles. The most common example is a shotgun. The first number is the number of shots the weapon can actually fire; this is how much ammunition is used up. When resolving the attack, however, multiply shots fired by the second number to get the effective RoF.

At extremely close range, multiple projectiles don't have time to spread. This increases lethality! At ranges less than 10% of 1/2D, don't apply the RoF multiplier to RoF. Instead, multiply both basic damage dice and the target's DR by half that value (round down).

Phaser Autofire

Many beam weapons, including phasers and disruptors, can be fired continuously simply by holding the trigger down. This will cause the weapon to fire at its maximum RoF.

Against people and other living targets, treat such an attack as a standard Rapid Fire attack. Such an attack is especially effective as suppressive fire.

Against inanimate objects, this is treated as a cutting attack. Use the Damage to Objects rules below. Note that when fired at an inanimate object, a phaser set on stun will heat that object without destroying it (up to the melting point of the object, of course).

AREA-EFFECT ATTACKS

Gas bombs, Molotov cocktails, and similar attacks — including anything with the Area Effect enhancement — affect everyone within a specified radius. Damage does not usually decline with distance.

Active defenses don't protect against an area attack, but victims may dive for cover or retreat out of the area; see Dodge and Change Posture.

CONE ATTACKS

Dragon's fire, wide-beam microwave and sonic weapons, and anything with the Cone enhancement are examples of cone attacks. A cone attack requires a roll to hit ... but it might still catch the target in the area of effect on a miss! On a hit, the cone is on target; otherwise, use the Scatter rule to determine a new target point. Once you know the target point, imagine (or trace on a battle map) a line between the attacker and that point. The cone spreads to either side of this line, out to its maximum range.

A cone is one yard wide at its origin, but increases in width at a "rate of spread" equal to its specified maximum width divided by its maximum range. A cone affects everyone within its area, but anyone who is completely screened from the attacker by an object or person is behind cover, which protects normally. Targets may attempt a dodge defense to leave the area or get to cover.

DISSIPATION

Certain cone and area attacks dissipate with distance. This is common for realistic wide-area beam weapons and area-effect burning attacks. Attacks with the Dissipation limitation also use these rules.

ATTACKING AN AREA

You can deliberately attack an area of ground with an area-effect or explosive attack. For a Molotov cocktail, grenade, etc., this means you lobbed it in a high arc. Roll to hit at +4. There's no defense roll, but anyone in the area can dive for cover.
**EXPLOSIONS**

Certain attacks, such as hand grenades and explosive weapons, produce a blast when they hit. Such attacks have the notation "ex" after their damage type: "cr ex" for a crushing explosion, "burn ex" for a burning explosion, and so on.

In addition to doing the listed damage to whoever was struck directly, an explosion inflicts "collateral damage" on everything within (2 x dice of damage) yards. For instance, if an explosion does 6d x 2 damage, everyone within 24 yards is vulnerable - although some might be lucky enough to take little or no damage.

The listed damage only applies "as is" to the target struck. For everything else caught in the blast, roll this damage but divide it by (3 x distance in yards from the center of the blast), rounding down. Roll damage individually (but the GM can save time by using one roll for several NPCs). Use torso armor to determine DR against explosion damage.

If an explosive attack has an armor divisor, it does not apply to the collateral damage. For example, the shaped-charge warhead of an anti-tank rocket has an armor divisor of (10), but this only reduces the DR of a target it actually strikes; those nearby get their full DR against the blast.

Explosions are considered incendiary attacks, and can start fires.

Anyone caught in a blast may attempt an active defense roll to dive for cover from the explosion's collateral damage and fragmentation.

**Fragmentation Damage**

Many grenades, bombs, and artillery shells have metal casings designed to shatter when they explode, producing a storm of sharp fragments. Some are packed with extra material (pellets, nails, etc.) to enhance this effect.

Fragmentation damage, if any, appears in brackets after explosive damage; e.g., "[2d]" means 2d fragmentation damage. Everyone within (5 x dice of fragmentation damage) yards is vulnerable. For example, that [2d] attack would throw fragments out to 5 x 2 = 10 yards.

The farther a target is from the blast, the less likely the fragments are to hit him. A hit is **automatic** if the explosive attack actually strikes the target. The fragments attack everyone else in the area at skill 15. Only three modifiers apply: the range modifier for the distance from the center of the blast to the target, the modifier for the target's posture (prone, etc.), and the target's Size Modifier. It is possible for several fragments to hit! For every three points by which the attack roll succeeds, one additional fragment strikes the target.

The only active defense against fragments is to dive away from the explosion that produced them.

For each hit, roll hit location randomly. If that location is behind cover, the fragment hits cover. Fragmentation damage is **cutting**.

Note that if an explosive attack has an armor divisor, this does not apply to the fragments it produces.

**Airbursts:** Against an airburst, do not apply posture modifiers - lying prone under an airburst does not decrease the body area exposed to the rain of fragments! Only overhead cover protects.

**Incidental Fragmentation:** An explosion with no listed fragmentation damage can still create fragments if there is any loose or frangible material at the explosion site. Incidental fragmentation damage ranges from 1d-4 for ordinary earth to 1d for an explosion on loose scrap.

**Hot Fragments:** White phosphorus-type smoke warheads produce this effect. The fragments typically inflict 1d(0.2) burning damage every 10 seconds for one minute.

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**RELATIVE EXPLOSIVE FORCE TABLE**

<table>
<thead>
<tr>
<th>TL</th>
<th>Type</th>
<th>REF</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Serpentine Powder</td>
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</tr>
<tr>
<td>4</td>
<td>Ammonium Nitrate</td>
<td>0.4</td>
</tr>
<tr>
<td>4</td>
<td>Black Powder</td>
<td>0.4</td>
</tr>
<tr>
<td>5</td>
<td>Black Powder</td>
<td>0.5</td>
</tr>
<tr>
<td>6</td>
<td>Diesel Fuel + Nitrate Fertilizer</td>
<td>0.5</td>
</tr>
<tr>
<td>6</td>
<td>Dynamite</td>
<td>0.8</td>
</tr>
<tr>
<td>6</td>
<td>TNT</td>
<td>1.0</td>
</tr>
<tr>
<td>6</td>
<td>Amatol</td>
<td>1.2</td>
</tr>
<tr>
<td>6</td>
<td>Nitroglycerine</td>
<td>1.5</td>
</tr>
<tr>
<td>7</td>
<td>Tetryl</td>
<td>1.3</td>
</tr>
<tr>
<td>7</td>
<td>Composition B</td>
<td>1.4</td>
</tr>
<tr>
<td>7</td>
<td>C4 Plastic Explosive</td>
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</tr>
<tr>
<td>9</td>
<td>Octanitroctubane</td>
<td>4</td>
</tr>
<tr>
<td>10</td>
<td>Stabilized Metallic Hydrogen</td>
<td>6</td>
</tr>
<tr>
<td>11</td>
<td>Antimatter</td>
<td>20</td>
</tr>
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</table>

**Description**

<table>
<thead>
<tr>
<th>Description</th>
<th>REF</th>
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</thead>
<tbody>
<tr>
<td>Standard gunpowder, pre-1600.</td>
<td>0.3</td>
</tr>
<tr>
<td>Common improvised explosive.</td>
<td>0.4</td>
</tr>
<tr>
<td>Standard gunpowder, 1600-1850.</td>
<td>0.5</td>
</tr>
<tr>
<td>Standard gunpowder, 1850-1890.</td>
<td>0.8</td>
</tr>
<tr>
<td>The basic, stable, high explosive.</td>
<td>1.0</td>
</tr>
<tr>
<td>Commercially available for mining, demolition.</td>
<td>1.2</td>
</tr>
<tr>
<td>TNT-ammonium nitrate. Fills bombs &amp; shells in WWII.</td>
<td>1.5</td>
</tr>
<tr>
<td>Unstable! If dropped, detonates on 13+ on 3d.</td>
<td>2</td>
</tr>
<tr>
<td>Common for smaller explosive shells and bullets.</td>
<td>3</td>
</tr>
<tr>
<td>Another common explosive filler.</td>
<td>4</td>
</tr>
<tr>
<td>Standard military and covert-ops explosive.</td>
<td>6</td>
</tr>
<tr>
<td>Theoretical advanced explosive.</td>
<td>20</td>
</tr>
<tr>
<td>Exotic science-fiction explosive.</td>
<td></td>
</tr>
</tbody>
</table>
Demolition
Sometimes the only way to deal with a problem is to blow it up! If the adventurers are using or facing explosives, the PCs or GM should decide how many dice of damage the blasting charge is supposed to do, and what kind of explosive it is.

Explosives normally do crushing damage with the Explosion modifier — and often the Fragmentation modifier.

How Much Explosive? An explosion doing 6d x n damage takes (nx ry)/4 pounds of TNT. If you are using an explosive other than TNT, divide the weight required by its relative explosive force (REF) — see the Relative Explosive Force Table, below.

How Big a Blast? Reverse the formula to determine how much damage a given weight of explosive will do: damage is 6d x square root of (weight of explosive in lbs. x 4 x REF).

Explosions in Other Environments
Other Atmospheres: These rules assume Earth-normal air pressure. A thicker or thinner atmosphere enhances or reduces the blast effect. Underwater, divide collateral damage by range in yards instead of 3 x range in yards. In a vacuum or trace atmosphere, with no medium to carry the shockwave, damage comes only from the expanding gases themselves: divide damage by 10 x range in yards.

Contact Explosions: A person can throw himself on a grenade, etc. to protect his friends. He takes maximum possible damage; his DR protects him normally. Everyone else gets his torso’s DR + HP as “cover DR.”

Internal Explosions: If an explosive goes off inside someone — e.g., a follow-up attack penetrates the target’s DR, or an Astralan Nightboat swallows a hand grenade — DR has no effect! In addition, treat the blast as an attack on the vitals, with a x 3 wounding modifier. If you fail your attack roll, you missed your target by a number of yards equal to your margin of failure, to a maximum of half the distance to the target (round up). If the enemy dodges, use his margin of success to determine distance instead.

To determine the direction of your miss, roll one die. Take the direction you face as a roll of 1, 60° clockwise (the next facing, on a hex map) as a roll of 2, and so on. Your attack misses in that direction, by the number of yards determined above.

DAMAGE TO OBJECTS
For the purpose of these rules, any nonliving, fabricated object — including nonliving, fabricated object is an “artifact.” Handle attacks on artifacts just like attacks on living beings (see Damage and Injury), with the following exceptions:

Rolling to Hit: Roll to hit normally, applying the object’s Size Modifier. If an object’s SM is not given, find it from the Size and Speed/Range Table. Inanimate objects are often motionless and don’t hit back; this makes them good targets for an All-Out Attack. No artifact gets a defense roll unless it is under sentient control (e.g., a robot, a weapon in hand, or a vehicle with a driver).

Damage Resistance (DR): An artifact has a DR that represents its innate ‘toughness.’ Wooden or plastic tools, gadgets, furniture, etc. usually have DR 2. Small metal, metal-wood, or composite objects, like guns and axes, typically have DR 4. Solid-metal melee weapons have DR 6. Some artifacts may be armored; for instance, a quarter-inch of mild steel is DR 14.

Health (HT): This rates the likelihood the object will break under stress or abuse. Most machines and similar artifacts in good repair are HT 10. Swords, tables, shields, and other solid, homogeneous objects are HT 12. Cheap, temperamental, or poorly maintained items get -1 to -3 to HT; well-made or rugged ones get +1 or +2. Characters with the Machine meta-trait use their HT score.

Hit Points (HP): The amount of damage the object can take before it is destroyed.

INJURY, ILLNESS, AND FATIGUE

SHOCK
Whenever you suffer injury, reduce your DX and IQ by the number of HP you lose — to a maximum penalty of −4, regardless of your injuries — on your next turn only. This effect, called “shock,” is temporary; your attributes return to normal on the turn after that. Shock affects DX- and IQ-based skills, but not active defenses or other defensive reactions. Therefore, on the turn after you are badly hurt, it is often a good idea to try flight or All-Out Defense instead of an immediate counterattack!

High HP and Shock: If you have 20 or more Hit Points, your shock penalty is -1 per HP/10 of injury (drop all fractions). Thus, if you have 20-29 HP, it’s -1 per 2 HP lost; if you have 30-39 HP, it’s -1 per 3 HP lost, and so forth. The maximum penalty is still -4.

MAJOR WOUNDS
A “major wound” is any single injury of greater than 1/2 your HP. If you are using hit locations (G46), a lesser injury that cripples a body part also counts as a major wound — see Crippling Injury (below). Any major wound requires a HT roll to avoid knockdown and stunning (see below).

Crippling Injury
When using hit locations (G46), sufficient injury to a limb, extremity, or eye may cripple it. This requires a single injury that exceeds a certain fraction of the target’s HP. For humans and humanoid, these thresholds are:

- Limb (arm, leg, wing, or prehensile tail): Injury over HP/2.
- Extremity (hand, foot, tail, etc.): Injury over HP/3.
- Eye: Injury over HP/10.

It is sometimes possible to cripple a body part with a specific critical hit result. A blow to a limb or extremity can never cause more injury than the minimum required to cripple that body part. For example, if a man has 10 HP and suffers 9 points of injury to his right arm, he loses only 6 HP — the minimum required to cripple his arm. Exception: No such limit applies to the eyes!

Dismemberment: If injury to a body part before applying the above limit was at least twice what was needed to cripple it, the body part is not just crippled but destroyed. A cutting attack or explosion severs a limb or extremity; otherwise, it’s irrevocably crushed, burned, etc.

Duration of Crippling Injuries
If you suffer a crippling injury, make a HT roll to see how serious it is. For battlefield injuries, roll at the end of combat. Success means the crippling is temporary, failure means it’s lasting, and critical failure means it’s permanent. Dismemberment is automatically permanent — don’t bother rolling!

Temporary Crippling: Until you are back at full HP, you suffer the disadvantages described under Effects of Crippling Injury, above. Once you are fully healed, these effects disappear.

Lasting Crippling: You suffered a broken bone, badly torn (or burned) muscle, or other lingering damage. Roll 1d. This is the number of months it will take for the injury to heal fully. (If the injury is treated by a physician, subtract 3 from the roll at medical TL7+; 2 at TL6, or 1 at TL5 — but the period of healing is never less than one month.)

Permanent Crippling: You lose the use of that body part. It is either nonfunctional or gone. Either way, you acquire a new disadvantage (One Hand, Lame, etc., as appropriate). You get no extra character points for this! It simply lowers your point value. In some settings, even this degree of injury is curable; see Repairing Permanent Crippling Injuries.
**KNOCKDOWN AND STUNNING**

Whenever you suffer a major wound and whenever you are struck in the head (skull, face, or eye) or vitals for enough injury to cause a shock penalty (see Shock), you must make an immediate HT roll to avoid knockdown and stunning. **Modifiers:** -5 for a major wound to the face or vitals (or to the groin, on a humanoid male); -10 for a major wound to the skull or eye; +3 for High Pain Threshold, or +4 for Low Pain Threshold.

On a success, you suffer no penalty beyond ordinary shock. On a failure, you’re stunned; see Effects of Stun, below. You fall prone (if you weren’t already), and if you were hanging anything, you drop it. This effect is called “knockdown,” and isn’t the same as “knockback.”

On a failure by 5 or more, or any critical failure, you fall unconscious!

**Effects of Stun**

A failed knockdown roll can cause “stun,” as can phaser weapons, certain critical hit results, and some afflictions. If you are stunned, you must Do Nothing on your next turn. You may perform any active defense while stunned, but your defense rolls are at -4 and you cannot retreat.

At the end of your turn, you may roll against HT. On a success, you recover from stun and can act normally on subsequent turns. On a failure, you remain stunned; your next maneuver must also be Do Nothing, but you get another roll at the end of that turn... and so on, until you recover from stun.

**Mental Stun:** If you are surprised, you might be mentally stunned. This sort of stunning works as described above, but you must make an IQ roll, not a HT roll, to snap out of it. You’re not hurt—you’re confused!

**DEATH**

If your character is killed, you may still wish to keep track of further injury. In certain futuristic or magical worlds, the dead can be brought back to life by prompt treatment, as long as the body is mostly intact (not reduced to -10 x HP).

**Instant Death**

Decapitation, a cut throat, etc. can kill anyone, regardless of HT and HP. If a helpless or unconscious person is attacked in an obviously lethal way, he’s dead. Don’t bother to roll for damage, calculate remaining HP, etc. Just assume that he drops to -5xHP.

This does not apply to a merely unaware victim. If you sneak up behind a sentry with a knife, you can’t automatically kill him. Game it out realistically. Target the vitals or neck. Since it’s a surprise attack, he won’t be hitting back: make an All-Out attack!

Your attack roll will almost certainly succeed. Your victim gets no active defense at all. You will probably inflict enough injury to incapacitate or kill him. But it isn’t automatic.

**Dying Actions**

When a PC or important NPC is killed in any but the most sudden and thorough fashion, the GM should allow a “dying action.” If this is a final blow at the enemy, it should take no more than a turn. If it’s a deathbed speech, the GM should stretch time a little bit for dramatic purposes! This has nothing to do with realism, but it’s fun!

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**Seltorian Heavy Cruiser**

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**RECOVERING FROM UNCONSCIOUSNESS**

Failure by 5 or more on a knockdown roll, a failed HT roll to stay conscious at 0 HP or less, and many other things (e.g., certain critical hits) can leave you unconscious. It is up to the GM to decide whether you are truly unconscious or just totally incapacitated by pain and injury—but either way, you can’t do anything. You recover as follows:

- If you have 1 or more HP remaining, you awaken automatically in 15 minutes.
- At 0 HP or worse, but above -1 x HP, make a HT roll to awaken every hour. Once you succeed, you can act normally. You do not have to roll against HT every second to remain conscious unless you receive new injury. But since you are below 1/3 your HP, you are at half Move and Dodge.
- At -1 HP or below, you are in bad shape. You get a single HT roll to awaken after 12 hours. If you succeed, you regain consciousness and can act as described above. But if you fail, you won’t regain consciousness without medical treatment—use the rules given under Stabilizing a Mortal Wound. Until you receive help, you must roll vs. HT every 12 hours; if you fail, you die.

**NATURAL RECOVERY**

Rest lets you recover lost HP, unless the damage is of a type that specifically does not heal naturally. At the end of each day of rest and decent food, make a HT roll. On a success, you recover 1 HP. The GM may give a penalty if conditions are bad, or a bonus if conditions are very good.

**FIRST AID**

The two main uses for First Aid skill are bandaging and treating shock.

**Bandaging**

It takes one minute to apply pressure or a tourniquet to stop bleeding. This restores 1 HP. Using the Bleeding rule, someone who is wounded but receives a successful First Aid roll within one minute of his injury loses no HP to bleeding. A later roll will prevent further HP loss.

**Treating Shock**

After bandaging, the aid-giver may take extra time to apply a more elaborate dressing and treat the victim for shock. He must keep the victim warm, comfortable, calm, and still. After the time indicated on the First Aid Table, he may roll against First Aid skill.

On a success, the medic rolls as indicated on the table to see how many HP the victim recovers—minimum 1 HP. A critical success restores the maximum possible HP! This roll includes the 1 HP for bandaging; thus, a roll of 1 HP restores no further HP.

On a critical failure, the victim loses 2 HP instead of recovering any HP at all!

**First Aid Table**

<table>
<thead>
<tr>
<th>Tech Level</th>
<th>Time per Victim</th>
<th>HP Restored</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-1</td>
<td>30 minutes</td>
<td>1d-4</td>
</tr>
<tr>
<td>2-3</td>
<td>30 minutes</td>
<td>1d-3</td>
</tr>
<tr>
<td>4</td>
<td>30 minutes</td>
<td>1d-2</td>
</tr>
<tr>
<td>5</td>
<td>20 minutes</td>
<td>1d-2</td>
</tr>
<tr>
<td>6-7</td>
<td>20 minutes</td>
<td>1d-1</td>
</tr>
<tr>
<td>8</td>
<td>10 minutes</td>
<td>1d</td>
</tr>
<tr>
<td>9+</td>
<td>10 minutes</td>
<td>1d+1</td>
</tr>
</tbody>
</table>
FALLING
A fall is a collision with an immovable object: the ground. Find your velocity when you hit using the Falling Velocity Table.

Terminal Velocity
“Terminal velocity” is the maximum speed a falling object can achieve before air resistance negates further acceleration under gravity. Air resistance is relatively negligible for distances shown on the table, but increases drastically for longer falls. Terminal velocity varies greatly by object. For human-shaped objects on Earth, it is 60-100 yards/second. Use the low end for a spread-eagled fall, the high end for a swan dive. For dense objects (e.g., rocks) or streamlined objects, it can be 200 yards/second or more!

The terminal velocity rules assume Earth-normal gravity (1G) and atmospheric pressure (1 atm.). Multiply terminal velocity by the square root of gravity in Gs. Then divide it by the square root of pressure in atm. Thus, gravity under 1G, or pressure above 1 atm., reduces terminal velocity; gravity over 1G, or pressure below 1 atm., increases it. Note that terminal velocity is unlimited in a vacuum!

Damage from Falling Objects
If an object falls on someone, find its velocity on the table and calculate damage as for an ordinary collision. Most dropped objects will have Acc 1.

Falling Velocity Table

<table>
<thead>
<tr>
<th>Distance Fallen</th>
<th>Velocity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 yard</td>
<td>5 yards/sec</td>
</tr>
<tr>
<td>2 yards</td>
<td>7</td>
</tr>
<tr>
<td>3 yards</td>
<td>8</td>
</tr>
<tr>
<td>4 yards</td>
<td>9</td>
</tr>
<tr>
<td>5 yards</td>
<td>10</td>
</tr>
<tr>
<td>10 yards</td>
<td>15</td>
</tr>
<tr>
<td>15 yards</td>
<td>18</td>
</tr>
<tr>
<td>20 yards</td>
<td>21</td>
</tr>
<tr>
<td>25 yards</td>
<td>23</td>
</tr>
<tr>
<td>50 yards</td>
<td>33</td>
</tr>
<tr>
<td>100 yards</td>
<td>47</td>
</tr>
</tbody>
</table>

Alternatively, calculate velocity in yards per second as the square root of (21.4 x G x distance fallen in yards); “G” = local gravity. Round to the nearest whole number.

FATIGUE
Running long distances, using extra effort, being suffocated, using psionic abilities, and many other things can cause “fatigue”: a temporary loss of Fatigue Points. Just as injury represents physical trauma and comes off HP, fatigue represents lost energy and reduces FP. The chart below summarizes the effects of being at low or negative FP. All effects are cumulative.

Less than 1/3 your FP left: You are very tired. Halve your Move, Dodge, and ST (round up). This does not affect ST-based quantities, such as HP and damage.

0 FP or less: You are on the verge of collapse. If you suffer further fatigue, each FP you lose also causes 1 HP of injury. Thus, fatigue from starvation, dehydration, etc. will eventually kill you — and you can work yourself to death! To do anything besides talk or rest, you must make a Will roll; in combat, roll before each maneuver other than Do Nothing. On a success, you can act normally. You can use FP to cast spells, etc., and if you are drowning, you can continue to struggle, but you suffer the usual 1 HP per FP lost. On a failure, you collapse, incapacitated, and can do nothing until you recover to positive FP. On a critical failure, make an immediate HT roll; if you fail, you suffer a heart attack.

-1x FP: You fall unconscious. While unconscious, you recover lost FP at the same rate as for normal rest. You awaken when you reach positive FP. Your FP can never fall below this level. After this stage, any FP cost comes off your HP instead!

Recovering From Fatigue
You can recover “ordinary” lost FP by resting quietly. Reading, talking, and thinking are all right; walking around, or anything more strenuous, is not. Lost FP return at the rate of 1 FP per 10 minutes of rest. The GM may allow you to regain one extra FP if you eat a decent meal while resting.

You can only recover from fatigue caused by missed sleep by sleeping for at least one full sleep period. This restores 1 FP. Further uninterrupted sleep restores 1 FP per hour. You need food or water to recover FP lost to starvation or dehydration.

Missed Sleep
The average human can function for a 16-hour “day.” He must then rest for an eight-hour “sleep period.” Getting less sleep than your sleep period costs FP that you can only recover by sleeping.

Staying Up Late: If you’ve been awake for more than your normal day, you start to get tired. You lose 1 FP if you fail to go to sleep, and 1 FP per quarter-day (usually four hours) you stay awake after that. If you’ve lost half or more of your FP to lack of sleep, you must make a Will roll every two hours you spend inactive (e.g., standing watch). On a failure, you fall asleep, sleeping until you are awakened or get a full night’s sleep. On a success, you have -2 to DX, IQ, and self-control rolls. If you’re down to less than 1/3 of your FP due to lack of sleep, roll as above once per 30 minutes of inaction or two hours of action.

Getting Up Early: If you sleep for less than your full sleep period, you’ll still be tired when you wake up. Subtract twice the hours of missed sleep from your day to determine how long you can stay awake.
MEDICAL CARE

Anyone under the care of a competent physician (Physician skill 12+) gets +1 on all rolls for natural recovery. The healer may also make a Physician roll to cure the patient. Only one physician may roll per patient, but a single physician can care for up to 200 patients. The exact number of patients a physician can attend to and the frequency with which he may roll to cure them depend on the TL of his Physician skill; see the Medical Help Table below. On a success, the patient recovers 1 HP; on a critical success, he recovers 2 HP. This is in addition to natural healing. However, a critical failure costs the patient 1 HP!

High-tech physicians depend heavily on equipment but still require basic training; therefore, a TL6+ physician performs as though he were TL6 if he has to make do without the gagdetry to which he is accustomed, as long as the surroundings are clean.

Medical Help Table

<table>
<thead>
<tr>
<th>TL</th>
<th>Frequency</th>
<th>Rolls Per Doctor</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>None†</td>
<td>None†</td>
</tr>
<tr>
<td>1-3</td>
<td>Weekly</td>
<td>10</td>
</tr>
<tr>
<td>4</td>
<td>Every 3 days</td>
<td>10</td>
</tr>
<tr>
<td>5</td>
<td>Every 2 days</td>
<td>15</td>
</tr>
<tr>
<td>6</td>
<td>Daily</td>
<td>20</td>
</tr>
<tr>
<td>7</td>
<td>Daily</td>
<td>25</td>
</tr>
<tr>
<td>8</td>
<td>Daily</td>
<td>50</td>
</tr>
<tr>
<td>9</td>
<td>2 x daily</td>
<td>50</td>
</tr>
<tr>
<td>10</td>
<td>3 x daily</td>
<td>50</td>
</tr>
<tr>
<td>11</td>
<td>4 x daily</td>
<td>100</td>
</tr>
<tr>
<td>12+</td>
<td>5 x daily</td>
<td>200</td>
</tr>
</tbody>
</table>

† There are no physicians. Get well by yourself.

SURGERY

Surgery can physically repair damage to the body, but it's risky at low TLs—especially prior to the invention of anesthetics (mid-TL5) and blood typing (TL6). See Surgery skill for general modifiers and for the effects of a failed skill roll. Some additional rules:

- **Equipment**: Basic equipment gives -6 at TL1, -5 at TL2-3, -4 at TL4, -2 at TL5, and -1 (TL6+) at TL6+. Equipment quality further modifies the roll. The modifiers for TL5+ surgery assume that anesthetic is available. If it isn't, apply a -2 penalty to skill. This is instead of the usual -1 for a missing item.

- **Infection**: Before TL5 (and, at the GM's option, even during much of TL5), antiseptic practice is poor. Check for infection after any surgery.

**Stabilizing a Mortal Wound**

Each attempt takes one hour. The roll is at -2 if the patient is at -3 HP or worse, or -4 if he's at -4 HP or worse. On a failure, repeated attempts are allowed, at a cumulative -2 per attempt. If the victim dies on the table, resuscitation may be possible; see Resuscitation (page 120).

**Repairing Lasting Crippling Injuries**

It is possible to fix a lasting crippling injury (see Duration of Crippling Injuries) through surgery rather than leaving it to heal on its own. This takes 2 hours. On a success, measure the injury's remaining recovery time in *weeks* rather than *months*. But on a critical failure, the injury becomes permanent!

**Repairing Permanent Crippling Injuries**

Radical surgery can fix certain permanent crippling injuries at TL7+. Exact details are up to the GM. This often requires prosthetic or transplant parts, which might be costly or hard to find. At TL7-8, the procedure might only restore partial functionality. This kind of operation is also tricky: -3 or worse to skill. On a failure, the patient needs 1d months to recover before another attempt is possible.

GAME TIME

Game time is the time that passes in the game world. The GM is the judge of how much time has passed.

**TIME DURING ADVENTURES**

Combat is played out in "slow" time. One combat round equals one second. It may take a minute or so for each combat turn, especially if players are inexperienced or the battle is a large one. But combat is usually a life-or-death situation, and you need to give players time to think.

Conversations, attempts to pick locks, attempts to escape from traps, and similar situations are played in "real" time. If the players spend 10 minutes discussing how to best approach an NPC merchant, then their characters spent 10 minutes talking outside the shop.

Routine travel, and so on, is handled in "fast" time. When the party is walking along a trail, for instance, the GM can simply skip the time between encounters. Tell the players when they meet someone, when they come into a town, or when night falls. Just compress the rest of the time and give a summary if needed.

**TIME BETWEEN ADVENTURES**

In a continuing campaign, you also need to keep track of time between adventures. This can always be the same amount of time, or the GM and the players can simply agree on a "logical" time to pass between the end of one adventure and the beginning of the next. It is often a good idea to let a month or two go by, to allow time for healing, earning money at "ordinary" jobs (assuming your characters are non-military), and so on.

Military personnel will not need to "earn money" between adventures (other than pocket money) but will sometimes have the opportunity to take education or training during the normal course of their duties. A starship officer or crewman would have some free time between duty shifts, and would be encouraged to spend it studying various subjects on a computer terminal. In some cases, a character might be sent away for a short while to take a special training course (if the GM wants him to have that skill).

Of course, no game time at all has to pass between sessions, if you can't finish an adventure in one session. If, when you quit play, the party has just confronted an Astral Nightboat, that same Nightboat will get no closer in the real-world week before you can play again!
OTHER HAZARDS

ATMOSPHERIC PRESSURE

Regardless of its composition, an atmosphere may be difficult or impossible to breathe if its pressure is wrong. We measure air pressure in "atmospheres" (atm.); 1 atm. is air pressure at sea level on Earth.

Trace (up to 0.01 atm.): Treat an atmosphere this thin as vacuum.

Very Thin (up to 0.5 atm.): The air is too thin to breathe. Earth's atmosphere becomes "very thin" above 20,000'. If you lack protection (e.g., the Doesn't Breathe advantage, or a respirator and oxygen tanks, or a vacc suit), you suffocate. Vision rolls are at -2 without eye protection.

Thin (0.51-0.8 atm.): Earth's atmosphere is "thin" between 6,000' and 20,000'. Thin air is breathable if oxygen is present in Earthlike percentages, but it is hard on unprotected individuals. Increase all fatigue costs for exertion by 1 FP. Vision rolls are at -1 without eye protection. Finally, anyone who breathes thin air for an hour or more must check for "altitude sickness." Make a daily HT roll at +4. Critical success means acclimatization — do not roll again. Success means no effect today. Failure means headaches, nausea, etc., giving -2 to DEX and IQ. Critical failure means the victim falls into a coma after 1d hours. Roll against Physician skill once per day to revive the victim before he dies.

Dense (1.21-1.5 atm.): The air is breathable, with some discomfort: -1 to all HT rolls, unless you have a pressure suit or "reducing respirator" that lowers air pressure.

Very Dense (1.51+ atm.): Requires a reducing respirator to breathe; otherwise, you start to suffocate. Usually quite hot from greenhouse effects.

Superdense (10+ atm.): As "very dense," but the atmospheric pressure is so great that it can actually crush someone who is not native to it, unless he has Pressure Support or an armored suit that provides this advantage; see Pressure. Visitors to Venus, or deep inside Jupiter, experience hundreds of atmospheres of pressure! Such atmospheres are often poisonous, which presents a separate problem.

These rules assume you are native to 1 atm. and can function normally at 0.81-1.2 atm. If your native pressure differs from 1 atm., multiply all the pressure ranges above by your native pressure in atm. For example, if you're native to 0.5 atm., a "dense" atmosphere for you would be 0.61- 0.75 atm. and a "thin" one would be 0.26-0.4 atm.

HAZARDOUS ATMOSPHERES

Earth's atmosphere is 78% nitrogen and 21% oxygen (plus 1% comprising a number of other gases). Visitors to other planets (and victims of lab accidents or death traps) might encounter other atmospheres, most of which are unsafe for humans without proper protection. Of course, "breathable air" for humans might be deadly for nonhumans, and vice versa!

Corrosive: The atmosphere reacts with exposed flesh. Those with the Sealed advantage are safe; those in sealed suits might be safe, but some gases eat away at seals. Small concentrations in otherwise breathable air require a roll at HT to HT-4 every minute to avoid 1 point of corrosive damage. Victims suffer coughing (see Afflictions) after losing 1/3 their HP, blindness (as the disadvantage) after losing 2/3 their HP. Atmospheres made up mostly of corrosive gases have effects comparable to immersion in acid and count as suffocating. Corrosives include ammonia and nitriles. Chlorine and fluorine are extremely corrosive and toxic.

Toxic: The atmosphere is poisonous. Individuals without respirators, Doesn't Breathe, Filter Lungs, etc. are susceptible. Ordinary airborne industrial pollutants might require a daily HT roll to avoid 1 point of toxic damage. Lethal gases would call for a HT-2 to HT-6 roll every minute to avoid 1 point of toxic damage. If such gases make up most of the atmosphere, they inflict at least 1d toxic damage per 15 seconds (no resistance possible) and count as suffocating. A typical toxic gas is carbon monoxide. Chlorine and fluorine are deadly in tiny concentrations, and also corrosive.

Suffocating: The atmosphere is unbreathable. For humans, this means it lacks oxygen. Those without Doesn't Breathe or an air supply start to suffocate. Hydrogen, methane, and nitrogen are all suffocating. As noted above, an atmosphere made up mostly of corrosive or toxic gases is suffocating as well — but these usually kill so rapidly that suffocation becomes irrelevant.

ELECTRICAL DAMAGE

High-power shocks cook flesh and inflict real damage; they can even stop the victim's heart! This is called "lethal electrical damage."

Lethal electric shocks inflict burning damage: only 1d-3 to 3d around the house, but 6d on up for lightning, transmission lines, etc. A victim who suffers any injury must make a HT roll at -1 per 2 points of injury suffered. On a failure, he falls unconscious for as long as the current is applied, and for (20 - HT) minutes afterward, with a minimum of 1 minute. He will be at -2 DX for another (20 - HT) minutes when he recovers. Failure by 5 or more, or any critical failure, results in a heart attack.

Localized injury: Attacks that don't affect the target's entire body cause pain and burns, but not unconsciousness or cardiac arrest. Treat this as normal burning damage, except that the victim must make a HT roll at -1 per 2 points of injury suffered. On a failure, he is stunned for one second, after which time he may roll vs. HT once per second to recover. If the injury is to the arm or hand, he must also make a Will roll or drop anything carried in that hand.

GRAVITY AND ACCELERATION

A change in gravity can be harmful. These rules describe health effects; see Gravity for the effects of gravity on common tasks.

Space Adaptation Syndrome ("Space Sickness")

Those who are not native to micro or zero gravity ("free fall") may become nauseated and disoriented by the constant falling sensation. Roll against the higher of HT or Free Fall when you first enter free fall. The Space Sickness disadvantage gives -4.

On a success, you are unaffected. On a failure, you are nauseated (see Afflictions), which may trigger vomiting. If you begin to retch while wearing a vacc suit, you may choke; treat this as drowning (see Swimming). Roll against the better of HT or Free Fall every 8 hours to recover. If you suffer from Space Sickness, you cannot adapt!

High Acceleration

Make a HT roll whenever you experience a sudden acceleration ("G-force") of at least 2.5 times your home gravity. Treat a home gravity under 0.1G as 0.1G for this purpose. Modifiers: -2 per doubling of acceleration (-2 at 5x home gravity, -4 at 10x, and so on); +2 if seated or lying prone, or -2 if upside down.

On a failure, you lose FP equal to your margin of failure. On a critical failure, you also black out for 10 seconds times your margin of failure.

A sudden acceleration may throw you against a solid object. If this happens, treat it as a collision with that object at a velocity equal to 10x G-force of the acceleration.
HEAT

In ordinary hot weather, you will experience no ill effects if you stay in the shade and don't move around much. But if you are active in temperatures in the top 10° of your comfort zone or above — over 80°F, for humans without Temperature Tolerance — make a HT or HT-based Survival (Desert) roll, whichever is better, every 30 minutes. **Modifiers:** A penalty equal to your encumbrance level (-1 for Light, -2 for Medium, and so on); -1 per extra 10° heat.

Failure costs 1 FP. On a critical failure, you suffer heat stroke: lose 4dFP. As usual, if you go below 0 FP, you start to lose 1 HP per FP. You cannot recover FP or HP lost to heat until you move into cooler surroundings.

PRESSURE

Adventurers are most likely to encounter extreme pressure in super-dense atmospheres or deep underwater (where pressure increases by about 1 atmosphere per 33' of depth). Pressures in excess of your native pressure — 1 atm., for a human — are not always immediately lethal, but present serious risks.

**Over 2x native pressure:** You risk "the bends" (see below) if you experience over 2 x native pressure and then return to normal pressure. With Pressure Support 1, the bends are only a risk when returning from over 10 x native pressure. With Pressure Support 2 or 3, you are **immune** to the bends.

**Over 10 x native pressure:** You may be crushed! On initial exposure and every minute thereafter, roll vs. HT at a basic +3, but -1 per 10 x native pressure. If you fail, you suffer HP of injury equal to your margin of failure. If your Size Modifier is +2 or more, multiply injury by SM. With Pressure Support 2, read this as "Over 100 x native pressure." With Pressure Support 3, you are **immune** to pressure.

VACUUM

Vacuum is the absence of air — but these rules also apply in trace atmospheres, where there is almost no air. If you are exposed to vacuum without protection (e.g., a vacc suit or the Vacuum Support advantage), the following rules apply.

**Breathing Vacuum:** You can't hold your breath in vacuum — and you may rupture your lungs if you try (1d of injury). If you exhale and leave your mouth open, you can operate on the oxygen in your blood for half the time listed under **Holding Your Breath**. After that, you begin to suffocate.

**Explosive Decompression:** When an area suddenly goes from normal pressure to little or none (a "blowout"), body fluids boil, blood vessels rupture, and eardrums pop. Take 1d of injury immediately, and roll vs. HT to avoid The Bends. Also roll vs. HT+2 for each eye; failure means One Eye or Blindness, as appropriate. Finally, roll vs. HT to avoid Hard of Hearing. Use the Duration of Crippling Injuries rules to determine how long these disadvantages last.

**Extreme Temperatures:** Vacuum itself is neither "cold" nor "hot," but in the absence of air, surfaces in shadow will eventually grow very cold, while those in sunlight will become extremely hot. For example, on the Earth's moon — with its month-long "day" — the temperature can range from -243°F (at night) to 225°F (at noon).

RADIATION HAZARDS

**Cosmic Rays:** A constant hazard for space travelers. Inflict 1 rad/week. Only massive shielding protects people.

**Fallout:** Small radioactive particles, such as those produced by a ground-burst nuclear bomb. Inflicts 2-5 rads/minute within a few hours of the blast, and several rads/hour over the next day. If you breathe or swallow fallout (in contaminated food or water), the ingested material delivers a continuing dose (see below).

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**Fission Plant Accident:** 1,000 rads/hour or more! This is only in close proximity (e.g., the reactor room); divide dose by the square of the distance in yards from the source.

**Ingested Radioactive Material:** Plutonium, radium-226, uranium-235, etc. Even tiny doses can cause 1 rad/day to several rads/minute, depending on the isotope. (Some radioactive materials, such as plutonium, are also extremely toxic!)

**Innate Attack:** An attack with the Radiation damage modifier delivers one rad per point of damage rolled.

**Nuclear Blast:** One-megaton fission air or space burst at 2,000 yards: 6,600 rads!

RADIATION

Radiation threatens high-tech heroes in the form of solar flares, cosmic rays, nuclear accidents, radioactive materials, and lethal weapons (nuclear bombs, particle beams, etc.).

Exposure is measured in rads: The more rads received, the greater the chance of ill effects. Whenever a character is exposed to radiation, the GM should note both the dose and the date. Each dose diminishes separately from all others; it starts to heal after 30 days, at the rate of 1 rad per day. However, 10% of the original dose never heals.

**Effects of Radiation on Living Things**

When a living being accumulates at least 1 rad (but no more than once per day, for continued exposure to a given source), he must make a HT roll. Consult the Radiatio Effects Table below, and find his current accumulated dose in the "Accumulated Dose" column. Apply the modifier in the "HT" column to his HT roll. Then roll the dice. Use the first result in the "Effects" column on a critical success, the second on a success, the third on a failure, and the last on a critical failure.

**Radiation Effects Table**

<table>
<thead>
<tr>
<th>Accumulated Dose</th>
<th>HT Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-10 rads</td>
<td>+0</td>
</tr>
<tr>
<td>11-20 rads</td>
<td>+0</td>
</tr>
<tr>
<td>21-40 rads</td>
<td>+0</td>
</tr>
<tr>
<td>41-80 rads</td>
<td>+0 A/B/C</td>
</tr>
<tr>
<td>81-160 rads</td>
<td>+3 A/B/C</td>
</tr>
<tr>
<td>161-800 rads</td>
<td>+4 A/B/C</td>
</tr>
<tr>
<td>800-4,000 rads</td>
<td>-5 C/D/E</td>
</tr>
<tr>
<td>Over 4,000 rads</td>
<td>-5 D/E/E</td>
</tr>
</tbody>
</table>

- The dose has no obvious effect, but doses continue to accumulate.

**A:** Radiation burns and chronic "somatic" damage. HT hours after irradiation, suffer 1d of injury and gain Low Pain Threshold for one week (those with High Pain Threshold lose this instead).

**B:** If you recover, make two more HT rolls with the modifier on the table: one to avoid sterility, the other to avoid gaining the Terminal Illness advantage.

**B:** Hematopoietic syndrome. As A, but as well, after HT hours you are nauseated for a further (40 / HT) hours; lose 1d each from DX, IQ, and FP; and acquire the Hemophilia disadvantage. Each day, make a HT roll with the modifier on the table. On a critical success, you heal 2 points each of DX, IQ, and FP; on a success, you recover 1 point of each; on a failure, there is no improvement; and on a critical failure, you lose 1 point of each and are nauseated that day. After recovering all lost DX, IQ, and FP, you no longer suffer from Hemophilia or need to make daily HT rolls.

**C:** Gastrointestinal syndrome. As B, but in 1d2 weeks, you also lose all body hair and must make daily HT rolls. On a critical failure, you suffer 1d points of injury; on a failure, 2 points of injury; on a success, 1 point of injury; and on a critical success,
injury stops and normal recovery can occur (and hair starts to grow back). Until injury stops, you have Susceptible to Disease-3 and suffer from nausea. If you lose more than 2/3 of your HP to radiation, your teeth and nails start to fall out.

D: Terminal radiation sickness. As C, except HP loss begins in 1d/2 days, and even a critical success won't stop daily HP loss — it only postpones it for a day. Death is certain.

E: Rapid cerebrovascular death. After one hour, you lose 1d from each of DX, IQ, and FP; take 1d of injury; gain Hemophilia, Low Pain Threshold, and Susceptible to Disease-3; and are nauseated. Make an hourly HT roll. Critical failure means instant death from brain hemorrhage; failure means loss of another 2 points of DX, IQ, and FP, and 2 more points of injury; success means 1 extra point of each; critical success means no decline that hour.

Other Effects: In addition to these effects, a single dose of 200+ rads causes sterility and blindness for 1 month; a dose of 500+ rads makes it permanent. An accumulated dose of 100+ rads increases the risk of birth defects. Should you become a parent, make a HT roll, at -3 if you are male. On a failure, the child has some sort of birth defect (GM's option).

Radiation Protection
Any material between you and the radiation source grants a Protection Factor (PF) that reduces your received dose. Divide your dose by PF; e.g., PF 100 means 1/100 the dose. Half an inch of lead, 1.5 inches of steel, or 750 yards of air has PF 2; a yard of water has PF 8; a yard of earth has PF 27; and a yard of concrete has PF 64.

Shielding protects differently against certain types of radiation. Radiation from solar flares and planetary radiation belts is mostly free electrons and alpha particles: multiply PF by 20. Against cosmic rays, divide PF by 100!

Radiation Treatment
All costs below are per treatment.
At TL7, drugs are available that can halve your effective rad dosage if a dose ($500) is taken 1-3 hours in advance. Chelating drugs are also available to get radioactive fallout out of your system; a dose ($500) halves exposure after 3 days and eliminates it entirely after a week. This has no effect on radiation already absorbed!

AT TL8, advanced chelating drugs ($500) encapsulate and remove fallout in 12 hours.

At TL9, advanced anti-radiation drugs or cell-repair nanotechnology ($1,000) can give +3 to all HT rolls vs. radiation for 2 weeks.

At TL10+, rejuvenation technology might be able to completely repair the ravages of radiation, provided the victim is alive.

AGING
As discussed under Age (see page 30), you can start your adventuring career at any age that falls within your race's usual lifespan. However, unless you are Unaging you will experience gradual decline once you age past a certain point.

Beginning at age 50, make a series of "aging rolls" each year to see if old age is taking its toll. (If you did not note an exact birthday, roll on the first day of every game year.) At age 70, roll every six months. At age 90, roll every three months!

If you have Extended Lifespan, each level doubles the age at which you must make aging rolls (50 years), the ages at which aging rolls become more frequent (70 and 90 years), and the time intervals between rolls (1 year, 6 months, and 3 months). If you have Short Lifespan, each level halves these numbers.

Aging rolls are a series of four HT rolls — one for each of your four basic attributes, in the following order: ST, DX, IQ, HT. You may not use any form of Luck on these rolls. Modifiers: Your world's medical tech level minus 3; e.g., -3 at TL0, or +4 at TL7.

+2 if you are Very Fit, +1 if Fit, -1 if Unfit, or -2 if Very Unfit.

On a failure, reduce the attribute in question by one level. A critical failure, or any roll of 17 or 18, causes the loss of two levels. Exception: If you have Longevity, treat any roll of 16 or less as a success, and treat a 17 or 18 as an ordinary failure — and if your modified HT is 17+, only an 18 fails! When you lose an attribute level to age, reduce your point value accordingly. Reduce all secondary characteristics and skills based on that attribute to reflect its new level. For instance, if aging reduces your IQ by one, your Perception, Will, and skills based on any of those three quantities also drop by one. If any attribute reaches 0 from aging, you die a "natural" death.

At the GM's option, you may lose advantages or gain disadvantages of equivalent point value instead of losing an attribute point. For example, your Appearance could decline, or you could gain Hard of Hearing.

Artificial Youth
In some settings, technology can halt or reverse aging. Should you become younger through any means, you regain all attribute levels lost between your new age and your old one. This simply increases your point value; you do not have to "buy back" the recovered attribute levels.

Even without magic or high technology, you can spend earned character points to raise your attributes to combat aging.

EQUIPMENT MODIFIERS
The quality of your equipment modifies your skill rolls for tasks that normally require equipment:

No equipment: -10 for technological skills, -5 for other skills. Note that many skills cannot be used at all without equipment!

Improved equipment: -5 for technological skills, -2 for other skills.

Basic equipment: No modifier.

Good-quality equipment: +1. Costs 5x basic price.

Fine-quality equipment: +2. Costs 20x basic price.

Best equipment possible at your TL: +TL/2, round down (minimum +2). Not usually for sale!

If you have "basic" or better equipment that is not in perfect condition, the following modifiers apply in addition to quality modifiers:

Missing important items: -1 per item.

Damaged equipment: -1 to -3.

Equipment modifiers reflect the quality of:

- Special "tools of the trade," for criminal, military, and espionage skills such as Disguise, Explosives, Forgery, Forward Observer, Holdout, and Lockpicking.

- The contents of your backpack, for outdoor skills like Fishing and Survival.

- Your instruments or lab, for scientific and medical skills such as Alchemy, Diagnosis, Meteorology, Navigation, and Surgery.

- Your shop or toolkit, for Armoury, Carpentry, Electrician, Electronics Repair, Engineer, Machinist, Masonry, Mechanic, Smith, and other skills used to build or repair things.

- Your studio, for artistic skills — Artist, Jeweler, Photography, etc.

Example: For First Aid skill, "improved" might mean leaves and clean mud; "basic," sterile bandages; "good," a standard first-aid kit; "fine," a crash kit (in most ambulances); and "best," an entire hospital. Missing antiseptic would give -1, while a first-aid kit salvaged from a wrecked vehicle might give -1 or worse for damaged equipment.
JOBS

Not every character will be a member of the military. Many will be civilians who have a need for money, and the means to earn it. It’s up to the GM to define the jobs available in his game world.

The table on the facing page defines many typical jobs in the Star Fleet Universe. The GM can define more as they are needed, and anyone is welcome to submit more jobs which could be published on jobs tables in future products. The ones provided will give you a general guideline by which other jobs can be rated.

Several things define a job:

Description
The job’s title, and exactly what the job entails.

Prerequisite Skills
The skills needed to do the job (if any), and the minimum required level in each. Some jobs also have prerequisite advantages.

Monthly Pay
The amount of money earned on a successful roll. Remember that unless the economy is under some sort of stress or outside control, jobs will never be high-paying unless they are difficult (hard success roll), dangerous (severe consequences on a failed success roll), highly trained (difficult skill prerequisites), or privileged (difficult Status or Wealth prerequisites; e.g., see Wealth Level, below).

It should be noted that, by a tradition that is universal, all military personnel receive free meals (if you like mess hall food, feel lucky), housing (e.g., a cabin or bunk on a starship or barracks), medical care (assuming you can get to a military medical facility, most major units have these), education (if you apply for and are picked for a course), and a minimum number of duty uniforms. As such, military pay tends to be about 2/3 of civilian pay due to these benefits. (There are retirement benefits as well, but these do not generally concern the players.)

The original source material included two contradictory theories of money. One was that the Federation did not need, have, or use money, and the other that Star Fleet personnel were paid in “credits.” We long ago decided that the Federation uses money and pays its military, and that all references to “not having money” were in fact references to the Federation using a system of credit records and not having very much “currency” in their pockets at the given time. Having money (in the bank) is one thing; it could be hard to spend in spaceport bars.

Some empires are stronger economically than others, which has a direct affect on your income. Adjust your monthly pay per your allegiance, as follows:

- Ethnic Orion (non-pirate): x 125%.
- Tellarites: x 125%.
- Other Federation, WYN: x 120%.
- Lyran, Tholian: x 110%.
- Ethnic Klingon military personnel: x 80%.

Ethnic Klingon civilians: x 75%.
All Dunkars: x 85%.
Other Klingon subject race military personnel: x 75%.
Other Klingon subject race civilians: x 50%.
Romulan Housed Nobility: x 125%.
Romulan House Member: x 100%.
Other Romulans: x 80%.
Seltorian Workers: x 33%.
All others: no adjustment.

Remember that if a character’s time spent adventuring is part of his job, his income should depend mainly on money earned adventuring, not job rolls! This table is best applied when a character does not adventure during some period, and it is necessary to determine income during that time.

Job Success Roll
At the end of every month in which a character works, he must roll against one of the prerequisite skills for his job (as per the jobs table) — possibly at a penalty, for difficult jobs. Jobs without prerequisites may have a flat success roll (e.g., all characters roll vs. 12) or require an attribute roll (e.g., ST or IQ). If you roll anything but a critical success or critical failure, just collect the monthly pay (below) and go on. On a critical success, you get a 10% permanent raise in income. Results of a critical failure vary; loss of the job is typical, but the GM should be creative.

Critical Failure
On a critical failure of the Job Success roll, roll again. If the second roll is not another critical failure then apply the penalties listed BEFORE the “/” (slash), but if you roll a critical failure a second time then apply the penalties AFTER the “/”.

Critical Failure key:
“i” indicates lost income for however many months — you were fined, forced to pay damages, had to replace equipment, etc.
“d” indicates dice of damage — you were in an accident, fight, etc.
“LJ” stands for Lost Job — you were fired, demoted, or lost your license.

Unstated Benefits and Restrictions
The Jobs Table cannot accommodate endless notes about obvious, and not-so-obvious restrictions placed upon, and fringe benefits of, various jobs. A shop clerk may not sound glamorous but does get to meet a lot of people. Military personnel have time off for personal pursuits, but if the starship you are assigned to is leaving port, you won’t be around for next week’s festival. Military starship personnel, despite being better paid, have more restrictions than civilian personnel in what they can bring onto the ship in their personal baggage. Corporate executives may be under contractual restrictions regarding private deals and trades. Government employees may have restrictions on what gifts they can accept and what they can and can’t do when on duty, but then they may also have access to government records and databases.
## Job Table


### Poor Jobs
- Welfare Recipient [none] $300 .................................................. 10 .......... -1i / -6i

### Struggling Jobs
- Unemployed actor/actress [Acting 10+] $50 x skill ....................... PR .......... -3i / LJ, 1d
- [any useful craft or outdoor skill 10+, Survival 11+] $40 x best PR .............................................................. Best PR .......... 2i, 1d / 4i, 4d
- Servant [appropriate skill 12+] $60 x best skill .......................... PR .......... 2i, 1d / LJ, 3d
- Shop clerk [Merchant 10+] $600 .............................................. IQ + Reaction .......... LJ

### Average Jobs
- Courtesan [Sex Appeal 13+] $100 x skill .................................. PR + Appearance .......... 2i / -4i, 2d
- Criminal Enforcer [ST 12+, Beam Weapons or Guns 12+, Brawling, Judo, or Karate 12+] $90 x IQ ................................. Best PR -4 .......... LJ, 3d / 8d
- Journalist [Research 12+, Photography or Writing 12+] $70 x best PR .............................................................. PR .......... 3i, 1d / LJ, 3d
- Pirate [Beam Weapon or Guns 12+, Free Fall 11+, Spacer 12+] $120 x IQ .............................................................. 10 + Reputation .......... 3i, 4d / 2d, imprisoned
- Asteroid Prospector [Prospecting 12+, Spacer 12+] $100 x best skill .............................................................. Worst PR .......... 3i, 1d / LJ, 3d
- Civilian Starship crew [Rank 0+, Professional Certification (any)] Best skill x $200 x Rank ........................................ ProCert PR .......... LJ, 2d / LJ, 8d
- Guard [civilian/paramilitary] [Rank 0+, combat skill 10+] $1000 + ($200 x Rank) .............................................................. Best PR -2 .......... 2i, 2d / -5i, LJ

### Comfortable Jobs
- Technician [appropriate skill 14+] $250 x worst PR .............................................................. Worst PR .......... -1i / LJ, -3i
- Corporate Executive [Administration 12+, Status 1+] $3000 + ($100 x Status) .............................................................. PR .......... 2i / LJ, -4i
- Diplomat [Diplomacy 12+, Administration 10+, Status 0+] $1,000 + (worst skill x $500) .............................................................. Worst PR .......... 2i, LJ / -6i, 2d, LJ
- Free Trader [Merchant 12+, Spacer 12+, Professional Certification] $1,000 + ((worst PR -11) x $100) ........... Merchant -2 .......... -1i, 1d / -4i, 2d, LJ
- Military Starship crew [Rank 1+, Professional Certification, Spacer 12+] $500 x Rank .............................................................. Worst PR .......... -1i, 1d / 4d, LJ
- Smuggler [Spacer 12+, Holdout 10+, Streetwise 10+] $3000 + ($100 x Reputation) .............................................................. Worst PR .......... 2i, 2d / -12i, 4d, imprisoned
- Dock Pilot [Piloting (Starship) 12+, Piloting (Shuttlecraft) 12+] $300 x Worst PR .............................................................. Best PR .......... 2i, 2d, LJ / -4i, 4d, LJ
- No Limit Klingon Hold-Em Professional [Fast-Talk 12+, Gambling] $2,000 x (Worst PR-10) .............................................................. Charisma Bonus .......... -6i / -12i, 2d

### Wealthy Jobs
- Research Scientist [Research 12+, any scientific skill 15+, Status 1+] $1,000 x (best skill -12) .............................................................. Worst PR .......... -3i / -6i, LJ
- Starship Captain [Leadership 12+, Rank or Status 3+, Tactics (space) 12+] $1,000 x Rank or Status .............................................................. Worst PR .......... -3i, 2d / -6i, 3d, LJ
- Medical Doctor [Physician 15+, any other medical skill 15+, Status 2+] $1,000 x (worst skill -12) .............................................................. Worst PR .......... -3i / -6i, LJ
- Planetary Rulership [Status 5+, Administration 15+] $5,000 x (Status -3) .............................................................. Worst PR .......... -3i / 1d, LJ, imprisoned
LAWS AND CUSTOMS

Each world has its own laws and customs. Furthermore, laws and customs vary from place to place (and time to time) within each world. In some worlds, it is possible to research these things in advance (the Law skill helps here). In other worlds, you must learn them the hard way (Law helps here, too, if you specifically investigate; Streetwise can find out "informally").

As a rule, the use of force or the threat of force is illegal or improper wherever you go. The stronger the local government (see Control Rating, below), the more true this is; government usually considers the use of force to be its own right and monopoly.

Self-defense is sometimes an exception — but not always! Note that public display of non-customary weapons is a "threat of force," and leads to bad reactions even if it's technically legal. If you beam down into a Federation colony in Klingon-occupied territory, disruptor carbines at the ready, the villagers will be very suspicious of your motives. In general:

- Violating a law usually leads to some sort of trial and possible punishment. (The GURPS Klingon and GURPS Romulans books have sections on what happens when you violate a law in those Empires.)
- Violating someone's rights might lead to a "civil" trial and a fine — or just an informal beating.
- Violating a custom gives you a reaction penalty — possibly a big one — whenever you try to deal with a local. The offended locals might not even tell you what you are doing wrong!

CONTROL RATING

"Control Rating" (CR) is a general measure of the control exercised by a government. The lower the CR, the less restrictive the government and the freer the people. Government type does not absolutely determine CR — it is possible to have a very free monarchy, or a democracy where the voters have saddled themselves with thousands of strict rules.

Assign CR according to the following guidelines:

**CR0** — *Anarchy*. There are no laws, taxes, or controls.

**CR1** — *Very free*. Nothing is illegal save use of force or intimidation against other citizens. Taxes are light or voluntary. Only access to LC0 items is controlled.

**CR2** — *Free*. Some laws exist; most benefit the individual. Taxes are light. Access to items of LC0 and LC1 is controlled.

**CR3** — *Moderate*. There are many laws, but most benefit the individual. Taxes are moderate and fair. Access to items of LC0 through LC2 are controlled.

**CR4** — *Controlled*. Many laws exist; most are for the convenience of the state. Broadcast communications are regulated; private broadcasts (like CB) and printing may be restricted. Taxation is heavy and sometimes unfair. Access to items of LC0 through LC3 is controlled.

CR5 — Repressive. There are many laws and regulations, strictly enforced. Taxation is heavy and often unfair. There is strict regulation of information technology: computers, photocopiers, printing presses, transmitters, etc. All goods are effectively controlled; you can't buy anything without the appropriate ration coupons or paperwork.

CR6 — Total control. Laws are numerous and complex. The individual exists to serve the state. Many offenses carry the death penalty, and trials — if there are any at all — are a mockery. Taxation is crushing, taking most of an ordinary citizen's income. Censorship is common, and private ownership of any information technology is forbidden. All goods are controlled, and the government might even withhold basic necessities.

If a question of legality arises, or if you need to determine how severely the government checks and harasses newcomers, roll 1d. If the result is lower than the CR, then the act is illegal, or the authorities harass, delay, or even arrest the PCs. If it is higher, either the act is legal or the authorities overlook it. If it equals the CR, the situation could go either way: play out an encounter or make a reaction roll.

LEGALITY

Each item of equipment has a "Legality Class." Some modern-day examples include:

**LC0** — *Banned*. Weapons of mass destruction; strategic missiles; orbital weapons platforms; intercontinental bombers.

**LC1** — *Military*. Heavy weapons; air defense radar; sensor jammers; armed vehicles; land mines.

**LC2** — *Restricted*. Light assault weapons; silencers; surveillance technology (wiretaps, etc.); armored cars; burglar's tools (e.g., lockpicks); explosives; dangerous drugs.

**LC3** — *Licensed*. Handguns; hunting guns; radio transmitters; most unarmed vehicles; ordinary drugs and medical equipment.

**LC4** — *Open*. Nonlethal weapons (e.g., stunners); home computers; radio and television receivers; cameras; most tools; first-aid kits.

**CONTROL RATING VS. LEGALITY CLASS**

Legality Class interacts with Control Rating as follows:

**LC = CR + 1 or more**: Any citizen may carry the item.

**LC = CR**: Anyone but a convicted criminal or the equivalent may carry the item. Registration may be required, but there is no permit fee.

**LC = CR - 1**: A license is required to own or carry the item. To get a license, one must show a legitimate need or work for the government. Generally, a license costs 1d x 10% of the price of the item itself.

**LC = CR - 2**: Prohibited except to police SWAT teams, military units, and intelligence services.

**LC = CR - 3 or worse**: Only permitted to the military or secret police.

---

**MELEE WEAPONS TABLE**

<table>
<thead>
<tr>
<th>TL</th>
<th>Weapon</th>
<th>Damage</th>
<th>Reach</th>
<th>Parry</th>
<th>Cost</th>
<th>Wt</th>
<th>ST</th>
</tr>
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<tbody>
<tr>
<td>0</td>
<td>Punch</td>
<td>thr-1 cr</td>
<td>C</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>Kick</td>
<td>thr cr</td>
<td>C,1</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>Sharp Teeth</td>
<td>thr-1 cut</td>
<td>C</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>Baton</td>
<td>sw cr / thr cut</td>
<td>1</td>
<td>+2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>Quarterstaff</td>
<td>swx2 cr / thr2 cr</td>
<td>1,2</td>
<td>+3</td>
<td>$20</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>0</td>
<td>Axe</td>
<td>swx2 cut</td>
<td>1</td>
<td>0U</td>
<td>$50</td>
<td>4</td>
<td>11</td>
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<tr>
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<td>Spear</td>
<td>thrx3 imp</td>
<td>1,2</td>
<td>0</td>
<td>$40</td>
<td>4</td>
<td>9*</td>
</tr>
<tr>
<td>1</td>
<td>Dagger</td>
<td>thr-1 imp</td>
<td>C</td>
<td>-1</td>
<td>$20</td>
<td>0.25</td>
<td>5</td>
</tr>
<tr>
<td>2</td>
<td>Mace</td>
<td>swx3 cr</td>
<td>1</td>
<td>0U</td>
<td>$50</td>
<td>5</td>
<td>12</td>
</tr>
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<td>2</td>
<td>Shortsword</td>
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<td>0</td>
<td>$400</td>
<td>2</td>
<td>8</td>
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<tr>
<td>2</td>
<td>Broadsword</td>
<td>swx1 cut / thr1 cut</td>
<td>1</td>
<td>0</td>
<td>$500</td>
<td>3</td>
<td>10</td>
</tr>
<tr>
<td>3</td>
<td>Klingon Sword</td>
<td>swx2 cut</td>
<td>1,2</td>
<td>+2</td>
<td>$650</td>
<td>4</td>
<td>10</td>
</tr>
</tbody>
</table>

**MELEE WEAPONS**

The selection of melee weapons at left will provide characters and GMs with a range of choices for old-style hand weapons. For improvised weapons, select the nearest equivalent (e.g., a length of pipe could be used as a quarterstaff). These can be used on primitive worlds by NPCs. The Klingon sword requires two hands.
At the end of each gaming session, the GM may award characters for good play. "Good play" is anything that advances your mission or shows good roleplaying (including adherence to your disadvantages and quirks) — preferably both! These awards are listed below.

**REPUTATION POINTS**

GMs may award both Professional Reputation points and/or Heroic Reputation points to individual characters at the end of an adventure, but the characters will have had to have earned them! HR and PR points are awarded separately. Each requires that the character performed in such a way to deserve awarding these points. Additional points of Reputation also raise the point value of the character.

An award of more than one point of each per gaming session should be very, very difficult to achieve. For example, capturing an enemy starship, taking it back in time, and bringing back an extinct life form in order to save your homeworld from destruction, all in the course of ONE adventure, would be something worth three Heroic Reputation points, but no one would get that many points for anything less impressive! And of course, poor performance on the part of a character may result in Reputation points being taken away. Negative point totals are usually accompanied by courts-martial and/or criminal records.

Medals are awarded to the character in a manner parallel to the reputation points. A player cannot "buy a medal" for his character. He could buy a level of reputation (if the GM approves) and the character would be given a suitable service award in an appropriate ceremony. If the character did something heroic in an adventure, he would be given the medal by the GM along with bonus character and reputation points.

**SENIORITY POINTS**

Generally, each character is automatically awarded one Seniority Point at the end of each adventure. Longer adventures may earn more than one point, but those are often withheld until that longer adventure is completed.

**BONUS POINTS & IMPROVEMENT**

Bonus points are awarded separately to each character. A typical award is 1-3 points, with 5 points being the absolute upper limit for amazing play. Note that you get no points for a session in which your Dependent is killed, seriously wounded, or kidnapped and not recovered.

Bonus points are used to develop and improve your character. Record them as "unspent" Points on your character sheet, then spend them the same way as during character creation, with a few differences:

**BASIC ATTRIBUTES**

To improve one of your basic attributes (ST, DX, IQ, or HT), you must spend character points equal to twice the beginning point-cost difference between the old score and the new one. For example, to go from ST 10 (beginning cost 0) to ST 11 (beginning cost 10) would cost 20 points. If you improve an attribute, all skills based on that attribute also go up by the same amount.

**ADVANTAGES**

Most advantages are inborn, and cannot be "bought" later on. Exceptions include Combat Reflexes and Literacy, which can be learned, and social advantages like Status, which can be earned (in some societies). To add an advantage, you must have your GM's permission, a logical explanation (perhaps that alien artifact you touched earlier), and then pay the appropriate character points.

**BUYING OFF DISADVANTAGES**

No character may get extra points by adding disadvantages after being created. However, you may get rid of many disadvantages by "buying them off" with points equal to the bonus earned when the disadvantage was taken, if the player and GM can agree on a logical explanation. Such an explanation might be contact with some kind of alien technology or virus; just be sure it's not something the characters can pick up to sell on the open market!

**ADDING AND IMPROVING SKILLS**

Earned character points can be used to increase your skills or add new ones. Normally, these skills must be skills that, in the GM's opinion, were significantly used in the adventure in which the character points were earned. When you improve a skill, the cost is the difference between your current skill level and the cost of the new skill level. Skills earned without a teacher take twice as long to learn.
FEDERATION MEDALS

The Federation has numerous awards which fall into broad categories of valor, service, and command. GMs can, in some cases, select an award from either category. This section provides only a brief summary of the most general awards; additional awards (and more information about these) is given in GURPS Federation.

Most awards are medals hung on ribbon; for informal occasions, only a small rectangular ribbon is worn.

Awards for Valor

The highest award for valor in the Federation is the Star Fleet Gold Star (which is also the highest award for anything). This is a military award, although it can (rarely) be awarded to civilians. It is awarded for multiple consecutive heroic actions at the risk of life above and beyond all expectation of duty. (Most are awarded posthumously.)

The second highest valor award is the Star Fleet Silver Star, given for heroism actions at the risk of life beyond the requirements of duty. The Star Fleet Bronze Star is awarded for a single act of heroism at risk to one's own life. This can be given for non-combat heroism; the Gold Star and Silver Star cannot. (See Hero of Life.)

The Star Fleet Commendation Medal can be given for valor, and ranks as the lowest valor award.

Awards for Service

Awards for service cover situations where an individual has done a lot of good things over a period of time, none of which would result in a specific award. The highest award for service is the Star Fleet Distinguished Service Cross. This is given for major achievements over an extended period of time, such as commanding a fleet in wartime.

The Distinguished Service Medal is a lesser award given for specific acts (or extended periods) in which the individual is distinguished as having gone far beyond what would be expected of Star Fleet personnel.

The Meritorious Service Medal is given for singular acts of service or achievement which were performed with great merit. Combat is not required for this award.

The Star Fleet Commendation can also be given for service (ranking lower than the above medals) as campaign ribbons.

Star Fleet also has medals for those who complete five, ten, or twenty years of service. For extra decades, a star is added to the twenty-year medal.

Command Awards

The Federation has a special set of awards for command accomplishments. These include:

The Command Star (also known as the Fleet Captain’s Medal) given for spectacular accomplishment under extremely difficult conditions.

The Command Achievement Medal (sometimes known as the Squadron Major Medal) is given to a commander who, while exposed to personal risk, achieved more than could have reasonably been expected.

The Command Accomplishment Medal (sometimes known as the Commander’s Medal) is given for the accomplishment of a mission. This is the most likely award for a GM to give to a team leader who performed well on a mission. Superior performance rates a higher award.

Commendations

The Star Fleet Commendation is, in some regards, a generic “catch-all” award. It can be given to military or civilian personnel for any valid reason, from a university professor who conducted two years of research into new materials to a junior officer who conducted a minor mission with above average results. It is an iron-gray medal in the shape of a six-armed cross. Commendation medals always come with an “honor scroll” reflecting the specific type of service which merited the commendation. Some examples of these scrolls (there are dozens) include:

Search: Conducting a successful search for a missing person or thing under unusually arduous conditions.

Rescue: Rescuing someone from imminent danger.

Research: Given to scientists or engineers.

 Discovery: Awarded for finding some specific and unique fact, truth, or item. Could be given for finding a mineral deposit on a world ripe for colonization.

 Exploration: Conducting a survey of a new world.

 Valor: Given for minor events.

 Service: Lower than the Meritorious Service Medal.

 Sacrifice: This is awarded to those who give up something of great personal importance in order to pursue their duty to the Federation.

 Achievement: For a single specific accomplishment.

 Diplomacy: Given for a notable success.

 Classified: Some awards are for incidents which must remain secret for the good of the Federation. Such an award is, of course, never worn in public.

GMs: You should not give these out as freebies, but could award them to any military team member after any mission that was a bit more than merely successful.
Campaign Ribbons

Star Fleet awards a series of Campaign Ribbons for those who participate in various campaigns. A campaign is defined as an extended series of operations in a single area, such as a series of battles for a planet. Star Fleet personnel get a General Service Campaign ribbon after each five-year tour. Prime Teams and other special forces types receive a "special campaign ribbon" for each mission (e.g., stopping Klingon arms smuggling on Sherman's Planet, thwarting the Romulan-backed coup on Debrock) no matter how long the mission takes. If non-special forces characters wander into such a situation and achieve success, they could also get a special campaign ribbon.

Civilians can be given a campaign ribbon if they participated to the same extent as military personnel.

Beyond simply receiving the ribbons, each individual may have a device affixed to the center square of the ribbon to denote how illustrous his service was. There are three such devices:

**Star:** Outstanding Service Ribbon: This is given to personnel who achieve complete success in a manner beyond all reasonable expectation. For example, conducting a successful campaign against Orion Pirates and stealing their tax records at the same time.

**Cross:** Superior Service Ribbon: This is given to personnel who participate in an outstanding manner, to the highest level of performance that could be expected. For example, rescuing hostages held by Orion Pirates without losses and without causing excessive damage.

**Diamond:** Meritorious Service Ribbon: Given to personnel who completed their mission successfully.

**No Device:** General Service Ribbon: Given to personnel who went on the mission or served in the theater but did not accomplish anything of any particular merit. Except in the cases of actual dereliction of duty, this award basically means "you showed up and you didn't screw up."

Special Awards

The rarest special award is the First Contact Medal. This is given to Star Fleet personnel (or civilians who are officials, delegates, or employees of the Federation or one of the member planet governments) who successfully complete a First Contact mission with a new race. These missions are especially critical, as they can accidentally start wars. The ribbon of the First Contact medal is White-Blue-White; the medal itself is blue with a white cross. A symbol affixed to the ribbon represents the planet contacted.

The Guardian of Life Medal is given in cases of multiple consecutive acts of valor, leadership, and service equivalent to those required to earn the Star Fleet Gold Star but which did not take place in conditions of wartime combat. For example, it was once given to a doctor who, knowing it could mean her own death, remained in a highly contagious plague zone to coordinate relief operations, control panic, deliver supplies, inspire others, and search for a cure when all common sense would have dictated leaving the area immediately. The similar Champion of Life medal is equivalent to the Silver Star.

The Lifesaving Medal is given to anyone (military or civilian) who saves a sentient life at the risk of his own life.

The Combat Action Ribbon (a rectangular red ribbon) is given to anyone who performed his duty under enemy fire. You can only earn this medal once in your career. Crossed swords are added for hand-to-hand combat and an arrowhead for an assault on an enemy ship or planet.

The Prime Directive Clasp can be added to any medal if the actions which earned the medal were, at least in large part, taken to enforce and protect the Prime Directive.

Civil Merit Awards (lower right) are the civilian equivalent of the Gold Star (star, equal to the Nobel Prize), Silver Star (four-armed cross), Bronze Star (disc), and Commendation (six-armed cross). They can be awarded for valor.

The Special Forces badge is given to those military personnel (and rare civilians) who complete the grueling 16-week course taught by the Star Fleet Marines. Every member of a Prime Team, as well as most Marines assigned to a Commando Squad, will have this badge.

The Star Fleet Wound Badge is given to those wounded in action. The wreath of oak and laurel symbolizes strength and honor. The heart is purple. It comes in three grades for minor, major, and crippling wounds.

The Federation's Galactic Intelligence Agency has its own awards, which parallel the Star Fleet Awards exactly. The main difference is that the ribbons are black and the various "stars" (Gold, Silver, Bronze) have four points instead of five. Most such awards are classified.

Each Federation member planet has its own equivalent military and civilian awards which it gives to its citizens who perform acts that deserve decoration. Player characters might hold reserve commissions from their home planets and could be given such awards.

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GURPS Prime Directive 4E
PROMOTION

In game terms, a "promotion" is the purchase of an additional level of Military Rank. Promotions are only available to military characters who already have purchased at least one level of Rank, generally at the time that the character was created. Except under the most unusual of circumstances, a military character receives a promotion only when a number of conditions are met.

GMs should use the following criteria for promotion. See page 36 for the Seniority points and Professional Reputation required for each military grade; e.g., 50 Seniority and ProRep +1 for a LtCdr (O4). When a character has accumulated Seniority and Professional Reputation scores equal to or exceeding those given for the next grade, the character becomes eligible for promotion with the GM’s approval. If this promotion increases the character’s Military Rank advantage, the character will have to buy that level of Military Rank when the promotion is granted. E.g., a character with 4 levels of Rank is a Lt Commander; he must accumulate a total of 70 Seniority points and a Professional Reputation of +2 before he becomes eligible for promotion to Commander. Once this has been achieved, he gains the promotion with the GM’s approval and spends 5 bonus points to purchase an additional level of Military Rank, thereby becoming a Commander.

Normally a character must spend his own accumulated character points to purchase the new level of Rank. A GM may, at his option, award character points specifically for the promotion; this is known as a "meritorious promotion."

Special note: This process varies for races/empires other than the Federation and will be detailed in their sourcebooks. For example, a military Klingon character can substitute Heroic Reputation points for Professional Reputation points, and MUST have at least some Heroic Reputation for ever second promotion except for the Technical Warrant grades.

RANK INSIGNIA

Star Fleet enlisted insignia are usually shown as small brass pins on the collar, but can be shown as green patches on dungarees. Marine enlisted insignia is red patches on the sleeves of the dress uniform and black pins on the collar of the combat uniform.

Star Fleet officer insignia consists of combinations of gold and blue pins (Lieutenant Commander has two gold and one blue). Marine officer insignia is silver (2nd Lieutenant and major are gold) on the dress uniform, and black (brown in the case of 2nd Lieutenant and Major) pins on the collars of the combat uniform. Marine cadets wear silver pips while Star Fleet midshipmen wear blue pips.

National Guard officers wear the Marine insignia, but Gunnery Sergeant is called Sergeant First Class and Lance Corporal is called Specialist. Police personnel wear Star Fleet insignia except that the gold is replaced by silver. Merchant Marine personnel wear Star Fleet insignia but the gold is replaced by bronze.
TECHNOLOGY LEVELS (TLs)

A technology level (TL or tech level) is a general description of a culture's highest achievement in technology. It is possible for a locale, nation, world, or empire to have widely varying TLs in different sciences, but for game purposes these are averaged into one number. Technology level ratings range from 0 to 16; high TLs are likely to seem like magic to anyone of a sufficiently low TL.

Note: "Foreign versions of the same basic technology" (e.g., a Romulan trying to use a Gorn Phaser) is handled by the Familiarity Rules. In summary, this imposes a -2 penalty until you have had eight hours to practice with the foreign item. Note that this would not apply to an average Romulan trying to use a Klingon drone since the Romulans have no familiarity with drone technology. Some individuals might, due to their training, have actual skill ratings with foreign technology.

Prime Directive TECHNOLOGY LEVELS

This Tech Level Chart shows the progression of technological development in the Star Fleet Universe. It is exactly the same as the standard GURPS tech level chart for TL0 (Stone Age) through TL7 (the Modern Era). At TL8 and above it deviates from the "generic" GURPS tech levels to show the way technology developed in this particular universe. Items in Italics are SFU specific. For example, in this game's universe, Transporter technology is common at TL9, but the standard GURPS definition is TL15 (matter transmission). This is a major strength of the GURPS system; each universe can build its own history.

It should also be noted that thousands of pages of background, history, and technology from other Star Fleet Universe products do not neatly fit into GURPS Tech Levels. If your campaign requires precise data, we refer you to the many SFB and F&EE products which provide precise development dates for each race and type of technology. A lot of this information, but by no means all of it, is in the SFU Timeline in Chapter 8. It should be noted that tech levels are not a tidy batch of information. Some empires got the various levels at different times, and some technology never made its way to every empire.

Of course, the GM is the final arbiter. GMs are welcome to make whatever alternates they like to best service their players. You can set your campaign at any tech level you want; you can use the Star Fleet Universe timeline or you can ignore it completely.

TL 0: Stone Age: Fire, lever, language.
TL 1: Bronze Age (Athens): Wheel, writing, agriculture.
TL 3: Medieval (pre-1450): Steel weapons, math with zero.
TL 10: Tactical Warp Era (Y50-Y80): Antimatter power, artificial gravity, Early Faster Than Light radio, Starship shields, Early Tactical Warp Engines, Artificial Gravity.
TL 11: The Early Years (Y80-Y120): Improved Faster-Than-Light radio (subspace), Full Tactical Warp Engines (early).
TL 12: Main (Phaser-1) Era (Y120-Y180): Starships mount Phaser-1, Full Tactical Warp Engines (modern), fighter-shuttles. During the later portions of this era, various improvements included aegis fire control, "hot warp" engines (used in war cruisers and war destroyers), and "fast warp" engines (used in fast cruisers).
TL 14: Dysonian (Tholian): Construction of ringworlds; nanomachines, sentient Artificial Intelligence.
TL 15: 2X-Technology (Y205-Y225): Amazing things. 2X-Technology is the next generation after the Star Fleet Universe history and is beyond the scope of GURPS Prime Directive.

GURPS Prime Directive 4E

TECHNOLOGY
Romulan War Eagle

GPD RACIAL TECHNOLOGY LEVELS

The following table gives the date that major races and empires achieved Technology Levels important to this game. Y1, or Year One, was the year Earth officially first made contact with aliens, in this case the Vulcans.

<table>
<thead>
<tr>
<th>TL9 NTW</th>
<th>TL10 Tw</th>
<th>TL11 Ey</th>
<th>TL12 Ph-1</th>
<th>TL13 X</th>
</tr>
</thead>
<tbody>
<tr>
<td>Federation</td>
<td>Y5</td>
<td>Y62</td>
<td>Y79</td>
<td>Y120</td>
</tr>
<tr>
<td>Klingon</td>
<td>Y8</td>
<td>Y63</td>
<td>Y78</td>
<td>Y125</td>
</tr>
<tr>
<td>Romulan</td>
<td>Y1 [Y60]</td>
<td>[Y140]</td>
<td>Y159</td>
<td>Y182</td>
</tr>
<tr>
<td>Kzinti</td>
<td>Y25</td>
<td>Y64</td>
<td>Y79</td>
<td>Y122</td>
</tr>
<tr>
<td>Gorn</td>
<td>Y20</td>
<td>Y66</td>
<td>Y91</td>
<td>Y121</td>
</tr>
<tr>
<td>Tholian</td>
<td>?</td>
<td>?</td>
<td>Y79</td>
<td>Y183</td>
</tr>
<tr>
<td>Orion</td>
<td>Y21</td>
<td>Y71</td>
<td>Y113</td>
<td>Y121</td>
</tr>
<tr>
<td>Hydran</td>
<td>Y25</td>
<td>Y65</td>
<td>Y78</td>
<td>Y134</td>
</tr>
<tr>
<td>Lyran</td>
<td>Y30</td>
<td>Y64</td>
<td>Y79</td>
<td>Y120</td>
</tr>
<tr>
<td>WYN</td>
<td>NA</td>
<td>NA</td>
<td>Y116</td>
<td>Y140</td>
</tr>
<tr>
<td>ISC</td>
<td>Y25</td>
<td>Y60</td>
<td>Y120</td>
<td>Y168</td>
</tr>
<tr>
<td>Peladine</td>
<td>Y25</td>
<td>Y60</td>
<td>Y121</td>
<td>D</td>
</tr>
<tr>
<td>Selorian</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>Y180</td>
</tr>
<tr>
<td>Jindarians</td>
<td>?</td>
<td>?</td>
<td>Y1</td>
<td>Y182</td>
</tr>
<tr>
<td>Vudar</td>
<td>Y25</td>
<td>Y70</td>
<td>Y76</td>
<td>Y177</td>
</tr>
<tr>
<td>Paravians</td>
<td>Y20</td>
<td>Y68</td>
<td>Y85</td>
<td>D</td>
</tr>
<tr>
<td>Carnivors</td>
<td>Y20</td>
<td>Y64</td>
<td>Y80</td>
<td>D</td>
</tr>
</tbody>
</table>

Notes:
TL9 is known as "Non-Tactical Warp," TL10 as "Tactical Warp," TL11 as "Early Years," TL12 as "the main era" or the "phaser-1 era" and TL13 as the "X-Technology Era." None of the races listed above reached TL15 or TL16 during the published history of the Star Fleet Universe.

The Andromedans and Tholians (who arrived from another galaxy) had TL14 throughout the entire time period covered by this game. Curiously, they never showed any technological advances. Otherwise, SFUs skips TL14.

The Romulans, who were stuck at TL9 for decades due to infighting (and a few Gorn commando raids), developed the shields and type-W tractor beams of TL10 long before the Klingons handed them TL12 on a platter in the Treaty of Smarba in Y159. Their shields were, however, very weak when first installed and did not reach "normal"

power until Y140. Romulans did not have matter transmission until the Treaty of Smarba.

The Lyran Democratic Republic (LDR) had the same technology levels as the Lyran Star Empire.

The WYN Star Cluster was uninhabited prior to Y116. If it had been occupied earlier, it would have the TL of whoever arrived to occupy it.

The Tholians are an ancient extragalactic race. They had TL14 in their home galaxy, but the refugees who arrived in the Milky Way in Y79 had only TL12 (plus one very big TL14 artifact).

The Orions are a special case. Because they steal from everyone, in theory a given Orion pirate ship could have any technology (except Tholian or Andromedan). See the map and special rules on page 135.

The Seltorians, who overthrew the Tholians in their own galaxy, could not grasp their higher technology and fell to TL12, the technology they had when their search teams reached this galaxy looking for the Tholians.

The Jindarians are an ancient race, probably native to the Milky Way. They apparently had TL12 for many thousands of years and did not develop TL13 until they saw other races do so.

An entry of "?" indicates the date is unknown and undefined as the race developed this TL very long ago.

An entry of "D" indicates that the faction had been destroyed or subjugated before achieving this technology level.

An entry of "NA" indicates that this empire did not exist in our galaxy prior to this time.

Many of the technologies mentioned apply to starship operations; while others apply to personal equipment, and some technologies apply to both.

Transporter and Tractor Beam Ranges; Engine Types

Many pieces of equipment function differently at different Technology Levels. The following table shows the availability of some items for a given TL.

<table>
<thead>
<tr>
<th>TL</th>
<th>Transporter</th>
<th>Tractor</th>
<th>Engines</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>None</td>
<td>None</td>
<td>Advanced sublight</td>
</tr>
<tr>
<td>9</td>
<td>None</td>
<td>Type-S</td>
<td>Non-Tactical Warp</td>
</tr>
<tr>
<td>10</td>
<td>10,000km</td>
<td>Type-W</td>
<td>Tactical Warp (early)</td>
</tr>
<tr>
<td>11</td>
<td>20,000km</td>
<td>Type-Y</td>
<td>Tactical Warp (full)</td>
</tr>
<tr>
<td>11b</td>
<td>30,000km</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>12</td>
<td>40,000km</td>
<td>Type-M</td>
<td>Tactical Warp (modern)</td>
</tr>
<tr>
<td>12b</td>
<td>50,000km</td>
<td>Type-N</td>
<td>—</td>
</tr>
<tr>
<td>12c</td>
<td>50,000km</td>
<td>Type-N</td>
<td>&quot;fast,&quot; &quot;hot,&quot; and &quot;lighter&quot;</td>
</tr>
<tr>
<td>13</td>
<td>50,000km</td>
<td>Type-X</td>
<td>X-Technology, PF engines</td>
</tr>
</tbody>
</table>

Technology upgrades continued throughout the era. The upgrades listed as Tech Level 11b occurred about Y100, those for 12b about Y140, and those for 12c about Y165. Note that PFs and X-Ships were developed about the same time but are entirely unrelated technologies.

The Tractor-S was the original tractor beam designed for emergency towing of a disabled ship. Its range is only several hundred feet, and it only functions in the rear 60° arc on ships, i.e., directly behind the towing ship; on bases
the function is 360°. It can be used only to tow a friendly or
captured ship or shuttle; it cannot be used defensively to
capture incoming missiles or drones as the targeting sys-
tem cannot deal with the high relative velocities.

The Tractor-W could function at a range up to
10,000km but otherwise had the same limitations as the
Tractor-S.

The Tractor-Y was the first tractor beam that could be
used tactically. It could function in a 360° arc, and it could
tractor any object (including drones and missiles, friendly
or enemy ships, and asteroids) but was still limited to a
maximum range of 10,000km.

The Tractor-M was similar to a Tractor-Y except that it
increased its maximum range to 20,000km.

The Tractor-N was the final development of the se-
ries, increasing the maximum range to 30,000km.

The Tractor-X is a TL13 development, but still has a
maximum range of 30,000km.

**Technology Availability By Race**

**Cloaking Device:** Romulans, Orions.

**Displacement Device:** Andromedan only.

**Disruptors:** Klingons, Kzintis, Lyrans, Tholians, WYN,
LDR, Orions.

**Drones:** Klingons, Kzintis, Federation, WYN, Orions.

**Expanding Sphere Generators (ESG):** Lyrans, LDR,
Orions.

**Fighters:** Federation, Klingon, Romulan, Kzinti, Gorn†,
Tholian, Orion, Hydran, Lyran, WYN, LDR, Seltorian†,
Vudar, Jindarian. († = flown by mercenaries)

**Fusion Beam and Hellbore:** Hydrans, Orions.

**Mauler:** Romulans, Klingons, Lyrans, Andromedans,
WYN (no Orions).

**PFS and Interceptor:** Klingon, Romulan, Kzinti, Gorn,
Tholian, Orion, Hydran, Lyran, WYN, LDR, Seltorian, Vudar,
Jindarian. (No Federation or Andromedan.)

**Photon Torpedoes:** Federation, Tholians, Orions.

**Plasma Torpedoes:** Romulans, Gorns, ISC, Orion.
(The Federation has plasma-F only.)

**Shuttlecraft:** All races except the Andromedans. No
one knows why the extra-galactic invaders did not build
such craft, but they never used them.

**Stasis Field Generator:** Klingons only.

**Tractor Repulsor:** Andromedans only.

**Web:** Tholians only.

Important note: For players who are using *Star Fleet
Battles* for ship-to-ship combat in their campaign, or who
want more historical precision, use SFB rule U7 to de-
termine the availability of technologies instead of this rule.

**Orion Pirate Special Availability**

The Orion Pirates are a special case. They are divided
into a number of “Cartels” with distinct boundaries that do
not conform to the boundaries of the various major pow-
ers. In general, an Orion Pirate Cartel has access to the
technology available to the major powers in whose area
they operate, with the exception of technologies listed as
“only” e.g., Mauler technology.

For example, the Orion Hamilcar Cartel operates in
Federation, Klingon, and Hydran space; they would have
access to Disruptor, Photon Torpedo, Drone/Missile,
Plasma Torpedo, Fusion Beam, and Hellbore technology.
They would not have access to SFG technology as that is
“Klingon only,” and they would only rarely have access to
ESGs as they do not operate in Lyran space. A very few
ships in each cartel area would use “outside” weapons;
these were usually “independent” ships which leased
operating areas from the cartel.

**Romulan Starship Series**

The Romulans are a special case. They went from TL9
to TL12 virtually overnight when the Klingons provided this
technology under the Treaty of Smarba in Y159.

Prior to the Treaty, the Romulans operated TL9 ships
of various “Old Series” or “Eagle” classes including the
Warbird, Hawk, Snipe, and Vulture. They developed some
TL10 and TL11 technology (tractor beams and shields) but
never developed “Tactical Warp.” This caused Federation
officers to refer to them, somewhat imprecisely, as “pure
sublight” ships (which was true in the case of combat; they
could use Non-Tactical Warp only for strategic mobility).
Many of these ships were upgraded to TL12 technology
(and at least one to TL13!) after these technology levels
became available.
During the period of Y159 to Y168, the Romulans were learning to use their new TL12 technology and the Klingon-built “KR” or “Kestrel” classes of ships (converted to newly-invented TL12 versions of Romulan technology). During this period, when the Romulans were hastily training on entirely new technologies, it might be more accurate to describe them as being TL11, although this would be an abstraction for gaming purposes (the ships are TL12). During this period, Romulan military personnel would have access to TL12 skills and equipment, but a civilian would not. The Klingon-built ships were TL12 (except for one or two very old TL11 ships sold for initial training), but they were the oldest Klingon TL12 ships which had been stored in mothballs for decades. (The Klingons never threw away a weapon just because it was obsolete, and, being constantly short of cash, were happy to sell these old ships to the Romulans.) These ships, old and unfamiliar as they were, marked a major improvement over what the Romulans had.

Starting in Y165, the Romulans began building an entirely new series of ships designated as the “Hawks.” These included the Condor dreadnought, FireHawk heavy cruiser, SparrowHawk light cruiser, SkyHawk destroyer, and SeaHawk frigate. These ships are truly TL12 in every regard.

The Romulans later converted some ships of all three types into TL13 X-ships.

Each of these three series of starships was built from entirely different technologies. For purposes of crewmen dealing with different technologies, the ships could be considered as TL10 Eagles, TL11 Kestrels, and TL12 Hawks, even though this is not exactly accurate. In general, personnel who transferred from ships of one series to ships of another would require significant amounts of retraining; this was a constant headache to the Romulans during the Y160s. Characters who are being transferred between “series” suffer the penalties described below.

**X-Technology**

The achievement of TL13 by the various races marked a major shift in starship design philosophies, resulting in new generations of starships whose capabilities far exceeded their predecessors. X-Technology, as it was called, also found application in many other areas, civilian and military. As it is beyond the scope of this book to present TL13 X-Technology in the detail it deserves, this topic will be presented in a later publication.

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**Phaser-II**

**Star Fleet Marines standard sidearm**

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### TECHNICAL SKILL SPECIALIZATIONS

The following technical skills require specialization; each specialization is treated as a different skill. After each skill is the abbreviation used in the following table.

- A ........ Armory
- EO ...... Electronics Operation
- E ......... Electronics
- ENG ... Engineer
- G ........ Gunner
- M ......... Mechanic

Here are a list of systems and devices that require specialization; an “X” indicates that system has a specialization under that skill.

<table>
<thead>
<tr>
<th>E</th>
<th>ENG</th>
<th>A</th>
<th>EO</th>
<th>M</th>
<th>G</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auxiliary systems</td>
<td></td>
<td>X</td>
<td>-</td>
<td>-</td>
<td>X</td>
</tr>
<tr>
<td>Cloaking Device*</td>
<td>X</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>X</td>
</tr>
<tr>
<td>Communications</td>
<td>X</td>
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<td>-</td>
<td>X</td>
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<tr>
<td>Computer</td>
<td>X</td>
<td>-</td>
<td>-</td>
<td>X</td>
<td>-</td>
</tr>
<tr>
<td>Disruptors*</td>
<td>X</td>
<td>-</td>
<td>X</td>
<td>-</td>
<td>X</td>
</tr>
<tr>
<td>Drones/Missiles*</td>
<td>X</td>
<td>-</td>
<td>X</td>
<td>-</td>
<td>X</td>
</tr>
<tr>
<td>ESG*</td>
<td>X</td>
<td>-</td>
<td>X</td>
<td>-</td>
<td>X</td>
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<tr>
<td>Fighters*</td>
<td></td>
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<td>-</td>
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<td>X</td>
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<td>Fusion Beam*</td>
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<td>-</td>
<td>X</td>
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<tr>
<td>Hellbore*</td>
<td>X</td>
<td>-</td>
<td>X</td>
<td>-</td>
<td>X</td>
</tr>
<tr>
<td>Hull &amp; Superstructure</td>
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<td>X</td>
<td>-</td>
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<td>-</td>
</tr>
<tr>
<td>Impulse Drive</td>
<td>-</td>
<td>X</td>
<td>-</td>
<td>X</td>
<td>-</td>
</tr>
<tr>
<td>Mauler*</td>
<td>X</td>
<td>X</td>
<td>-</td>
<td>-</td>
<td>X</td>
</tr>
<tr>
<td>Medical Systems</td>
<td>X</td>
<td>-</td>
<td>-</td>
<td>X</td>
<td>-</td>
</tr>
<tr>
<td>PFs &amp; Interceptors*</td>
<td>-</td>
<td>X</td>
<td>-</td>
<td>X</td>
<td>-</td>
</tr>
<tr>
<td>Phasers (personal)</td>
<td>X</td>
<td>-</td>
<td>X</td>
<td>-</td>
<td>X</td>
</tr>
<tr>
<td>Phasers (shipboard)</td>
<td>-</td>
<td>X</td>
<td>X</td>
<td>-</td>
<td>X</td>
</tr>
<tr>
<td>Photon Torpedoes*</td>
<td>X</td>
<td>-</td>
<td>X</td>
<td>-</td>
<td>X</td>
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<tr>
<td>Plasma Torpedoes*</td>
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<td>-</td>
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<td>-</td>
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<tr>
<td>Reactors &amp; Power</td>
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<td>-</td>
<td>X</td>
<td>-</td>
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<td>Sensors</td>
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<tr>
<td>Security Systems**</td>
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<td>-</td>
<td>-</td>
<td>X</td>
<td>-</td>
</tr>
<tr>
<td>Shields</td>
<td>X</td>
<td>-</td>
<td>-</td>
<td>X</td>
<td>-</td>
</tr>
<tr>
<td>Shuttlecraft</td>
<td>-</td>
<td>X</td>
<td>-</td>
<td>X</td>
<td>-</td>
</tr>
<tr>
<td>Stasis Field Device*</td>
<td>X</td>
<td>-</td>
<td>X</td>
<td>-</td>
<td>X</td>
</tr>
<tr>
<td>Tractor Beam</td>
<td>X</td>
<td>-</td>
<td>-</td>
<td>X</td>
<td>-</td>
</tr>
<tr>
<td>Transporter</td>
<td>X</td>
<td>-</td>
<td>-</td>
<td>X</td>
<td>-</td>
</tr>
<tr>
<td>Tricorder</td>
<td>X</td>
<td>-</td>
<td>-</td>
<td>X</td>
<td>-</td>
</tr>
<tr>
<td>Warp Drive</td>
<td>X</td>
<td>-</td>
<td>-</td>
<td>X</td>
<td>-</td>
</tr>
</tbody>
</table>

* These systems are not used by all races and have limited availability.

** This skill is forbidden to any Subjugated race (not that it stops them from acquiring it!)
SHIPBOARD EQUIPMENT

Warp Drives

Warp engines use a matter-anti-matter reaction (which produces far more power than the ion engines). This higher power is channeled through a warp coil which generates a warp field, allowing the ship to move 700 or more times the speed of light. There are three basic types of Warp Drives. Non-Tactical Warp (impulse engines generating a warp field which cannot be used in combat) becomes available at TL9. Tactical Warp (allowing ships to travel above light speed in combat) appears at TL10 (and is improved in TL11 and TL12), and X-Technology Warp Drive at TL13. Early Tactical Warp (TL10) gave a combat speed of Warp 2.6 (18 times the speed of light); TL11 gave a combat speed of Warp 2.88 (24 times the speed of light), while TL12 gave a combat speed of Warp 3.1 (31 times the speed of light).

The translation of “warp speeds” into actual movement is covered in Chapter 8.

Impulse Engines

Impulse engines are the ion engines of TL8, but the plasma is channeled through a space-time driver coil. This generates a low-level space-time distortion field. This is similar in effect but vastly different from a warp drive field; a ship can have both types of field at the same time. The result is that the ion exhaust is much more effective, allowing the ship to reach speeds of 0.99c in combat and (with some preparation and planning) to reach trans-light speeds out of combat.

Reactors

Most starships have advanced fusion reactors which can be used to power various systems but not for movement. As starships are often far from bases or planets and are subject to unpredictable problems in unknown regions, designers usually include several different power systems operating on different principles, thereby ensuring that no matter what goes wrong, there is a high probability that at least one of the power systems will still work.

Transporters

Transporters are matter-energy conversion devices that transform a person or object into a pattern of energy that is transmitted to a desired location, and then converted back into the original person or object. Transporters operate as follows:

Sensors within the transporter lock onto the person or object to be transported. The transporter then scans the person or object and in the process converts him into a form of energy called a matter stream. It takes a finite amount of time to scan the person or object being transported; this explains why transporters do not operate instantly, and why the person or object takes a moment or two to fade from sight and then reappear. Various races use different transporter scan algorithms, resulting in a unique appearance of the dematerialization/rematerialization process for each.

The “instructions” as to what the person or object is composed of are compiled into a separate signal in the form of a data stream, which is also sent to the pattern buffers. Because of the immense amount of data involved, these “transporter traces” are rarely stored longer than needed and are normally overwritten by the next transport. Cargo and emergency transporters are not equipped with buffers, and there is only one chance for rematerialization; this is why cargo transporters are not used to transport living beings, except in cases of extreme emergency.

While in the pattern buffer, the matter stream can be scanned and altered. These alterations include draining energy from power packs, deleting the portion of the pattern that represents weapons, and the application of “biofilters.” (These scan the matter stream for known biohazards, which can then be deleted.)

Due to the immense amount of data, Heisenberg effects at the quantum level will cause the data stream to degrade rapidly; the matter stream will be corrupted within seconds at lower tech levels, no more than a few minutes at higher tech levels. While this generally has minimal effects on non-living matter, the delicate balance of life will be destroyed and the reintegrated person will be dead in seconds, one of the most agonizing forms of death known.

The process of rematerialization is the reverse of dematerialization. The data stream is converted back into matter, according to the stored instructions contained in the data stream. Interruptions in the reintegration process can be catastrophic, and are usually fatal to living tissue.

The maximum range of a transporter is defined on page 134. Transporters are less reliable under non-ideal conditions. Electromagnetic fields, proximity to powerful energy sources, magnetic storms, range, as well as the traditional raised shields reduce the chance of a successful transport. Under normal circumstances an Electronics Operations (Transporter) roll is not required. But under less than normal circumstances, a failed transporter roll will inflict from 1d points of fatigue to 4d points of damage to the transportee depending on how badly the skill roll was missed (GM ruling).

Any of the following circumstances does require a skill roll with the following modifiers:

- Through shields or PA panels: impossible
- Objects or personnel on enemy ships (unless friendly personnel are present): impossible
- Through dense matter or thick layers of matter: -10 to -50
- Ion or magnetic storms or subspace distortion: -1 to -10
- Proximity to improperly shielded power source: -1 to -4
- Jamming: -1 to -5

Some devices make transporter operation more reliable and/or safer, possibly compensating for the above negative effects:

- Transporter to transporter: +10
- Using pattern enhancers: +4
Transporter beacon: +4 (or communicator +2, not both)

A transporter beacon is a device available at TL12 and higher. It is about the size of a football and weighs five pounds. It enhances the lock-on of the transporter, improving the ability to recover personnel from a distant area or one with jamming or other problems. The device is activated manually with a switch which is safeguarded against accidental activation. Anyone who knows what a transporter beacon actually is would have no problem activating one of them. This uses a single B-cell, which will power it for about an hour.

Enemy transporters cannot steal personnel from your ship (and vice versa) due to the structural integrity field all ships use. This can be defeated by sending your own people to the enemy ship. They would capture the targeted person or thing and beam back to their ship.

Tractor Beams

These are electrogravitic beams of force used to manipulate objects at range. Most think of these as ship-mounted systems used for docking and to stop enemy missiles from hitting the ship (or to stop enemy ships from escaping), but smaller versions are used in cargo bays (replacing the 20th-century chain hoists) and some are used in vertical passageways inside the ship as a form of elevator. A roll against Electronics Operation (tractor) is not normally needed unless you are overloading the tractor or doing something else out of the ordinary.

Shields

These are walls of force used by ships and some ground installations to provide protection from weapons. They also block transporters, molecules, radiation, etc.

Deflectors

Ships travelling at high speeds (especially above the speed of light) project a deflector shield ahead of them by a few miles which sweeps away odd bits of cosmic dust that might damage the ship. Deflectors cannot push aside asteroids, but these can be seen on sensors and avoided by Piloting skill.

REPLICATORS

These are the most misunderstood items of SFU technology. If replicators work, why do we need interstellar commerce instead of just making everything on site? There are two answers to that: cost and quality. Things made by replicator cost more (often a lot more), and quality can suffer unless extra time, skill, effort, technology, and cost are accepted. Some materials simply cannot be replicated, and some are easier to obtain through normal sources.

Starships, which must go long distances from any place they could get spare parts, and have huge tanks full of government-funded fuel to run their power systems, make use of replicators when they have to have the missing part (or the thing needed for the mission) right now.

Trans-Stator: The Heart of the Replicator

To really understand the technology, it is important to understand what a replicator is — and what it isn’t. There are three similar technologies at work in the SFU, these being the replicator, transporter, and matter reformer. All of these (and communicators) use the Trans-Stator, known as “the centerpiece of all modern technology” to engineers. This tiny device provides access to sub-space by placing a point of space-time into a Trans-State beyond the normal continuum. (Just how it does this is classified.)

Shifting matter into a Trans-State converts it into a form represented by and handled as energy. Transports convert matter into energy, record the patterns digitally, and then transmit the matter stream to another location. The matter is then reassembled.

Matter Reformers

Matter reformers take existing matter and rearrange it into the desired shapes. A matter reformer could take iron ingots and produce horseshoes, avoiding the necessity to bring along a blacksmith just in case you need some horseshoes to make a treaty with the strange new civilization you just met. A matter reformer could make horseshoes out of bronze or silver if you only had those metals handy. It could process scrap iron and iron ore with considerably more energy expended and waste produced.

The closer the “feedstock” is to the “product”, the less time, energy, and skill it takes, and lower TL reformers could do the job. Machinists or other fabrication facilities that use matter reformers and replicators often have numerous machines of various costs and capabilities so they can do the easy jobs on the cheap machines with the low-skilled operators and use the expensive machines and high-skilled operators only for the most critical or expensive projects.

Most of the “replicators” in cafeterias and mess halls are in fact high-end reformers able to take feedstocks of sugars, carbohydrates, proteins, and other essential elements and convert it into an approximation of specific types of food. The success or failure of any particular recipe depends on the specific types of food, the quality and detail of the recipe template, and the complexity. Making a glass of tea (of any type you have a record of) is relatively simple, but building a cheese soufflé from duck eggs is considerably more difficult.
The Limits of Replicators

A replicator is different from a reformer in that it can rearrange electrons, protons, and neutrons (along with other sub-atomic particles) into the desired atoms and molecules. Feed iron ingots into a TL12 replicator and, with enough energy and the right templates and programs, you could produce a T-bone steak or a wool sweater. Of course, money is money and those using replicators to make things try to use “feedstocks” which are as close to the end result as possible. The primary limits are power and templates.

Given TL12 computer memory storage systems, a starship can leave its home planet on a five-year mission with a database containing billions of templates of things it might need to make. Historical uniforms and costumes are often produced for theatrical presentations by the ship’s troupe of actors; it is rare to find a new alien culture that just happens to use the same uniforms as something in the database (but it does happen).

Replicators are more useful on planets, where the limits on space, energy, and feedstocks of materials are less troublesome. One of the most important items on a new colony planet is the replicator, as it must be able to produce anything that the colony might need. Hospitals often have small replicators able to make a huge library of drugs and other medical items as needed. Five star restaurants have small replicators in case a rich customer just has to have his favorite dish, and the ingredients are not in season (or on the planet).

One limitation of replicators is that the template for any given item is (once programmed into the replicator) a substantial part of the replicator’s memory capacity. Thus, complex multi-part systems (say a phaser or a typewriter) have to be made in pieces and then assembled by hand. Another limitation is that larger and larger items have more and more atoms, and thus more and more opportunities for transcription errors. Large I-beams for construction projects would not be produced by replicator or even a matter reformer due to the safety concerns of these errors. A flaw in a beam could produce a catastrophic load failure and “bring down the house,” so structural beams are made in foundries (or polycarbon facilities) as they always have been. Items made in replicators are often intended for temporary use where these transcription problems will not manifest themselves before the need for the item has ended. Items can be made without errors (well, without quite as many errors) but this requires more time, computer power, operator skill, and energy.

Getting the template into the replicator is often not a simple task, although the degree of difficulty varies with what is being designed. For mechanical parts and other physical objects, an engineer could create a template in a computer-aided design system. In many cases, engineering labs use replicators to produce quick test copies of new designs, allowing them to be studied, tested, and inspected before tooling is done for actual production by more traditional means. For artifacts (the local witch doctor wants a carving of a Urubasoid and nothing else will do) you must scan an existing object, preferably with a transporter or a Replicator Master Work Station. With a lot more work, you could make a less-than-perfect copy from tricorder readings. If you are desperate to impress a local potentate, you could produce something in the general style of the desired artifact by having a skilled engineer or designer study drawings, photographs, or even a verbal description. Just how likely you are to fool anyone varies. If you need Michaelangelo’s actual “Statue of David” to close the trade deal, you better have a transporter pattern of the original or you aren’t going to fool anyone (and even then you’d be found out eventually). If, however, you simply need a sculpture (presumably an “unknown work” you “just discovered in an old ruin”) in the style of the famous Kungor sculptor Kludge of Korvak, a decent artist with a museum-quality book of photos could do the job in a few days.

There are some things that replicators just cannot make, most critical among them being dilithium crystals. Because these crystals are so closely attuned to subspace (if they weren’t, warp engines couldn’t work), they cannot be processed by the trans-stator. Replicated dilithium crystals crack quickly when used in power systems. Replicators cannot make pergium (a compound used in advanced power systems) or topoline (used in life support gear). Other extremely dense materials with very complicated structures are near impossible to replicate. (GMs can decide what is too difficult.) The materials best suited to replication are pure elements, like iron or carbon. Homogeneous mixtures of elements such as metal alloys are the next easiest.

Replicators cannot create living material because the quantum signatures must be organized in a fashion that cannot be replicated — and the reason why a living person can be reassembled alive (safely!) is that the transporter recreates the person from the original matter which the person was made from, and therefore has the correct quantum signatures for life, using the unaftered transporter template created when the transport began.

While replicators turn matter into energy and vice versa, they are extremely inefficient in producing energy. You could replicate a power cell but it would have to be charged before it could be used. Creating a “charged” power cell would take 100 times as much energy (for the replicator) as you would ever get out of the power cell.

Composite materials such as plastics replicate well. While replicators can rearrange protons, neutrons, and electrons into any atoms you want, they’re even better at combining existing atoms into molecules. They are much better at this than matter reformers due to their greater processing and computing power. Replicators can also use pure energy as a “feedstock” but this takes more energy than using some physical matter.

Replication leaves a distinct signature in the resulting product (a lack of naturally occurring randomness) and is detectable with a deep scan for these tell-tale signatures left by the processing of the product. Replicator unit quality also affects this and the quality of the products produced. Further more, most commercial replicators leave a digital “watermark” that identifies the unit that created it. Even without a watermark, it is usually possible to tell the difference between the products of Klingon, Romulan, and Federation replicators.
PERSONAL EQUIPMENT

Technology Improvements

Most items remain available at all TLs after introduction, but they become less expensive in some areas. An Early Years phaser may be almost worthless to a Federation soldier in the X-Ships era but to a TL7 nonaligned planet it would command far more then it was worth when it was new! (As a collectible antique, it is priceless!) Of course, when you need a phaser and it's the only one handy, it still works.

Cost: As a general rule, for any item introduced at TL8 or later, halve cost at the TL after introduction, and halve it again at the next TL.

Size: Unless specified otherwise, all devices except weapons, vac suits, power cells, and body armor, weigh half as much one TL after being introduced, and 1/4 as much after two or more TLs.

Power: If using power cells, duration assumes steady use (e.g. a year means turning a radio on and leaving it on for a year); casual use will be about ten times as long. (In the GURPS rules set, power cells are better than and different from batteries, but are used in the same way. In SFU, the terms are used more or less interchangeably. In GPD, we try to use only Power Cells to avoid confusion.)

GENERAL EQUIPMENT

Air Mask (TL10+)

The air mask is used on worlds that have an unbreathable but otherwise harmless atmosphere (nitrogen, reducing carbon dioxide and so on). The mask covers the entire face (human, and most humanoid, eyes get oxygen directly from the air). It always includes a standard communicator for the TL, which uses an A cell. It requires air tanks or a filter (see below). It takes three seconds to put the mask on, one second to take it off. Weight is 1/2 pound and cost is $25. For another $12.50, the mask includes a mini-tank with ten minutes' worth of air.

TL8: The original stats are two pounds and $100 dollars. The mini-tank is $50.

Air Tanks (TL7+)

A two-hour tank weighs ten pounds and costs $100 (full). A 24-hour tank weighs 73 pounds and costs $400. Don't reduce weight or cost at higher TLs. Air refills are $5 per hour if you don't have your own air compressor. Tanks take ten seconds to hook up and two seconds to jettison. Note that an hour of oxy-helium breathing mix weighs only 1.5 pounds; the rest is the tank weight. (Ordinary compressed air would weigh 4.2 pounds.) Different people use air at different rates, so duration is approximate. For game purposes, assume that all adults breathe the same amount of air, and that children under 12 use half as much. All times given here assume an external pressure of 1 atmosphere or less. At 2 atmospheres, an air tank lasts only half as long, and so on. Prices are those charged by an honest dealer when air is plentiful; they will be considerably higher if air is scarce!

Autograpnel (TL10+)

This uses Guns (Grenade Launcher) skill to fire a grappling hook up to 50 yards. A motor winch on the gun lifts up to 400 pounds at up to five yards per turn. The reel contains 50 yards of biphasic rope with a breaking strain of 2,000 pounds (4,000 at TL12+). One C cell is good for 200 ascents or descents. Cost is $100 and weight is 1.5 pounds.

TL8: Cost is $400 and weight is six pounds. Breaking strain is 1,000 pounds.

Combat Armor (TL8+)

Combat armor is a multi-piece suit of articulated armor plates covering the entire body. It is fully sealed "space armor." With the helmet visor closed the suit is completely airtight, providing complete protection against contaminated atmospheres, pressure loss, or chemical and biological threats. Combat armor includes a life support pack (described under vac suits), and tanks for two hours worth of air. The entire range of vac suit accessories can be used with combat armor. It takes 60 seconds to don the entire outfit, and 40 seconds to remove, or half as long on a successful DX roll.

Light Combat Armor: LCA has DR 20. The armor gains DR 5 per TL after TL8. $1,850, 36.5 pounds.

Medium Combat Armor, MCA has DR 30. The armor gains DR 8 per TL after TL8. $2,350, 36 pounds.

Heavy Combat Armor, HCA has DR 45. The armor gains DR 10 per TL after TL8. $3,100, 66.5 pounds.

Communicators

Combining the concepts of a portable hand-held radio and a cell phone, communicators are used by most races at tech levels of TL9 and up. They can be linked to tricorders in order to transmit and receive data. Communicators are relatively small and cost $100. All have encryption allowing private conversations (which can, sometimes, be decoded by powerful computers). All have sufficient range to reach from a planetary surface to a ship in orbit; the range listed is between two communicators on a planetary surface and assumes no relay or signal boost systems are involved. Virtually everyone from TL7 or better planets could figure out how to use one. Individual communicators are "broadcast radio" types which send a signal in all directions; additional equipment is needed to generate "tight beam" signals that are harder to detect or intercept. Starships in orbit can send their transmissions in a relatively narrow beam (perhaps a mile across at the surface).

<table>
<thead>
<tr>
<th>Tech Level</th>
<th>Weight (pound)</th>
<th>Range (surface) (miles)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TL9</td>
<td>1</td>
<td>25</td>
</tr>
<tr>
<td>TL10</td>
<td>3/4</td>
<td>50</td>
</tr>
<tr>
<td>TL11</td>
<td>1/2</td>
<td>100</td>
</tr>
<tr>
<td>TL12</td>
<td>1/4</td>
<td>250</td>
</tr>
<tr>
<td>TL13</td>
<td>1/16</td>
<td>500</td>
</tr>
</tbody>
</table>

Skill rolls are not needed for normal operations.
Diagnostic Table (TL11+)
This is a 7' x 3' x 3' padded, computerized table with a full range of biomed scanners. The patient lies on the table and the results of the scan are projected onto an overhead screen. It gives a +5 to Diagnosis (+1 per TL over 9). Not a portable unit, the table must be installed in a sickbay on a ship or vehicle, or in a hospital. Cost is $3,000, weight is 62.5 pounds and volume is three cubic yards.
TL9: Cost is $12,000, weight is 250 pounds.

Emergency Medkit (TL10+)
This is a belt pouch containing the basic requirements of TL8 first aid: five plastiskin patches (see below), plus the usual bandages, antiseptic cream, etc., which enable it to act as a TL7 kit when the plastiskin is used up. It also contains five Revive capsules, a pneumospray hypo and two doses of Hypercoagulin, with room for ten doses of whatever other drugs the user wants to add at extra cost. It adds +1 to First Aid. Cost is $75 and weight is 1/4 pound.
TL8: Cost is $300 and weight is one pound.

Envirobag (TL10+)
This is an insulated and heated sleeping bag designed for extremes of temperature. Using a C cell, it works the same as a Heat Suit (see below). It can be sealed and hooked up to air tanks. It folds to the size of a paperback book. The bag is $20 and weighs 1.5 pounds; the temperature control unit costs $6 and weighs 1/4 pound.
TL8: The bag is $75 and weighs six pounds; the temperature control unit costs $50 and weighs one pound.

Enviro-Bubble (TL10+)
This inflatable bubble, with self-sealing flap, can be erected and inflated in four seconds [make a Fast-Draw (Enviro-Bubble) roll to halve the time] and provides 15 minutes of air. It also floats, and is flexible enough to move in, but at a Move of 1. It is usually worn on the belt for quick activation. It can be hooked up to air tanks or a temperature control unit. Cost for the bubble and inflator is $200; weight is 1.25 pounds.
TL8: Cost for the bubble and inflator is $800; weight is five pounds.

Federation Marine Dress Saber (TL10+)
Federation Marines wear a dress saber as part of their full dress uniform, and most of them know how to use it. Many Marines thus have the Saber (DX/A) skill as the Hand Weapon (your choice) option on the Federation Marine Academy character template skill choice. While it may seem odd to maintain a tradition of using an archaic weapon in an age of phasers and disruptors, Marine officers argue that training with a saber promotes fitness and discipline. Fencing practice is also very practical in often-crammed starship quarters, and when done with practice blades can serve as a valuable way of getting off steam or settling disputes between Marines before they become too serious.

Federation Marine Combat Knife (TL10+)
This is a large combat knife, suitable for use as a tool or a silent weapon. It can be thrown. Note that clothlike Military Uniform armor is only DR 2 against impaling attacks, explaining the continued popularity of the knife as a weapon for close fighting.

<table>
<thead>
<tr>
<th>Type</th>
<th>Damage</th>
<th>Reach</th>
<th>Cost</th>
<th>Weight</th>
<th>Min. St.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Saber</td>
<td>cut, sw+3</td>
<td>1</td>
<td>$300</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>Imp.</td>
<td>thr+4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Combat</td>
<td>cut, sw</td>
<td>C.1</td>
<td>$80</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>Knife</td>
<td>imp, thr+3</td>
<td>C</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Weight is in pounds. Note that the knife (and any saber intended for combat use) are not made of steel, but of a special high-tech durasteel alloy that is considerably sharper and harder than normal steel. In GURPS terms, they are built with the Superfine weapon quality option, adding +3 to damage, but raising price considerably. The Saber has a max thrust damage of 1d+2. The Combat Knife has a max damage of 1d+2 and is throwable for max damage 1d+2.

TL12: Saber cost is $300, combat knife cost is $80.

Field Pack (TL10+)
A field pack provides the basics for survival in the wild on various missions. It contains two vapor canteens, one envirobag, one two-man pressure tent, and five days of concentrated rations. Other materials can be added as needed. The backpack will hold up to 40 pounds of equipment. Weight 26.5 pounds, $700.

Filtration Canteen (TL10+)
This canteen will purify and hold a quart of water. It removes almost all impurities, microbes and poisons but there is always the possibility of a contaminant for which the filter was not designed (GM's option)!. It takes 30 minutes to purify a quart of water. Filters must be changed every 100 quarts; a color change signals this. An "exhausted" filter still has a few quarts of capacity, but only the GM knows how many. Cost is $45, weight is one pound (empty) or three pounds (full). Replacement filters cost $6 per set.
TL8: Cost is $125, filters are $25.

Flashlight (TL7+)
The flash throws a 50-foot beam for six continuous months on a C cell. It costs $20 and weighs one pound. A belt or helmet model that leaves the hands free costs $10 more. $100 buys a heavy-duty light that can be used as a baton without being damaged. A mini-flashlight (15-foot beam) is also available, running off an A cell for one month, for $8, with a weight of 1/4 pound. For use as a baton, use the Shortsword skill; it does crushing damage with swing or thrust, and requires minimum strength 7.
Hand Thruster  
(TL10+)
A hand thruster propels a user in zero-G with bursts of compressed nitrogen. Each burst accelerates or decelerates a normal-mass human by one yard/second in the direction opposite to that in which the thruster is pointed. A successful roll against Free Fall or Vacc Suit skill is necessary to correctly point the thruster in the desired direction. The unit's cylinder is good for 30 one-second bursts. Cost is $12.50 and weight is two pounds, including the cylinder; extra cylinders cost $2.50, weigh one pound and take three seconds to replace.

TL8: Cost is $50 and weight is four pounds loaded, cylinders cost $10.

Heat Suit  
(TL10+)
This is an insulated bodysuit with transparent face mask and a temperature control system. It uses one C cell. It protects against freezing by increasing the effective temperature as set by the wearer; 48 hours for +10 degrees, 24 hours for +20 degrees, 12 hours for +30 degrees, and so on. Its high-tech insulation also adds 10 to wearer's effective HT for all rolls to resist freezing, even if the heater is off. The suit has DR 1. Cost is $37.50 and weight is five pounds. If the increased energy option is used, all times listed should be doubled.

TL8: Cost is $150.

Hypercoagulgin  
(TL10+)
When injected into a patient with a bleeding wound, this causes instant coagulation and a cessation of bleeding within 1d+4 seconds. It restores 1 point of HT, and prevents any further damage from loss of blood. The drug should be injected as close to the wound as possible. An injection prior to sustaining a wound will have no effect unless a wound is received within five minutes after the injection.

Overdoses of this drug can kill; for every additional dose within a 24-hour period, roll against HT, minus the total number of doses taken. A failed roll means the patient's blood becomes so thick his heart stops. Full medical facilities (a full blood replacement and possibly a heart transplant) will be required to save his life. Hypercoagulgin comes only in injectable form; it costs $7.50/dose. Hypercoagulgin is a useful assassination tool in societies at TL7 and below. Death is by heart attack, and the only wound is a tiny pinhole. The drug is undetectable ("...a poison unknown to science..." below TL8).

TL8: Costs $25/dose.

Inertial Compass  
(TL10+)
This hand or belt unit indicates the direction and distance traveled from any preset point on a planetary surface. It can be set for the location at which the user is physically present, or for any other coordinates (requiring a Navigation roll if coordinates of the location aren't known). Distances measured are accurate within 1 yard/1,000 miles. It must be calibrated for the planet (taking one hour with a personal computer and a Navigation or Electronics Operation roll). The compass uses an A cell. Cost is $62.50 and weight is 1/4 pound.

TL8: Cost is $250 and weight is one pound.

Medical Pouch  
(TL8+)
A doctor's bag, with room for twice the material in an Emergency Medikit (see above), plus standard bandages, sedatives, stimulants, etc. (purchased separately). Has room for whatever other drugs the physician wants to add. Includes a full set of physician's and surgeon's tools for the TL. Cost and weight don't drop at higher tech levels; the contents just get better. This kit is the minimum equipment required to use Surgery, Diagnosis, or Physician skills without penalty. Gives +2 to First Aid skill. A TL8+ physician performs as TL 6 without this much gear. Weight 15 pounds, cost $700.

Monocrys  
(TL8+)
The usual armor worn by civilians seeking discreet protection, monocrys is similar to Kevlar but is woven from a two-phase, single-crystal metallic fiber. Monocrys provides full protection against crushing and cutting attacks. It is less effective against impaling attacks such as needles or arrows, which penetrate the weave. Protection against impaling attacks is always DR 2. Against crushing and cutting attacks, DR depends on thickness:

- Light: DR 8. $400, 3 pounds for a vest; $1,000, 7 pounds for a full suit.
- Medium: DR 16. $600, 5 pounds for a vest; $1,500, 12 pounds for a full suit.
- Heavy: DR 24. $800, 7 pounds for a vest; $2,000, 16 pounds for a full suit.

However, because monocrys is flexible, any "6" rolled for damage indicates one hit that affects the wearer through the armor. Vests take ten seconds to put on and five to take off; full suits require 20 seconds to put on and 10 to take off.

Multiview Goggles  
(TL10+)
Vision-enhancing goggles that provide the following options:

- Anti-Glare: darken automatically to cut glare and very bright light. Allows direct viewing of the sun and other stars without risk of blindness. Also protects the eyes against damage from beam weapons fire.
- Infrared: reduces darkness penalties for combat, vision, etc., to -1 (because of the slight distortion when seeing via infrared). Allows vision in total darkness if there is at least 10° temperature difference between objects. At any temperature, allows weapons fire in darkness at only -1 if the target produces heat -- which most living things and active machines do! Gives +2 to vision rolls to spot beings if used in daylight. Can be blinded by a powerful heat source.
- Light-Intensifier: Picks up and intensifies available light, effectively granting the user the Night Vision advantage and eliminating the darkness penalties for anything but complete darkness. Will burn out if hit by an energy weapon.
Multiview Goggles work for 6 months on an A cell, cost $300, and weigh 1 lb.

TL8: Cost is $1,200, weight is 1 pound, and duration is 3 months on a B cell.

**Plastiskin (TL10+)**

This is an antiseptic plastic patch that holds wounded flesh together, taking the place of normal skin. (It even takes on the color of one's skin, so that it's only evident on close examination.) When the flesh beneath heals sufficiently, the plastiskin patch falls off. Plastiskin is found in any TL8 first aid kit. Without it, TL8 first aid counts as TL7. Plastiskin can be used to cover tattoos, scars and marks, or for disguises. It costs $2.50 per six-inch square patch.

TL8: The cost for a six-inch square patch is $10.

**Pneumospray Hypo (TL10+)**

This hand-held, pneumatic-hypodermic instrument, about the size of a penlight, injects drugs using a charge of compressed air. The hypo must be touching the patient to inject its drug. Its charge can easily penetrate clothing with DR of 1 or less. It takes two turns to remove an empty vial (or pneumocharge) and replace it with a ready new one. Air cartridges are good for 100 injections. Cost is $31.25 and weight is 1/4 pound. Replacement air cartridges cost $10.

TL8: Cost is $125.

**Power Cells**

At TL8+, most equipment runs on standardized power cells. They can't be recharged, and can't be discharged quickly enough to explode. They have indefinite shelf lives and unless otherwise specified are good for 2 years continuous use. Higher-TRL cells contain more energy; at each successive TL after the introduction of a device that takes power cells, increase the number of shots or the operating time by 50%. There are six sizes of power cells, AA through E. All are cylindrical, dimensions are diameter x height.

AA cell: 1/16 x 1/32". For microbots, brain implants, calculators, etc. Cost $2. Weight 0.02 oz.

A cell: 1/4 x 1/8". For wristcomps, communicators, and similar low power requirements. Cost $10. Weight 0.04 oz.

B cell: 1/2 x 1/2". For various sorts of hand-held equipment, including tricorders and small, easily-concealable weapons. Cost $30. Weight 0.5 pounds.

C cell: 1 x 2". The most common power source for personal weapons, equipment. Cost $100. Weight 1 pound.

D cell: 2 x 4". These power military weapons and heavy equipment; TL8+ battlefields are littered with expended D cells in the way that TL7 battlefields are littered with expended cartridge cases and machine gun links. Cost $500. Weight 5 pounds.

E cell: 4 x 6". These power vehicles, support weapons and other power-intensive systems. $2,000. 20 pounds.

**Pressure Tent (TL10+)**

This is a completely airtight tent, strong enough to be inflated to one atmosphere in a vacuum. The user(s) must have an air supply with them! Opening it completely evacuates all the air in the tent; entering or leaving through the one-man lock takes one minute. Cost is $125 and weight 4 pounds for a one-man tent; $375 and 8 pounds for a two-man tent; $1,250 and 40 pounds for an eight-man tent.

TL8: Cost is $500 and weight 15 pounds for a one-man tent; $1,500 and 30 pounds for a two-man tent; $5,000 and 150 pounds for an eight-man tent.

**Respirator (TL11+)**

A respirator makes thin or low-oxygen atmospheres breathable by concentrating the oxygen. It is often combined with goggles to protect the eyes from the effects of thin air. It takes three seconds to put on and one to take off, and works for one month on a B-cell (a warning light blinks when power is 90% gone). A standard communicator of the TL is built in. Weight is 3/4 pounds and cost is $75. If the increased energy option is used, time is two months, not one month.

TL9: Weight is 3 pounds and cost is $300.

**Remote Probe**

These devices, which are about a foot in diameter and weigh about 10 pounds, are used to gather recon data in remote areas. They could be left in place by a ground party, or they could be sent to the area of interest by transporter. (Note: The probes that starships launch from their probes launchers are much more capable, heavy, and expensive.)

Typical Scanner Probe: IQ = TL; possesses sensors equivalent to a tricorder/TL but the sensor range is greater (x5 at TL10, x10 at TL11, x25 at TL12, x50 at TL13).

TL10 probes cannot move. TL11 probes can hover and move (speed = 5) for five minutes. TL12 probes can hover and move (speed = 10) for an hour. TL13 probes can hover and move (speed = 15) for 24 hours. Cost $1,000 per TL.

**Modes:** There are several modes for remote probes.

**Recorder:** The probe simply records sensor readings. It doesn't transmit the data to its owners. The data is recovered by beaming the probe back. This makes the probe more stealthy (-1 on sensor rolls to detect) but less useful, as it must be recovered or accessed directly.

**Burst:** Just like "recorder" mode until the probe receives a coded signal. Then it sends its logs in a single, short, coded burst. The probe gets a bonus to its stealth (-1 on sensor rolls) while recording, but all sensor rolls to detect it are +2 when it is transmitting.

**Realtime:** The probe transmits its sensor data directly back to its owners in realtime. This makes the probe easier to spot (+3 to all sensor skill rolls to detect the probe, adjusted for technology factors).

**Sensor Settings:** Several settings can be used.

**Passive:** The probe simply records things that it can detect without emitting detectable signals. No active radar or sonar is used in this mode. Sensor rolls to detect the probe while it is using only passive sensors are at -1.

**Active:** The probe uses active radar and/or sonar. This gives the probe a +2 sight bonus, but gives anyone searching for the probe a +4 bonus to detect it (radar) or a +1 bonus (sonar). Note that sonar cannot be used in a vacuum.
Intrusive: The Probe uses a full-scale scanner beam to scan its surroundings. Normal scanners can see through one or two doors or bulkheads and behind obstacles where radar, sonar, or light based sensors are useless. However, high-tech foes can detect these scans directly, giving a +5 bonus to detect the probe’s presence.

Mapping: If capable of movement, the probe must remain motionless for a full turn. It makes one spotting roll for every life form and weapon-grade power source within 200 yards (even on other decks) with a penalty of -2 for each bulkhead or deck between it and that lifeform or energy weapon, and a penalty of -1 for every foot of solid rock or other “hard” to scan through” material. Probes with this type of sensor show up like a beacon on sensor-detecting scanners whenever they use this function. A roll is not even required in most circumstances when using sensors to look for a probe that does this.

Revive (TL10+)

These are small, easily breakable capsules. When held under the nose of a stunned or unconscious character and snapped open, the vapor inside will usually revive him completely (roll against HT+5 to regain consciousness, come out of stun, etc). No HT is regained, but the patient is awake. Revive capsules are widely available to the general public and can be purchased freely in drug stores in all but the most repressive societies. Cost is $1.25/dose.

TL8: Cost is $5/dose.

Rope (biphase) (TL8+)

A 3/8” diameter biphase rope supports 1,000 pounds. Ten yards of rope weighs 1/2 pound and costs $5. A 3/4” diameter rope supports 4,000 pounds; cost is $30 and weight is two pounds for ten yards. Strength doubles at TL10 and again at TL12.

Star Fleet Uniforms (TL10+)

Star Fleet everyday uniforms are more than just colorful clothing— they are tools in their own right, with a number of features meant to protect the wearer and keep him comfortable. They are made from a special form of tailored light Monocryst fabric armor, which provides the wearer with some protection from fire and other kinds of damage. They are specially designed to repel water, dirt and grime, and they dry in 1/5 the normal time. The uniform material is designed to change its porosity in differing temperature and humidity conditions to help keep its wearer comfortable (providing a +1 to HT rolls to resist the effects of temperature). It is also treated to provide some resistance to chemical and biological agents (providing a +1 to HT rolls to resist chemicals). Finally, they act to beat up the wearer’s infrared signature (providing a -1 on all rolls to spot the wearer using infrared or thermographs). Star Fleet Uniforms provide DR 8 (DR2 vs. Impaling damage), weigh 6 pounds, and cost $325.

TL8: Cost is $1,300.

[Note: these are Medium Monocryst, with tailored flexible armor option, adding the light option and CBW coating, with the effects of buzzwear (+100% cost) and memswear (+200% cost) added. This explains why television characters just wore their everyday uniforms into harm’s way.]

Stun Baton (TL9+)

This weapon is used to subdue people without great physical harm. It uses the character’s Shortsword skill, and deals sw-2 of crushing damage to the target. In addition, the target must make a check against HT-2 to avoid falling unconscious for 20-HT minutes, with a minimum time of 1 minute. If the HT roll was a critical failure, the stun affect last three times as long. Weight is 3 pounds; cost is $100. Uses one B cell which provides power for two hours use.

Televiewers (TL10+)

Lightweight electronic binoculars that provide an extremely sharp image. Magnification can be adjusted from 5x to 50x. Included is an electronic range finder accurate up to 5,000 yards. They also incorporate infrared and light intensifier abilities (see Multiview Goggles, above). The binoculars get six months continuous operation on a B cell. Cost is $237.50 and weight is a half pound.

TL8: Cost is $1,550, weight is two pounds and the B cell lasts for three months. The range finder gives +2 to Gunner or Forward Observer skill if used with artillery of TL 6 or below, which does not normally have such accurate distance measurements.

Thruster Pack (TL10+)

This strap-on seat is for short jaunts in free fall, say passing from ship to ship and so on. It consists of a “seat” unit with a thruster in the back, a pair of arms with reverse thrusters and a control arm that curves in front of the user. Maneuver jets are located at strategic points along the entire pack. It takes 20 seconds and a Vacci Suit roll (which can be tried again every five seconds if missed) to strap into the thruster pack. It can accelerate or decelerate a normal-mass human by up to three yards/second on each turn. The large cylinder allows 100 seconds of full acceleration, or the equivalent. Successful Free Fall+3 rolls allow the user to control his speed and direction. Cost is $500 and weight is 19 pounds, including one cylinder. Extra cylinders cost $7.50, weigh ten pounds, and take five seconds to replace.

TL8: Cost is $2,000 and weight is 45 pounds, including one cylinder. Extra cylinders cost $30 and weigh ten pounds.

Tricorders

A tricorder is a handheld device that becomes available at TL10; specialized tricorders become available at TL11. Tricorders are a combination of computer and sensors used for a virtually unlimited number of different applications and uses.

PADDs: A Personal Access Display Device (or PADD) is the most basic form, and is sometimes referred to as a “monocorder.” They are TL9 devices that are an outgrowth of TL8 “Advanced Personal Digital Assistants” available in the early 21st century. They have built-in data storage and processing capabilities equal to those of a TL8
supercomputer, and have a communications tie-in to available library computer networks. In some cases, the PADD will operate in a stand-alone mode; in others it operates as a display terminal or interface to the library computer serving it. At higher tech levels, this interfacing and modality becomes less and less apparent to the user. PADDs have no sensor capabilities. Cost $250, weight 4 pounds.

**Tricorders:** A tricorder is a TL10 device that has all of the functions of a PADD and adds built-in sensors and scanners. The sensor package on a tricorder can sense, display, and analyze any form of energy or matter known to the TL that the tricorder was built at. TL10 tricorders weigh 4 pounds and can scan biosigns at 10 yards, physical objects at 100, and can analyze energy emissions at one mile. TL11 tricorders weigh 2 pounds and can scan biosigns at 20 yards, physical objects at 200, and energy emissions at two miles. TL12 tricorders weigh one pound and can scan biosigns at 100 yards, physical objects at 500 yards, and can analyze energy emissions at 10 miles. Any of them cost about $2,500 when at current TLs.

At TL11, tricorders became available that were specialized for various tasks. This specialization is reflected as bonuses or modifiers to various skill rolls. Some of these specialized tricorders are:

- **Science Tricorder:** +4 to any scientific skill roll
- **Geology Tricorder:** +4 to any geology-related skill roll; has enhanced range capabilities which allow it to penetrate/sense minerals or rocks at 10x normal range but loses the ability to scan for living beings, organic tissue, etc.
- **Medical Tricorder:** +4 to all medical-related skill rolls, +4 to Physiology rolls; if programmed in advance with the data on a given species, that Physiology bonus becomes +10 for that species. The hand-held attachment must be within one foot of the patient for these bonuses.
- **Engineering Tricorder:** +4 on all Mechanic skill rolls; has additional built-in filters which prevent overloading or damage when scanning intense energy fields.
- **Tactical Tricorder:** +4 to detect and identify life forms, weapons, armor, etc. Includes a comprehensive database on all of the above. Carried by Marine officers.

Data Tricorder: Functions as a non-specialized tricorder, with one exception: it can use up to three IRD chips (below) and and costs $4,000. The number of IRD chips that may be active at any time depends on the TL of the data tricorder. At TL10, only one chip may be active; at TL11, two chips may be active; and all three may be active simultaneously at TL12.

**IRD Chips:** Interactive Relational Database (IRD) chips do not become available until TL10. They are small modules that may be inserted in a variety of devices, but generally are used only with data tricorders. IRD chips are computer memory chips that (in terms of gameplay) make a skill available to characters via their data tricorder. E.g., a Geology-20 chip would be the equivalent of Geology-20 skill. Any given chip may contain data on only ONE skill.

The skill level of an IRD chip is determined by the Technology Level that the empire or race making it had at that time. At TL10 the skill level of a chip is 10 or less, 15 or less at TL11, 20 or less at TL12, etc. For example, an IRD chip created by the Federation in Y150 would possess 20 levels of skill. The skill levels in an IRD chip reflect the knowledge available when the chip was created—a chip that is more than a year or two old may contain out-of-date or obsolete information, so the effective skill level may be less than the maximum possible. There are also “black market” and “gray market” IRD chips which were not created with the care necessary (i.e., cheap copies) and may give incorrect results—in this case, the GM should secretly apply a penalty to the skill roll, and on a critical failure the chip gives disastrously incorrect information! (The characters will not have any chance to determine this, as the skill needed to do this—which is being provided by the IRD chip—is the one they are lacking.) Cost $100/level. While “skill” IRD chips are the most common ones, there are many other types of IRD chips that may contain maps, complex computer programs, or other forms of data.

**Universal Translator** (TL12)

A small wand-shaped computer dedicated to translating new languages. It analyzes a new language and compares it with a library database of known examples. Unless the language is completely unlike any known before the translation matrix will provide a comprehension level of 5 after 10 minutes of exposure to the language, adding +1 for every 30 minutes, up to a maximum of 16. This has to be fairly varied speech—a single word looped over and over is not good enough (not even a couple of dozen words). Nonverbal languages are handled if appropriate sensors are hooked up. Runs for two years on a B cell. Weight, 1 pound. Cost depends on the maximum difficulty of the languages that can be translated: $3,000 for Broken, $4,250 for Accented, $5,500 for Native.

**Vapor Canteen** (TL10+)

This canteen actually draws moisture from the atmosphere, as long as there is any water vapor at all. It extracts and holds one quart of water. Time required varies with the amount of water vapor in the air—with an Earth-standard humidity of 50 percent, it takes four hours to extract a quart of water. The canteen extracts 100 quarts on a B cell. Cost is $112; empty weight is 1/2 pound; filled it weighs 2.5 pounds. Larger versions are available for use at base camps. $750 buys a one-cubic-yard version that weighs 75 pounds, runs a month on an E-cell and makes a quart per five minutes in 50% humidity.

The large-size vapor system is standard for expeditions and military or police outposts; it frees them from the necessity of establishing a post near a water source. Sabotaging the vapor system is a favorite ploy of kiddie adventure stories. The plot is so hackneyed that real adventurers laugh at it, and may not be prepared if it happens.

**TL8:** The small canteen is $450, two pounds empty, four pounds full. The large version is $3,000 and weighs 300 pounds.

**NOTE:** Minor corrections to pages 116, 142, and 145 were made in April 05.
Zero-G Worksuit (TL11+)

The worksuit more closely resembles a miniature spaceship than a vac suit. It is a rigid pressurized cylinder with a transparent helmet dome; the whole thing is slightly larger than a man. It has no legs, but is propelled by an integral thruster pack mounted in the base. The suit's thrusters accelerate or decelerate it at up to 3 yards per second^2 per turn, with enough fuel for 300 seconds of acceleration. A Free Fall+3 roll is required to change direction. In addition to its normal suit sleeves, it has three ST 20 waldoes — remote-controlled-arms — for heavy duty work; they can be used as arms at DX-3 or skill-3. Any two waldoes may be used at once. One waldo also mounts an integral laser torch (4d cutting damage per second to doors, bulkheads and the like, as a weapon it is SS 12, Acc 1, RoF 4, Damage 1d cut, 1/2D 3, Max 15). A waldo's grip can be power-locked onto something (with its ST of 20). Usually the one not in use is locked onto a structure (e.g., a ship's hull) to hold the suit steady while the other two are used for work.

A worksuit includes life support for two weeks. A small (eight-inch diameter) airlock in its side is used to transfer small items (such as tools or food/air supplies, etc.) without breaking suit integrity. It may have standard vac suit options (see above); but it always has a communicator at no extra cost. The suit has DR 25 (15 for the helmet). It takes 20 seconds to climb in and ready it for use (five seconds to get inside and seal the suit), or ten seconds to get out. The suit is powered by a D cell, giving a week of steady use; it has sockets for a second cell, for safety. Weight 150 pounds, cost $3,750.

TL9: Cost is $15,000.

Tool Kits (TL8+)

Tool kits exist at all TLs; this section covers those for TL8+. Normal tool kits do not drop in price or weight as TL increases, nor do they gain in effectiveness. As gadgets get more complex, so do the tools required to fix them. Any attempt to repair equipment of a higher TL than the kit has a -2 per TL difference penalty.

Anyone attempting repairs without one of these kits does so at -5 to skill. Each type of kit must be purchased separately, though a user may “make do” with one of the others at a -3 penalty.

All tool kits contain several power cells, but the cells found in salvaged kits are likely (GM's decision) to be partially or completely used already.

Portable Shop (TL8+)

An elaborate version of the basic tool kit (see below), it is equivalent to a repair shop on a small starship. It has everything necessary for emergency repairs, plus a range of spare parts that can be toolled to specific requirements. It adds +2 to the user's skill. It will have 2d AA, A, and B cells, 1d C cells, 1d-2 D cells, and 1 E cell. A Mechanic, Engineer, or Armoury shop costs $4,000, weighs 3,000 pounds and has a volume of five cubic yards. Portable electronics shops cost $7,000, weigh 1,500 pounds and have a volume of 4 cubic yards.

Basic Tool Kit (TL8+)

The standard tool kit for engineers, mechanics, armors and electronics technicians, allowing major and minor repairs to be made at no penalty to skill. Any kit includes a few devices requiring small power cells, and is therefore a good source of extra cells in a pinch — roll 1d+2 for the number of AA cells, 1d for the number of A cells, 1d-2 for B cells. Mechanic or Engineer tool kits cost $800, weigh 300 pounds and have a volume of 1/2 cubic yard as cargo. Armoury or Electronics kits cost $1,200, weigh 100 pounds and have a volume of 1/4 cubic yard.

Portable Tool Kit (TL8+)

A smaller version of the basic tool kit, it fits into a case or backpack and weighs 20 pounds for Mechanics or Engineer kits, or 10 pounds for Armoury or Electronics kits. Major repairs can be made at -2 to skill, and minor repairs are at no penalty. It contains 1d+2 A cells, 1d A cells and 1d-3 B cells. Cost is $600 for Mechanic or Engineer kits, $900 for Armoury or Electronics kits.

Mini-Toolkit (TL8+)

This is a small, belt-sized tool kit. Routine repairs can be made with one of these at only -2 to skill. Major repairs are at -4 when using a mini-toolkit. Roll 1d for the number of AA and A cells in the kit, 1d-3 for B cells. Cost is $400 and weight is 2 pounds.
Vacc Suits

A variety of different pressure suits are available. Every suit needs air tanks (see above) to provide oxygen. Without an air tank, any suit contains enough air for five minutes. All suits include a back-mounted life-support pack (LSP), which provides heat, cooling, and energy for the suit's systems. It uses a C cell, which is good for one week. The life-support pack has DR 3. After it takes ten hits there is a 50% chance of it malfunctioning on each further hit. When it takes 20 hits, it no longer works; the user's survival depends on the environment.

Every suit has a front pocket with ten emergency patches. Any damage that penetrates the suit must be patched immediately. This requires three seconds and a Vacc Suit roll. If the first attempt fails, each further attempt is at a cumulative -1. Every three seconds means a loss of 10% of the suit's air.

Vacc suits, survival suits and similar equipment are not reduced in weight (cost goes down, however) at higher TLs.

Standard Vacc Suit

This is the standard flexible, insulated pressure suit. It is required in vacuum but may also be worn in poisonous (non-corrosive) or Very Thin atmosphere. It covers the whole body, includes a rigid helmet, and has exterior pockets, velcro patches, straps, hooks, etc. for equipment, and at least two lifeline hooks. It includes a short-range communicator, which uses an A cell. Styles vary widely; spacers often paint suits in garish colors or designs.

Suit gloves reduce DX and manual skills by -1. The clear helmet allows undistorted vision (but cuts Hearing rolls by -2 in air). Touching helmets in vacuum allows private suit-to-suit communications. A head-up display projected on the helmet tells the wearer how much air and power are left. A tube leading to a one-quart reservoir provides water.

A vacc suit takes one minute to put on or take off; if the suit is worn without the helmet, the helmet only takes five seconds to put on. A successful roll against Vacc Suit halves these times. Default skill cannot be used to decrease suit-up times. A vacc suit has DR 1, while the helmet has DR 3.

Cost is $250 and weight is ten pounds. TL8: Cost is $1,000.

Heavy-Duty Vacc Suit

This is like a normal vacc suit but tougher — the entire suit has DR 3. Cost is $375 and weight is 20 pounds.

TL8: Cost is $1,500.

Armored Vacc Suit

This is a rigid suit that covers the whole body, and is capable of withstanding up to 100 atmospheres of pressure. The life-support pack is built into the suit, not mounted outside; the suit's DR protects it. The suit requires an air tank (or several) but always includes a short-range communicator, using an A cell. The suit takes two minutes to put on or take off. All DX or DX-based skills (including Free Fall, but not Driving or Pilot) are at -2. The usual Vacc Suit accessories are available. The suit has DR 30. It weighs 80 pounds and costs $1,000.

TL8: Cost is $4,000.

Vacc Suit Accessories

All kinds of accessories are available, and may also be added to airtight body armor. Common items include a HUD (Heads Up Display, $125); a helmet light ($7.50, six months on a B cell); a water and concentrated food system with rations for one day ($125 for the system, refills are at usual water and concentrate prices); a waste-relief system (cost is $125 and worth every penny if the suit is worn for more than a few hours); a helmet visor recorder or better communicators; built-in computer or tricorder; reflective coating (gives DR 2 against lasers and fire; DR 0 against other beam weapons; provides PF 2 against radiation); extra patches ($2.50 per patch).

TL8: Accessories priced above are four times more expensive at TL8, twice as much at TL9.

Magnetized Plates (TL9+) can be put on the soles of any boots at an additional $25 and 1/8 pound. They let the wearer walk along bulkheads or on ship hulls in microgravity or Zero G (if the hull is made of magnetic material). Move is normal with Vacc Suit skill and at 1/2 without.

TL7: Costs $100 and weighs 1/2 pound.

Radiation Protection (TL7+) can be added to any suit. Cost is $50 for PF 2, $2500/40 pounds for PF 5 or $500/40 pounds (armored suits only) for PF 10.

TL7: Costs are $200, $1,000, and $2,000 respectively.

WET SUIT

A wet suit is a one-piece, ultralight underwater suit. It covers the user's entire body, with goggles and a face mask for attaching air tanks. It insulates the wearer against cold (+5 to HT rolls against cold) and incorporates ballast sufficient to keep the diver at any depth he wishes. Fins add 25% to swimming speed (or +1 to swimming Move, whichever is greater). The suit has DR 1. HUds, vision gear, radios, etc. may be added to the suit at extra cost. It takes two minutes to put on or remove the suit. Cost is $50 and weight is five pounds.

TL8: Cost is $200.

Military Wet Suit

This incorporates a thin layer of monocryst, with DR 8 (DR 4 vs. impaling) over the whole body except the face. The face mask and goggles are transparent armorplast (DR 10). Goggles may be fitted with HUds, vision gear, etc. Cost is $175 and weight is nine pounds.

TL8: Cost is $700.
PERSONAL WEAPONS

DISRUPTORS

The disruptor is the weapon of choice for many races. The Federation is the only faction that, as a matter of policy, regularly arms its personnel with weapons that have stun settings. Disruptor weapons lack a stun setting and are therefore less expensive to build and make more efficient use of their batteries.

Most disruptor-using races have settled on three basic versions: a holdout version, a pistol, and a rifle. The holdout disruptor is designed to be easily concealed and so is +4 to Holdout. The basic stats of disruptors are in the chart at the bottom of this page. Disruptors have only a basic disrupt setting. Unlike phasers, a disruptor cannot be set for overload, nor can they heat inanimate objects.

PHASERS

There are several types of phasers used as personal weapons. The Phaser-1 (used as a "courtesy sidearm" for non-infantry personnel) can be held in the palm of a hand.

The Phaser-2 (shown on page 136) is a standard "handle and barrel" military handgun. The other weapons are normally held with two hands. Phaser-I/II and Phaser Rifle become available at TL10.

At TL11 two additional types of phasers become available: the Pulse Phaser and Repeating Phaser. The Pulse Phaser is an upgraded version of the Phaser Rifle. As its name implies, the Repeating Phaser can fire more rapidly than the other types of phasers, making it the favorite weapon of Star Fleet Marines. The basic stats of phasers are on the chart at the bottom of this page.

Phasers have a variety of power settings; a Stun-2 setting on a Phaser-1 produces the same effect and damage as the Stun-2 setting on a Phaser Rifle, etc.

Prices for Federation phasers are listed for reference; they are not for sale, except on the black market for astronomical prices, and then only rarely!

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* the victim must make a HT roll to avoid being "stunned;" see Phaser Stun below.

An "x" indicates settings available for each type of phaser; "-" means that phaser cannot fire that setting.

The number of charges consumed each time a phaser is fired is equal to the setting number; e.g., Stun-1 or Kill-1 consumes 1 charge, Stun-3 or Kill-3 consumes 3 charges, etc. Exception: Disint consumes two charges times the setting number per shot (Disint-3 uses six charges).

Phaser Overload

Phasers can be set for overload; after a few seconds, all of the energy remaining in the power cell is released as an explosion. As there are safeguards to prevent this, a successful Beam Weapons (phaser) skill roll is required; to disable the overload (by restoring the safeguards) a similar skill roll is required. The damage is resolved as concussion damage equivalent to the number of charges remaining in the weapon times 1d.

Phaser Stun

Phaser weapons can be set to stun. This is treated as an Affliction with Incapacitation, as modified:

When a person is hit by a phaser stun attack, he must make an HT roll with a penalty based on the stun setting; for example, a phaser set on Stun-1 requires a HT-1 roll, Stun-2 a HT-2 roll, etc. If a person is hit by more than one phaser stun attack, then increase the penalty to the HT roll by 2 per additional hit taken.

If the character makes the roll, then the attack has no

<table>
<thead>
<tr>
<th>Types of Disruptor Weapons</th>
</tr>
</thead>
<tbody>
<tr>
<td>TL</td>
</tr>
<tr>
<td>10</td>
</tr>
<tr>
<td>10</td>
</tr>
<tr>
<td>10</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Types of Phaser weapons</th>
</tr>
</thead>
<tbody>
<tr>
<td>TL</td>
</tr>
<tr>
<td>10</td>
</tr>
<tr>
<td>10</td>
</tr>
<tr>
<td>10</td>
</tr>
<tr>
<td>11</td>
</tr>
<tr>
<td>11</td>
</tr>
</tbody>
</table>
effect. If the character fails the roll, note the Degree of Failure; the character falls unconscious immediately, and the Degree of Failure is the number of minutes the character remains unconscious. After that, he is stunned until he can make a HT roll (roll once per second). On a critical failure, the character remains unconscious until medical assistance is received.

Note that in addition to phasers, there are other weapons (such as riot control guns and stun grenades) that also have stun settings. These weapons function similarly.

ROCKET LAUNCHERS

Star Fleet Marines and other military ground forces will be issued rocket launchers for most missions; these can be available to civilians, criminals, and military personnel not normally involved in ground combat under various circumstances defined by the GM. There are many types, but two will suffice for most purposes.

Light Rocket Launcher
This is an 80mm shoulder-fired one-man weapon. Every squad of five Marines will have one of these weapons (with five rockets) in addition to their phaser (or disruptor) rifles. (The assigned rocket gunner will carry the launcher instead of a phaser rifle, and will have a Phaser-2 pistol for self-defense. He will be fully qualified on a phaser rifle for use in ship boarding actions where there is no room to employ rocket launchers.) At TL10 or higher, the warhead can be set for armor-penetrator or blast-fragmentation, and the seeker can be set for impact or proximity detonation. Each round has to be loaded into the launcher (which holds one round at a time) as a separate action.

Medium Rocket Launcher
This is a 120mm crew-served weapon. Each heavy weapons team (five Marines) has one of these weapons. It is divided into several sections (the barrel, the mounting, and the computer module) for transporting by individuals (one per man) with the other two members of the heavy weapons team carrying ammunition. At TL10, it has the same warhead and seeker options as the Light Rocket Launcher. It has more range and explosive force. The Medium Rocket Launcher can (at TL11) be used in another mode, in which the rocket fuel is detonated inside the barrel, turning the MRL into a howitzer ("How" on the chart) with considerably more range. The gun crew will need to be in contact with someone who has the Forward Observer skill and can see the target to use it in this manner.

Notes: Weight of launcher does not include missiles. In the case of the 120mm weapon, the first number is the barrel weight, the second is the weight of the mounting, and the third is the computer-sighting system weight.

Active guidance requires the gunner to keep his eyes on the target (through the sight) while the rocket is in flight. Self-Tracking missiles will find their own targets once they have been locked on. The gunner decides (as a separate action before firing) if the warhead will be set for penetrating or blast-frag and (as part of the same action) if it will be set for proximity or impact detonation. Proximity detonation cannot be used with penetration.

Explosions
An explosion may injure those nearby: divide damage by three times distance in yards from the center of the blast. Some explosions scatter fragments that inflict cutting damage on anyone nearby (see Fragmentation Damage). Fragmentation damage appears in brackets; e.g., "3d [2d] cr ex" means an explosion that inflicts 3d crushing damage and throws fragments that do 2d cutting damage. The "danger radius" for fragments is five yards times the dice of fragmentation damage; e.g., 10 yards for [2d]. If an explosive attack has an armor divisor, this only applies to the DR of a target that takes a direct hit — not to those caught in the blast radius or hit by fragments.

<table>
<thead>
<tr>
<th>Missile</th>
<th>Damage</th>
<th>Acc</th>
<th>Max</th>
<th>Cost/Msl</th>
<th>Speed</th>
<th>Desig</th>
<th>TL</th>
<th>Wt/Msl</th>
</tr>
</thead>
<tbody>
<tr>
<td>80mm Mk9</td>
<td>6dx8(10) cr ex</td>
<td>6</td>
<td>1,000</td>
<td>$75</td>
<td>200</td>
<td>Active</td>
<td>9</td>
<td>2</td>
</tr>
<tr>
<td>80mm Mk10</td>
<td>6dx9 cr ex [6d]</td>
<td>6</td>
<td>1,500</td>
<td>$100</td>
<td>300</td>
<td>Self-Tracking</td>
<td>10</td>
<td>2</td>
</tr>
<tr>
<td>120mm Mk9</td>
<td>6dx20(10) cr ex</td>
<td>11</td>
<td>5,000</td>
<td>$250</td>
<td>300</td>
<td>Active</td>
<td>9</td>
<td>4</td>
</tr>
<tr>
<td>120mm Mk10</td>
<td>6dx20 cr ex [8d]</td>
<td>11</td>
<td>9,000</td>
<td>$400</td>
<td>500</td>
<td>Self-Tracking</td>
<td>10</td>
<td>4</td>
</tr>
<tr>
<td>120mm How</td>
<td>6dx20 cr ex [8d]</td>
<td>11</td>
<td>20,000</td>
<td>$400</td>
<td>500</td>
<td>Self-Tracking</td>
<td>11</td>
<td>4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Launcher</th>
<th>Weight/Lnchr</th>
<th>Cost/Lnchr</th>
<th>ST</th>
<th>Designation</th>
<th>TL</th>
</tr>
</thead>
<tbody>
<tr>
<td>80mm LRL</td>
<td>13</td>
<td>750</td>
<td>7</td>
<td>Single-Mode</td>
<td>9</td>
</tr>
<tr>
<td>80mm LRL</td>
<td>10</td>
<td>750</td>
<td>7</td>
<td>Single-Mode</td>
<td>10</td>
</tr>
<tr>
<td>120mm MRL</td>
<td>30+20+10</td>
<td>2,500</td>
<td>na</td>
<td>Single-Mode</td>
<td>9</td>
</tr>
<tr>
<td>120mm MRL</td>
<td>20+15+5</td>
<td>4,000</td>
<td>na</td>
<td>Single-Mode</td>
<td>10</td>
</tr>
<tr>
<td>120mm How</td>
<td>20+15+5</td>
<td>4,000</td>
<td>na</td>
<td>Triple-Mode</td>
<td>11</td>
</tr>
</tbody>
</table>

Speed is missile flight speed in yds/sec. All: Malf = crit; LC 0.
The TL10 version can also use the TL9 warhead (damage) rating. The Howitzer mode can only use the Fragmentation warhead mode.

GURPS Prime Directive 4E

TECHNOLOGY
GRENADERS

Grenades exist for various military uses; civilians and criminals might obtain them by illegal means. Marines and ground combat units will have them as a matter of course (issuing four to each Marine) but starship crews will keep only a few in the armoury for special purposes. Two general types will be sufficient for most situations. All are Legal Class 0 (government and military only). Commercial explosives (for excavation work) are available only to licensed contractors with special permits.

<table>
<thead>
<tr>
<th>Type</th>
<th>TL</th>
<th>Weight</th>
<th>Cost</th>
<th>Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concussion</td>
<td>8</td>
<td>1.0</td>
<td>$20</td>
<td>6dx2</td>
</tr>
<tr>
<td>Concussion</td>
<td>9</td>
<td>1.0</td>
<td>$20</td>
<td>6dx3</td>
</tr>
<tr>
<td>Concussion</td>
<td>10+</td>
<td>0.5</td>
<td>$10</td>
<td>6dx3</td>
</tr>
<tr>
<td>Flash-Bang</td>
<td>7</td>
<td>1.0</td>
<td>$20</td>
<td>Stun</td>
</tr>
<tr>
<td>Flash-Bang</td>
<td>10+</td>
<td>0.5</td>
<td>$10</td>
<td>Stun</td>
</tr>
<tr>
<td>Satchel Charge</td>
<td>8</td>
<td>4.0</td>
<td>$50</td>
<td>6dx8</td>
</tr>
<tr>
<td>Stun Grenade</td>
<td>11</td>
<td>0.5</td>
<td>$100</td>
<td>Stun</td>
</tr>
</tbody>
</table>

Stun effects for Flash-Bang Grenade: Anyone within 10 yards rolls vs HT-5 (HT-2 if using eye (rear protection, HT if using both); failure means they are physically stunned. If stunned, make the same roll each turn to recover. Crit failure means five turns before the next recovery roll.

**Stun Grenades**

First becoming available at TL11, these grenades do not cause any damage. Stun grenades are used and function as their explosive cousins until they go off. When a stun grenade detonates, any person within range is affected as if he had been hit by a phaser on stun... Efforts are determined per Phaser. Stun, except that the HT roll is determined by the person's distance from the grenade when it detonates:

- Less than 2 yards: HT-6
- 2-4 yards: HT-3
- 4-6 yards: HT
- 6-8 yards: HT+3
- 8+ yards: no effect

OTHER WEAPONS

Personal weapons for other races will be dealt with in the supplements for those races. Until we are able to provide more extensive data, we offer basic information for the common TL8 gunpowder weapons on the chart at the bottom of this page. These should suffice for most low-tech planets. We will provide a broader selection of such weapons in future products, and of course the various GURPS manuals include hundreds of such weapons. Damage caused by these "gunpowder" weapons is determined by the ammunition type. Here are a few examples; GMs can pick one or more for their low-tech worlds.

<table>
<thead>
<tr>
<th>Ammo</th>
<th>Damage</th>
<th>Weapon</th>
</tr>
</thead>
<tbody>
<tr>
<td>.22 LR</td>
<td>1d+1 pi</td>
<td>Pistol or rifle</td>
</tr>
<tr>
<td>30-06</td>
<td>7d+1 pi</td>
<td>Rifle</td>
</tr>
<tr>
<td>30-30 Win</td>
<td>5d pi</td>
<td>Rifle</td>
</tr>
<tr>
<td>303 Brit</td>
<td>6d+1 pi</td>
<td>Rifle</td>
</tr>
<tr>
<td>308 Win</td>
<td>7d pi</td>
<td>Rifle</td>
</tr>
<tr>
<td>.32 ACP</td>
<td>2d-1 pi</td>
<td>Pistol</td>
</tr>
<tr>
<td>.357 Mag</td>
<td>3d-1 pi</td>
<td>Pistol</td>
</tr>
<tr>
<td>.38 Sp</td>
<td>2d pi</td>
<td>Pistol</td>
</tr>
<tr>
<td>.44 Mag</td>
<td>3d pi+</td>
<td>Pistol</td>
</tr>
<tr>
<td>.45 ACP</td>
<td>2d pi+</td>
<td>Pistol</td>
</tr>
<tr>
<td>.45-70 BP</td>
<td>5d pi+</td>
<td>Rifle</td>
</tr>
<tr>
<td>.50 MG</td>
<td>13d+1 pi+</td>
<td>Rifle</td>
</tr>
<tr>
<td>5.56x45mm NATO</td>
<td>5d pi</td>
<td>Rifle</td>
</tr>
<tr>
<td>7.62x39mm USSR</td>
<td>5d+1 pi</td>
<td>Rifle</td>
</tr>
<tr>
<td>7.62x51mm NATO</td>
<td>7d pi</td>
<td>Rifle</td>
</tr>
<tr>
<td>9x19mm P</td>
<td>2d+2 pi</td>
<td>Pistol</td>
</tr>
</tbody>
</table>

**Chart Headings**

TL: Technology level first available. You cannot use weapons at a higher TL than your campaign is set.

Weapon: General class, represents many types.

Damage: The type of damage done by that weapon.

Acc: Accuracy Modifier. Add accuracy to your skill if you took an Aim maneuver before firing.

Range: The first number is effective range; attacks beyond this range do only half damage. The second number is the maximum range.

RoF: Rate of fire; number of rounds per turn.

Shots: Number of rounds the weapon holds.

Charges: Phasers have a number of settings, each using more or less power. The code after the parenthetical number is the type/number of power cells used.

Cost: In dollars, to buy the weapon. This includes the minimum cleaning kit needed to maintain the weapon.

Wt: Weight of the loaded weapon in pounds. "Neg" means "negligible".

ST: Strength required to deal with recoil.

Bulk: This modifies your weapon skill when you take a Move and attack maneuver and a penalty to holdout skill.

Rcl: Recoll penalty if strength requirement not met.

LC: Legality class, ranging from 3 (buy in a gun store) to 0 (military, government, or illegal market only).

<table>
<thead>
<tr>
<th>TL</th>
<th>Weapon</th>
<th>Acc</th>
<th>Range</th>
<th>Wt</th>
<th>RoF</th>
<th>Shots</th>
<th>ST</th>
<th>Bulk</th>
<th>Rcl</th>
<th>Cost</th>
<th>LC</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>Bolt Action Rifle</td>
<td>11</td>
<td>1,000/3,700</td>
<td>10</td>
<td>1/2</td>
<td>6</td>
<td>12</td>
<td>-6</td>
<td>-3</td>
<td>$500</td>
<td>2</td>
</tr>
<tr>
<td>7</td>
<td>Assault Rifle</td>
<td>11</td>
<td>500/2,500</td>
<td>8</td>
<td>12</td>
<td>20</td>
<td>9</td>
<td>-6</td>
<td>-1</td>
<td>$540</td>
<td>1</td>
</tr>
<tr>
<td>7</td>
<td>Machine Gun</td>
<td>6</td>
<td>800/3,900</td>
<td>11</td>
<td>12</td>
<td>40+</td>
<td>12</td>
<td>-8</td>
<td>-4</td>
<td>$900</td>
<td>1</td>
</tr>
<tr>
<td>7</td>
<td>Submachine Gun</td>
<td>7</td>
<td>160/1,900</td>
<td>6.5</td>
<td>10</td>
<td>32</td>
<td>10</td>
<td>-4</td>
<td>-1</td>
<td>$150</td>
<td>1</td>
</tr>
<tr>
<td>7</td>
<td>Semi-Auto Pistol</td>
<td>3</td>
<td>150/1,800</td>
<td>2.5</td>
<td>3</td>
<td>15</td>
<td>9</td>
<td>-1</td>
<td>-1</td>
<td>$400</td>
<td>3</td>
</tr>
</tbody>
</table>
INTERSPECIES MEDICINE

Without exception, all medical skills are specialized by race or species, just as technical skills are specialized by TL. With rare exceptions, medical professionals are initially trained to treat members of their own species, and only after gaining proficiency do they receive training for other species. So for all medical skills, it is assumed that the character learns them first for his own species; exceptions to this must be cleared with the GM during character creation and may require an Unusual Background.

Once a character has received initial skill training for his own species, application of his medical skills and/or training for other species is handled in a fashion similar to “Skill Retraining For Different Technology — each medical skill per species is considered a separate skill; for example, Surgery (Human) is a different skill than Surgery (Vulcan). In the remainder of this rule section, the skill “Surgery” will be used in examples. It should be clearly understood that these rules apply to ALL medical skills, not just Surgery!

Some races are very similar to each other, while some are very alien. The table below which classifies species into Groups and sub-Groups was first proposed by Doctor Zorski of New Texas and has been updated as new species have been discovered. In it, Groups are designated by Roman numerals, and subgroups within a group have letters appended after the Group number.

DEFAULT MODIFIERS

When attempting a medical skill “by default” for a different race than your own for the first time, the minuses that are applied to your skill level are as follows:

- within a sub-Group: -1. Examples: Human to Deian (both are Group I-a), Romulan to Vulcan (both are Group III-a), or Gorn to Hilidarian (both are group V-b).
- within a Group: -2. Examples: Human to Prellarian (both are Group I but in different sub-Groups), Dunkar to Klingon (both are Group II), Vulcans to Andorian (both are Group III but in different sub-Groups), or Ranel to Phelan (both are Group IV but in different sub-Groups).
- between Groups I, II, III, or IV: -5.
- between Group V and Groups I through IV: -10.

Group “X” races are the exception to this rule. Medical skills for these races CANNOT be learned “by default” and may only be learned normally.

Examples: If a non-Tholian doctor were to have a Tholian patient brought to him, he would be unable to treat him unless he had previously spent character points to learn Surgery (Tholian). A Dunkar doctor with Surgery (Dunkar) 21 who was attempting to treat a Klingon patient would do so at Surgery (Klingon) 19. The same doctor when attempting to treat a Prounouehtite patient would do so at Surgery (Prounouehtite) 11. That doctor could not treat a Tholian patient with Surgery, as Tholians are Group X; he would first have to learn Surgery (Tholian) as a new skill.

If the patient is of a completely unknown species then the modifier is DOUBLED. Note that this doubling is only applied during unusual circumstances, such as the emergency treatment of an enemy casualty during a First Contact event. (This is sometimes referred to as the “What the devil is this on my operating table, Captain?” rule.)

A successful roll on a Xenology or Xenobiology skill would cut the normal penalties in half; round fractions up.

Finally, if the medical skill modifier is greater than the medical skill itself (i.e., the modified skill level is zero or negative) then the doctor does not have sufficient skill to treat the patient.

As stated on elsewhere, once you have a learned a skill (even “by default”) you are allowed to spend character points in order to improve it, even during character creation. (Be sure to do it; your buddies will love you for it!)

FIRST AID

Because First Aid mostly treats obvious injuries and symptoms and is intended to stabilize a patient until a real doctor is available, it is not penalized as severely as surgery or internal medicine would be. Any doctor within Groups I, II, III, and IV could treat any other species within those groups at First Aid -0. This includes such things as stop bleeding, set broken bones, or restore breathing. (Think of it this way, any human Boy Scout could manage to bandage a cut on his own dog to keep it from bleeding to death until they can reach a veterinarian.) Outside of Groups I-IV, the normal medical penalties would apply to First Aid.

IMPROVING THE PATIENT’S ODDS

With access to a medical library covering the patient race (or subspace communication with a doctor familiar with the patient’s species), a few hours of study, and a success roll against IQ or the relevant medical skill, the penalty can be reduced by 33% to 67%. (The GM will decide the extent of penalty reduction based on the difference in species and available knowledge.)

RACIAL HYBRIDS

These are individuals composed of mixed species, for example a half-Human/half-Vulcan. The GM has two options as to how to handle these characters.

Option #1 — Treat the patient (for penalties) as being of the most different type. Thus, a Human-Klingon hybrid would be treated as a different group by a Deian.

Option #2 — the character in question is a hybrid whose composition is uncommon and/or unique. In this case, the medical skill modifier is calculated as follows: calculate the medical skill modifier for each species the patient is composed of, and determine the worst-case modifier. Then double that worst-case modifier and subtract 1; this is the applicable medical skill modifier for that doctor and patient.
For example, a Deian doctor wishes to treat a Human/Klingon patient. The modifier for Deian-Human is -1 (both are sub-Group I-a), while the modifier for Deian-Klingon is -5 (one Group different). Thus the worst case modifier is -5, which doubled becomes -10, and -1 gives a final medical skill modifier of -11. Therefore, if this doctor had Surgery (Deian) 21, he would default to Surgery (Human/Klingon) 10.

**ZORSKI'S INTERSPECIES COMPATIBILITY TABLE**

Group I-a (humans): Alpha-Centaurans, Deians, Humans, Rigellians
Group I-b (near-human): Brecon, Cygnans, Prelarians, Ytilians, Zoilies
Group II (humanoids): Arcturians, Cromargs, Dunkars, Klingons, Bargantines, Tellarites, Veltrassai
Group III-a (copper-blooded): Romulans, Vulcans
Group III-b (copper-blooded): Andorians, Orions
Group IV-a (felinoid mammals): Carnivons, Kzintis, Lyrans†
Group IV-b (other felinoid mammals): Koriilvar†
Group IV-c (omnivores): Ranel, Slidarians
Group IV-d (aquatic mammals): Phelan, Rovilians
Group IV-e (flying mammals): none yet known
Group V-a (avians): Paravians
Group V-b (cold-blooded reptiles): Gorn, Hilidarians, Prouinhoulites
Group V-c (warm-blooded reptiles): Skoleans, Vudar
Group VI-a (crustaceans): Vergarians
Group VI-b (insectoids): Seltorians
Group VI-c (invertebrates): Jindarians, Mynieni
Group VII (undifferentiated): none yet known
Group VIII-a (ammonia-breathers): Q'Naabians
Group VIII-b (chlorine-breathers): none yet known
Group VIII-c (fluorine-breathers): none yet known
Group IX-a (methane-breathers): Hydrans
Group IX-b (hydrogen-breathers): none yet known
Group X (uniques): Tholiens

**Notes**

Group I species are all moderately compatible in terms of blood and biochemistry. (Alpha-Centaurans are genetically human.) All members of sub-group Ib are treated (to each other) as members of the same group, not the same sub-group.

Group II species are dissimilar in biochemistry to Group I species, and/or have significant internal differences including extra or unique internal organs.

Group III species all have copper-based blood.

Group IV races are all mammalian with moderately compatible biochemistries but have significant internal and external differences.

Group V are reptilian; Paravians are in fact descended from the original Gorn race.

Group VI, loosely described as exoskeletal, is a "catch all" group of unrelated species. Every species in that group should be considered a separate group unrelated to other species but still one group for purposes of determining how many groups apart other groups are.

Group VII races do not have individual internal organs or their equivalents, and include plantlike species.

Group VIII species do not breathe oxygen and come from subzero climate worlds, while Group IX species come from worlds with cryogenic temperatures.

Group X species are highly unique, so different from any others that they defy classification; essentially, "Group X" is a catch-all equivalent to "none of the above."

Groups VI through X are simply "general categories" and reflect totally different biology rather than a range of variations such as Groups I through V. As such, any doctor would treat any species in Groups VI through IX as the maximum difference (-15).

Some of the subgroups listed above are currently empty; they just haven't been discovered (well, published in GPD products) ... yet.

† The original Zorski table listed the Koriilvar in Group IV and the Carnivons in Group IVb, but this proven wrong once DNA testing was done. In fact, the "cat" Kzintis and Lyrans, and the "dog" Carnivons, all descended from a common racial ancestor, while the "cat" Koriilvar (from the opposite end of the Alpha Sector) are only superficially felinoid; their internal structure and blood chemistry are different from the other "cat races."

Medicine is not an exact science and assuming that an alien who is superficially like some other species is internally similar to that species can be very dangerous.
GAMES OF THE SF Universe

Prime Directive is a game of the Star Fleet Universe, an interrelated system of games with a common background. These include the classic Star Fleet Battles, the strategic Federation & Empire, the card game Star Fleet Battle Force, and other games. This chapter provides an overview of these games and a summary of the background and reference materials found in them. Because these games all have a common background, they all use the same ships, history, and technology. History pits the Klingons and Kzintis at war from Y169-Y185, so SFB and F&E both have battle scenarios for that period. A Klingon D7 battlecruiser has twice the combat power of a Romulan SeaHawk frigate, and this is reflected in SFB by their basic point values, in F&E by their combat factors, in SFBF by the number of icons on their respective cards, and so forth. This is good in that players can move between games and reasonably expect the same things to work the same ways (albeit on a different scale). Of course, for your own campaign, you can ignore these implications.

Star Fleet Battles

This game is the grandfather and patriarch of the Star Fleet Universe. First published in 1979, it has undergone several revisions and new editions. The current rules set has 27 modules with 2,000 pages of rules and 2,000 different starships. It is a tactical space combat game, where each player commands a ship (veteran players often command entire fleets) as they seek to out-fly, out-fight, and out-think their enemies in a warp-speed dogfight.

Having been around the longest, most of the history and background of the entire Star Fleet Universe first appeared in Star Fleet Battles. SFB has the most complete database of ships, weapons, and technology, and is the primary reference source for any SFU research. We have reprinted most of the relevant data from SFB in this product (and will have more in modules) so players of GPD need not fear being required to buy hundreds of dollars worth of tactical space games just to get the maps, racial histories, timelines, and other background data.

A detailed explanation of SFB is on the next page, and we invite all players of GPD to pick up a copy of SFB Basic Set or Cadet Training Handbook and experience driving a starship for themselves. Experienced players can also enjoy this game via the Internet at sfbol.com and at our famous national tournaments at Origins.

Federation & Empire

The strategic game of the Star Fleet Universe, F&E was first published in 1986 and has (like SFB) been upgraded in several subsequent editions. On a map five feet long (the F&E map is recreated a few pages later in this book), players move thousands of die-cut counters representing ships, squadrons, groups, and fleets.

F&E is primarily a game about money. You collect taxes from your planets and provinces, then use the money to buy, upgrade, and repair starships. After that, you send your ships off to war to conquer your enemies. For those interested, we have a detailed description of F&E on our web site. At Origins, you will see a dozen players hunched over a huge map for three straight days trying to decide, once and for all, who will rule the universe.

Star Fleet Battle Force

This new card game appeared in the summer of 2001. You control a group of starship cards from several races. Each ship card has icons showing the weapons the ship can use. Each turn, you check your hand for weapon cards that match the icons on your ships, and fire them at the enemy. The game system is similar to Modern Naval Battles or Naval War but with improvements and new concepts. While there are several kinds of phasers, the bigger ones can fire the cards from the smaller ones, and, larger plasma torpedo launchers can use the smaller torpedo cards. As your starships take damage, red plastic markers cover some of the icons, preventing you from using those weapons. See our web site for more information.

STARLINE 2400 MINIATURES

This is our line of pewter scale-model starship miniatures. We have dozens of ships from the various races in Star Fleet Battles, and release more each month. You can find a complete list on our shopping cart.

OTHER GAMES

Star Fleet Missions is a card game designed for family entertainment. Star Fleet Warlord is a Play-by-Email game. Captain’s Log magazine supports our other product lines; it is not essential to GPD players. Star Fleet Command is a computer game by Interplay based on Star Fleet Battles. We will be publishing new games in the future.
LET’S PLAY...

STAR FLEET BATTLES

Let’s play a sample turn of Star Fleet Battles, using the rules and ships from the Cadet Training Handbook. The Cadet book is specifically designed to teach you the game, and opens the doors to the entire Star Fleet Universe. Here is your ship, the Federation heavy cruiser (CA) Eagle. The first action in each turn is to determine how much energy you have available. In this case, you can see the 16 boxes of warp power, two impulse boxes, and two APR (auxiliary reactor) boxes, for a total of 20 points of power. (This is a “cadet ship” for beginners; the ships in Basic Set are larger and have more systems.)

A Klingon D7 is out there, so arm the weapons! Two points of warp energy go into each photon, and three points go into phasers. This leaves 12 points of warp and one point of impulse, for a total speed of 13, fairly fast for a cadet ship.

As you can see in the map in the above right corner, your ship is maneuvering toward the Klingon. As you can see on the turn mode chart above, at a speed of 13 your ship has a turn mode of 2 at this speed, meaning that it must move two hexes forward in a straight line before it can turn. The cadet game turn is divided into two hexes, and your ship will move during 13 of these, not moving during Impulses #1, #6, and #11. The map shows only part of the action during the game turn, during which you moved toward the Klingon, turned across his bow, and achieved the position shown by the counter on Impulse #7.

During each impulse, you will have the opportunity to fire your weapons. At the particular point shown on the map (which is Impulse #7), you have two possible targets, the Klingon ship and a nuclear-armed drone which is maneuvering to hit your ship. You will engage both targets.

Note the small six-pointed firing arc diagram above the ship, indicating the six possible arcs into which weapons can fire.

The drone will be engaged by phase #2, the left side phaser.

Note that this phase can fire into the three 60° arcs designated LF (Left Front), L (Left), and LR (Left Rear), and that the drone is in the Left Front firing arc. To fire a Phaser-1, you will use the Phasing Table, which is shown below:

<table>
<thead>
<tr>
<th>TYPE 1 OFFENSIVE PHASER TABLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROLL</td>
</tr>
<tr>
<td>-------------------------------</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>3</td>
</tr>
<tr>
<td>4</td>
</tr>
<tr>
<td>5</td>
</tr>
<tr>
<td>6</td>
</tr>
</tbody>
</table>

You roll one six-sided die, and the result is a 4. As the drone is three hexes away (range 3), you cross-index the die roll with the range to determine that the phaser scored 4 damage points on the drone. Since a drone is killed by 4 damage points, the drone is destroyed and will not threaten your ship again.

Now we will fire at the Klingon ship itself. There are two phasers (#1 and #3) able to fire on the Klingon, which is in the Right Front firing arc. (Note that phaser #2 could not have fired at the Klingon ship in any case, since it cannot fire into the RF arc.) Roll two dice, one for each phaser. You get a 1 and a 5, scoring (at range 4, as you can tell by the map) 8 damage points.

Now for the photon torpedoes! These work differently than phasers. If they hit, they will do 8 damage points regardless of the range (up to a maximum of 30 hexes).

You roll one die for each photon, with results of 2 and 3. Since both of these results are within the hit range (1-4) for this range, both have hit! This scores another 16 points of damage on the Klingon D7, for a total of 24.

PHOTON TORPEDO TABLE

<table>
<thead>
<tr>
<th>RANGE</th>
<th>0-1</th>
<th>2-3</th>
<th>4-5</th>
<th>6-11</th>
<th>12-20</th>
<th>21-30</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIT</td>
<td>NA</td>
<td>1-5</td>
<td>1-4</td>
<td>1-3</td>
<td>1-2</td>
<td>1</td>
</tr>
<tr>
<td>DAMAGE</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
</tr>
</tbody>
</table>

Notice from the map that the Klingon ship’s #1 shield (the one covering the 60° hex side facing forward) is facing your ship. This shield stops the first 16 points of damage you caused, but is now “down.” The Klingon also used the reserve power from his two batteries to block another two points of damage, leaving six to be resolved internally. This damage is resolved by die rolls on a Damage Allocation Chart, destroying two hull boxes, two engine boxes, and two other boxes, which you can see marked on the SSD. Note that one drone has been fired from the rack.

Having inflicted severe damage on the Klingon ship, you now turn 60° away from him and move out of his range.

The Klingon retreats, giving you control of the star system! You have saved another planet from tyranny.
MAP OF THE STAR FLEET UNIVERSE

The map at left shows the main area of the Star Fleet Universe, which is also known as the Alpha Octant of the Milky Way Galaxy. To be technically accurate, the map should be curved (as it is a section of the outer rim of the galaxy) but the distortion is minimal and can be ignored.

This is, literally, the map of the game Federation & Empire, and is used in that game to define everything from ownership to economic power, from supply lines to travel distances, from planetary locations to areas of pirate activity. Larger scale versions of this map are shown on subsequent pages; this small version is provided to show the overall sweep of the Alpha Octant. The map shows the borders that were in effect from the end of the Early Years (about Y125) through the start of the General War (Y168).

The Federation occupies the center of the map. The Kzintis are to the left of the Federation and the Gorns to the right, both along the top edge. Enemies are also nearby, the Klingons to the left and the Romulans to the right.

The Lyrians (who are allied with the Klingons only because of their hate for the Kzintis) and the Hydrans (who are allied with the Federation if only because the Klingons and Lyrians keep invading them) are to the left (west) end of the map. The InterStellar Concordium, who believe that the other races are insane and briefly tried to impose a ceasefire on the entire octant, are to the right/top/east.

Small neutral powers are scattered across the map. The Tholians are in the bottom center; they occupy territory that once belonged to the Klingons and were briefly allied with the Federation. Mostly, the Tholians (refugees from another galaxy) just wanted to be left alone. The Sel-torians (former slaves of the Tholians) set up a base in Klingon space near the Tholians. The LDR (lower left) are a rebellious province of the Lyrians who broke away to form an independent nation; they got away with this only because two rival Lyran factions could not afford to see the LDR join the other side. The WYN cluster (upper left) is populated by rebels, refugees, and renegades from the Kzintis, Lyrians, and Klingons. The Orions (just below the map center) are a member of the Federation but during parts of the General War declared themselves neutral.

The Carnivons once occupied the upper left (northwest) corner of the map but were driven away (or destroyed) decades before the time of the map.

The Paravians once occupied some territory in the upper right (part of Gorn space, as well as some areas later occupied by the Romulans or ISC).

The Orion Pirates (who are, and are not, linked to the Orion planet and enclave) operate over the entire map (although not in Tholian territory as the Tholians aggressively patrol and protect their small area). Orion pirates are divided into cartels, each of which controls about 10% of the Alpha Sector. The boundaries between these cartels are fluid and constantly changing.

The Andromedans invaded our galaxy from outside and operated across most of the Alpha Octant.

The Omega Sector is to the right of this map, east of the Interstellar Concordium.
Neutral Zones separate the races. Adjoining races can send a limited number of ships into these areas and can develop colonies there under various treaty limitations. Neutral Zones are not "free highways" that would allow, for example, the Federation to attack the Hydrans without going to war with the Klingons.

Only major industrial planets are on the map. Every hex has a thousand stars and a hundred planets, at least a few of which are occupied by colonists or native sentient species. Most stars that can be seen from Earth are in hex 2908. Some names of nearby stars and features have been reused for more distant stars and features.

Mention should be made of the handful of "free planets" which existed in Neutral Zones. They often provided the only direct communications between opposing races, and the only trade. They were all awash in spies, and everyone tolerated the spy spies in the hope that their own spies could do a better job. The balance of power made these planets safe havens for Orion pirates, and they became an open market for stolen weapons and pirate loot. The odd stolen lighter could, for a price, be re-registered at these planets under a number of national flags.

Mad Jack's Hole is on a small moon. Ships of many races made port calls there (the entertainment facilities were legendary). When the General War began and the Klingons captured most of Kzinti space, they left Mad Jack's Hole as a "free zone" since they could at least count the pirate ships coming and going. A major battle was fought around this base in Y175 when the Federation became annoyed to find its latest fighters on sale to its Klingon enemies and Kzinti allies.

Denebola was an important trading post between the Federation and Romulans, and was solely responsible for the Federation taste for Romulan Ale. Spies knew each other on a first-name basis, and what passed for peace talks (military conferences to reduce tension) took place here. On the Day of the Eagle (the Romulan invasion of Y173), one of the first battles took place at Denebola.

The planet Revlis is in Romulan space, but was so infested with Orion pirates that the Romulans (who had only a tenuous hold on the outer areas of their empire) knew better than to try to control it. Pirates used it as an exchange point, buying and selling loot taken from Federation and Romulan convoys. The last Klingon ship operating in Romulan space was able to obtain replacement drones at this bizarre bazaar, and used them when it stopped a Romulan attempt to negotiate a separate peace with the Federation at Oxvind V.

EASTERN AREA INDEX

- Aberdeen (Federation colony) ........................................ 3411
- Aliser VI (primitive) .................................................. 3404
- Andichon VI (Federation colony) ............................... 3309
- Ankrogea (ancient, dead) ............................................ 3301
- Aurellius (Romulan minor planet) .............................. 4313
- Bazalgith (ISC major planet) ............................. 5908
- Cestus (Gorn minor colony) ..................................... 4007
- Chicago (Federation major colony) ......................... 3306
- Circle Trigon (neutral) ............................................. 5109
- Corrieth (ISC minor planet) ..................................... 5510
- Dastaal (ISC colony) .................................................. 5313
- Debrock (Federation protectorate) ........................... 3514
- Debroke (neutral) .......................................................... 3415
- Filsingth (ISC minor planet) .................................... 6111
- Fornax (Federation protectorate) .............................. 3413
- Frallia (Federation associate member) ..................... 3201
- Gesiok (Gorn minor planet) ..................................... 4001
- Geydar (Ghder II, Gorn major system) ..................... 4403
- Ghder (Ghder I, Gorn capital) .................................. 4402
- Ghidahr (Ghder III, Gorn major system) ................... 4503
- Gijard III (Gorn minor planet) ................................. 4705
- Gistardistang (Gorn minor planet) ......................... 4702
- Golgotha (Gorn minor planet) .................................. 4903
- Gordan's Planet (Federation planet) ...................... 3612
- Gorngeila (Gorn colony) ........................................... 4108
- Gornshima (Romulan colony) .................................... 4512
- Gyrennia (Gorn minor planet) .................................. 5004
- Helvetia (neutral) ...................................................... 3912
- Hokan (Gorn mining colony) ..................................... 4408
- Justinia (Romulan minor planet) .............................. 4112
- Koriivala (ISC member system) .............................. 5910
- Midketh (neutral) ..................................................... 4309
- Morkedea III (Federation mining colony) ................. 3414
- Myriennix (Federation associate member) ................. 3204
- Naramar III (Federation minor planet) ................... 3005
- New Marseilles (Federation colony) ....................... 3504
- Oxvind (Romulan minor colony) .............................. 3615
- Pavarac (neutral) ...................................................... 5403
- Pronhoulia (ISC member system) .............................. 5910
- Q'naabia (ISC member planet) .................................. 5810
- Remus (Romulan secondary capital) ......................... 4514
- Revis (free planet in Romulan space) ...................... 4018
- Romulus (Romulan primary capital) ......................... 4613
- Rovilla (ISC member system) .................................... 5910
- Scylla-Charybdis ..................................................... 3506
- Sebelia IV (Federation minor planet) ....................... 3711
- Sigma Draconis (Federation major planet) ............... 3509
- Skoleos (Federation planet, Gorn mercenaries) .......... 3704
- Tellarite Prime (Federation associate member) .......... 3706
- Tiberius (Romulan major system) ............................ 4514
- Tibernia IV (Romulan major planet) ......................... 4716
- Trajanus (Romulan minor planet) ............................. 5619
- Tuscania (uninhabited) ............................................. 4209
- Veltressa (ISC member system) ............................... 5910
- Vespassia (Romulan minor planet) ........................... 5117
- Vesuvius (Romulan major system) ............................ 4613
- Vidalia (Federation minor planet) ......................... 3210
- Voabalt (ISC minor planet) ..................................... 5507

EASTERN AREA NOTES

The map at left shows the eastern half of the Alpha Sector of the Milky Way Galaxy. This area was dominated by two races (the Romulans and the Gorns) although about a third of the Federation is here. The neutral ISC did not even become known to the Romulans and Gorns until Y169 and did not expand to the size shown on the map until the early years of the General War.
WESTERN AREA INDEX

The map at left shows western half of the Alpha Octant of the Milky Way Galaxy. This area is actually "older" than the eastern half; the races here were fighting wars before the races in the eastern half of the Alpha Octant had established contact with each other.

The current borders were defined by the Four Powers War which preceded the General War.

Aris IV (neutral) ........................................ 2113
Akbar III (Klingon Ock-tah Academy) ................. 1513
Allen's Planet (Federation colony) .................. 2002
Alpha Centauri (Federation member) .............. 2908
Altroth (Hydran Lost Colony) ...................... Off Map
Andor (Federation member system) ................. 2908
Annox (Federation colony) .......................... 2209
Bakuria (Klingon warrior colony) ................ 1210
Antares (Federation member) ....................... 2610
Anthrax (Hydran major system) ................. 0617
Arcturia (Federation associate) ................. 2715
Bargantine (Klingon subject world) ............... 1114
Calhath (Lyran colony) ............................ 0609
Bezwell Index (Neutral planet) ...................... 2214
Big Valley (Federation colony) ................... 2106
Blackfoot Pass (Navigational feature) ............. 1909
Bolmar (Lyran major planet) ..................... 0408
Byrant (Lyran major planet) ...................... 0307
Codmark (Federation minor colony) .............. 2510
Cromarg (Klingon subject race) .................. 1513
Darmot (Klingon colony) .......................... 1416
Degomark (Lyran minor planet) .................. 0205
Demorak (LDR capital) ............................ 0711
Diablo Asteroid Field (Orion base) ............... 2106
Dimitris (Kzinti minor planet) .................. 1802
Dunkaria (Klingon subject race) ................. 1112
Earth-Sol (Federation member) .................. 2908
Farlin (Klingon colony) ............................ 1407
Foremark (Lyran minor planet) .................. 0607
Frakmark (Lyran major system) ................. 0408
Garar VI (Lyran minor planet) .................. 0709
Hildaria (Klingon subject race) .................. 1010
Hycoman (Hydran colony) .......................... 0516
Hydrafahl (Hydran minor planet) .................. 0519
Hydramax (Hydran major system) ................. 0617
HydraX (Hydran capital system) .................. 0617
Hydaxport (Hydran major planet) ............... 0718
Hyurdju (Hydran colony) ............................ 0814
Iridina (neutral planet) .......................... 1912
K'brogh (Klingon minor planet) .................. 2216
K'tothos IV (Klingon mining colony) .............. 2316
Kedrah (Klingon major system) .................. 1411
Kalesar (Klingon colony, held by Tholians) ....... 2919
Kangor (Klingon major system) .................. 1411
Keeversh (Kzinti major system) ................ 1401
Kelanor (Klingon colony, held by Tholians) ...... 2919
Kindlia (Kzinti major planet) ................... 1502
Klinkon (Klingon major system) ................. 1411
Klegarine (Klingon planet) ...................... 1611
Klinbhai (Klingon capital system) .............. 1411
Klomarth (Klingon major planet) .............. 1714
Kordahn (Klingon colony, held by Tholians) ...... 2919
Krooth (Hydran lost colony) ................ Off Map
Kybruar (Klingon major planet) .................. 2518
Kzintai (Kzinti capital system) ................ 1401
Landfalk (Klingon colony) ...................... 1114
Leebyah (neutral, pro-Klingon) ................. 2013
Lumien (Kzinti minor planet) ................ 1504
Lyrantos (Lyran capital system) ............... 0408
Mad Jack's Hole (neutral-pirate) ................. 1706
Meva (Federation planet) ..................... 2704
Minixith (Hydran lost colony) ................ Off Map
Novorosibirsk (Federation minor planet) ....... 2509
Organia (neutral) ................................. 1913
Orion (Orion capital planet) ................... 2812
Osiris (Orion minor planet) ..................... 2811
Pacifica (Federation major planet) ............. 2708
Paktar (Federation member, Deians) ............. 2505
Phtha III (Hydran minor planet) ............... 0416
Phyllos (Klingon system) ....................... 1707
Pleides Star Cluster ............................. 2011
Pollox IX (Federation minor colony) ............. 2213
Ponderosa IV (Federation colony) .............. 2106
Prelaria (Federation associate member) ......... 2705
Rigel (Federation member colony) ............... 2908
Rita's Planet (Federation colony) ............... 1912
Roon (developing planet) ....................... 2805
Sefaria (Klingon warrior colony) .............. 1312
Selmar (Klingon minor colony) ................ 1110
Sentria (primitive) ............................... 2803
Sheboygan III (Federation minor planet) ....... 2403
Sherman's Planet (Neutral) ..................... 1910
Shiloh (Federation colony) ..................... 2106
Shresha-Cygnus (Federation member) .......... 2306
Silmark (Lyran major planet) .................. 0810
Skagmark (Lyran major planet) .................. 0509
Slardaria (Klingon subject race) .............. 1511
Southfork IX (Federation colony) ............ 2106
Thetis (Federation colony) ................... 2314
Tholia (Tholian Dyson sphere) ................. 2919
Tyson's Star (disputed) .......................... 2315
Valoria (Klingon warrior colony) .............. 1514
Vanacheck (disputed) ............................ 2315
Vielisal (Kzinti major system) ................. 1401
Volmark (Lyran major system) .................. 0408
Vronkett (Kzinti major planet) ................. 1401
Vudar (Klingon subject race) .................. 1619
Vulcan (Federation member system) ............ 2908
Vultrax (Vulcan secondary planet) .............. 2908
Walkuria (Klingon warrior colony) .......... 1916
Zamyen (Kzinti minor planet) .................. 1001
Zelkran (Kzinti major planet) ................. 1105
Zilmark (Lyran minor planet) ................. 0709
Zimbrar (Kzinti minor planet) ................. 1202
Zoolax (Klingon subject race) ................. 1210
Zursk (disputed) ................................. 1506
WARP FACTORS & SPACE MOVEMENT

Starship movement is needed in Prime Directive to get the characters from one place to another (usually from where they are to where the planned adventure takes place). This is a factor of how far you need to travel (including any detours to avoid enemy territory, ongoing wars, active piracy zones, or whatever), what kind of ship you have (cargo and merchant ships cannot go as fast as warships), and whether it is using its normal cruising speed (which has the most economical fuel consumption) or its faster “dash” speed (which burns fuel and spare parts like crazy). The following chart provides the relevant data:

<table>
<thead>
<tr>
<th>Drive Type</th>
<th>Warp Factor</th>
<th>Parsecs Per Month</th>
<th>Parsecs Per Day</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freighters</td>
<td>4.5</td>
<td>149</td>
<td>4.97</td>
</tr>
<tr>
<td>NT Warp</td>
<td>5.5</td>
<td>272</td>
<td>9.07</td>
</tr>
<tr>
<td>Aux Warp</td>
<td>5.5</td>
<td>272</td>
<td>9.07</td>
</tr>
<tr>
<td>ET Warp</td>
<td>6</td>
<td>353</td>
<td>11.77</td>
</tr>
<tr>
<td>Std Warp</td>
<td>7</td>
<td>561</td>
<td>18.70</td>
</tr>
<tr>
<td>Fast Warp</td>
<td>7.25</td>
<td>623</td>
<td>20.77</td>
</tr>
<tr>
<td>Aux Dash</td>
<td>8.5</td>
<td>1004</td>
<td>108.41</td>
</tr>
<tr>
<td>Std Dash</td>
<td>9.25</td>
<td>13,088</td>
<td>436.27</td>
</tr>
<tr>
<td>Fast Dash</td>
<td>9.5</td>
<td>14,094</td>
<td>469.80</td>
</tr>
</tbody>
</table>

Freighters includes standard commercial ships not intended for combat. They have no “dash speed.”

NT Warp is Non-Tactical Warp, the earliest form of warp drive, e.g., used by Romulan “sublight” ships.

Aux Warp is used by naval auxiliaries, basically freighter hulls with military-grade engines. Some civilian-owned ships have this type of engine.

ET Warp is Early Tactical Warp, used around Y100-Y125 by the first ships built “from the keel up” for warp.

Std Warp is Standard Warp, the military grade engines seen on most starships. Note that a few “civilian” ships have this type of engine.

Fast Warp is used only by Fast Cruisers, Light Dreadnoughts, Federation Express high-speed transports, and the later X-ships.

Dash speed (shown for auxiliary, standard, and fast ships) is explained below. Early and Non-Tactical Warp ships cannot use Dash movement. Note that auxiliary ships cannot “dash” more than 1,004 parsecs in a 30-day period as their engines cannot take the heat.

Warp Factors are one term in a complex equation defining speed, but are the most easily grasped term in common speech. For movement in GPD, however, calculations are done in parsecs (a measure of distance rather than speed).

Calculating Movement

You are playing GURPS Prime Directive and you need to get your ship from where it is to where you want to be. This is a relatively simple procedure. First, find the origin and destination on the map. For simplicity, just count the hexes (each is 500 parsecs across). See the optional rule below for more complex calculations.

Determine whether your ship will use normal cruising speed or (if it can) dash speed. Get the relevant number from the chart, and divide it into the distance.

For example, you need to get from Earth (hex 2908) to Orion (hex 2812) in order to foil a plot to secretly build a new pirate starship. This is a distance of 5 hexes or 2,500 parsecs. You are flying in a Free Trader with military auxiliary engines (9 parsecs per day). Divide 9 into 2,500 and it will take you 277 days to reach there. Or perhaps you are in a Prime Trader with standard starship engines (18 parsecs per day). This will take you only 134 days. Even this is still too slow; the pirates must be stopped! Dash speed for your standard engines is 436 parsecs per day, so you will need only a little under six days to get there, but this will burn a lot of fuel and spare parts (5% of the cost of your ship). But you’re on government per diem, so go right ahead.

Having foiled the pirates, you now need to go from Earth to the Klingon Capital (hex 1411) in the company of a special ambassador. This is a distance of 15 hexes (7,500 parsecs) and travel at dash speeds will take (7,500 ÷ 436 = 17) days plus a few hours. The only problem here is that you will need to stop and refuel twice in this trip (as dash speed is limited to 3,000 parsecs without more fuel) and each refueling will take half a day (plus time for side trips, adventuress, bar fights, etc.). Figure 20 days and you’d be about right. You can get fuel at the Federation base in 2308 and (since you have been invited) can buy fuel at the Klingon base at 1809. You could also get fuel from the neutral planet in 1910. (Yes, we know that the new ship said four days, but that was contradictory to all previous data and we ignored it.)

Dash Speed

The concept of “Dash Speed” is one that is important to understand. Dash Speed is used only when the ship has a clear path, a known and well-marked destination, and a serious need to be somewhere else in a major hurry. It is much faster than normal cruising speed, but the penalties are severe (and most of them do not show up in game terms, causing players to believe, incorrectly, that “Dash Speed” is free and the most common way of moving around). Dash speed means, literally, driving the ship to its maximum speed, going “hell for leather” or “riding with wild abandon.” The distortion of space needed for this speed is so severe that navigation is difficult (requiring outside help) and the ship is nearly blind and defenseless (meaning that Dash Speed is rarely used to get into trouble). The engines will be strained (causing a serious maintenance cost and shortening the time to the next dockyard overhaul) and tremendous quantities of fuel are used.

Dash Speed is often used for emergency strategic redeployments; Fleet headquarters really needs more ships in the other part of the Federation (or Empire, or whatever) and really needs them to be there right now. (Sometimes this would happen in peacetime, when a special ship or team of experts is needed to deal with an immediate crisis.) There must be a navigational beacon at the destination (of the kind only provided by major industrial plan-
ets, starbases, and other major bases; minor colonies do not have this capability). Fortunately, such redeployment is made along a network of bases, which provide the fuel, quick maintenance overhauls, and navigation beacons needed for Dash Speed. Warships can conduct extended strategic movement only if they make a half-day "pit stop" at a base every 3,000 parsecs (or whatever the normal six-month movement distance is). This type of movement is known as "Strategic Movement" in the strategic game system _Federation & Empire_; such redeployment is also just about the only time that Dash Speed is used for extended periods. For this type of movement, the GM will assess the characters a cost equal to 10% of the cost of the ship for each month of such movement.

Dash Speed is used for shorter periods in an operational context. This could be broken into three types of operational maneuver.

The movement of reserve ships to a critical sector is controlled by bases with powerful scanners to guide their movement, and a wartime fleet of 200 ships would be able to maneuver no more than a dozen ships by this method in any six-month period. This would be limited to a maximum of 3,000 parsecs for normal warships (basically, six months of movement in a single week). In peacetime, this might be used to get a special ship, team, or supplies to a critical planet. Civilian ships could in theory use this for some reason important to their adventure or enterprise. The GM will assess the characters a cost equal to 5% of the cost of the ship for conducting this maneuver.

The movement of warships to intercept enemy forces or to respond to a crisis often uses Dash Speed, but this is limited to 500 parsecs (1,000 parsecs if the maneuver is guided by the powerful sensors of a base or scout-ship). This type of maneuver can also be used to retreat from the immediate area of a battle or threat (up to 500 parsecs). The GM will assess the characters a cost equal to 3% of the cost of the ship for conducting this maneuver.

Warships which have been damaged in battle or which are trying to escape from an area where the enemy has overwhelming force might use retrograde movement. This allows warships to move up to 3,000 parsecs (basically, a distance equal to their normal operational movement) but only out of combat or danger and only when moving to a major base or industrial planet or a specialized fleet repair facility. In peacetime, characters might use this type of movement if they are trying to rush a wounded person to a specialized medical facility, or to return key items (evidence, artifacts, witnesses, whatever) to a major headquarters. The GM will assess the characters a cost equal to 5% of the cost of the ship for conducting this maneuver.

In all cases, the GM may decide to waive the cost if the characters are using a government ship for the convenience and business of the government in question, or if the government has some reason to reimburse them for the cost. If a ship is hired to carry something somewhere, and the people doing the hiring want delivery right away, the characters need to be sure to make them pay the cost. If you are a Star Fleet crisis team and Star Fleet Headquarters wants you on Rigel-IV, then Star Fleet can (and will) pay for it. If you are the only engineer who knows how to fix an old Mark-II reactor and somebody wants it fixed, they can pay to get you there. In some cases, however, when a team is conducting a mission within a defined budget, the GM may decide that even though the cost doesn't come out of the characters' personal funds, it does come out of their operating budget, and using Dash Speed may mean that they don't have money they will later wish they had saved.

**Precise Distance**

There are two methods for improving accuracy in distance calculations; either or both may be used.

In one case, do not count hexes but measure the distance from the center of the starting hex to the center of the destination hex with a ruler (or marks on a slip of paper) and then transfer this to a straight row of hexes and determine the equivalent number of hexes (including fractions). By this method, the distance from Earth to Orion is about 4.6 hexes (2,300 parsecs) and from Earth to Klinshai is 13.7 hexes (6,850 parsecs).

The second method is to assume that the origin and destination are not in the center of the hex. The GM might want to define the precise point in space for each planet (as a distance from each hex side) or you could simply calculate the nominal distance and roll 2d6 on this chart:

<table>
<thead>
<tr>
<th>Die Roll</th>
<th>Modify Distance By</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>-400 parsecs</td>
</tr>
<tr>
<td>3</td>
<td>-300 parsecs</td>
</tr>
<tr>
<td>4</td>
<td>-200 parsecs</td>
</tr>
<tr>
<td>5</td>
<td>-100 parsecs</td>
</tr>
<tr>
<td>6</td>
<td>-50 parsecs</td>
</tr>
<tr>
<td>7</td>
<td>0</td>
</tr>
<tr>
<td>8</td>
<td>+50 parsecs</td>
</tr>
<tr>
<td>9</td>
<td>+100 parsecs</td>
</tr>
<tr>
<td>10</td>
<td>+200 parsecs</td>
</tr>
<tr>
<td>11</td>
<td>+300 parsecs</td>
</tr>
<tr>
<td>12</td>
<td>+400 parsecs</td>
</tr>
</tbody>
</table>

GMs might want to keep a record of such distances for future use, or assume that temporary local conditions along the route mean that every trip between two points takes a slightly different route and a slightly different distance.

Future _GURPS Prime Directive_ products will include means by which skilled engineers could gain slight speed increases and by which skilled navigators might effectively reduce the distance between two points.

**Interstellar Communications**

Subspace radio will allow two-way communications without time-lag anywhere in the same hex. After that point, assume a time-lag of one quarter-hour per hex. And by all means, if the pace of the adventure means that the team should not be able to talk to base so easily, all kinds of ion storms can cause havoc with communications. Messages might have to be rerouted through bases not in a direct path to the characters.
CIVILIAN TRANSPORTATION

The *Star Fleet Universe* is at the same time a very large and a very small place. Long-range transport requires a starship, but short range travel (within a single 500-par-sec map hex) is handled by a variety of ships, shuttles, and systems. There is very advanced transportation technology available and the implications of this technology is not always obvious. This article will explain transportation options that are available for use and, where possible, refer to historical methods of transportation to illustrate what the raw numbers represent.

On major planets, characters have several options to get from here to there: they can avoid going altogether and instead trivideo conference, or get anywhere on the planet or within 50kms via transporters, or they can use shuttlcraft. The GM will need to determine the availability of transporters on each world (they do take trained people to operate them which limits their use somewhat). The standard Administrative Shuttlecraft is a very versatile craft and while it is not designed for high-speed travel in the atmosphere, it has plenty of power to reach orbit. Regular commercial travel by these shuttles (mostly the much larger size-4 versions) is as available as 2005 air transport. A Yacht has much more room and comfort, but is the same speed as a shuttlecraft. To get to the other side of the typical Class-M world only takes about 20 minutes: seven minutes to climb from sea level to 50 miles altitude at 400 mph (a conservative sub-sonic speed), six minutes to get clearance from the local traffic control and orbit the planet at high speed, and seven minutes to descend back to sea level. As a point of comparison, in the early 21st century a person who only had to spend 20 minutes each way getting to work in a major city would be considered lucky.

As you move beyond 50kms, the transporter ceases to be an option and you are left with trivideo conferencing or shuttlecraft. Major planets strongly discourage use of high warp within 15 light-hours from the system's sun (this is approximately a second of travel for a ship at high warp), some to the point of firing on any craft using high warp within this distance that hasn't identified itself (and since the slightest amount of damage will vaporize a large ship at high warp it's nothing to risk). Even without using high warp, a solar system is still a fairly small place. Using a shuttle's tactical warp engines (warp 2.5), a trip from Earth to Luna will take approximately 8 minutes (7 minutes to clear the earth's atmosphere and a second to get to Luna and then a minute to land). Traveling out to any point in Sol's asteroid belt could take as long as 9 minutes. Even the outer planets are not far away; traveling from earth to Pluto will take about 30 minutes by shuttle at warp 2.5. The high-warp limit of 15 light hours will take less than an hour to travel by shuttle.

Once you leave a solar system, a shuttle starts to become much more inconvenient. While shuttles and yachts can be equipped with a 'long range' pod to provide the fuel and supplies for such a trip, traveling to other star systems by shuttle/yacht takes a lot more time. A trip from Sol to Alpha Centauri at warp 2.5 will take approximately 36 hours; traveling from Earth to Vulcan will take about 6 days. While these times don't seem completely unreasonable (on 21st century Earth, trips by automobile of such durations were common for things like annual business trips or vacations) one thing to remember is that you can't go outside or take a break. A shuttle or even a yacht will seem VERY small after a few days. (Remember that even a large Yacht is only about three times the size of an Admin Shuttle so it would have approx 24sq meters of floor space).

However there are many other options available for interstellar travel. Numerous companies run regularly scheduled trips between systems. The craft used for this are a mix of passenger liner and ferry designs, often based on the standard small freighter with its 30m x 200m cargo pod. (Such a ship already has no less than 16 docking ports able to handle shuttlcraft, and by simply removing some interior partitions on Decks 5 and 6, dozens of shuttles could be parked inside, leaving the other 70% of the ship to carry standard cargo.) For short duration runs, you will see craft that have large shuttle bays. People just fly their shuttles up to the ship, dock, and stay in the shuttle the entire trip (with a small lounge for people who board by transporter). For longer trips, you will have more space allocated to lounges, sleeping quarters, etc.

The various types of ships available and the transit times for the design are (in order of increasing cost):

- Slow Freighter, warp 4.5, Earth-Alpha Centauri 6 hours, Earth-Vulcan 24 hours.
- Fast Freighter, warp 5.5, Earth-Alpha Centauri 3 hours 20 minutes, Earth-Vulcan 13 hours 10 minutes.
- Surplus EY-era warship conversion, warp 6, Earth-Alpha Centauri 2 hours 30 minutes, Earth-Vulcan 10 hours 10 minutes.
- Surplus GW era warship conversion, warp 7, Earth-Alpha Centauri 1 hour 35 minutes, Earth-Vulcan 6 hours 30 minutes.
- Federation Express, warp 7.25, Earth-Alpha Centauri 1 hour 25 minutes, Earth-Vulcan 5 hours 45 min.

In addition to the standard High Warp speeds listed above, some ships can also operate at Dash speed. This is very expensive as it costs the base cost of the ship in supplies over five years of operation. Because of this, only smaller starships are used for Dash Transit, and this reduces the cargo that can be carried and drives up the ticket costs. Such service is normally only available on the highest traveled routes (similar to the use of the supersonic Concorde aircraft in the early 21st century). It does significantly cut down on the travel time, but the craft requires about 8 hours of maintenance for every 16 hours in flight. A ship of this type makes a lot of short fast trips with long delays in between. For very short trips, the ship can potentially make several trips before requiring maintenance.

A Federation Express Courier operating at dash speed (Warp 9.5+) will make the Earth-Alpha Centauri run in about 4 minutes and the Earth-Vulcan run in about 16 minutes (not counting loading/unloading, docking, and the hour to enter and leave each solar system, surface-to-orbit, etc.), which could easily extend the travel time by several hours.
STANDARD PLANETARY CLASSES

For purposes of reference, Vulcan scientists established a number of broad categories of planetary types. Some very different planets can fit into a single category, and some planets at the limits of one category may be similar to planets in an entirely different category. The categories are:

Class A: This is a “hot” gas giant such as Jupiter which generates internal heat. There is no “surface” per se, just an increasingly dense atmosphere. See Class S.

Class B: This is a “cold” gas giant (does not generate internal heat), smaller and farther from the star, such as Uranus. It also has no surface.

Class C: This is a “hothouse” planet such as Venus, with a corrosive and/or toxic atmosphere.

Class D: This is an airless rock such as Luna. Classes D, I, and J are three different points on the same spectrum of airless rocks floating in space.

Class E: This is a “super-terrestrial” world, basically a larger-than-Earth planet with an atmosphere and biosphere and at least marginally habitable.

Class F: This planet has a sulphurous atmosphere.

Class G: This is a dry desert planet with no oceans, such as Mars. It may be cold or hot. It will have an atmosphere, but this may be thin or without oxygen. There is rarely a biosphere.

Class H: This is an “early Earth” planet with a developing biosphere (mostly bacteria, some low-grade plants). The atmosphere will be unbreathable.

Class I: This is a rocky planet that is hot enough to melt lead, such as Mercury. The atmosphere will probably be thin (if there is one at all) and there will be no recognizable biosphere.

Class J: This is a cold rocky planet with a thin atmosphere (or none at all). Temperatures are below freezing, any water (and there may be none or very little) will be frozen, and there will be no recognizable biosphere.

Class K: This is a desert world with a breathable atmosphere and a working biosphere, such as Vulcan. There will be some small oceans, lakes, or seas, but these will be limited and brackish.

Class L: This is a world similar to Earth, but with substantially less water. Oceans will cover less than a third of the surface, but there will be a breathable atmosphere and a working biosphere.

Class M: This planet is Earth-like.

Class N: Like Earth, but oceans cover 90% of the surface and humidity is high.

Class O: Like Earth, but much colder, with extensive glaciers trapping most of the water.

Class P: Most of the atmosphere is frozen into glaciers of carbon-dioxide or other gases.

Class Q: A frozen iceball, such as Pluto, that is more of a huge comet than a small planet. The orbit will often be erratic, and this is usually the outermost planet.

Class R: A nitrogen-ammonia atmosphere on an otherwise Class J planet, such as Q’Nabb (ISC sector).

Class S: Frozen methane oceans with floating continents, such as Hydrax.

A FEW INTERESTING PLANETS

There are plenty of planets and GMs should have no difficulty finding (or creating) whatever kind of planet you want for your adventure. You can easily adapt numerous GURPS books and other sources. Any planet from any source is fair game for the diabolically clever GM looking for new frontiers where his adventurers can boldly go.

Here are a few of the more interesting planets found in the Star Fleet Universe.

Mad Jack’s Hole (1706) is an airless rock with a self-contained Orion colony. This is known as “the most bizarre bazaar in the galaxy” where anything could be bought and sold if you had enough cash. See page 159.

Circle Trigon (5109) is a neutral Class-F planet in the Romulan-Gorn-Federation Neutral Zone. Originally an Orion colony, it functioned in a similar role to Mad Jack’s Hole, an open marketplace where all manner of stolen and otherwise discovered things can be found. It is a den of thieves, spies, and pirates run by a Klingon renegade who has amassed enough weapons to ensure only a major fleet can challenge his power over the planet.

The Romulan-Federation Neutral Zone is host to relatively few interesting planets, including:

Helvetia (3912) and Denebola (3415) are former Orion colonies which now function as independent trading planets. Federation and Romulan merchants bring their goods here to exchange to avoid tedious customs and security requirements of actually getting a visa. These are lawful civilized planets (but of course are awash in spies).

The Klingon-Federation Neutral Zone is host to no end of amusing and entertaining planets, including:

Adanerg: (1909) Class M Federation colony.

Bezwell Index: (2214). Klingons kidnapped some of their leaders in Y162 to stop a treaty with the Federation.

Iridima: (1192) A rich source of Iridium for which the Klingons and Federation are in a bidding war.

Leebyah: (2013) Class M, populated by a humanoid race regarded as comically paranoid. They bought billions of credits worth of cheap Klingon weapons to defend against a Federation invasion that never came.

Organia: (1913) The population of this planet is thought to pre-date the Old Kings. Using powerful mental abilities, they were able to prevent any combat within 500 parsecs of their planet and served as the intermediaries in the Organian Ceasefire Accord.

Sherman’s Planet: (1910) This planet was in the unfortunate position of being the perfect place for a naval base to support attacks on the Klingon Capital. The Federation insisted that its colonies there were purely non-military, but the Klingons continually objected as (innocent intentions or not) it was a direct threat. Numerous Klingon raids (Y165-Y170) failed to disrupt the colony.

Rita’s World: (2114) Class M Federation colony.

Tyson’s Star: (2315) This system included a Federation agricultural colony on the third planet and a Klingon mining colony on the 4th.

Vanachek: (2315) Unoccupied class M planet suitable for colonization.
USING SFB FOR SPACE COMBAT

Those groups who want to use *Star Fleet Battles* to resolve space combat can do so with these rules. First, assign each character a job on the ship. The jobs to be done include Captain, Weapons Officer, Navigator, Engineer, Science Officer, Marine Officer, Communications Officer, Fighter Squadron Leader, and First Officer.

If your group has fewer members, you could use an NPC or characters will have to double up but will have a -1 penalty on both jobs. (The Captain will have no penalty on two jobs.) Anyone with three jobs will have a -2 penalty on all three (and any additional) jobs. If your group has more players, divide the weapons or engineering job between two characters. Players could agree to divide up the jobs in other ways, e.g., give Fred control of the left-bearing weapons, tractors, and electronic warfare. Players might agree that each job is assigned to one primary officer and one backup; conducting a backup job action would have a -1 penalty while conducting an action not part of your assigned job would have a -2 penalty.

Each officer on a starship with a large NPC crew can conduct three actions in a given impulse (e.g., fire weapons at three targets, adjust electronic warfare levels, tractor a drone). A subsequent action in the same impulse has a penalty of two applied; this doubles for every subsequent action in the same impulse. If the PCs (and NPCs they control) are the entire crew of the ship, then each can conduct as many actions as an SFB impulse as he can in a GURPS combat turn.

Most officers will be on the bridge but some (engineer, marines, doctors, scientists) could be in other appropriate locations around the ship.

The enemy starship or monster can be controlled by the GM, or by an SFB player the GM recruits for this task.

JOBS FOR PLAYERS

**Captain**

The captain decides on maneuvers (e.g., “helmsman, turn left!”) and weapons (e.g., “Gunner, shoot at that fighter!”). He does Energy Allocation each turn after listening to each officer request power. Each impulse of SFB, the Captain can give no more than three commands. (If the Captain has a Leadership skill of 16 or more, he can give four commands. If this skill is 11 or less, he can give only two.) To get more done with those commands, he might give sweeping authority to an officer (e.g., “Gunner, don’t let those drones hit us!”) and hope that the Gunner uses the available weapons wisely. GURPS skills don’t really apply here; he either tells the gunner to shoot or he doesn’t. Of course, the other officers might act on their own initiative without orders, or disobey orders. The Captain may have to roll a quick contest (Leadership vs. the other officer’s Will) to force an officer to obey. In the place of one of his orders each impulse, the Captain may attempt to encourage one of his officers with leadership (or threats). The Captain makes a Leadership roll; if successful, the officer adds one to his skills (not his SFB die rolls) for that impulse. Rival Captains could conduct a quick contest of Tactics skills to resolve “you first” situations.

**Weapons Officer**

This officer fires the weapons and controls seeking weapons in flight. Typically, the minimum Gunner skill for a professional military officer firing a starship weapon is 12. For skill levels above and below this point, die roll modifiers are used as per the chart at right. Each target engaged with direct-fire weapons is one action. If seeking weapons are in flight, all of them (combined) count as one action each (and every) impulse, even if they are not actually moving.

**Navigator**

This character actually steers the ship, which uses two of his actions on any given impulse (i.e., he cannot do more than one other thing without a penalty for “too many actions at once”). When he tries to turn or perform some other movement function (other than moving straight ahead), roll against Piloting skill. Success means the ship performs the normal SFB maneuver, but failure means that the maneuver will be delayed to the next impulse and critical failure means the order is ignored (but can be reissued).

**Engineer**

Typically, the minimum Engineer (Starship) skill for a starship’s chief engineer is 12. For every point less than 12, he must roll against his Skill at the start of each turn during Energy Allocation; fail and the ship has one power-producing SSD box that just doesn’t produce any power this turn (critical failure loses two points of power). If his skill is 15 or more, the engineer can coax one extra point of power out of the warp engines each turn. If his skill is less than 10, the ship has one less point in the first damage control track box; if his skill is 15 or more, it has one extra point in that box. Monitoring the engines takes up all of his time, but he can handle one tractor beam, damage control, and any reserve power decisions at the same time.

**Science Officer**

This officer makes the die rolls for lab information, identifying drones (as well as plasmas, shuttles, etc.), and tracking cloaked ships. See the modifiers below if his Electronics Operation (Sensors) skill is outside of the normal range. This officer also controls electronic warfare. If his Electronics Operations (Sensors), skill is less than 10, the ship’s limit on combined ECM and ECCM is reduced by one; if his skill is 15 or more, it is increased by one.

**Marine Officer**

This officer makes the die rolls for boarding party combat and hit-and-run raids, with bonuses and/or penalties based on his skill as below. If using the advanced system, this character also controls the deployment and movement of boarding parties between the areas of the ship. Transporter operation involves rolling against Electronics Operation (Transporter). This officer controls manned shuttles in flight (one of his actions for all of them) and must roll
against his Leadership skill to change the mission of any shuttle in the bay. He assigns and releases guards.

**Communications Officer**

This officer rolls against his Electronics Operation (Communications) skill to communicate with other starships, bases, planets, etc. This character uses his Cryptanalysis skill to try to intercept and decode enemy communications. (The GM decides what data is learned.)

**Fighter Squadron Leader**

This officer controls all of the fighters, using his own Piloting or Gunner skill as needed. (To be a “good” pilot, a character must have Gunner (each fighter weapon)-12, Pilot (Shuttlecraft)-14, and Tactics-12. To be an Ace, he must have Gunner (each fighter weapon)-16; Pilot (shuttlecraft)-18; Tactics-15.

**First Officer**

This officer controls any non-player characters who are part of the crew and deserve special notice. Alternatively, assign NPCs to the relevant department head above. NPCs use their own stats and skills for their actions.

**Die Roll Modifiers vs. Skill Levels**

<table>
<thead>
<tr>
<th>Skill Level Effect</th>
<th>Skill Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bonus of 2</td>
<td>20+</td>
</tr>
<tr>
<td>Bonus of 1</td>
<td>16-19</td>
</tr>
<tr>
<td>Roll normally</td>
<td>12-15</td>
</tr>
<tr>
<td>Penalty of 1</td>
<td>10-11</td>
</tr>
<tr>
<td>Penalty of 2</td>
<td>7-9</td>
</tr>
<tr>
<td>Penalty of 3</td>
<td>4-6</td>
</tr>
<tr>
<td>Penalty of 4</td>
<td>1-3</td>
</tr>
</tbody>
</table>

Whether a given bonus is plus or minus depends on the chart in question. In *SFB*, low die rolls are generally good and higher ones are bad. So a skilful weapons officer with a “bonus of 1” would get a -1 when firing a phaser. These shifts are not cumulative with (G22.0) but could cancel them out if one is negative and the other positive. If both are the same, use the larger one.

**PRIME TEAMS**

All races and empires have formed special elite teams of highly-trained and capable individuals to take on special missions. Often a few elite characters can do things entire starships would fail to accomplish. These teams are formed from the most elite personnel available, and in *GPD* are usually 175-point characters. The Federation knows these as “Prime Teams” (since they were originally formed to enforce the Prime Directive); other races have other names for them as are listed below.

Prime Teams are multi-mission units capable of an incredible variety of tasks. A team might face missions as diverse as hostage rescue, planet survey, treaty negotiations, first contact, espionage, prisoner snatches, crisis resolution, or disaster relief. Starships carry a prime team and use them as troubleshooters on various missions.

**Federation Prime Teams** are trained at Prime Central (on Earth’s moon) and contain 4-8 people with a wide variety of skills. Many teams remain as intact units for decades (with new people replacing those who are lost, transferred, or retired); relatively few teams are disbanded. New teams are formed as needed; the number doubled during the first three years of the General War.

**Klingon Dagger Teams** are more rigidly organized, including ten people (when at full strength) in two teams of five: commander, sergeant, combat specialist (scout or heavy weapons), engineer, doctor (or scientist). Despite this organization, only some of the team (selected by the commander) go on each mission. Due to Klingon politics, each service (Fleet, Army, Police, Intelligence, Security) has its own Dagger Teams, but all Dagger teams have at least one member of the ESS. Two humans known to have defected to the Klingons served on a Dagger Team for Klingon intelligence.

**Romulan Praetorian Teams** have 4-8 members, and always come in pairs of two teams. One team conducts a mission while the other provides support and backup. The second team is always ready to take over the mission should the first team fail. Some work for Great Houses.

**Kzinti Cabals** include two-five member elements. The “Left Hand” includes the field commander, engineer, scientist, doctor, and combat specialist. The “Right Hand” includes the intelligence specialist, communications specialist, armorer, tactical coordinator, and combat trainer. Sometimes members will move between the two hands of a team or the left hand may borrow a specialist from the right hand.

**Gorn Vanguard Teams** are not pure prime teams but specialize in mission types. Diamond teams deal with recon, raids, and search & rescue. Circle teams deal with first contact, exploration, and scientific research. Oval teams deal with diplomatic missions and espionage. Slash teams are pure combat units.

**Tholian Wolfspider Teams** consist of eight members, including the field commander, engineer, commando-scout, weapons specialist, scientist, and doctor, plus the Tactical Planner and Armorer (who rarely go on missions).

**Orion Pirate Crime Teams** usually consist of about five members: commander, scientist-doctor, engineer, combat specialist, and covert specialist.

**Hydran Triads** consist of three sub-teams. The First includes the commander, scientist, and doctor. The Second includes the scout, technologist, and weapons specialist. The Third includes the executive officer, logistics specialist, and communications specialist.

**Andromedan Invader Teams** consist entirely of robots, usually a mixture of various types.

**Lyran Stalker Teams** consists of six members: Leader, Scientist, Doctor, Scout, Combat, and Engineer.

**WYN Rogue Teams** have no set organization.

**Interstellar Concordium Marshals** come in teams of five-to-six, always of mixed races and various skills.

**Seltorian Avenger Teams** rarely undertook "prime" missions and functioned mostly as pure commandoes.

**Jindarian Salvager Teams** vary from caravan to caravan and have no universal organization.
THE PRIME DIRECTIVE

This is a much-misunderstood Federation doctrine, not least because it becomes confused with the different (and unrelated) Federation policy on non-interference. The basic text of the Prime Directive is brief, leading to arguments over its interpretation:

"The Federation believes in the right of all pre-spaceflight societies to develop at their own pace and in their own way. Members of the Federation will avoid contact with such societies. When such contact is necessary or is authorized by the Federation Council for scientific purposes, the people and government of such societies are not to be told that the visiting Federation citizens are from another planet, nor that there are societies on other planets with spaceflight capabilities, nor is any Federation citizen to take an action which would make known their presence as aliens capable of spaceflight. Federation members, citizens, and officials are to take steps to prevent any such contact by other spaceflight-capable races, and to remove or balance such contamination if it occurs. The governments of societies which achieve spaceflight may be contacted if authorized by the Federation Council, and societies within the Federation Treaty Zone which achieve warp-capable spaceflight will be contacted and encouraged to join the Federation, including the acceptance of its laws. Violation of this Directive is subject to the harshest penalties available under Federation law."

The intent is clear: races which haven't achieved warp-capable spaceflight are to be left alone. When study of them is authorized (which might be done under standing policies) or when emergency situations place Federation citizens on such a world, they are not to tell the locals about other races. Most societies which can see stars and have telescopes have guessed that other societies exist on other planets, but guessing and knowing are two different things. Pirates and criminals often try to contact such planets to sell them "miraculous" items of common TL12 technology and cheat them out of resources. As unscrupulous local businessmen or officials usually keep their contacts with off-world pirates secret, cleaning up such contamination is usually possible when detected. A Federation starship could destroy an asteroid about to hit a populated pre-spaceflight planet so long as it could do so without exposing itself to detection. A Federation starship would not normally intervene in a situation of a natural disaster or intraplanetary war if its presence would become known, but exceptions are sometimes granted by the Council (rarely, retroactively) under the doctrine of "exigent circumstances." More than one starship captain has convinced himself that he must violate the Prime Directive to save millions of lives, even if it means that the surviving society cannot continue normal independent development as it would learn of other starfaring races. In some cases, captains have been imprisoned, dismissed from the service, or transferred to non-starship jobs, and in rare cases a captain is found to have done the right thing. It's a case-by-case evaluation; a society which is unable to develop because of some enslaving force might be "rescued" by Star Fleet, but usually after months of debate in the Federation Council.

A more complex issue, beyond the scope of the Prime Directive, is the non-interference policy, which changes periodically. The Federation expects all planetary societies which become members to adhere to a certain standard of human rights including a multi-party free-market democracy. Planetary governments which are dictatorships are not invited to join the Federation, and no planet within the Federation Treaty Zone would be allowed to join any other empire (e.g., the Klingons, Romulans, etc.). Many planets within the Federation Treaty Zone which have spaceflight and have been contacted remain as non-members for a variety of reasons, some permanently and others for a period of adjustment and transition. The Federation tries to avoid interfering in the internal affairs of non-member planets even if they do not meet the standards of the Federation, but intervention has been authorized in extreme cases (usually involving nuclear wars or genocide). The problem is not so much a principle of avoiding intervention because intervention is "evil" as it is due to limited Federation resources (Star Fleet cannot send entire fleets of ships and divisions of Marines to every planet which has a rotten government) and the fact that intervention often does more harm than good. The Federation can and will intervene in the case of a member planet which violates Federation standards of law, human rights, and fair government.

KLINGON SUBJECT RACES

Much confusion relates to the concept of Klingon subject races. These are not slaves and, in most cases, not even conquered planets — simply inhabited planets that happened to be within the borders of the Klingon Empire. Members of subject races have various degrees of rights on their own worlds (where each government manages its own affairs) although the Empire Security Service acts to prevent any rebellion.

Citizens of subject race worlds must get permission to travel to other planets and get such permission only when the Empire finds that such travel or emigration suits its own ends of economic development.

Members of subject races are clearly second-class citizens of the Empire (after ethnic Klingons), with fewer rights than Klingons. Many subject race personnel join the Klingon military, but only a few are allowed to become officers and only the most trusted are given training in how to actually navigate the ship or fire its weapons. The Empire Security Service has a detachment on every ship to prevent mutiny by subject races (or cowardice by Klingons). But it is not a crime to simply be a member of a subject race.

This social stigma is ignored by the Orions, WYNs, and the Federation. Indeed, human rights groups in the Federation often make it a point to treat the oppressed subject race members better than ethnic Klingons.
SENTIENCE, SAPIENCE, & INTELLIGENCE

The Star Fleet Universe uses the term "sentient" to describe "intelligent" species which are capable of space flight or at least have that potential. This is the way the term is used in most science fiction. There are those who define the term differently, and they could be right. Sentient means "self-aware" and some argue that dogs, dolphins, and earthworms qualify; others argue that they do not. There are those who argue that plants are self-aware and those who disagree. Within the Star Fleet Universe and Star Trek for that matter, the term "sentient" would apply to only one species on Earth: Homo sapiens, or Human beings. (One could argue that dolphins are smarter, as they never invented the income tax, but we digress.)

Sapience means "intelligent" and could be considered a more precise term for the "sentient" term used by science-fiction writers, but it isn't commonly used.

Sentience, sapience, or intelligence is hard to define because it is a sliding scale. The most basic and simple test is: can the species communicate, make and use tools, create and use fire, pass their knowledge to their offspring, and alter their environment? The problem is that a lot of species on Earth (and, presumably, trillions of species on other planets) can do some or all of these things to some degree. Hundreds of Terran species communicate, otters use selected rocks to open clams, packs of hunting dogs will take advantage of a grassfire to corner their prey, dolphin mothers can teach their children to attack sharks even with no shark in sight, and wasps can keep out the cold with nests made of mud.

In the final analysis, whether we can define it with a tidy rule or not, everyone gets the point. A species that can do all of the skills to some degree and shows the potential to build spaceships within ten thousand years could be safely assumed to qualify. The heck of it is, a few more would also be able to build spaceships eventually, and it would be impossible to predict the forces of evolution. GMs can, in questionable cases, simply tell the characters if that thing they just ate was a sentient being or not.

THE ROMULAN CODE OF HONOR

The following comprises the Code of Honor to which all Romulans adhere (at least nominally). Each of the four points of the code is taken in order from the first to the last, with the earlier points taking priority over the later ones.
1. Defend the honor, territory, and property of the Empire from all enemies, internal and external.
2. Always be prepared to give your life for the Empire, but never give it frivolously.
3. In all of your actions, be honest and courageous. Display integrity at all times and in all things.
4. Defend the position of your House and its importance to the Empire.

For many Romulans, there are an informal fifth and sixth points, such as taking care of the family, loyalty to a particular commander, or personal decisions not to engage in certain behaviors (e.g., drinking ale).

MARINE UNIT ORGANIZATIONS

Each empire (or race) organizes its military forces in its own way, but all begin at the lowest level with a squad or team of five marines. (This is because a standard transport holds six, and with each squad having five there is space for the various attachments such as command or medical personnel.)

The Federation has a squad of five (led by a sergeant), a platoon of 18 (including a lieutenant, gunnery sergeant, and medic), and a company of 55 (three platoons plus a heavy weapons team and a command element). Most companies are independent; larger units are formed as needed.

The Klingons have a squad of five (led by a corporal), a platoon of 18 (led by a sergeant), a company of 50 (led by a lieutenant). The company has no heavy weapons but the battalion has a weapons platoon, a commando platoon, and an independent infantry platoon.

The Romulans have a platoon of four squads and a century of five platoons. A cohort consists of two centuries plus attached weapons and commando units.

The Kzintis have a platoon of five squads and a company of two platoons. A battalion has three companies plus heavy weapons and commandoes.

A Gorn battalion has three command units, six platoons (each with four squads), plus commando and heavy weapons units. The battalion is continually reorganized under the three command units as the mission requires.

A Tholian company consists of two platoons (each four squads) and a weapons squad; a battalion consists of two, three, or four companies plus a commando unit.

An Orion company consists of two platoons (each four squads), a weapons squad, and a commando squad.

A Hydran Light Company consists of three platoons, each three squads, with no heavy weapons. Each battalion has two light companies, plus a heavy company including three platoons (command, weapons, and assault).

Andromedan ground units consist of robots which are continually reorganized into teams and elements of widely varying sizes as each mission requires.

A Lyran company consists of two large platoons (five squads each) plus a weapons squad. A battalion consists of four such companies, plus two assault platoons (each four squads and a weapons team). The Lyrans often use Tarakaz ("Half Battalions") with two companies and one assault platoon. The LDR uses the same organization.

A WYN platoon has four squads; a company has two such platoons and a weapons squad. A battalion will include two, three, or four companies and a commando unit.

An ISC company includes two platoons (each three squads), plus a support platoon (two squads and a weapons team). Battalions have three companies.

Selectorian companies have two huge platoons (six squads) plus a weapons team. Battalions have two companies, plus weapons, commando, and infantry squads.

Every Jindarian ship uses its own organization.

Paravian companies have four platoons (two squads each) plus a weapons team.

Each Carnivoron Horde uses its own organization.
The "Free Trader" is one of the most common cargo ships used by independent (non-governmental) operators. The design is fairly common and is built (under license or otherwise) by many different races. The advantage of a common (or nearly-common) design is that spare parts and docking facilities are easily available anywhere in the Alpha Sector of the galaxy, encouraging free trade and efficient commerce.

The ship is fairly small as ships go, being only 68 meters long (not counting engines) and 50 meters wide. There are three decks in the forward half of the ship, and two decks (with higher ceilings) in the rear half. The ship has an oversized shuttle bay on the upper rear deck (with a large hatch). The Free Trader can land on skids or directly on its belly. Loading ramps are built into the skids, and the cargo doors on the sides of the lower aft deck can function equally well when the ship has landed on skids or on its belly. The two large cargo elevators can drop through hatches in the bottom of the ship to load cargo directly from the surface when the ship is landed on skids.

There are "space docking" facilities on either side of the top forward deck with flexible extending tubes (two meters in diameter) which allow convenient docking to various kinds of spaceports. Space docking can also be achieved through hatches in the forward landing skids, and the lower cargo hatches will mate with the same type of cargo loading docks on bases designed to handle the Standard Small Freighter.
There is no turbolift due to the relatively small size; an elevator behind the bridge and spiral staircases suffice for vertical access. The large cargo elevators can also be used to move large items between the upper and lower cargo bays. The side airlocks lead to the stored extendable tubes which can dock with most standard airlocks.

The top-forward deck includes the bridge, captain’s and VIP staterooms, the “office” where the ship’s business is conducted, lounges, briefing room, the transporter room, the phaser and shuttle bay controls, the phaser mounts, the tractor beam and its controls, the electronics compartment, and the utility compartment. There are also two “custom” compartments which are fitted out as the owner wants.

The top-rear deck includes the shuttle bay, spare shuttle, and upper cargo bays, as well as the upper engineering access deck. VS = vertical shaft, ELEV = Elevator, AL = Air Lock, RR = Rest Room.

**Salvage and Prospecting Variants**

At right are the overlays for the upper deck for two variants, the Free Salvor and Free Prospector. In practice, the two types are interchangeable and the designation is almost arbitrary; the difference (obviously) is that one has three working shuttles with one spare and the other has two working shuttles with two spares. Ships of this type are used for asteroid mining and for the salvage of wrecked ships. Most races have ships of this type in their regular navy fleets for use in rescue and recovery work; many more serve as prospectors in peacetime and as salvage ships in wartime (wherever the profit is greatest).
The mid-forward deck includes the heavy weapon controls, crew quarters, secure cargo lockers (for high value items that cannot just be left laying around), maintenance and machine shops (which can manufacture spare parts as needed; they are often used during travel to convert something bought at the last planet into something that can be sold at the next one), medical bay (which, in emergencies, can expand into the adjacent recreational facility), mess hall, galley, food storage, and navigational deflector. The large shower facility is used only when large numbers of people are on board since each bunkroom has shower and toilet facilities. The brig is rarely used for prisoners (more likely, for valuable cargo kept locked up). On some Free Traders, the showers and/or brig were instead fitted out for other uses (storage, machine shops, passengers quarters, etc.). VS = vertical shaft, ELEV = Elevator, AL = Air Lock, RR = Rest Room.

At right is the lower deck used on both the Free Salvor and the Free Prospector. Note that it includes laboratory space needed for these types of missions and a smelting facility allowing ore and salvage to be processed on the ship. Finished metal takes less space than raw ore; salvaged components take less space than big chunks of wrecked warships.

Notes on Free Traders

Furnishings vary radically from ship to ship, and most of them have been "redecorated" many times since being built. Some ships use built-in desks, bunks, and even chairs while others have free-standing furniture in the rooms. Most Free Traders make their living from trading, i.e., from being able to take whatever they can buy at one planet and sell it on some other planet. Profit is not so much in packing every cubic foot of the ship with cargo as in having the right kind of cargo for the market. In cases where there is a virtually limitless supply of a commodity (e.g., grain, metals, other materials) and an endless market, the more efficient Standard Freighters are already serving these sources and markets on regularly scheduled routes. Free Traders must be nimble. They must be able to recognize a bargain and already know of an opportunity. Even if they planned to go to Cygnus, if they find a supply of something that would turn a tidy profit on Argela they must be ready to change their plans in an instant. In some cases (e.g., a newly-opened titanium mine on a new colony world) the ship might well be packed as full as it can be with the ore from this mine, refining it en route to the Rigel System where titanium finds a ready market. Such opportunities are rare, but free traders must (frankly) find such rare opportunities for profit as a regular course of business. Which means, whatever your group is really doing, a Free Trader that suddenly leaves for or arrives at any port is not an unusual event deserving extra attention. That could give them an opportunity to do their business and leave.
The lower deck includes the air and water supplies and recycling systems, fuel storage, landing skids, cargo docking ports, main engineering, and the forward cargo hold (which has a lower ceiling as it is forward of the transverse bulkhead; it is often used when carrying large numbers of passengers), the main cargo hold (with the higher ceiling of the rear half of the ship), the cargo transporters, and the ship's main armament (usually a Phaser-2).

The nominal crew of the Free Trader is 30; this varies widely and may be as large as 60. (Commercial shipping must make a profit, and paying people to ride along to the next planet isn't profitable. It is easier to travel with a minimal crew and hire dock workers at each planet to load and unload the cargo. Some ships do manufacturing en route and will have two dozen machinists and technicians aboard for this purpose. Some ships make space for paying passengers.) A typical crew includes several officers (captain, engineer, navigator, and others), maintenance technicians, a small security detail (which often doubles as cooks or technicians when not actually guarding something), and "business" people (officers and others) who keep track of the cargo, operating costs, and other such matters. There is no standardization, as there are thousands of Free Traders, doing hundreds of different kinds of business. Some ships are owned by the captain, others have an owner (or the owner's agent) on board and the captain is an employee. Most are owned by individuals or small companies, but some large transport and trade companies own dozens of these ships plus many other ships of various different classes.

Numerous variants of the Free Trader exist for military and pirate use, all being indistinguishable from the outside. VS = vertical shaft, ELEV = Elevator, AL = Air Lock, RR = Rest Room.
**Prime Trader**

One variant of the Free Trader of particular interest to the players of *GURPS Prime Directive* is the Prime Trader. This is used by owners who want more capability in their ship, and is often used for exploration and other tasks.

The overlays at right show changes to portions of the upper and lower deck. The upper rear deck shows space for an extra shuttle (which would be whatever suited the mission, or was available) such as a Ground Assault Shuttle, Prospecting Shuttle, or other special type. This variant has considerably less cargo space.

The lower deck shows that the forward cargo hold is fitted out as compartments for the laboratories. This variant has two weapons in the forward part of the ship rather than only one, and has added batteries for reserve power.

The engines are more powerful, but are the same physical size as they are more efficient military-grade types.

Ships of this type are often used by governments (or by government-funded exploration and survey missions); a few are run by major universities and many are run by corporations which find a need for special research facilities when exploring new colony worlds for commercial development. Your adventure party might want to buy or get themselves assigned to such a ship, as it has nearly the non-combat capabilities of a Star Fleet cruiser at a fraction of the cost. It also looks (from the outside) just like a few thousand standard free traders.

**Free Trooper and Free Tanker**

Used primarily by the military, these variants are used for transporting large numbers of personnel and heavy ground vehicles (respectively).

The Free Trooper (which is also used by corporations to move seasonal workers from planet to planet) replaces the lower forward cargo bay with barracks space, including an extra tractor beam (used for landing the ship on planetary surfaces). It also has a securely locked arms room and extra facilities for transporters. (On the civilian version, the arms room is used for expensive tools during transit.) There are extra shuttles in one side of the main rear cargo bay which are used to move passengers. On some military ships, these shuttles have been lost in combat (forcing the ship to land itself or use its transporters) while some civilian ships skip the extra shuttles in favor of more cargo (such as ground vehicles used in construction or agriculture). The “custom” compartments on the upper deck hold batteries for reserve power on this variant.

The Free Tanker (used in peacetime to move heavy construction equipment) has two Heavy Transport Shuttles (which can carry a ground combat vehicle, even a tank, on their open rear deck) and two standard shuttles stored in the rear cargo deck. (The upper shuttle deck is used only for cargo in this variant; the “custom” areas on the upper deck hold batteries for reserve power.) The vehicles themselves can be stored in the upper or forward cargo bays. In many cases, the ship does not have the extra shuttles (using the space for more tanks or other vehicles) and lands directly on the planet. Some military ground vehicles can be landed in sections via the cargo transporter.
ADVENTURE SEEDS

There is no end of ideas for adventures, but here are a few that might help you get started.

Beyond the Border
You group gets tourist visas into Klingon space to see the sights and spend some tourist dollars. Of course, what you are really doing is trying to stir up trouble. Don’t those “subject races” realize how horrible it is to be subservient to the Klingon Empire (when they could be tax-paying members of the Federation instead?). You travel around trying to sound like a tourist while you search for signs of unrest, subject race members willing to sell out the Klingons, or chances to start a riot.

For King And Country
After the Klingons conquered Hydran space in Y87, and again during the General War, the Hydrans in the Lost Colonies prepared for their return to power. One way to do this was to send teams of spies, saboteurs, and commandoes into Klingon-occupied space to conduct special missions (or just cause as much trouble as they can).
Similar adventures could be run for Federation teams going into space occupied by the Klingons during the General War’s darkest years, Y171-Y180.

The Derelict
Who can resist a derelict starship? This might be from an ancient race, or a Romulan warbird disabled in some battle, or an Orion smuggler that hid out too long. Any ship could have undergone a mysterious catastrophe, with the crew missing or dead or insane or just waiting for you. You could even imagine a ship that lost engine power a century ago and is now occupied by the grandchildren of the original crew, who may or may not have developed a unique culture. The derelict spaceship could be floating in space or crashed on a planet, or even at the bottom of an ocean!

The Evil Alien Entity
One of the most overworked plot devices to be sure, but it can still be a hoot. The GM gives each player a written note to read silently and then return. Some of the notes are blank, some provide a secret (there are bootleg copies of Klingon opera disks in your knapsack which are worth a bunch of money if you keep them to the end of the adventure), but one of them says “Your character is possessed by the Evil Alien Entity. You must not let anybody know this, but must secretly work to accomplish this goal. If the goal is accomplished by the end of the adventure, your character will be returned to you unhurt.”

The Lost Weapons
Federation Marines under orders from the Council have landed on the planet of Andiraq after the Andorian warlord of this planet threatened to bombard nearby planets with Weapons of Mass Destruction. The Marines haven’t been able to actually find these WMDs. Can you?

Crystal Rain
For the past few months, a drug that is incredibly addictive has been on a steady rise through all layers of the Cygnan population. Federation police have determined that a single Cygnan drug syndicate is responsible. The Cygnan government has been trying to stamp this out, but corrupt officials leak plans for government raids to the cartel, which moves its inventory one step ahead of the police. Desperate, the Cygnan President asks the Federation to send in a team from off-world, a team with no connection to any Cygnan official or organization, a team that by definition are the only people he can really trust. You have to find the stockpile of the drug and arrest the cartel that is importing it without the help of the Cygnan police. Some of the Cygnan police will resent your interference and try to arrest you, and some of the Cygnan police are corrupted by the drug syndicate and will try to kill you!
And just who is shipping the drug to Cygnus? Is it an Orion cartel? Or Klingon military intelligence? Or a Kzinti warlord wanting a return to the old days when his father was the Hegemonic Governor of the Cygnan Slave Colony?

The Missing Fighter
The prototype of the Federation’s new stealth fighter has been stolen! Go to one of the Neutral Zone bazaars (Mad Jack’s Hole, Denobula, Circle Trigon, Revlis, even Leebyah!) with an GIA guide and an open checkbook and try to buy it back before the enemy can grab it. While you are at it, try to identify the group or individual who stole it and determine if the missing pilot is a hostage or a traitor.

The Truth About Plasma
Scientists have always noted that the Plasma Torpedo, Quantum Wave Torpedo, and Plasmatic Pulsar Device were all extrapolations of the same principle. Were they independently derived based on the available resources (the distribution of which made drones common in the Gamma sector and Plasma common in the Alpha Sector)? Or was there some connection? There are rumors that the ISC got their plasma technology from a wrecked Paravian ship, and an “information broker” (or con artist?) has just sold you the location of the crash site. Go there, find out if there is a wreck (or was) and if the ISC know it yet.

Stuplich’s Lost Ark
As detailed in GURPS KLINGONS, a human explorer named Stuplich tried (in the earliest days of warp travel) to establish a series of six colonies on a straight line from Earth into (what he didn’t know it was) Klingon space. Five of these have since been found (including #5, which was exported by the Klingons), but the fate of the sixth group of colonists has never been established. As a profit-making venture, the Klingons (during peace time) issue permits to Federation amateur archaeologists to explore empty worlds and look for signs of this lost colony. With a Klingon NPC as a guide, begin an adventure on an empty planet in the Klingon Empire and see if you can find anything of interest (ancient civilizations, lost colonies). The Klingons pay rewards for the best finds.
THE STAR FLEET UNIVERSE TIMELINE

The timeline and history for the Star Fleet Universe is one which has been firmly established in the many years since the birth of Star Fleet Battles, and it is included here to allow you to establish a setting for your adventures. It does not follow the standard Anno Domini system, but instead features a 225-year period that begins with Y1, when Humans had their first contact with neighboring races.

Please note: The numbers and letters in parentheses, such as (SL11) or (SH8), refer to scenarios in the Star Fleet Battles game wherein these historical events are recreated in a boardgame setting.

-Y (Date Unknown) A group of Vulcan rebels flee their home planet and eventually settle on the twin planets of Romulus and Remus. The Vulcans (and Romulans) have Non-Tactical Warp spacecraft from at least this time.

-Y117 Seltorian revolt in the Tholian Home Galaxy. Most Tholians are wiped out but some escape in various directions. Two groups (a small Dyson sphere and the 312th Battle Squadron) head for the Milky Way Galaxy. Seltorians later send expeditions to other galaxies to hunt down and destroy the last of the Tholians.

-Y25 (Date Approximate) The Old Kings return their Klingon starship crews to Klinsha, abandon some of their obsolete or inoperative equipment in various locations, and leave for parts unknown.

Y1 First contact between Humans and a neighboring race (the Vulcans) as the Humans develop what will be known as Non-Tactical Warp. The Vulcans are already in contact with other space-faring races in the immediate vicinity (Andorian, Rigellian).

Y2 (Date Approximate) Klingons build chemical-energy rocket boosters and primitive space capsules, and use these to reach the obsolete ships left in their system by the Old Kings. Within a few years, the Klingons have been able to make some of the old ships operational.

Y4 The Federation is formed by the Humans, Vulcans, Andorians, Alpha-Centaurans, Rigellians, and others. While it is not clear exactly when each of the other races began expanding into space, it can be reasonably assumed that (with the exception of the Vulcans) they began their expansion during about this same time period.

Y5 Tractor beams enter service in the Federation. Other races develop them about the same time.

Y8 Klingons, using star maps drawn by the last of the Klingons who served on ships of the Old Kings, contact the first of the other Old King subject worlds (the Dunkars) and begin to use them as subject race crewmen, just as the Old Kings had used both races.

Y10 Klingons recontact the Vergarians, another Old King subject race, and quickly dominate them.

Y12 After an unsuccessful fleet-wide mutiny by Vergarian crewmen, the Klingons execute all Vergarians on their ships, bombard Vergar, and install security stations on all ships to prevent any further mutiny. Vergarians are not allowed into space for decades, and the planet is forced to pay huge tributes to the Empire.

Y17 The Klingons are able to reverse-engineer the abandoned ships and produce their own primitive starships. Unlike the Old King ships the Klingons inherited, the new ships are patterned on a predatory marine reptile found in the oceans of the Klingon homeworld.

Y21 The Federation encounters the Orions, a smaller star-faring culture on their border. The Orions quickly set up trade relations.

Y24 Gorns and Paravians first meet. Early discussions quickly determine that neither race is native to its home planet, but had been brought there at some point in the ancient past. The Paravians, it is found, are the successors to a Gorn-like race that had been destroyed by an asteroid. War breaks out by Y30; the conflict lasts for decades at a relatively low level. As with most conflict in this period, lasers and atomic missiles are the predominant weapons.

Y33 First Gorn-Romulan contact. Relations are tense as both sides almost automatically assume that war between them is inevitable.

Y36 First Gorn-Romulan War begins. They begin to develop the first of what will become permanent borders. The Gorns lose this war in Y39 at the Battle of Gorn-Shima, but Gorn-Romulan skirmishes and raids continue indefinitely.

Y38 First Lyran-Klingon War begins. While few details are known, it is clear that both have been expanding for some time from their respective homeworlds (now imperial capitals). While these expansions were not at the same rate in each direction, this was the first contact either race had with a military-capable spacefaring race. (If either race previously encountered any minor planet-bound races, it presumably absorbed and/or enslaved them.)

Y39 The Klingons and Lyrans, each trying to outflank the other, expand their “front line” (eventually to be their border) toward the core and rim.

Y40 First Federation-Romulan War begins as the ex-Vulcans (now the Romulans) begin what they see as a historic march back to their original home planet. The Federation fleet uses a variety of weapons, as each planet has built its own ships. During this War, the Romulans and Federation never actually meet face to face, and the Federation did not realize that the Romulans were the long-lost Vulcan renegades.

Lyrians, trying to outflank the Klingons, attack what they believe is a Klingon mining colony. The outpost is, instead, from the Hydrans, a race not previously known, starting the First Lyran-Hydran War. The Hydrans had been expanding from their own homeworld, which is now the Royal Capital.

Y42 Lyran-Klingon War ends when several Lyran counties abandon the war to protect their homes from the Hydrans. Lyrans are forced to accept an unfavorable settlement.

Y43 Lyrans defeat Hydran invasion, but reach negotiated settlement rather than continue the war. First Lyran-Hydran War ends.

Y44 Gorns battle a mysterious ship which they later learn is a time-traveling Federation cruiser.

Y45 A treaty between the Federation and the Orions effectively brings the Orions into the Federation, albeit preserving some legal semblance of a semi-autonomous zone. This language, all but forgotten over the years, will come back to haunt the Federation 126 years later when the Orions invoke a clause of the treaty to become independent and neutral.

Y46 First Federation-Romulan War ends with a cease-fire; Orion support for the war effort has given the Federation a major advantage. Because of the Romulan threat in this direction, the Federation develops more rapidly in its “southeast” area as the need for fleet support infrastructure drives the creation of colonies and bases.

Y48 Lyrians, trying to outflank the Klingons by moving around the (then unoccupied) WYN cluster, run into the previously unknown Kzinti. The first Lyran-Kzinti War breaks out almost immediately and ends eight years later (Y56) with both races suffering devastation of their thinly settled
worlds in the region.

Y50 First Klingo-Kzinti War begins as the Klingons, unaware that the Lyrans are fighting the Kzintis, also encounter this new foe. The Kzintis are confused by the attack, and assume that this is the second prong of a joint invasion by the "allied" Klingon and Lyran forces. The Kzintis do not learn until many years later that the Klingons and Lyrans were bitter enemies at this point in time.

Romulans deploy the Vulture-class dreadnought, their largest ship until the later Condor.

Y55 First known contact between the Kzintis and Carnivons (a canine race), and between the Lyrans and the Carnivons. Some earlier contacts may have occurred, but if so the Kzinti or Lyran ships did not survive to report. The Lyrans and Kzintis are, apparently, both trying to outflank the other when they encounter the new foe.

Y56 The First Kzinti-Lyran War ends. The Carnivons begin attacking both felinoid races, taking advantage of their exhausted forces in the region.

Y62 First cruiser capable of Tactical Warp is launched by the Federation; it is also the first ship not to be under command of any specific planet (although the formal creation of the Star Fleet is almost a decade away). This ship is, in fact, a conversion of an old light cruiser of the class known much later as the "Old Light Cruiser." (Tactical Warp allows ships to fight at warp speed, although only up to Warp 3.2) This ship includes the first tractor beam that could be used by ships traveling at warp speed, but its range was limited to 10,000km and it could only function in the rear arc. Other races develop similar tractor beams as they go to Tactical Warp. The Romulans, limited to Non-Tactical Warp, use the original tractors (limited to 1,000km and dead astern towing only) until the Treaty of Smarba.

Developed in conjunction with Tactical Warp, the transporter first enters service. It is limited to a range of 10,000km. Federation ships refitted with Tactical Warp have their heavy weapons replaced by photon torpedoes.

Other races develop Tactical Warp power over the next several years, although the Romulans fail to develop this technology and remain limited to Non-Tactical Warp power, putting them at a significant disadvantage. The Romulans begin converting existing NTW ships into TW technology. As each race moves to Tactical Warp, it develops transporters and extends the range of its tractor beams to 10,000km (dead astern towing only), Most also replace their earlier heavy weapons with new ones (disruptors, plasma bolts, etc.).

Second Gorn-Romulan War begins. Both races have made their first progress toward Tactical Warp. Each has a breakthrough in a different area. The Romulans, having fought the Federation before (and knowing that the Federation now has Tactical Warp capability), focus on ways their existing ships can deal with tactical warps ships. The Gorns, unaware of the Federation, use Tactical Warp drive as a means of positioning themselves to launch sublight missiles.

Y63 Klingons convert the first of their sublight D3 cruisers to use Tactical Warp and disruptors.

Y65 Drones are first used in combat. Klingons and Kzintis deploy these new weapons simultaneously in an outgrowth of Tactical Warp technology. For a brief period, both races are deploying Non-Tactical Warp ships (which fight at sublight) armed with warp-speed weapons.

Carnivon forces reach the WVN Cluster, having driven a wedge between the Lyrans and Kzintis and having occupied several of their border provinces. The Kzintis and Lyrans will not regain direct contact until Y106, the longest period of peace between each other in their histories.

Y66 Gorns develop Tactical Warp power, but their ships are still armed with sublight weapons (atomic missiles and lasers). The Romulans, on the other hand, have ships unable to use Tactical Warp, but have developed plasma bolts and systems to target ships moving at warp speed in combat. The conflict between the Gorns and Paravians sharply accelerates at this time, which may explain why the Gorns did not press the Romulans.

Incidents erupt along Hydran-Klingon border. Klingons want settlement rights on oxy-nitrogen planets in Hydran territory; Hydrans want the same rights on Kzinti methane worlds. The Klingons cannot tolerate the idea of foreign worlds inside the empire, the Hydrans cannot tolerate the idea of "foreign corporations" in their space either.

Y67 Gorn Vanguard teams conduct lightning raids on numerous vital Romulan research facilities, stopping the development of Tactical Warp technology. Romulan research has been hampered by the system of Great Houses. Each House does its own research, often refusing to exchange progress reports with other Houses. Some Houses even go so far as sabotaging the work of other Houses, or blocking them from getting enough government money to proceed with possibly successful research. This may have been exacerbated by an especially weak Emperor (Ruvellus) who could not force the Houses to cooperate. Ruvellus appointed seven Praetors in less than two years as powerful Great Houses maneuver to depose (or assassinate) any Praetor controlled by another Great House.

Y68 Ruvellus appoints his eighth and last Praetor. Gorns win the Second Gorn-Romulan War. Gorns turn to deal with Paravian raids. Most Gorn ships have already been upgraded with TL10 Tactical Warp and begin receiving plasma bolt reflexes at forward bases, while the TL9 Paravian ships must return to their home planet to get Tactical Warp and the new quantum wave torpedoes. Using this decisive advantage, the Gorns quickly destroy virtually every unrefitted Paravian ship. Many Gorn ships, hurriedly refitted, are sent into combat with tactical warp and plasma bolts, but without their phasers. The first Paravian Tactical Warp ships give these semi-refitted Gorn ships a rough time, but there are relatively few mismatches of this type.

Second Lyran-Hydran War begins.

Y70 The Paravians fully deploy Tactical Warp, phasers, and quantum wave torpedoes.

Y71 Federation forms the United Star Fleet. Member planets begin disbanding their "national" fleets (comprised of NTW ships) in favor of the United Star Fleet, which consists exclusively of photon-armed Tactical Warp ships. This is one of the cornerstones of Federation cohesiveness, as the United Star Fleet makes the national fleets obsolete. To "facilitate training," however, the Federation Council agrees to allow each planet to convert a few old ships to Tactical Warp and photon torpedoes. In fact, the member planets still do not entirely trust each other and these refitted ships are a symbol of political power. While there will never be a Federation Civil War, there are moments in which tensions over trade concessions and other matters reach high levels.

Second Lyran-Hydran War ends when improved Hydran weapons (e.g., nova cannon) give them a decisive advantage over the Lyrans.

Y72 Klingon-Hydran "incident" (brief border war).

Y73 Hydrans attack the Klingons. They do not have a formal
alliance with the Kzintis (who are still at war with the Klingons), but are considered as co-belligerents. Klingons are hard-pressed to fight a war on two fronts and outgunned by the new Hydran nova cannon.

Y75 A badly outnumbered Klingon fleet defending the Hydran Frontier is decisively defeated. Klingons agree to a settlement granting the Hydrans trade concessions and allowing them to colonize several methane-atmosphere planets within the Empire. Kzintis howl with rage because the Hydrans will not continue the war. Klingons purchase war material (at ridiculously inflated prices) from Hydrans and launch a renewed offensive against the Kzintis.

Y76 Klingons, expanding their territory to the Galactic Rim, encounter the Vudar, and later absorb them into the Empire under special semi-autonomous conditions. Only the Vudar can survive for extended periods in the radiation zones along the Rim (their home). Other Klingon explorers contact the Romulans, and report that the backward state of Romulan technology makes them ripe for conquest. Several Klingon ships raid Romulan territory, and Romulan ale becomes a trophy much in demand in the Klingon fleet. The Romulans are not entirely certain who this new enemy is.

Y78 Based on lessons from the Hydran War, the Klingons launch the D4 Class Cruisers, the first designed from the keel up to include Tactical Warp. The Lyrians, Hydrans, and Kzintis follow suit with their own ships of this type.

Y79 Thollians arrive in our galaxy, settling in the tip of the spiral arm that includes the Klingons. The Klingons explored and claimed this territory only a few years previously, and had set up a few colonies there, but no Klingon ships were present at the precise point of Tholian arrival so they remain undetected.

Federation launches the first of the Republic-class cruisers and begins refitting the older Province-class cruisers to the improved (and faster) Tactical Warp engines.

Y80 At about this time, most races develop tractor beams able to function in a 360° arc, but this technology is still limited to 10,000km. Also at about this time, most races are able to extend the range of their transporters to 20,000km. The Gorns do not reach these technological goals until Y90; the Romulans do not reach them until the Treaty of Smarba in Y159.

Y82 First Klingon-Kzinti War ends. Klingons capture three key planets.

Y83 Thollions make their first known contact with the Klingons and establish the borders of the Holdfast. First of several vicious border wars lasts two years, causing heavy losses among the Altionian ships (who cannot fight the new technology effectively). Thollions wipe out three minor Klingon colonies, the last of which is Kaela (intended as the jumping-off point for the conquest of the Romulans). The Klingons will forever after regard the Thollions as "foreign invaders." The shame of having a part of the Empire occupied by a foreign power will stain the honor of the warship class forever. Although no one knows it at the time, the Thollions probably saved the Romulans from being conquered by the Klingons. Missing the chance to conquer the Romulans will give the Klingons much anguish. Had they done so, they might have had the resources to dominate the entire Alpha Sector.

The Long Lance (type-III) drone enters service.

Federation Marine Major General Kripney delivers the famous report "Case for Primary Contact Action Teams in Novel Contact Environments" to Star Fleet Command.

Y84 Klingons, having defeated the Kzintis, attack the Hydrans. This is known as the "Second Klingo-Hydran War" to Federation Historians, as the "War of Retribution" to the Klingons, and as the "War of Infamy" to the Hydrans. Lyrians attack the collapsing Hydran border (Third Lyran-Hydran War) and capture several planets, but are not formal allies of the Klingons.

First contact between the Thollians and Federation. The Thollians have no interest in suggestions for commerce and the free exchange of ideas.

In the Federation, Tumball Massi is placed in charge of the Primary Contact program; this is the genesis of the later Prime Teams.

Y85 First contact between the Klingons and Federation (although the Vulcans had previously told the other Federation members of past meetings with the warrior race). The Klingons, involved in a war with the Hydrans, furious with the Thollians, and still watching the Kzinti border, decide not to provoke this new enemy but instead send Klingon civilians and diplomats to hold trade talks and discuss cooperation treaties. For several years, the Klingons and Federation remain on friendly terms, which are increasingly strained as both try to snap up good colony worlds in the relatively unexplored territory between them. While both assume the other race is not particularly warlike, both note that the other is positioning colonies for strategic advantage and both quickly intensify intelligence-gathering efforts.

Ground-breaking ceremonies for Cultural Indocritation Center and for the Prime Central facility on the Moon.

The Gorns succeed in blockading the Paravian homeworld (in the process destroying all orbital and space-related facilities) and begin hunting down the surviving Paravian ships. Unknown to the Gorns, some Paravians escape to the Omega Sector. The Gorns, unwilling to actually annex territory claimed by the Paravians, set up the Trusteeship Zone covering the Paravian areas. In theory, this territory (and profits from it) will be returned to the Paravians when they agree to peaceful coexistence.

Y87 Klingons force the Hydran fleet and destroy Hydran colonies. Many atrocities are committed by the Klingons. All Hydran ships larger than police corvettes are destroyed, and the Hydran Kingdom is reduced to a Klingen client. (Later analysts will note that only the presence of Klingon colonies inside Hydran space made such a rapid advance possible, as all wars were limited to how far ships could be supported by supplies from prewar bases.) The Klingons establish governors over Hydran planets. Due to the difference in atmospheres, however, these governors are never really able to control the populace and rule from orbiting satellites. These satellites have powerful weapons aimed at the planet below, but are poorly defended against attack from space.

Y88 First Federation-Kzinti War begins as Kzintis attack. The Klingons provide the Federation with useful intelligence and tactical advice, and for a few years Klingon officers are honored guests on Federation cruisers fighting the Kzintis. The Klingons expect to eventually fight the Federation simply because they have fought all of their neighbors, but do not do so at this point because there are no bases on the Federation border to support fleets, and there is enough trouble with their other neighbors.

Under tremendous pressure, the Federation Council agrees to allow each member planet to keep a "squadron" of old ships refitted with tactical warp and photon torpedoes. As the size of these squadrons is not defined, the move in effect legalizes the "training" units that had grown far larger than the original law of Y71 intended. Some of these ships will serve in combat later. These
squadrons will, in Y113, evolve into the National Guard. Second Lyran-Klingon War begins in arguments over division of the Hydran Empire. In the confusion, the Hydran colonies of Altroth, Minxith, and Krooth are not found or occupied by the Klingons or Lyrans. These colonies were established much earlier by the Hydran merchant guilds, and the later power of the Guilds stems from this period. The Guilds remain the monarchy through Prince S'Lenthal, the last heir of Hydran IX. As the Guilds hold the real power, the Prince is a virtual puppet, but his presence is important in rallying the Hydrans. The Guilds begin converting merchant shipyards into facilities able to produce warships.

Romulans develop seeking plasmas and the masking device (an early version of the cloaking device), installing them in their ships.

Y89 Kzintis make gains against the Federation, capturing several planets.

Romulans attack Tholians in order to test their new weapons, but abandon the "First Romulan-Tholian War" in less than a year as winning this war is never their real objective.

Y90 Third Gorn-Romulan War begins with Romulan attack. The Romulans, using their new technology, drive deep into Gorn territory despite the fact that they are practically sitting ducks in combat. The Romulans will, for the next 35 years, plunder their own resources trying to fund wars of aggression using inferior ships, reducing their Empire to nearly the poverty level.

Civil wars erupt in the Hydran "lost colonies" as Prince S'Lenthal tries to break Guild power.

Y91 Klingons and Lyrans settle their differences by negotiation. The Klingons are anxious to do so because they plan to rid the galaxy of the "Tholian Menace." The Klingons and Lyrans become firm allies, finally cementing their good relations about Y100.

Federation begins counter-offensive to regain territory occupied by the Kzintis, making steady progress.

Greatest extent of Romulan gains into Gorn territory. Gorns rush the first of the new cruisers designed "from the keel up" for Tactical Warp into service.

Y92 The Great Klingo-Tholian War begins; it lasts 10 years and accomplishes nothing.

First Federation-Kzinti War ends, with the Federation frontier re-established in the original location, creating a temporary "border."

A Federation Primary Contact Team (the Wraiths) encounters energy creatures on Vetrised IV.

Last known battle between Gorn ships and Paravian raiders outside of the Blockade.

Y93 Extended-range drones enter service.

Y94 A Sunsnake plunges into the Paravian home star, causing it to go nova and effectively destroying the Paravian race in the Alpha Sector. The Gorns are overcome with shock, shame, and guilt.

Y95 Star Fleet Marine Corps and the Federation Merchant Service are formally brought under the umbrella of Star Fleet Command.

Y96 Third Gorn-Romulan War ends as the Gorns drive the Romulans back to the original border and (suffering from "Paravian Guilt") refuse to advance beyond it. The Romulans continue attacks, raids, and harassment along the border at varying levels over the next 24 years, often blaming the attacks on "Privateers" (ships on missions supposedly not sanctioned by the Romulan government), an excuse they will use again and again.

Y98 Klingons attack the Tholian homeland. While causing much damage, they cannot destroy it, and are forced to withdraw.

Y100 At about this time, most races are able to extend the range of their transporters to 30,000km.

Y101 Hydran civil wars intensify. Much of Minxith is rendered uninhabitable.

Y102 Klingons abandon the Great War against Tholians.

Noting the problems of an undefined Klingon border, the Federation Council declares the border of the Federation to be 4,750 parsecs from the center of the Primary Member Zone (an area that will later be known as "the capital"). This declaration is announced as a great peacemaking effort, in that the Federation will not attempt to control territory beyond this limit. The limit, defined by the distance from the capital to the Romulan Neutral Zone, includes territory occupied by the Kzintis and disputed by the Klingons, neither of which are impressed with Federation diplomatic statements.

Federation Primary Contact teams are officially renamed Prime Teams, a designation they have carried unofficially for several years.

Y103 Second Klingo-Kzinti War begins.

A series of incidents on the Federation-Klingon "border" begin with the declaration by the Federation and increase over the next six years.

Y105 Gorns are the last major race to extend the range of their transporters to 30,000km. The Romulans still do not have transporter technology.

Federation colony on Aberdeen III is found to be completely abandoned under mysterious circumstances that are never explained.

Y106 Kzintis win the second Klingo-Kzinti War and regain the planets. They immediately launch an attack on the
Carnivors. Sensing the weakness of the Carnivors, the Lyrans attack them as well. Over the next few years, the Carnivors are defeated decisively and annihilated. While rumors of surviving Carnivors will continue for a century, no confirmed contact is ever made and the race is presumed to be extinct.

**Y109** Second Lyran-Kzinti War begins when a Kzinti strike cruiser destroys a Lyran exploration ship. The Lyrans claim a moral outrage over the attack, but ignore the fact that their “exploration ship” was exploring Kzinti territory (albeit just liberated from the Carnivors) for new colony sites.

**Y110** First Federation-Klingon War begins with Klingon attack on territory claimed by the Federation Declaration of Y102. Tholians capture disruptor technology from the Klingons in a daring raid. The Klingons are furious but unable to react due to their new war with the Federation. The fact that the Tholians had weapons superior to the Klingons (e.g., Phaser-1s) may have been the reason that the Klingons abandoned the war with the Federation so quickly.

Romulan Senate votes to launch a new war against the Federation, but after the sudden death of Emperor Ramilillus, the Senate reverses its decision and recalls the ships sent to the Federation border. At least one Federation ship is destroyed in a skirmish with the initial Romulan probes, but the Romulans withdrew before the Federation detected any Romulan attack and the ship (which was unable to transmit a warning) was written off as “fate unknown.” This is, much later, spoken of as “the forgotten war.”

**Y111** First Federation-Klingon War ends as the Klingons abandon their attacks and launch diplomatic protests over the new Federation border.

**Y112** The planet Aurora III is colonized. To date, this system is the most coreward that the Federation has colonized.

**Y113** When Federation member planets stall on the mandated scrapping of their “national” fleets, the Federation Council passes the Federation Defense Act, creating the National Guards of each planet. These are, officially, a reserve for the Star Fleet, but this will not become fact for a generation. In the interim, each planet guards its National Guard as its defense against domination by other members of the Federation and for local defense (as some doubt that Star Fleet can or will protect every member planet equally).

Sixteen Orion ships and 9,000 skilled crewmen mutiny and disappear. These actually go to secret Orion colonies and become the nucleus of the Orion Pirates.

**Y114** Second Lyran-Kzinti War ends.

Klingon-Tholian “Incident” shows their conflict is not over.

**Y116** Kzinti Civil War. The Usurper attempts to overthrow the Patriarch and fails. After his defeat, the Usurper flees to WYN Cluster.

**Y117** Orion Pirates are in widespread operation and begin eliminating or co-opting non-Orion pirates who had been in operation for decades.

**Y119** Romulans replace the Masking Device with the improved Veiling Device and develop mauler technology.

**Y120** Fourth Gorn-Romulan War begins and continues for five years.

At about this time, most races are able to extend the reach of their tractor beams to 20,000km and the range of their transporters to 40,000km. All races begin building Base Stations along their borders, replacing previous haphazard networks of various types and sizes of bases. This tends to solidify the borders over the next two decades.

Klingon-Tholian “Incident” renews border tensions.

**Y123** Third Klingon-Kzinti War begins.

**Y124** The last of the Romulan “Old Series” mauler ships is destroyed in combat. The weapon, which needed too much power to be used effectively, was regarded as a failure. The design will be resurrected when Klingon warp engines provide the Romulans with a better source of power for their ships.

**Y125** Fourth Gorn-Romulan War ends in a Gorn victory. Gorns occupy some Romulan territory to establish a clearly defined border, and destroy Romulan bases used to launch aggression.

Lyran attack Kzintis (Third Lyran-Kzinti War) with part of their fleet, taking advantage of the Kzinti-Kzinti War. The Federation Council votes for a massive program of exploration toward the unexplored and uninhabited coreward regions. Aurora III becomes the staging area for this program. A fleet Base Station is built there, and supplies for the program are stockpiled as explorers, traders, colonists, and Star Fleet await final approval of the campaign.

The Klingons launch the first of the new D6 class.

**Y126** The first of the new Federation heavy cruisers known as the Constitution class are launched.

**Y128** Hydran civil war ends as Prince S'Lenthna abdicates in favor of his underage grandson. All of the boy-king's regents are heads of Guild houses.

**Y129** Hydran "lost colonies" begin preparations for restoration of the kingdom. Technology is acquired from unknown foreign sources, later said to be Kzinti or perhaps Orion.

**Y130** Federation Constitution-class heavy cruisers are simultaneously inaugurated as the flagships of all of the numbered fleets. Some have been de facto flagships for some time.

The Federation Aurora colony disappears mysteriously after sending a report of a very unusual cosmic storm. Every starship in the sector is sent to investigate but finds nothing; the entire Aurora system has disappeared, star, planets, asteroids, bases, colonists — everything! The Federation Council attempts a cover-up, but the news leaks. The resignation of co-exploration members of the council delays such exploration for decades. A century will pass before Aurora is found in the Omega Sector.

**Y131** Third Kzinti-Kzinti War ends, results inconclusive. Third Lyran-Kzinti War ends.

Orion Pirates board a Federation commercial starliner, The Celestial Queen, with numerous dignitaries on board. Highlanders Prime Team, under the command of Sherec Kelleret, liberates the Starliner with no civilian fatalities. While the Orions fought to the death rather than surrender, Orion propaganda convinces many that a vengeful Prime Team executed the pirates.

**Y132** Hydran agents from the lost colonies begin infiltrating Kzinti-occupied planets of the Kingdom.

**Y133** Gatling phaser is developed by Hydrans.

**Y134** New Hydran ship classes (Ranger, Lancer, Scout) are in service in the “Lost Colonies,” along with the first fighters in the Alpha Sector capable of tactical warp combat. (The Romulans had used subtler fighters for local planetary defense for decades.)

**Y135** Hydrans from the lost colonies under King Hydraxan XI attack the Kzinti satellites over the Hydran planets. In a swift campaign lasting only a few weeks, the Hydran Kingdom is restored. The personal popularity of Hydraxan XI makes him “unacceptable” to the Guilds, and he dies under mysterious circumstances. While Hydraxan XII ascends the throne, the Guilds solidify their
power.
Kzintis field the first battle tug, which defeats an Orion attack on a convoy.

Y136 Second Federation-Kzinti War begins as Kzintis attack Federation border stations.
Orions discover the Kzintis living in the WYN Cluster and establish their first base there.

Y137 Third Klingon-Hydran War begins as the Hydrans attack the Klingons.

Y139 Klingon-Tholian Incident (yes, another one).

Y141 Third Klingon-Hydran War ends. Hydrans have gained no territory but have regained their self-respect. For reasons that remain obscure, four new kings take the throne in less than a year. The last, Hydraxan XVI, lasts for two years.

Y142 Second Federation-Kzinti War ends with no change in the border.

Y143 The brief Fourth Lyran-Hydran War begins and ends as Hydrans recapture two planets from the Lyrans. Lyrans are unable to devote full attention to the war due to troubles on Kzinti border.

Y144 Fourth Lyran-Kzinti War begins.

Y145 Kzinti renegades (of a neo-samurai cult) raid Alien's Planet, slaughtering all 3,000 colonists with the exception of one human infant, William S. Gerard, who they take with them. The Marquis (the Kzinti noble in charge of the Federation border) captures and executes the renegades to preserve peace, but he cannot return Gerard without explaining what the samurai had planned to do with him. Gerard is raised as a son of his own house.

Revolt in Lyran Dark Star County results in a democratic government still loyal to Lyran Empire.

Y146 Hydran "civil war" begins, but all combat will take place within the palace over the next five years.

Y149 Klingon-Tholian Incident. A Klingon fleet slips into Tholian territory to capture a patrol corvette and the secret of webtechnology, but Tholian ships surround the Klingons, and the captured ship must be abandoned during the retreat.

Y152 Hydraxan XXIII ("The Great") ascends the throne, which he will hold for almost two decades.

Y153 Lyrans face off against the rebellious Dark Star County at the Battle of Vandha.

Y154 Second Federation-Romulan War begins.

Y155 Treaty of Pellione re-establishes the Neutral Zone and ends the second Fed-Romulan War.

Y156 Second Federation-Klingon War begins. War ends the same year with the Organian Treaty.

Y158 Fourth Klingon-Kzinti War begins. Citing their treaty, the Hydrans almost immediately launch an attack against the Klingon border squadrons.

Y159 Klingon-Romulan Treaty of Smarba signed. Klingons begin supplying advanced technology to the Romulans, allowing the conversion of old Warbirds into War Eagles. These increase pressure on the Federation Border. The Federation transfers ships back from the Klingon border to the Romulan border. This allows the Klingons to transfer ships to fight the Kzintis. The Federation's attempt to use the "threat of force" as a substitute for simple force has failed and planted the seeds of the General War.

Y160 Minor skirmish on the Gorn-Romulan-Federation border (SH53). ISC forces observe a Gorn-Romulan battle.

Y162 Kongo converted to a Command Cruiser.

The Kzinti noble known as "The Marquis" (in failing health) sends Williams S. Gerard home in an AAS fighter, the first time the Federation has seen a craft of this type.

Y163 Klingon-Tholian Incident.

Y164 The Federation tug Al Rashid is disabled near the Kzinti-Klingon border (SH55). Kzintis arrive to rescue the ship; Klingons arrive and claim that the Kzintis are pirates.

The Federation plans to Gnscher raids Ruta's Planet in the Neutral Zone, massacring the Federation colonists. The Kongo
arrives and rescues Burt Engles, the only survivor, and takes him to Organia to testify against Klingon Commander Kremier; the Gnasher tries but fails to stop the Kongo.

Ardak Kumerian assumes command of frigate Vigilance. Due to a combination of circumstances, history will record more about him than any other Klingon officer. As an admiral, his most famous quote will be “Never fight a battle you do not have to win.”

Y165 The Romulans begin building the new generation of ships known as “the Hawk series.”

Federation begins “refits” that add improved systems to their ship; other races follow suit. Destroyer Kubla intercepts the Klingon D6 Devastation, which had been harassing shipping (SH56).

Andromedans build a base in the Lesser Magellanic Cloud and begin conquering it.

Y166 Series of incidents on Klingon-Kzinti border (undeclared war). Kumerian destroys Kzinti shuttle squadron #26 (SH5) and is promoted to command the D6 Destruction.

Klingon D6 Devastation operates as experimental semi-carrier and conducts several raids on Kzintis to test fighters.

William S. Gerard graduates from Star Fleet Academy.

Andromedan Intruder.

First encounter with an Andromedan Intruder.

Kumerian and the Federation-Kzinti ambassadors sign articles of agreement and become allies.

Ensign Peltier graduates from Star Fleet Academy.

Y167 Kumerian and the Destruction are sent to the prestigious Tholian Border Squadron, where he serves as commander of the 2nd Fighting Division. He destroys the Tholian 3rd Patrol Squadron after it forms a pinwheel; he is promoted to commodore in command of the Squadron. In the flagship Darklayer, he leads a demonstration attack against a Tholian base (SH5). Threlvis Kren, an officer under Kumerian’s command, starts an incident with the Tholians that backfires. Needing a scapegoat to quiet Federation complaints, the Klingons pick Kumerian. He is stripped of his position as commodore, but is allowed to retain his rank as captain and command of his original ship Destruction. The ship is sent to the Western Fleet. Korath replaces Kumerian in command of the Tholian Border Squadron.

Romulan attempt to ambush the Gorn cruiser Repticon fails when the ships enter Federation territory and the Federation command cruiser Lexington intervenes.

Deth O’Kay’s ship Hammerfield attacks a convoy.

Y168 On the Tholian border, the Federation destroyer Ares is destroyed. Excalibur rescues the crew (SH59) from Tholian slavery.

The Federation CC Excalibur, the Klingon D7C Darklayer, the Tholian CA Arrakk, and the Orion raider Gossamer Phoenix defeat the extragalactic Juggernaut. The Darklayer is destroyed, but Korath is given the new Direlayer and a Federation commendation. Korath has, however, sworn revenge against Federation Captain Gray for calling him a coward during the battle.

First General War begins when war erupts on the Lyran-Kzinti border. This is at first known as the Fifth Lyran-Kzinti War. Technology improves during the course of the war.

Y169 Klingons join Lyrans and declare war on Kzintis. Korath, the Direlayer, and the Tholian Border Squadron deploy to the Kzinti border where Korath eventually becomes an admiral commanding that sector.

The Hydrans launch a pre-emptive strike on the Lyrans and begin their attempted breakthrough to Federation territory.

William S. Gerard serves as an “observer” with the Kzinti fleet, where he exhibits skill as a fighter pilot.

To atone for his failure and gain revenge against the Federation, Kumerian raids Sherman’s Planet where he personally leads marines in hand-to-hand combat.

Klingons begin construction of the B10 Battleship Invincible and obtain mauler technology from Romulans.

ISC forces defeat a Romulan squadron and make initial contact with the Gorns.

The Federation tries to capture the pirate vessel Berol Turquoise, but the pirate cruiser Hammerfield intervenes.

Y170 Klingon D6 battlecruiser Destruction mutinies and is interned at Federation Starbase 16. It is returned to Klingons the next year. The Klingons are outraged that the Federation dismantled the Ubilon Interface Module and want to declare war, but are restrained by the Organians. Kumerian, captain of the Destruction, is demoted in disgrace and sent to command the penal frigate Insufferable. His son, Kollos, graduates from the Deep Space Fleet Academy but is refused a naval commission. He transfers to the Internal Security (Police) Forces.

The Kzintis attack the Klingon carrier Berserker (SH15).

The Klingon advance into Hydran territory depends on a tenuous supply line (SH18).

Y171 The Organians disappear. Several races are blamed for this, but none know the true situation.

Krakor, a Klingon penal colony, revolts. A task force is sent to quell the rebellion, but is never heard from again. ISF ships sent to investigate find the entire star system...
missing. Klingon scientists compare this event to the disappearance of the Federation’s Aurora colony 41 years earlier, but remain as baffled as their Federation counterparts.

Klingons declare war on the Federation and attack the border with hundreds of ships. (This had been planned before the Kraknora colony disappeared.) The Federation cruiser **Hood** is reported destroyed by three Klingon cruisers (SH19), but the saucer returns to Federation lines in Y174.

Under pressure from the Klingons, the Orion semiindependent zone within the Federation briefly declares its independence and neutrality.

The Klingons send ambassador Thad Vak Kalleen to the Romulans seeking an alliance. The Federation attempts to intercept Kalleen (SH80), but he succeeds in reaching Romulus. While the Romulans do not yet declare war on the Federation, they launch a series of raids (SH60, SH69).

Y172 The Federation responds to the Klingon attack with raids by new carriers. Federation fleets are sent to assist the Kzintis, and a Federation expedition (Operation Hydra) unsuccessfully attempts to reach the Hydrans. In an unusual case, a group of pirates is trapped between Klingon and Federation fleets (SH61) fighting on the border.

Deth O'Kay carries a contract cargo to Hydran territory; he is betrayed and attacked by the Hydrans, but wins.

Y173 Hard-pressed by the Federation, the Klingons convince the Romulans to declare war on the Federation and launch a massive attack. Federation Commodore Stocker discovers the invasion and launches a preemptive attack with **Lexington**, catching a Romulan squadron unprepared and badly mauling it (SH2). Another Federation squadron is ambushed at Denebola during treaty negotiations with an Orion base. The old cruiser **Republic** fights two groups of Romulan raiders.

Lieutenant Pettier completes Prime Central training with honors and rejoins the **Saratoga** as leader of the Black Eagles Prime Team. Deth O'Kay is captured by Stocker but rescued by his own ship and resumes his command.

Y174 The Gorn ally with the Federation. The General War has now reached virtually complete escalation. The Grand Alliance (Gorn-Federation-Kzinti) fleets battle Coalition (Romulan-Klingon-Lyran). Hydrans have co-belligerent status with Grand Alliance but are not formal allies.

Orions begin operating against the Grand Alliance, using an unprecedented number of ships.

Y175 The Klingon **D7C Demonslayer** mutinies (SH62).

Klingons trap a Federation fleet in a stasis field; Rear Admiral John “Cracker Jack” Radey and his carrier group rescue them (SH81).

Federation Police Commissioner Robert Scorpio orders construction of the first Federation Police Carrier.

Black Eagles Prime Team disrupts dangerous spy operations on Data Processing Station 119.

Y176 Alliance forces recapture large areas of Federation territory, reaching the Tholian border and cutting off contact between the Klingons and their Romulan allies. The Tholians tentatively accept membership in the Grand Alliance.

ISC begins incursions into Romulan and Gorn territory. These increase over time.

Y177 Vulkalis Kuriak, commander of the Tholian Border Squadron, finds himself as a fleet commander without ships in a backwater of the war. Amassing hundreds of fighters, he attacks the Tholians, exposing their weakness. Exploiting his success, the Coalition launches "Operation Nutcracker" to destroy the Tholians once and for all. Besieged, the Tholians allow ships of their allies to enter the Holdfast, but only those of the Gorns and Kzintis (since they would not pose as much of a threat after the War).

The Romulans attempt a long-range cloaked attack on Rigel IV (SH63), throwing the Federation into a panic.

Ardak Kumerian is restored as captain of D6 Destruction, and fights on the Federation front.

Y178 The Neo-Tholian 312th Battle Squadron arrives. After these ships get into action, "Operation Nutcracker" begins to break down (SH22).

Direct contact between Klingons and Romulans is broken and will never be reestablished. This causes serious logistical problems for the Romulans; they can no longer obtain an adequate supply of spare parts for their Klingon-built ships, and there is insufficient Romulan production available to make up for the lost shipments.


PX123, an ISC mining colony, disappears in the same fashion as the Aurora and Kraknora systems did in earlier years. Investigations reveal nothing until decades later when all three systems are found in the Omega Sector.

Y179 Ardak Kumerian re-promoted to Commodore, but in a staff position under the commander of the Western Fleet. While an average ship captain, he proves to be a genius at staff work, even if he hates the assignment.

Y180 Romulans penetrate the Gorn lines and are engaged by support forces (SH64). Later, the Gorns and Romulans fight a major battle over the planet Hakan. A Romulan ship disappears on the frontier (SN19).

Ardak Kumerian revolts on K'tothos IV (SH65).

Deth O'Kay, the chief "enforcer" ship captain for the Orion Hamilcar Cartel, and his ship, **Hammerfield**, disappears under mysterious circumstances. (They were kidnapped by a race known as "the Masters" who used entire ships to play wargames for their own amusement.)

The Red WYN Express (an Orion convoy) delivers high-technology equipment to the WYN Cluster, but not in the quantities wanted (T6).

Y181 The Alliance launches Operation Remus: Federation and Kzintis attack Romulans from the west while Gorns drive from the north. The Kzintis fleet surprises a Romulan fleet at anchor and destroys it. Reasoning that their mission to guard the flank of the Federation fleet has been fulfilled, and responding to reports of Klingon attacks on their territory, the Kzintis withdraw without warning, collapsing an Alliance drive that could have captured the Romulan capital. Facing heavy pressure, the Gorns are diverted westward and cannot reach Remus. The Federation fleet reaches Remus alone; forces of both sides annihilate each other. CVA *MacArthur* crashes into the planet, rendering it almost uninhabitable.

Ardak Kumerian promoted to Admiral and made commander of the Red Fleet, which is the Klingon training command for new ships, not a tactical formation.

Phil Kosnett promoted to Commodore on the Klingon frontier.

Y182 Operation Cavalry is launched. Gorn fleet units transfer to the Klingon frontier for a major assault in cooperation with Kzintis and Federation units. Kumerian and his Red Fleet are hastily reorganized as a tactical formation and sent to stop the Cavalry. His fleet is all but destroyed, and he is reported missing in action. The Alliance forces attack a Klingon starbase and are themselves badly beaten.
The Amazons, an all-female Alpha-Centaurian Prime Team, foil an attempt on the life of the Federation President during the Susturia Conference. Although the culprits are Orion mercenaries, Romulan involvement is suspected.

Y183 Battles between Federation/Kzinti and Klingon forces. Fed CVA Napoleon is heavily damaged and forced out of the war. Kzinti forces trap the Klingon 701st PF Flotilla. Battles are fought at Blackfoot Pass. The cruiser Australia rescues the tug Messier, which had been trapped by the Klingons (SH23).
Kosnett launches an attrition campaign (U5). Kzinti, Federation, Klingon, and pirate forces battle for control of a key sector on the triple border.

On the Hydran front, PFS raid an advanced Klingon base. The Klingons track down the PFS Tenders that carried them into range.

Y184 Pleiades Turkey Shoot (SH17). The Klingons launch a massive fighter attack on Federation Zhukov carrier group, reasoning that if they can destroy it they can win the war. "Cracker Jack" Radey bets the entire General War on a single battle and wins.
The Black Eagles Prime Team uncovers the source of the mysterious disappearances of Federation citizens on Meva Station.
Romulans launch a series of raids to keep the Gorns off balance. One notable success is at Gijard III (SH28).
Foreshadowing the Invasion, Andromedan Dominator-class dreadnoughts appear for the first time. One Dominator suffers an inexplicable breakdown and explodes; its satellite ships flee for a rendezvous point with help from the Orion Pirates, but stumble into one of the last major battles on the Federation-Romulan front (T7).

Y185 Klingons launch a desperate final attack on the Kzintis, which is blocked by the White Elephant Squadron of fighter-conveyor PFS (SH32).
Organians return and halt the General War. They offer no explanation for their absence, but express hope that the "Lower Empires" (as they call the others) have "learned the futility of war." This hope is in vain.
The Romulan Civil War begins between the Imperial and Republican factions.

Y186 ISC forces begin occupying Gorn and Romulan territory and enter Federation territory.

Y187 Federation forces dispute the ISC-mandated neutrality of the Formax star system (SH24).
ISC briefly attempts to pacify the Tholians but decides that the Tholians really do want to be left alone.
Romulan Civil War ends as a powerless Empress becomes head of the Republican state.
Federation Prime Team Templars, under the command of Lt. Commander Jerod Kent, uncover a plot by the Governor of New Marseilles to hide the existence of a primitive sentient race on his world.

Y188 The ISC completes its "conquest" of the galaxy, effectively occupying the Neutral Zones between most of the warring parties. The Klingons resist ISC interference (SH25).

Y190 The Andromedans launch a full-scale galactic invasion.
The ISC Echelon of Judgement (consisting entirely of new X-ships) arrives at the ISC capital barely in time to halt an Andromedan Dominator.
The Andromedans raid Hydraxaport (SH26).

Y192 The Andromedans attack the Federation.

Y195 Survey ships discover the first Andromedan base on the Rapid Transport Network.

Y197 The height of Andromedan power is reached.
Y198 Andromedan power begins to decline sharply as the Rapid Transport Network is heavily disrupted.

Y201 The Galactic Powers launch "Operation Unity" in an effort to destroy the primary Andromedan base (U6) in the Lesser Magellanic Cloud.

Y202 Final defeat of Andromedans as Operation Unity destroys the Desecrator (the starbase in the Lesser Magellanic Cloud).

Y203 Organians declare "Era of Tranquility."

Y205 Era of Second Generation X-ships and Trade Wars begins.
Klingon X-frigate Vanda disappears into a time warp.

Y225 End of recorded history. Presumably a third generation of X-ships was developed, but The Next Generation is not within the scope of the Star Fleet Universe.

PRIME DIRECTIVE ONLINE
Prime Directive Online is a web site dedicated to providing news, reviews, and resources for Prime Directive campaigns. Prime Directive Online is also the home of the Defenders of the Faith Campaign, a Federation Prime Team campaign. Played exclusively online using the free, open-source, OpenRPG software, Defenders of the Faith emulates the tabletop experience using chat, miniature map, and die rolling tools.

For more information on Prime Directive Online, or the Defenders of the Faith campaign, visit www.primedirectiveonline.com.
If you're running your own Prime Directive campaign (online or not), and would like to list or add your campaign to Prime Directive Online, contact francois@primedirectiveonline.com

COMMERCIAL PASSENGER SERVICE
From time to time, player characters may want to travel to a new star system but not have a ship (or even a shuttle) to do so on their own. Commercial travel is readily available (at least inside any given empire, and across or between empires assuming visas and the lack of open war).

As a general rule of thumb, commercial passenger service is available on a regularly scheduled basis between any planets with a significant population (say, over one million). Business-class travel can be had for $250 per hex on the map (see page 155) including the hex you start in, the hex you end in, and all hexes in between. The maximum charge for travel would be $2,000 (all the way across the map) plus $250 for each national border crossed. First class travel would be twice this expensive (express travel at "fast dash" speeds would cost four times the base rate) and economy class would be two-thirds this cost. Characters might have to wait up to a week to catch the next ship headed in their direction. Calculate the time of the travel based on the data on page 158 using "Aux Dash" speed.
Travel to minor planets not on regularly-scheduled routes would involving using a regularly-scheduled trip to the hex and then paying an additional $250 fee for a "commuter spaceline" or "space taxi" to take you to the minor planet by a "scheduled as needed" route. Figure a week to find such a connection and actually make the trip (with several stops en route). This fee can be modified for first class or economy class travel as above.

Of course, a helpful GM could arrange for you to travel on a military or commercial ship that just happens to be going to your exact location.
PUBLISHER'S INFORMATION

DISCLAIMERS AND WARNINGS

There are a few things that should be obvious, but . . .

GMs in Command

GMs of a given group/campaign can pretty much change anything they want any way they want if it makes their campaign more fun for their group. If, in your campaign, you have a group of Federation National Guard officers who kidnap the Klingon Emperor and overthrow the Klingon government and stop the General War, good for you. Just don't think that events in a given GM's campaign need to result in changes to the official "historical" data of the Star Fleet Universe. And of course, you must be prepared to deal with the consequences of your changes when they run afoul of other published works.

PD vs SFU

While GURPS Prime Directive is a game of the Star Fleet Universe, no one should try to use a reference in (or a concept extrapolated from) GPD to argue for a given rules interpretation (let alone a change to a published rule) for other games of the SFU (e.g., Star Fleet Battles, F&É, Warlord, Star Fleet Battle Force, etc.). Said in more direct terms, the judges of the Star Fleet Battles National Gold Hat Championships are not going to award you a victory in your SFB game at Origins because some color text in a GPD adventure could in theory be interpreted as meaning that you can do something specifically outlawed in rules elsewhere. If, in creating new items for any game in the SFU, designers should consider all of the data from all of the SFU game systems, but there are known and accepted inconsistencies from one game to another and ADB Inc. reserves the right to publish rules in any of its games that do not quite reflect the data from some other game.

PD vs Starship Design

GURPS Prime Directive will eventually provide information that can be used with GURPS Vehicles to design starships suited for their specific needs. These starships will, in 99.99% of cases, be rejected if submitted for publication in Star Fleet Battles. Moreover, if you try to use such a system to reverse engineer existing ships from Star Fleet Battles, you will find many things that do not add up, but this inconsistency does not mean we will make any changes to any SFB ship. Those ships were designed, some of them two decades ago (before GURPS was designed), using the design principles of SFB, and trying to reverse engineer them with GURPS Vehicles is not always going to work. Players and GMs can fudge, finagle, or fiddle the data any way they want for their own campaigns without affecting the Star Fleet Universe or Star Fleet Battles. In any case where contradictory data appears, just ascribe it to problems in translating those datatapes the Air Force found in 1979.

PD vs Trek

This is the Star Fleet Universe, not Star Trek. When we created this universe, we reviewed the available source data. We used some, ignored others (considering some things to be "plot devices" with no real basis in technology), and when we found multiple sources in conflict, we picked the most logical interpretation and rejected the rest. After we published our decisions (in the form of numerous game products), new source material appeared which contradicted the SFU. That doesn't make us wrong, or the data wrong. Data that doesn't fit is from the other parallel universe and won't always match up.

So you will find things in this game that do not match at least some of the source data, while everything is grounded in that data. If a GM and his players agree, feel free to use a different interpretation or make up something new, but do not write to ADB Inc. and demand that we change a rule to match a given interpretation, episode, novel, or comic book. We won't. And do not submit for publication things based on source data unless that data appears in Star Fleet Universe products; we can only use certain elements of it and have already used all of the elements we are allowed to use (although much of that has yet to migrate from SFB into GPD).

SFU vs. GURPS

We have attempted to stick close to GURPS, but in some cases had to make changes or tweaks to fit SFU history and technology. (One example is the Tech Levels, where the established GURPS data, particularly in the case of transporters, cannot translate SFU into a neat tech level.) None of these tweaks or changes should be considered as our attempt to change someone's Traveller campaign or the core rules of GURPS. The brilliance of the GURPS system is that sub-universes and individual GMs can fiddle with the rules until they fit what is needed. And you can certainly use any GURPS skill, advantage, or disadvantage in GPD.

Forward to G4e

The release of G4e allowed us to do GPD over again, fine tuning it for what the players wanted. Much Federation data was moved to a future GURPS FEDERATION book that had not been envisioned when GPD3e was published in 2002.

ACKNOWLEDGEMENTS

Success has many fathers, and this book is no exception. We would like to take a moment to thank everyone who helped.

First, we must acknowledge Steve Jackson, who created GURPS and guided its development. Many of the actual words of this book come from other GURPS books; and Steve even wrote a couple of new paragraphs when we needed them. Steve's staff and volunteers, including Sean Punch (who did a month of work on GPD), Andrew Hackard, Robert Gilson and Jayson Howell, also had a lot to do with what you see here, writing or rewriting many paragraphs and patiently explaining why a rule had to be done a certain way.

Gary Plana pulled everything together, combining the GURPS system with the SFU background. To the extent that Steve Cole and Steve Petrick helped, they felt more like they were learning a new game than writing one. Gary and both Steves thank the many playtesters who each contributed many thoughts, suggestions, and concepts. Alex Chobot joined the team as Gary's top assistant and handled a lot of the details for him. The gang on the BBS contributed dozens of ideas and hundreds of thoughts. Mark Costello and Timothy D. Olsen did their part many years ago in PDT, along with many others. A lot of background text came out of that project, much of it relatively unchanged.

David Lang worked out the warp factors for us.

Aaron Hendricks also deserves thanks for helping create the artistic look and feel. We also acknowledge the contribution of our artists, who did a great job.

ABOUT THE PUBLISHER

Amarillo Design Bureau, Inc., has been the designer of the Star Fleet Universe for more than two decades, and became the publisher in early 1999. You can contact us at:

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Or check out our website at:

www.starfleetaudio.com

Information on GURPS Prime Directive is at:

www.starfleetaudio.com/prime
At the time of this product, GURPS is moving into its fourth edition (G4e). While GURPS Space 3e was used as a combat system in GPD3e, that system does not work seamlessly with G4e or GPD4e, and the 4th edition of GURPS Space will not be available for some time. Rather than presenting obsolete information, this chapter will give a brief summary of the starships for familiarization purposes only. A future product, GURPS Star Fleet, will be produced so that GPD4e players can fight space battles. Those willing to use the GSpace3e combat system can find it on our web site or in the GPD3e core rulebook. Data is provided in Chapter 8 for using Star Fleet Battles as a space combat system for GPD4e.

All of these ships have artificial gravity and adequate life support. All have batteries for reserve power and impulse engines for backup propulsion. All have tractor beams (except the freighers), and transporters.

**Standard Large Freighter**

This ship uses two 12-GW (gigawatt) warp engines to push 7.5 million cubic feet of cargo at a cruise speed of Warp 4.5. The ship has one standard phaser (with low-grade gyros) in a 360° mount and one point defense phaser firing in the rear arc. Standard crew is 20 but the ship can be handled by as few as four or five (assuming nothing breaks). It has one shuttle.

**Free Trader**

Thousands of these ships are all over the Alpha Sector of the Milky Way Galaxy, used as cargo and passenger ships, transports, prospectors, naval auxiliaries, transport, and many other missions. The ship uses two 18-GW engines to push 1.8 million cubic feet of cargo (and 1.3 million cubic feet of passengers and other volume) at a cruise speed of Warp 5.5. (Some have military grade engines and can make higher speeds.) There are a pair of point-defense phasers in a 360° arc. The ship needs a minimal crew of 5 to operate but the normal crew is 30, and there is space for 20 passengers. See Deck Plans, page 168.

**Security Skiff**

Used for local patrols by planetary police, this ship is one of the smallest seen here. It can cruise at Warp 5.5 using two small warp engines (18-GW total). The crew is normally 30 but this includes marines (or police) to board suspect freighters; the ship can be handled on most patrols by as few as four people. It has a pair of standard phasers (usually with low-grade gyros) and a missile rack.

**Federation Heavy Cruiser**

The most famous starship in science fiction, this is the standard starship that patrolled the Federation's borders and interior regions. Equally capable of combat, exploration, and "support," it was a workhorse. The two warp engines total 90-GW; impulse engines, reactors, and batteries provide alternative power. The ship mounts four photon torpedoes, and six (eight in some variants) standard phasers. The crew is 450; there are four shuttles. This ship (and all of the military cruisers here) cruises at Warp 7 and can reach Warp 9.25 in emergencies.

**Klingon D7 Battlecruiser**

The classic aggressor starship, built for battle with exploration and support a secondary consideration. It has the same power as the Federation Cruiser. Weapons include four disruptors, nine standard phasers (usually with low-grade gyros), and two missile racks. The crew of 450 includes a company of 75 Marines. Two shuttles.

**Romulan War Eagle**

An ancient design refitted for warp, it would be irrelevant except for the massive type-R plasma torpedo and the cloaking device. The older warp engines generate 60-GW. Crew is 200. Four standard phasers and three shuttles.

**Kzinti Command Cruiser**

A workmanlike cruiser, it is highly regarded. It has the same warp power and speed as the Federation cruiser, but divided between three engines (30-GW each). Impulse (9-GW), reactors (15-GW) and batteries supplement this power. The crew is 480; there are two shuttles. The ship has four disruptors, four missile racks, four standard phasers, and eight point defense phasers. The point defense phasers (on the wing tips and either side of the tail) are designed to defend the ship against missiles, but the Kzints are the premier missile-using race (i.e., the ship is designed more for civil wars than for national defense).
Gorn Allosaurus Battlecruiser

Solid as a brick and just about as maneuverable, the Gorn ships are feared for their heavy weapons load. Warp power is 96-GW, plus impulse (12-GW), reactor (6-GW), and battery power. There are two type-S plasma torpedoes, two type-Fs, eight standard phasers, and two point defense phasers. The six shuttles include two configured for ground attack. Crew is 480.

Tholian Patrol Corvette

A small ship, but deadly when they come in packs. When the Thralls first arrived in this galaxy, this TL12 ship was fighting TL10 ships and kept the Thralls from being conquered. As other races improved (and the Thralls could not, as they had only a minimal industrial base) the ship was increasingly out-classed. The two warp engines produce a total of 36-GW, and drive the ship to a cruise speed of Warp 7 (Warp 9.25 in emergencies). The only weapons are four standard phasers, mounted in the nose, but it does have web generators. Most Thrall ships (until the arrival of the Neo-Thralls) were built by combining hull sections of this ship. The crew is 125 and there is only one shuttlecraft.

Orion Pirate Raider

Considered a “light cruiser,” the Orion Raider is the classic pirate ship. It is big enough to tackle an escorted convoy while small enough to build in quantity. The ship has a stealth coating, and has many design compromises intended to make it harder to detect. The ship is basically flat, and has large passive receptor grids in the wings. When these grids detect the scanners of military or police ships, the pirate ship rotates in space so its narrowest aspect is facing the enemy and tries to evade. Many of these ships also have cloaking devices. Unlike most starships, this one can fly into an atmosphere and land on a planet. The two warp engines produce a total of 60-GW; other power includes the 9-GW impulse drive and batteries. Orion ships do not have internal power reactors but can pump antimatter directly into their exhaust, which increases power output but damages the engines. As with the military cruisers, the ship can cruise at Warp 7 and reach Warp 9.25 during emergencies. The crew is 200 and there are two shuttlecraft.

Standard Administrative Shuttlecraft

Small craft used for transport and liaison work. It can be operated by one pilot but usually also has a technician-navigator. It can carry six passengers; more can crowd in during short trips. It cruises at warp 2.5 and cannot go any faster in an emergency. Those shuttles used by the military have a 360° point-defense phaser; civilian shuttles lack this feature. Warp output is 1.5-GW; there is no impulse engine, transporter, tractor beam, or battery.

Lyran Tiger Cruiser

The standard heavy cruiser of the Lyran Empire, this ship has the same warp power (90-GW) and speed as other cruisers. It mounts four disruptors, four standard phasers, six point-defense phasers, and two expanding sphere generators. The ESG systems emit a sphere of energy around the ship, stopping enemy ships in their tracks. It can also be used to ram the enemy. There are two shuttlecraft. The Lyran Empire is organized as a feudal society. Each of the 15 “Counts” has one of these cruisers (along with several other ships), with the four “Dukes” having slightly larger command cruisers. Due to the nature of this organization, Lyran heavy cruisers have the same bridge and command facilities as command cruisers of other races. Crew 420.

Hydran Ranger Heavy Cruiser

The standard heavy cruiser of the Royal Hydran Fleet, this ship has the same 90-GW warp drive and speed as most other cruisers. Weapons include four fusion beams (with brutal power but short range), six standard phasers (often with low-class gyroscopes), and two point defense phasers. Unlike other races, Hydran point defense phasers are “gatling phasers” able to fire four shots in rapid succession. The most powerful weapons on the ship, however, are nine Stinger fighters, each armed with fusion beams and a gatling phaser. There are three standard shuttles and a crew of 350.

Andromedan Intruder

Little is known of these ships as no one has captured or inspected one. All data is from sensor readings. Since Andromedan technology is extra-galactic, very hard to understand, and largely unknown, Star Fleet Intelligence lists this ship as having eight weapons similar to standard phasers and three tractor-repulser beams (which grab target ships and shake them to pieces). The ship carries three Cobra-class “satellite ships” inside (or four Viper-Class, or two Mamba-class). The ship also has the mysterious “displacement device” which can suddenly move the ship up to 60,000 kilometers. This can also be used to displace an enemy ship up to 120,000 kilometers. The size of the crew is not known (since no one has ever seen an Andromedan); there are about 50 boarding combat robots.

ISC Star Cruiser

Slightly heavier than other cruisers, with 96-GW of warp power, eight standard phasers, six point-defense phasers, six rear-firing plasma-F tubes, two forward-firing plasma-S tubes, and a plasmatic pulsar device. Crew is 460 and there are six shuttlecraft.

GURPS Prime Directive 4E

SPACE COMBAT
CIVILIAN SHUTTLECRAFT

While ships like freighters and Free Traders form the backbone of interstellar commerce, tens of thousands of civilian shuttlecraft are used for short-range commerce and travel. While shuttlecraft are relatively slow (at warp-2.5 it would take a week to travel from Earth to Vulcan), short-ranged (they have to refuel every 500 parsecs), and uncomfortable (less room than a Winnebago, albeit more than a minivan), they have the advantage of being cheaper than starships and able to go wherever and whenever the pilot wants to fly them. Most maintenance is within the abilities of a qualified pilot and every civilized planet will have service and fuel facilities.

Shuttlecraft come in a variety of sizes. The smallest ones (as seen on the original TV series) are “single-sized”; there are also double, triple, and quad-sized shuttlecraft. Larger shuttlecraft than quads are simply unfeasible.

While the different sizes are similar in many respects, there is one important division: single-sized and double-sized shuttlecraft can dock inside a starship's shuttlebay, while triple-sized and quad-sized shuttlecraft cannot — they are just too large. Triples and quads can only dock to a stationary ship or station externally (and would be catastrophically undocked if the ship went to high warp), and can only dock internally at bases which can also dock starships internally. As a result, triples and quads operate from ground bases almost all of the time.

Types of Shuttlecraft

There is no such thing as a “standard” civilian shuttle. While they emerge from the factory in one of a few “stock” designs, all are individually customized by their owners, often over a decade or two of service. All shuttlecraft have the following in common:

- They have a “flight deck” in the bow with two seats for pilots. These seats can also operate the navigation, weapons, and other systems. While the base price of all shuttles includes two seats, some (particularly “used”) shuttles have only one (deduct $5,000) and a few have a third pilot seat installed (add $5,000).
- They have an “engine” compartment at the very rear with access to the engine controls, phaser (if any), toolboxes, and other systems. This small compartment is usually locked.
- They have a “main compartment” which is for the payload (cargo, passengers, other systems). The “base price” of the shuttle includes only a “bare deck” (suitable for stacking cargo) but most leave the factory with built-in seats, cargo storage bins, or other fixtures. This always includes a fold-down lavatory.
- They have an equipment bay which is “beneath the floorboards” and in the two cylindrical pods on either side of the bottom. This contains the sensors, computer, avionics, warp engines, batteries, fuel, life support, etc. All shuttle have two low-power warp engines; few have any other source of power other than emergency power cells.
- They may have external cargo pods (up to four on single-sized and double-sided, six on larger) each holding half a cubic yard of cargo.

Within these parameters, there are a small number of standard “stock models”:

- The standard “administrative” shuttle is designed for short duration flights, mostly carrying a few passengers and their personal gear or luggage from a ship to a planet, or from planet to planet inside a system. These will never have bunks, food replicators, etc.
- “Transport” shuttles are designed to carry cargo. They may or may not have uncomfortable fold-down “combat seats.”
- “Business” shuttles (single/double-sized) and “Yachts” (triple/quad-sized) are fitted for longer flights with varying degrees of luxury. They may or may not have cargo space beyond the need for personal luggage.
- “Commercial” shuttles are used by interplanetary traders. These will be mostly cargo volume, with space for a bunk and food supply, and long-duration supplies for the one/two-man crew.
- “Exploration” or “adventure” shuttles will have space for cargo, equipment, bunks, long-term supplies, food, etc. They may also have minimal laboratory facilities. Most of these are used by independent operators (since corporations only like to pay for things actually found and don’t like to finance treasure hunts) but in cases where a corporation is developing a planet or system, some of these could be used by teams of corporate employees. Most of these are double or triple size, just to have enough room to accommodate the required systems.

Sticker Shock

The dimensions below are in meters (length-width-height). All have an internal height of two meters. The overall internal dimensions include the flight deck which is 1x2 meters with two pilot seats.

The basic price for a new shuttlecraft with two pilot seats, artificial gravity, life support, auto-pilot, engines, a lavatory, and an unfinished main compartment is:

- Single-size, 2 x 3 meters, $100,000.
- Double-size, 3 x 4 meters, $250,000.
- Triple-size, 3 x 6 meters, $600,000.
- Quad-size, 4 x 6 meters, $1,250,000.

Dimensions may vary by as much as 20% between different manufacturers. Given a twenty-year life, used shuttles deduct 5% of the cost for each year of “average” use (but are never cheaper than 20%). Refurbishing (5% of the “original” cost) can reduce the “age” by one year (up to half of the actual years of service).
Dealer Options

The available space within the main compartment of a shuttlecraft can be used for other things:
• folding "combat" seats, 1 cubic meter, 0.5 square meters of deck space, $500.
• economy airline seat, 1 cubic meter, 0.5 square meters of deck space, $750.
• first-class airline seat, 1.5 cubic meters, 0.75 square meters of deck space, $1,500. (Note that personnel in unsecured seats, say household dinner chairs, would be seriously injured by even moderate maneuvers.)
• pilot/control seat with consoles, 2 cubic meters, 1 square meter of deck space, $5,000.
• standard bunk, 2 cubic meters, 2 square meters of deck space (stackable, so two fit in the same deck space), $1,000. For Luxury status, add another $2,000. If you only want one bunk, the space under it can be used only for storage or equipment, not for seating. A double bed (for couples) is twice as big/expensive.
• economy bunk, 1.33 cubic meters, 2 square meters of deck space (stackable, so three fit in the same deck space, $1,000 just not as comfortable).
• standard lavatory without shower, 2 cubic meters, 1 square meter of deck space, $1,000.
• standard lavatory with compact shower, 2 cubic meters, 1 square meter of deck space, $2,000.
• first-class lavatory with shower, 4 cubic meters, 2 square meters of deck space, $5,000. For luxury version, add another $5,000.
• airlock, single person, 2 cubic meters, 1 square meter of deck space, $5,000.
• airlock, two-person, 4 cubic meters, 2 square meter of deck space, $6,000.
• food replicator, one cubic meter, $5,000.
• laboratory equipment, $5,000 per cubic meter.
• office, entertainment, and similar amenities, $200 per cubic meter (for luxury class, add $300 per cubic meter).
• short-range tractor beam (to tow something that is within a few meters), 2 cubic meters, $7,500.
• cargo bins, lockers, etc., $100 per cubic meter.
• refrigerated or other special storage, $500 per cubic meter.
• hidden cargo bins, $1,000 per cubic meter.
• point-defense phaser, two cubic meters, $50,000. This burns one hour of fuel for every shot fired.
• bulkhead to separate the flight deck from main cabin, $1,000 on single/double-sized, standard on triple/quadruple. This takes up no space.
• external storage pod, half-cubic-meter, $1,000. These cannot be accessed from inside the shuttle but only when it is landed. They are insulated against cold and heat and air tight (also water tight and gas tight).
• life support for two people for one month; fuel for one week of cruise speed: included as standard.
• each additional week of fuel, one-half cubic meter (can be in external pods), $2,000.
• each additional week of food and life support, per person, 1/5 cubic meter, $500. This can be in external pods and piped into the shuttle’s on board systems.

All of the above items include necessary ancillary equipment such as additional life support, water tankage, recycling, power conduits and control interfaces, etc.

Hidden and special cargo areas hold one-half of the capacity they use.

Operating expenses are typically 1-2% of total (new) cost per month, not counting battle damage and other "unscheduled repairs". All prices are given for TL10.

Weaponry

Phasers: all shuttlecraft may carry a single shipboard phaser-3 (point defense) cannon which can fire in any direction. Not every shuttlecraft carries one, however. Phaser-3 cannons are Legal Class 3.

While some empires (and pirates) arm their military shuttlecraft with missiles, they are too expensive for civilian use and are Legal Class 1 anyway. Heavy weapons like disruptors and larger phaser cannons are simply too big to mount on a shuttlecraft, or have excessive power requirements, and are Legal Class 0 in all cultures — no exceptions!

Prospecting Shuttlecraft

While these use the same engine and some common chassis elements, these are highly specialized shuttlecraft designed for asteroid mining and prospecting. Most are single-sized, a few a double-sized. Larger shuttles could be custom converted but are very rare. Prospecting shuttlecraft differ from standard shuttlecraft in many ways.
• The single-sized prospector has one seat (one-man crew), a prospecting cannon, a one-cubic-meter geology lab, a one-cubic-meter airlock (for bringing rocks on board), a tractor-grappler, and 4 cubic meters of storage (consumables, mined materials). Cost is $250,000.
• The double-sized prospector has two seats (two-man crew), a prospecting cannon, a one-cubic-meter geology lab, a one-cubic-meter materials processor (to remove waste rock from valuable metals or minerals), a two-cubic-meter airlock, and 11 cubic meters available for storage. Cost is $400,000.

A prospecting charge launcher is basically a "mortar" used to propel a mining charge to an asteroid, breaking it up so the valuable bits can be brought aboard. The unguided projectile can hit a stationary target within 100 meters; forget trying to hit a moving target. Prospecting/TL (space) skill is used to aim and fire the cannon. On a critical miss, the weapon jams and must be repaired. Charges for a Prospecting cannon cost $100 at TL10 and take up 1/5 of a cubic meter. They can be reloaded from inside the shuttle.

The tractor-grappler is short-ranged (ten meters) and is used to bring aboard rocks (or chunks of a wrecked space ship) for investigation or recovery. For an extra $50,000, the boom arm of this system can be fitted with a laser-cutter able to dismantle space wreckage for salvage.

Prospecting shuttles can buy any of the listed upgrades (including the phaser-3) they have room for. For that matter, standard shuttles could buy the geology lab and materials processor ($5,000 each) for surface exploration.
INTRODUCTION TO ROON

A Federation delegation is on the neutral planet of Roon to conduct trade negotiations. The planet is inside Federation territory and had just been contacted, but it is not (yet) a member. Christopher Plemons, the son of the senior member of the delegation — a Federation Trade Commissioner — has been kidnapped. The ransom demand stated that he will be released only after the trade negotiations fail, so the Commissioner had better make sure they do, or else. The commissioner, knowing that his son will probably be killed in any event, has asked for help... and that is where the player characters enter the picture.

The adventure takes place on a world called Roon; it is an independent world, primarily an agricultural exporter. It is only TL8, which will give the PCs a major advantage! The trade negotiation in progress is to negotiate a new trade treaty; both sides want this treaty, and the details being argued over revolve around both sides wanting to make a bigger profit, thus making it difficult to arrive at an arrangement that both sides can agree to.

GMs: MAKE IT DIFFICULT ENOUGH!

An adventure should never be easy; the players will have more fun completing a difficult mission. The GM should make it as hard as possible, but should be careful not to make it too hard — after all, this is supposed to be fun for everyone, right?

As written, the easiest possibilities are given; in many cases there are notes on how to make it more difficult for the PCs, and the GM should consider using them.

It’s also a good idea for the GM to pay attention to what his players are talking about during the game. Sometimes, their paranoid expectations about what is going to happen next may give you ideas on how to improve the game, not to mention new ideas that you (or I!) haven’t thought of.

GMs should look for opportunities to liven up, change, personalize, or otherwise change the adventure. Most of your players have read the story, so they think they know what to expect. All manner of things can be done to throw the players a curve, here are just a few suggestions:

• One of the enemy gang is a spy for... someone. Who? The Orions? The Klingons? The Federation GIA? Another faction of the Roon government?

• Just when the characters thought they were trapped, they find a box of something useful which the Orions left hidden in the room.

• One member of the enemy gang is something of a hothead and likely to do something spectacularly stupid.

• The hostage has succumbed to the Stockholm Syndrome and has joined his captors!

• The hostage is female, or a brother and sister, or the trade rep’s mistress who must be rescued unofficially by an off-the-books operation.

SETTING UP THE ADVENTURE

The GM does not have to use this adventure verbatim; any number of things may be changed to suit the GM and the campaign setting. For example, if the PCs are all Lyrans, then the GM should adjust the adventure so that the trade delegation is from the Lyran Empire, not the Federation. Or the GM could decide that the trade delegation is from the Federation, but the signing of the trade agreement would serve the interests of the Empire in some fashion, so the PCs must make sure the treaty is signed.

In the same fashion, the identity of the bad guys might also be adjusted. While it is easy for the Orion Pirates to fill that role, the GM may choose to use an enemy of the PCs that is unique to his campaign.

WHAT’S MY MOTIVATION?

One question the GM will have to answer is: why are the PCs doing this? If they are Star Fleet, Marine, or other Federation officers, then it becomes easy: the PCs are doing this mission because they have been ordered to do so — as in the story. If the PCs are ex-military, then Commissioner Plemons could be someone they met while they were still “in the service,” and the PCs feel indebted to him for some reason. If the PCs are mercenaries-for-hire, then they were hired by someone who would stand to lose money if the trade agreement did not get signed, etc.

Whatever the GM chooses, one other factor is going to revolve around the reaction of the local police force to the PC’s raid: are the PCs acting in some official capacity, or not? If they are cooperating with the police, then the GM should make the police “obstructionist” in some way. For example, the police are willing to let the PCs do the dirty work, but will take custody of the kidnap victim from the PCs if they get a chance. Or a senior police official could be in the pay of the Orions, and wants to stop the
PCs from rescuing the kidnap victim in order to keep his paycheck from going up in smoke. The GM is highly encouraged to come up with something that the players are simply not expecting!

On the other hand, if the PCs are *not* in an official capacity, then the police are going to want to arrest them and "ask them a few questions" (a thought which should motivate the PCs into avoiding any official entanglements); a really nasty GM could have the police mistake the PCs for the real criminals and arrest them for the kidnapping! At the least, no police force wants a bunch of cowboys running around their turf with weapons; innocent people could get hurt.

In the event that the PCs are a GIA team or other undercover group who are acting in an official capacity but do not want their activities made public, then a truly sadistic GM might consider combining the worst features of all of the above!

**BRIEFING THE TEAM**

The briefing will have to be tied to the PCs' composition, and the GM will have to adjust it as necessary. In any event, the following should be made clear to the PCs:

Their primary goal is to rescue the kidnap victim, alive and unharmed, and return him to safety. That means either working their way out of the warehouse compound or getting to a point where they can be pulled out by transporter. Because of the trithallium ore, this means either reaching the top of the elevator shaft or reaching the bottom of it *and* using a transporter beacon to enhance the signal.

Their secondary goals include: the elimination of the bad guys, either killing them or capturing them as appropriate; shutting down their operation; taking possession of as much contraband, intelligence material, and so forth as possible (and making sure they get credit for it!); and generally avoiding any complications once their other goals have been met, i.e., getting off-world without being arrested by the police, etc.

**WHAT THE CHARACTERS KNOW**

The kidnappers were not terribly bright, so it was relatively easy for the PCs to learn where the kidnap victim was taken, i.e., to a warehouse complex owned by the kidnappers. With their advanced technology, the PCs quickly learn that the victim is not being held anywhere they can scan, but the warehouse complex is located on top of an outcropping of trithallium ore, and there is an elevator shaft going deep underground from one of the buildings. The victim must have been taken down there!

One of the properties of trithallium ore is that it will block sensor scans, including those from a tricorder or from shipboard sensors. This is very significant, as a TL8 civilization should *not* be aware of this feature! This tells the PCs that the warehouse complex belongs to someone with access to TL9+ technology, which strongly implies an off-world connection of some kind. And the Federation does not want planets inside its space having connections to foreign governments or criminal organizations.

One of the other properties of the trithallium ore layer is that transporters cannot penetrate it easily; require an Electronics Operation (transporter) skill roll with a -16 penalty. If that does not dissuade them, well... they've got to learn sometime!

Note: it should not be difficult for the players/PCs to figure out where to start looking. An obvious starting point for the game can save hours of the players mucking around, and as they are going to arrive at the same place eventually, why not cut to the chase?

**STARTING POINT FOR THE ADVENTURE**

If they have access to a transporter, the PCs have *already* gotten past the rent-a-cops and other security measures above ground (which may include the local police) without incident; if not, the GM may require the PCs to play this activity out. As an accident might reveal TL9+ technology, the warehouse complex is only protected by TL8 security measures.

See the floor plan (page 190). The PCs have arrived in a 70 x 150 yard warehouse, the one with the elevator going deep underground. There is one guard, a hulking Roonian youth named Chucst (see the NPC data below). He is in the lobby area just in front of the elevator, which is empty except for Chucst, his equipment and weapons, the security camera, and the elevator door. The PCs are in Storage Bay #4. (Note to GM: Feel free to replace Chucst with an alien mercenary, such as a Lyran, just to liven things up and to warn the players that you have changed the adventure from what they read in the story.)

As the only way underground is through the elevator or the ventilator shaft, the PCs are going to have to get past Chucst somehow. If the PCs have not defeated the security camera, roll 3d. On a 12 or less, the person monitoring the cameras sees what the PCs do to Chucst, and immediately sets off the alarms; on a 13+ the person isn't alert, and doesn't notice Chucst is down for 1d minutes.
If the GM wants to make it more difficult for the PCs, move Chucst farther away from them, or make him more alert. Or have his teenage cousin, Granst, help him guard the elevators. Granst isn’t going to be much good in a fight but he is an extra pair of eyes, ears, and hands.

**SECURITY CAMERAS**

These are marked on the map with a black disk; they sweep the entire field of view. In the story, the ship used its communications and computer abilities to tap into the system and feed a recorded loop into the monitors. That will work for the upper cameras. For the lower cameras (and for the upper ones if you don’t have a handy starship) you can deal with them in several ways, each with its own requirements and problems. The team could use a tricorder to jam the signal, or a weapon to destroy a camera, but when the monitor screens go blank, the bad guys are going to know something is up. They won’t know what, but they will be on alert. On a lucky roll they may just assume an equipment malfunction and send somebody to check.

**THE ELEVATOR**

This is marked “E.” It is a metal box (10’ x 10’ wide, with an 8’ ceiling) made from thin steel; each wall, the ceiling and floor of the elevator, and the door are DR6; each has 20 hit points. It is mechanically operated, hanging on the end of a 1” steel cable (DR6, 30HP). The walls of the elevator shaft itself are 6” concrete (DR4, 60HP). There is a security camera inside the elevator with a wide-angle lens, and another at the top of the shaft looking straight down. While it is easy to get into the elevator itself, there is a numeric keypad instead of the expected buttons for each floor. The PCs have the following choices:

- Get the PIN number from Chucst (good luck!). Perhaps a mind meld might work.
- Use a tricorder to try and crack the code using Electronics Operation (Security Systems); don’t forget the penalties for TL differences; this system is TL8 like everything else!
- Forget about the elevator and use the ventilation shaft.

To make it more difficult for the PCs, make the keypad a thumbprint or voiceprint lock, which will add a -2 or -5 penalty to the skill roll, respectively.

**THE VENTILATION SHAFT**

The vent shaft, marked V, goes from deep underground to the roof of the building; it is 3 feet square and is empty except for slime and dust on the walls, and various security sensors including a TV camera.

There is an air-conditioning unit (weighing 4,000 lbs.) sitting on the top of the shaft; the PCs must remove it if they want to enter the shaft that way. There is also an inspection hatch facing the lobby, which can be removed easily, but the question is what kind of security sensors are in the vent shaft itself. These are up to the GM; motion or heat detectors, trip wires or laser beams, or just heavy iron bars are all possibilities, depending on how difficult the GM wants things.

The inside shaft walls are bare metal, with no handholds or ladder rungs. While going down the shaft is easy for someone with minimal climbing equipment, climbing up the shaft without a rope is difficult and requires a Climbing skill roll for every three feet; as the shaft is 25 yards high, the PCs will have to make 25 skill rolls and will take quite some time to accomplish. Equipment such as suction cups will give bonuses to the Climbing rolls, but not eliminate them entirely.

If a Climbing skill roll is failed, the PCs will slide back down the shaft 1d feet before stopping themselves; on a critical failure, they fall all the way back down the shaft to the bottom, taking damage per the Falling rules . . . and the “thump” might be audible if the guards are still active!

The ventilation and elevator shafts have security systems installed. There is a transporter-jammer system that will prevent transporters from working down the shaft unless
it is disabled (roll vs Electronics or Engineering skill) or destroyed by an explosion or weapon. If an alarm is tripped, a metal plate will slam shut closing off the ventilation shaft. This plate is steel, DR3, 30HP.

THE UNDERLEVEL

See below; all ceilings are 10 feet high (unless otherwise noted). The corridors are 10 feet wide.
There is a guard in area “G.” Note that there are no doors between area “G” and the corridor, so if the PCs make a lot of noise when they take out the guard, everyone underground will hear them and will be alerted!
All interior doors (including the elevator doors) are steel, DR2, 20HP. The floor, ceiling, and all interior walls underground are made from 6" steel-reinforced concrete (DR4, 60HP). The walls help support the roof, so if anyone gets trigger-happy the ceiling may cave in at that point!
All doors have mechanical locks which require a Lockpicking/T6 skill roll to bypass; to make it more difficult for the PCs, improve the quality of the locks.
The rest of this level is described below. There are several of each kind of room, allowing the GM to “mix up” the map and confuse the players (who have almost certainly read this chapter and memorized the floor layout . . . sorry, guys!)

Area G: As stated, area “G” is more a widening of the corridor than anything else. It contains a desk and a chair. On the desk are a number of video monitors, which are tied to the various security cameras. These allow the guard on duty to keep an eye on things. Also in this area is a TL8 electrically-powered forklift; there is a heavy electrical cable leading from it to a box on the wall (its battery charger).
To make things more difficult, move the guard from area “G” to a more remote room, make the guard more alert, or have two guards on duty, or have backup sensors that the PCs didn’t detect.
Room H: Both are 50 x 10 feet. These are a combination lunchroom and lounge area. The one near the elevator is for the guards while the one at the top end is for the family. In the story, most of them are there.
Room J: This is a storage area for cleaning supplies and other items, spare parts, etc.
Room K: This is a barracks for the guards. It has eight double bunks in it. To confuse the hostage rescue team, feel free to move this to some other compartment.
Rooms L: These are individual rooms for the senior personnel. One is assigned to each major PC listed at the end of this adventure including Chucst and Ted N’Korl, but not Dahlen (as he is a visitor). Each room has what you’d expect to find in a bedroom/living quarters, except for toilet facilities.

Room M is the men’s room, complete with showers.
Rooms N: These are just storerooms. The lights don’t work very well in either, as boxes and crates have been stacked all over, and some block the light fixtures. Lots of dark shadows for things to lurk in — did we mention the Roonian three-legged rats?
Room O: This is the office where the accountants who work on the illegal deals, schemes, and imports work.
Room P: This is the private office for Ted N’Korl, the head accountant.
Room R: This is a unisex bathroom for the accountants and office workers.
Room W is the women’s room, also with showers.
Room X: There is only one of these. It contains the elevator machinery, electrical boxes for the level, pumps and tanks, and other equipment to make this level habitable.
WHERE IS EVERYBODY?

There are six members of the smuggler gang. Depending on the setup (and the difficulty level the GM has chosen) they may all be related to the owner of the warehouse complex, members of a professional criminal organization, enemy military personnel, or anything else the GM may select. In the story, these are of course the adult children of the owner of the warehouse complex, and partners in his criminal conspiracy to profit from illegal offworld imports.

One of the gang members has brought a visitor, named Dahlen. He looks somewhat like the kidnap victim, and the PCs may mistake Dahlen for the real victim. Dahlen and one of the gang members are in one of the "L" rooms. They are enjoying each other’s company, and will be taken by surprise by the PCs unless the alarm has sounded.

The story in this book covers a fairly easy mission, in which an ad hoc team of Star Fleet personnel, with only a few hours for planning, rescues the hostage from a few civilian criminals who are not trained for combat. For purposes of this adventure, however, we can make things much harder. There are 2d+4 (6-18) guards in the bunk room, all armed with TL8 weapons, mainly sub-machine guns. They have DR2 body armor, but half of them won’t be wearing it and will have to take time to put it on or do without it. The caliber of the weapons is chosen by the GM based on the difficulty of the adventure, but should be in the 2d to 5d range. To make it really difficult, the GM may give some or all of the guards TL9+ weapons such as disruptor pistols, better armor, etc. As they are in an underground area, none of the guards will have any heavy weapons; maybe a hand grenade or two, but nothing heavier.

Ted N’Kor is an accountant who is working for the bad guys. On an easy mission he is being forced to work for the bad guys and is willing to give the PCs information. On a hard mission, all he will say is “I want to speak to my lawyer.” The GM should feel free to have his attitude change in reaction to things going on around him. He will be in the "P" room (which is kept spotlessly clean) and has a small laptop computer which contains the bookkeeping records for the bad guys. On an easy mission the important records will be on the hard drive; on a hard mission those same records will be on removable media (for example, a CD-RW or data cartridge) and he might be unwilling to cooperate with the PCs to the point that he will try to destroy the CD-RW so that records implicating himself are destroyed.

Christopher Plenmons is the kidnap victim. The GM should decide which room he is being held in; the only rooms he should not be held in are the two toilets and the guard barracks. In the story, young Mister Plenmons is in one of the "L" rooms which open off of the family "H" lounge.

WHERE IS EVERYTHING?

There are any number of items in this secret facility. Most are considered to be illegal under Roon law. Other items cannot legally be imported to a neutral planet like Roon under Federation law. The GM is encouraged to add items to this adventure that are unique to his campaign.

One storeroom contains (among other items) 50 pounds of Kirian Redbloom; this is a plant that can be used as a mind-altering drug and is illegal to possess on Roon and on most Federation planets.

Another storeroom contains a stockpile of over 500 pounds of Estallian Fireweed. Estallian Fireweed is a plant which, while native to Roon and quite legal to possess (on Roon!), can be used as a drug on some Federation planets, particularly Rigel. Discovery of this stockpile and the fact that Roon is the source for it, when communicated to the proper authorities, will earn the PCs a reward or a medal, depending on their background.

Yet another storeroom holds a stockpile of Kresian Taliate. This is similar in both texture and appearance to both plants listed above, but is merely a very expensive spice that is entirely harmless and 100% legal. In order to tell these three plants apart (and identify their characteristics) a skill roll must be made against Pharmacology or Botany.

NON-PLAYER CHARACTERS

All of these non-player characters assume that the GM has chosen to run an easy mission for the players. Increase the stats and skill levels, and/or the equipment, to make the mission more difficult.

Gang Members

There are six of them, all in their 20s. Each has a special item; choose from a tricorder, a disruptor pistol, three flash-bang hand grenades, or Dahlen. The gang member who "has" Dahlen is the one that will be found with him in one of the "L" rooms, as described above.

All have the same armor and weapons as the guards but may not be wearing it when the PCs attack. Skills include Guns/TL8 (Submachine Gun)-12. The one with the disruptor pistol also has Beam Weapon/TL10 (Disruptor)-13. The original cast includes:

- Melika: Female, the oldest of the sisters, least tolerant of immature behavior: ST 10; IQ 13; DX 13; HT 9.
- Anitha: Female, the middle daughter, she does what she is told by Melika or Michalik, without objection: ST 10; IQ 11; DX 13; HT 8.
- Bessilith: Female: ST 11; IQ 12; DX 13; HT 10. Has an ongoing romance with an Orion pirate officer who has promised to take her away with him. The most "military" of the females, she was assigned to guard the lower elevator lobby. She has skill 13 with her weapon.
- Michalik: Male, 28 years old, son and heir of the owner of the illegal business: ST 12; IQ 12; DX 12; HT 10. He is the clear leader, although Melika might dispute that status — out of his hearing.
Kaelyn: Female, youngest of the sisters, unusually attractive, she uses her sex appeal as a weapon: ST 9; IQ 12; DX 13; HT 8. She was the one who lured Plemons out of town so he could be kidnapped.

Chust: The younger brother, he got more than his share of brawn but is clearly not an intellectual: ST 12; IQ 10; DX 10; HT 11.

Chust might be assisted by his teenage cousin Granst, who is always looking for “real, adult, jobs” to do for the family: ST 8; IQ 11; DX 10; HT 9. Granst will not be issued a weapon, but will pick one up if it’s laying around loose.

For variety, however, Chust could be replaced by Chrowl, an ethnic Lyran mercenary, and not a particularly bright member of that species: ST 14; IQ 12; DX 15; HT 13. He wears DR2 armor and carries a TL10 Disruptor Rifle and an assortment of knives. His skill level with all of his weapons is 16, and he also has Brawling-16. Note that Lyrans possess Sharp Claws and Sharp Teeth, and he has skill 16 with them. He also has fur. See the Lyran racial template in Chapter 2.

**Guards: Thugs On Call**

ST 12; IQ 10; DX 12; HT 13. All have TL8 submachine guns and DR2 armor. All have the following skills: Brawling 15, Guns/TL8 (Submachine Gun) 15. You could make one of them a sergeant with an extra point of IQ. The same stats can be used for the above-ground guards, or you could reduce those to the level of rent-a-cops: ST 10; IQ 10; DX 10; HT 10.

**Mr. Plemons and Dahlen**

Both are ST 11; IQ 10; DX 12; HT 12. These two people possess no skills worth mentioning. Plemons is from Mars (although an Earth-descended human) while Dahlen is from Roon (and an unrelated species close enough to human to pass a visual inspection). Plemons is a little confused by the whole situation (or perhaps drugged) while Dahlen is a “boy toy” not noted for the quickness of his wits. Simply asking them their name will produce a confused response. Dahlen knows about Plemons and is likely to claim to be him, while Plemons is confused by the kidnapping and may deny his own identity if he doesn’t realize that the team are here to rescue him. Either one could match the rather awful “ID card photo” of Plemons that the team has; it would take a tricorder reading or a mindmeld to discern the true identity. (This could also be told with fingerprint analysis, something that might take too long to be done during the mission.)

**NOTES TO GMs**

**The Compound**

In the event that your players need to fight (or sneak) their way into the compound itself, the map (next page) is provided. The compound (roughly a thousand yards wide and 700 yards front to back) includes 14 warehouses (feel free to pick any one of them for the entrance to the basement, or to include basements under more than one of them), a large multistory office building, four large security gates, and eight guard towers. (One of the warehouses should be designated as having generators for internal power. You could even designate some of them for manufacturing.) The fence is eight feet high, chain link with barbed wire on the top. (GMs could electrify it for extra thrills.) There could be two guards in each tower, four in the office building, one on each gate, and four on roving patrols around the inside (or outside) of the compound and another four are bunked down as a reserve. (Most of the guards live at home and drive to the compound only when it is time for their shift.) Each guard tower has remote security cameras controlled from the security center. If the enemy has gotten sloppy or is in a cost-cutting mode, a lot of the above-mentioned guards will not be present.

**Rewards**

GMs are warned not to pass out medals so easily that they become meaningless, but look for opportunities to encourage your players to come back and play again. Remember not to reward people just for doing their jobs, but for doing their jobs under considerable stress and danger, or better than expected. Obviously, anyone wounded could get a wound badge, and if you rescue the hostage and get the computer records and accountant back to the ship, a decoration is in order. A Lifesaving medal could be given if somebody pulls a comrade out of the line of fire. A Command Accomplishment Medal or a Bronze Star could be given to the team leader (although a player would be warned that the next one will be tougher to get). Combat Action Ribbons would, of course, go to everyone — with the crossed swords of a direct assault. Commendation awards with assorted scrolls can be given.
Roon: Ideas For Game Masters

If your group prefers a slower, more investigative and detailed style, they’re going to want to work things out for themselves, not just get briefed on where the bad guys are and how to get to them. Some groups might even want to only do this, leaving the actual rescue to the professionals (or to their other set of characters!). In addition, even for groups that like fighting, they’re not always going to want to go in guns blazing to free the hostage. Here are a few other approaches your players might take to this situation and ideas about how to handle them. Don’t be surprised if they come up with something not on this list!

They could spend some time investigating beforehand — “Knowledge is power,” after all. Depending on who they talk to and how they do it, the PCs could obtain almost anything. Some groups of players will like to do this kind of work themselves, some teams of characters won’t be able to conduct that kind of investigation.

Plans of the warehouse complex would be kept by government archives and the company HQ, but might be out of date and may omit some details. Of course, the players might not want to wait weeks to get a response for their perfectly reasonable request for information. Diplomacy, fast talk, pulling rank, or a bribe might get permission for them to do their own research; Computer Hacking or Lockpicking could also be used to gain access. Having obtained access to the records, the information given to the players should depend on their skills. A security expert might notice the types of locks used and bring along the master key, while a trader would notice what is stored in the warehouse and arrange a ‘special delivery.’ If the players are discreet about this approach, the bad guys will be none the wiser, but ask the wrong question and the kidnappers will hear about it. Depending on how dangerous they think the players are, this could mean that the kidnappers do anything from a being a little more alert to booby-trapping the whole complex and moving elsewhere.

Similarly, information about the kidnappers might be available from police files, from the customers of their warehouse, from an industry association, or from anyone else they’ve dealt with. Less obvious places can give hints, too, even really mundane sources. (What does it mean if there are a dozen empty pizza boxes in the trash?)

Tapping into the kidnapper’s communications and listening in for a while might let the players fake instructions from the Orion employers, instructing them to hand over the hostage to the “Orions” (who your team impersonate). “Michalik, the Feds have found you and will be trying a rescue tonight. A shuttle will pick you up at midnight while their ship is on the far side of the planet. Be on it with the hostage.” Now the PCs just need to beg, borrow, or steal a shuttle and hope they were believed.

Talking the kidnappers into releasing the hostage isn’t impossible, although it’s likely to be difficult. Knowing why they kidnapped the commissioner’s son — for a cause, for money, to repay a favor, because they were forced to — is important here, as are high skills in Diplomacy, advantages such as charisma or a good reputation and of course role-playing by the players.

The players might want to just threaten the kidnap-
pers, pretending to be "another Orion cartel" or a group that wants to make sure that it's the Roon side of the negotiations that causes them to fail. The players might even BE from another Orion cartel! The more credible the threat, the more likely that this will work, and the more likely that the players will attract unwanted attention.

If wealthy themselves, or with wealthy contacts, it might be possible to simply buy the kidnappers off. Both sides will be watching for — and probably planning — treachery when the hostage is exchanged for the money. The bad guys know about transporters; they won't agree to making the swap anywhere a transporter can get to.

If none of the above work, or if the players don't want to try them, they still might want to tilt the odds in the attack as far in their favor as possible. Being sneaky might not earn bonus points, but it sure can be fun.

If the players can get the kidnappers to leave the basement, the tactical advantage is reversed. It will be the players who have the cover and no need to press forwards. Of course, this means the bad guys will be able to choose when to start the fight and will all be ready when they do, so the players should keep a careful watch. There are several methods the players could use to make the enemy come to them: playing around with the air conditioning, false messages, cutting communications links, stealing or destroying the contents of the warehouses (if valuable), etc.

Talking their way in is a perennial favorite of players, with one or more of them pretending to be there for 'scheduled maintenance' on the lift or air conditioning, a pizza delivery, a friend of their father, as a representative from the Orion employers — anything that would require access. Depending on how elaborate the disguise is, getting the information to pull these off convincingly could itself be an adventure. Having a person on the inside, or even a look around the facility, could be a decisive edge once the assault from outside is launched.

Inventive use of technology is possible too. The players might want to avoid using both the elevator and the airshaft, instead setting up a transporter repeater at the top of the elevator shaft, so that transport directly down the elevator shaft without passing through any ore is possible. This would still be at a penalty of -8, as the surrounding ore still would cause interference. Successful rolls on Metallurgy, Physics, and Engineering (transporter) will each reduce this penalty by 2. After a success on each, the player's new knowledge of the properties of trithallium and transporter theory have allowed them to customize a transporter to penetrate the ore. Alternatively, and with the right equipment, the players might even be able to dig themselves a new entrance.

The main thing is to expect your players to throw you for a loop at least once in an adventure. That's fair enough, since they haven't seen the script. Whatever they come up with, you'll need to think on your feet and improvise. Which the PCs purchase the 100 tons of licorice that are essential to their plan, do the evildoers find out... and if so, what do they do about it?) Don't try to force the players into following your script; it's their game too.

Who, What, Where, When, and Why: Notes For Game Masters of GPD

Most Gamemasters have done their job for some time now and have no trouble getting started. For those who need a little help, here are some thoughts.

When: While it's not the first thing on the "Five W" list, this is the first thing to consider. The simplest decision is to ignore the SFU timeline with its fixed dates for who was at war with whom and just run whatever adventure you want. However, if you do want to fit within the established game universe timeline (which can add some richness to your game as your characters look forward to the politically inevitable events of next year and what opportunities they provide), it's best to pick a date first. The two most obvious choices are during the General War and before it. Campaigns set during the General War are like trying to run a game during Wwll—challenging if being part of "the war" is not central to your characters. Perhaps you are treasure hunters trying to stay out of the way of the fighting?

Where: Given access to a spaceship or tickets on a commercial starliner, you can pretty much go anywhere. You don't have to think in terms of one sector, or one border, and your characters could easily find themselves on opposite sides of the Federation from one month to the next. While "where" isn't particularly critical, you will want to decide if your home base is a Federation colony, a Klingon battlestation, a clandestine Orion base, or somewhere else.

What: Are you military, ex-military, or civilian? Are you journalists, archaeologists, treasure-hunters, or pirates? Whatever you want to be, decide now and you can build the campaign around the kind of characters who will play it. Flexibility is key. Even military people will get a little time off for vacations or adventures, and even civilians might pick up a government contract for a little dangerous work. Ex-military can be a good choice as it has lots of skills, some leftover gear, a few friends still in uniform, and the opportunity to be called back to the colors if an adventure is better suited to active duty personnel.

Who: Having established where, when, and what your campaign is may eliminate some choices as to "who" the characters invited to play it might be. If you are Star Fleet Marines, then being a Klingon or Lyran is probably not going to work in a historical setting, although a "free" campaign without regard to the historical background might allow such species to be used. Certain characteristics may not be appropriate to certain characters due to their society, job, or background. The GM makes the final determination of course as to what can and cannot be allowed.

Why: Well, obviously the GM and his "customers" are playing the game to enjoy it (and each other). You should never forget this (although some do). Beyond that, "why" is a good place to start each adventure. You can draw these from your own imagination, from episodes of television shows or movies or books (related or not related to the background), from web sites that post or discuss ideas, from adventure seeds (and even complete adventures) published in GPD and other products. But never forget that the real reason to play is to enjoy good company.
SAMPLE CHARACTERS

Lt. Commander Grissom

(150 points)

ST 11 [10], DX 12 [40], IQ 12 [40], HT 10 [0].
Damage: 1d-1/1d+1; BL 24 lbs.; HP 11 [0]; Will 12 [0]; Per 12 [0]; FP 10 [0].
Basic Speed: 5.5 [0]; Basic Move 5 [0]; Dodge 8; Parry 8 (Judo).
Race: Human; Height: 6’1”; Weight: 175 lbs.; Age: 30; Sex: Male.
Graduated: Star Fleet Academy.

Advantages
- Fit [5]; Military Rank 4 [20]; Resistance (Disease) [3]; Social Regard (Respected) [15]; Status 1 [0, from Military Rank].

Disadvantages
- Code of Honor (Starfleet) [-10]; Duty (Starfleet) (15 or less) [-15]; Overconfidence (12) [-5]; Sense of Duty (Federation) [-10].
- Quirks: Always eats chocolate after dinner [-1]; Collects classical music files [-1]; Enjoys solving math puzzles [-1]; Plays old brass trombone to relax [-1]; Tends to use phrases repeatedly [-1].

Skills

Petty Officer 2nd Class Danicic-Tren

(125 points)

ST 12 [20]; DX 12 [40]; IQ 11 [20]; HT 11 [10].
Damage: 1d-1/1d+2; BL 29 lbs.; HP 12 [0]; Will 11 [0]; Per 11 [0]; FP 10 [1].
Basic Speed: Speed 5.75 [0]; Basic Move 5 [0]; Dodge 8; Parry 8 (Judo), 9 (Knife).
Race: Cygnan; Height: 5’10”; Weight: 165; Age: 27; Sex: Male.
Graduated: Star Fleet Basic Training; language: Cygnan, native.

Advantages
- Fit [5]; Military Rank 1 [5]; Resistance (Disease) [3]; Talent 1 (Mathematical Ability) [10]; Talent 4 (Physical Science) [20]; Versatile [5].

Disadvantages
- Agoraphobia (12) [-10]; Code of Honor (Starfleet) [-10]; Compulsive Gambling (12) [-5]; Duty (Starfleet) (15 or less) [-15]; Gregarious [-10]; Sense of Duty (Federation) [-10]; Weakness (Sunlight: 1d/30 minutes; Variable -40%) [-9].
- Quirks: Constantly smiling [-1]; Likes to work nights [-1].

Skills
- Accounting-6 [0]; Astronomy-14 [1]; Beam Weapons/TL (Pistol)-14 [4]; Chemistry-9 [0]; Chess-11 [1]; Climbing-13 [4]; Computer Operation/TL-13 [4]; Cryptography-6 [0]; Demolitions-10 [1]; Electronics Operation/TL (Security)-10 [1]; Electronics Operation/TL (Sensors)-12 [4]; Electronics Operation/TL (Tricorder)-12 [4]; Engineer/TL (Electronics)-10 [1]; Engineer/TL (Starship)-10 [1]; Expert Skill (Xenology)-9 [1]; First Aid/TL-12 [2]; Free Fall-12 [2]; Gambling-12 [4]; Geology-9 [0]; History (Recent Federation)-9 [1]; Judo-11 [2]; Knife-13 [2]; Law (Federation Military)-10 [2]; Market Analysis-6 [0]; Mathematics/TL (Applied)-12 [4]; Mathematics/TL (Cryptology)-10 [1]; Mechanic/TL (Antimatter Reactors)-11 [2]; Mechanic/TL (Spacecraft)-11 [2]; Meteorology-10 [0]; Physics/TL-13 [1]; Running-10 [1]; Savoir-Faire (Military)-11 [1]; Survival (Urban)-12 [4]; Vacci Suit/TL-11 [1].

Marine Private Dellik

(100 points)

ST 10 [0]; DX 12 [20]; IQ 12 [40]; HT 12 [20].
Damage: 1d-2/1d+2; BL 20 lbs.; HP 10 [0]; Will 12 [0]; Per 12 [0]; FP 12 [0].
Basic Speed: 5.75 [0]; Basic Move 5 [0]; Dodge 8; Parry 8 (Karatate), 9 (Knife), 8 (Tonta).
Race: Human; Height: 5’8”; Weight: 110; Age: 23; Sex: Female.
Graduated: Marine Boot Camp.

Advantages
- Fearlessness 2 [4]; Military Rank 0 [0]; Resistance (Disease) [3]; Social Regard (Respected) [15]; Very Fit [15].

Disadvantages
- Code of Honor (Starfleet Marine) [-10]; Duty (Starfleet Marine) (15 or less) [-15]; Impulsiveness (12) [-10]; Kleptomania (9) [-22]; Sense of Duty (Federation) [-10]; Slow Riser [-5].
- Quirks: Distrusts authority figures [-1]; Fidgets when not doing something [-1]; Returns stolen items to original owners [-1]; Secretive about past acquaintances [-1]; Uncomfortable around non-humans [-1].

Skills

Applies to all six sample characters

Social Background
- TL: 12.
- CF: Federation [0].
- Languages: Federation Standard (Native) [0].
Marine 1st Lieutenant Yahnke

(125 points)

ST 11 [10]; DX 10 [0]; IQ 12 [40]; HT 12 [20].
Damage: 1d-1/1d+1; BL 24 lbs.; HP 11 [0]; Will 12 [0]; Per 12 [0];
FP 11 [0].
Basic Speed: 5.5 [0]; Basic Move 5 [0]; Dodge 8; Parry 7 (Kara-
tate), 8 (Knife), 8 (Tonfa).
Race: Human; Height: 6'2"; Weight: 180; Age: 25; Sex: Male;
Graduated: Federated Marine Academy.

Advantages
Fearelessness 3 [6]; Military Rank 3 [15]; Resistance (Dis-
ease) [3]; Social Regard (Respected) [15]; Status 1 [0, from 
Military Rank]; Very Fit [15].

Disadvantages
Code of Honor (Starfleet Marines) [-10]; Duty (Starfleet Mar-
ines) (15 or less) [-15]; Insomniac [-10]; Sense of Duty (Federa-
tion) [-10].
Quirks: Doesn't eat seafood [-1]; Inscribes personal sym-
bolism on weapons [-1]; Listens to Andorian music before each 
mission [-1]; Uncomfortable working with Star Fleet (Naval) Per-
sonnel [-1].

Skills
Administration-11 [1]; Armoury/TL (Small Arms)-11 [1]; Beam 
Weapons/TL (Pistol)-12 [4]; Beam Weapons/TL (Rifle)-12 [4]; 
Camouflage-12 [1]; Climbing-10 [2]; Computer Operation/TL-
12 [1]; Electronics Operation/TL (Communications)-12 [2]; Elec-
tronics Operation/TL (tricorder)-12 [2]; First Aid/TL 13 [2]; Free Fall- 
9 [1]; Gunner/TL (Beams)-11 [2]; History (Recent Federation)-10 
[1]; Karate-8 [1]; Knife-10 [1]; Law (Federation Military)-10 [1]; 
Leadership-12 [2]; Operations (Land)-11 [2]; Parachuting/TL-10 
[1]; Running-11 [1]; Savor-Faire (Military)-12 [1]; Space/TL-12 
[1]; Stealth-9 [1]; Strategy (Land)-11 [2]; Survival (Mountains)-12 
[4]; Survival (Urban)-12 [4]; Swimming-12 [1]; Tactics-11 [2]; 
Throwing-9 [1]; Tonfa-10 [2]; Vacc Suit/TL 11 [1].

Marine Corporal Kilrathie

(125 points)

ST 13 [30]; DX 10 [0]; IQ 12 [40]; HT 13 [30].
Damage: 1d/2d-1; BL 34 lbs.; HP 13 [0]; Will 12 [0]; Per 12 [0]; 
FP 13 [0].
Basic Speed: 5.75 [0]; Basic Move 5 [0]; Dodge 8; Parry 8 (Box-
ing), 7 (Karatate), 9 (Knife), 8 (Tonfa).
Race: Human; Height: 6'0"; Weight: 177; Age: 24; Sex: Male;
Graduation: Marine Boot Camp.

Advantages
Fearlessness 2 [4]; Military Rank 0 [0]; Resistance (Disease)
[3]; Social Regard (Respected) [15]; Very Fit [15].

Disadvantages
Code of Honor (Starfleet Marine) [-10]; Compulsive Exer-
ciser (9)-7]; Duty (Starfleet Marines) (15 or less) [-15]; Impul-
siveness (12)-10]; No Sense of Smell/Taste [-5]; Sense of Duty (Federa-
tion) [-10].
Quirks: Enjoys eating military combat rations [-1]; Takes great 
pride in his physical condition [-1]; Fanatical about weapon clean-
liness and maintenance [-1].

Skills
Armoury/TL (Small Arms)-11 [1]; Beam Weapons/TL (Pis-
tol)-12 [4]; Beam Weapons/TL (Rifle)-12 [4]; Boxing-11 [4]; Cam-
ouflage-12 [1]; Climbing-11 [4]; Computer Operation/TL-12 [1]; 
Electronics Operation/TL (Communications)-12 [2]; First Aid/TL-

12 [1]; Free Fall-9 [1]; Garrote-12 [4]; Gunner/TL (Beams)-10 [-1]; 
History (Recent Federation)-10 [1]; Karate-8 [1]; Knife-12 [4]; Law 
(Federation Military)-10 [1]; Leadership-11 [1]; Parachuting/TL-
10 [1]; Running-12 [1]; Savor-Faire (Military)-12 [1]; Space/TL-
12 [1]; Stealth-9 [1]; Survival (Arctic)-11 [1]; Survival (Desert)-11 
[1]; Swimming-13 [1]; Tactics-10 [1]; Throwing-9 [1]; Tonfa-10 [2]; 
Vacc Suit/TL-11 [1].

Ensign Stulak

(125 points)

ST 10 [10, -10 Racial]; DX 11 [20]; IQ 11 [-20, +40 Racial]; HT 9 
[-10].
Damage: 1d-2/1d; BL 20 lbs.; HP 11 [0]; Will 11 [0]; Per 11 [0]; FP 
9 [0].
Basic Speed: 4.5 [-10]; Basic Move 4 [-5]; Dodge 7; Parry 8 (Judo).
Race: Vulcan; Height: 6'3"; Weight: 120 lbs.; Age: 37; Sex: Male;
Graduated: Star Fleet Academy; Language: Vulcan (native).

Advantages
Acute Hearing 1 [2]; Extended Lifespan 1 [2]; Fit [5]; Indomi-
table [15]; Lightning Calculator [2]; Military Rank 3 [15]; Mind 
Probe (Sense-Based Touch); -20%; Telepathic, -10% [14]; Nic-
titating Membrane 1 [1]; Nerve Pinch 3 [15]; Photographic Memory 
[10]; Less Sleep 2 [4]; Regeneration (Regular); only while in 
Autotrance, -30% [18]; Resistance (Disease) [3]; Social Regard 
(Respected) [15]; Unfazeable [15].
Perk: Autotrance [1].

Disadvantages
Code of Honor (Logical behavior) [-10]; Code of Honor 
(Starfleet) [-10]; Duty (Starfleet) (15 or less) [-15]; Honesty 12 [-
10]; Intolerance (Emotional or illogical behavior) [-5]; No Sense of 
Humor [-10]; Pacifism (Self Defense Only) [-15]; Sense of Duty 
(Federation) [-10]; Skinny [-5]; Truthfulness 12 [-5]; Workaholic 
[-5].
Quirks: Collects rocks from planets he visits [-1]; Curious 
towards unknown plants [-1]; Tries to defer decisions to others 
[-1]; Plays a hard-casted flute every morning [-1]; Wakes up early 
every day [-1].

Skills
Administration-10 [1]; Astronomy/TL-9 [1]; Beam Weapons/ 
TL (Pistol)-11 [1]; Biology/TL (Class M Plants, Botany) [4]; Braw-
ling-12 [2]; Chemistry/TL-10 [2]; Chess-13 [4]; Computer Opera-
tion/TL-11 [1]; Computer Programming/TL-9 [1]; Diplomacy-8 [1]; 
Electronics Operation/TL (Sensors)-10 [1]; Electronics Operation/ 
TL (Transporter)-11 [2]; Electronics Operation/TL (tricorder)-12 
[2]; Engineer/TL (Electronics)-9 [1]; Engineer/TL (Robotics)-9 [1]; 
Expert Skill (Xenolinguistics)-9 [1]; First Aid/TL-11 [1]; Free Fall-10 
[1]; Geology/TL-9 [1]; History (Recent Federation)-9 [1]; Judo-10 [-
2]; Law (Federation Military)-10 [2]; Leadership-10 [1]; Mathemat-
ics/TL (Applied)-11 [4]; Mechanical/TL (Robotics)-10 [1]; Musical 
Instrument (Flute)-10 [2]; Navigation/TL (Space)-11 [2]; Opera-
tions (Space)-10 [2]; Physics/TL-8 [1];Piloting/TL (Aerospace)- 
10 [1]; Research/TL-11 [2]; Savor-Faire (Military)-11 [1]; Ship-
handling/TL (Starship)-10 [2]; Space/TL-11 [1]; Strategy 
(Space)-9 [1]; Survival (Mountains)-10 [1]; Tactics-9 [1]; Vacc Suit-

10 [1].

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| DX | [ ] | WILL | [ ] |
| IQ | [ ] | PER | [ ] |
| HT | [ ] | FP | [ ] |

**BASIC LIFT** \((ST \times ST)/5\)  
**DAMAGE** Thr  
**Sw**  
**BASIC SPEED** [ ]  
**BASIC MOVE** [ ]

**ENCUMBRANCE**  
**MOVE**  
**DODGE**

- None (0) = BL  
- Light (1) = 2 × BL  
- Medium (2) = 3 × BL  
- Heavy (3) = 6 × BL  
- X-Heavy (4) = 10 × BL

**PARRY**  
**BLOCK**  
**DR**  
**TL:**

**Cultural Familiarities**

**Reaction Modifiers**

**Appearance**

**Status**

**Reputation**

#### LANGUAGES

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| Weapon | Damage | Acc | Range | RoF | Shots | ST | Bulk | Rcl | LC | Notes |
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