The Colonies™

fighting for freedom on occupied earth

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The Colonies

The following is an excerpt from Brigadier Samuel Robertson's introductory lecture to his class at the Martian Defense Force Academy.

▼ **THE HEIGHT OF DISCOVERY** - *It all started with the Hubble Space Telescope*. After countless years of continual upgrading, it was finally retired in 2010CE. The Sagan Space Observatory, which supported a scientific crew of five, replaced it. NASA and United States Spaceforce scientists shared time on the observatory and eventually began renting its use out to other nations and organizations. This orbiting telescope became man's ultimate early warning system. *But, we'll get to that later.*

Another important instrument in humanity's development was the International Space Station or ISS. It was crucial to Earth's future and directly contributed to the development of new spacecraft designs, alloys, and even solar cruises (commercial space tourism), providng a much-needed boost to the commercial space industries of the United States, United Kingdom, and the European Union.

With the advent of construction yards on the Moon in 2018CE, giant factories were erected to create the materials necessary for interplanetary ships. The next generation of spacecraft were just around the corner and caused the decline of the International Space Station. Since it was too fragile to for docking any of the large deep space and interplanetary craft designs, U.S. personnel were reassigned to the Moon. Full ownership of the station was eventually relinquished to the European Union in 2020CE. A larger transit station was built in Earth orbit using lunar materials, but most research continued to be done on smaller, older facilities.

The year 2021CE gave birth to fusion power. A ten-year resolution was instituted by the United Nations and all major governments agreed to replace old nuclear fission reactors with these new, cleaner, and more efficient fusion reactors. In an unprecedented outbreak of peace and common sense, every member of the United Nations signed a ban on nuclear weapons and fissionable materials three years before the deadline of 2031CE. *This may very well have been the downfall of man.*

The last big scientific invention born on Earth was the technology of photonics. Using light instead of electricity, this new medium replaced silicon-based computers, allowing smaller and faster systems to be built. It laid a foundation for nearly unlimited computer creativity.

The United States, in cooperation with Russian Federations, achieved the boldest space mission yet in 2030CE - the colonization of Mars. The United Kingdom and the European Union also became partners and contributed billions of dollars in supplies. Originally intended as a scientific outpost, it soon became an adventurer's paradise; much like Africa or the Amazon in previous centuries. Tourism on Mars for the rich was offered by three civilian corporations. The United Nations which a decade before had agreed on the destruction of nuclear weapons found itself unable to agree on the political status of Mars. Corporations, billionaires and even a few religious groups could afford fusion-powered ships capable of carrying enough supplies to start a Lunar or Martian colony. And they did, often avoiding national restrictions by launching from obscure facilities in impoverished countries in exchange for helping these countries gain their own space presence. The years from 2032CE to 2036CE were extremely chaotic, but in a peaceful way. Fusion power made the trips possible, but not profitable, and there was more than enough real estate for the relatively small number of colonists (several thousand by 2036CE).

Disaster! - Now, back to the Sagan Observatory. The year 2036CE marked a four hundred percent increase in its usage due to Earth's top astronomers and astrophysicists fighting for time on it. Each one strived to become the first to qualify a new celestial body which appeared in the skies. It turned out to be a new comet that was also on a collision course with Earth.

Data was checked and rechecked.

Unfortunately, the findings were accurate. This new threat caused governments to cooperate and compete like never before. Several ideas surfaced - most were fantastic yet unlikely.

Nuclear weapons seemed to be the only hope. The United States and Russia worked diligently to design a device and delivery system that would be able to obliterate or deflect the massive body of stone and ice. In the end, however, physics proved to be on the side of the comet. It was just too big and too fast. Impact was predicted for the central Atlantic in early 2038CE.

Chaos ensued. Governments and virtually everyone who could afford or extort it, built or commandeered a spaceworthy craft and fled Earth. There are no good records of how many ships were launched, how many were lost or what their destinations were. Any with the endurance headed for Mars. The Moon was considered a last resort, as it was expected to be heavily bombarded by debris ejected from the impact of the comet with Earth.

We know at least twenty-eight "colony" ships successfully reached Mars in the 2037CE to 2039CE period, landing at widely separated spots on the planet. The chaos of the moment and later events prevented contact with all but the closest of the landings for periods of months to up to two years. Some of the ships carried nothing but infants and a handful of adult caretakers, parents staying behind so that a larger number of smaller bodies could find a new life under the reddish sky of Mars. We know of at least thirteen failed landings, sometimes through operator error, sometimes from lack of a surviving pilot. Some ships missed Mars entirely, having run out of fuel, miscalculating their trajectories or other problems. Some of these are still drifting between Mars and Jupiter, others passed without sufficient information being gathered to make a long-term orbital plot.

In addition, in 2037CE a secret U.S. operation, deep in the Arizona desert, began refitting an experimental deep space ship design to carry refugees to far away planets. Intended for unmanned exploration, the craft used a new drive system: the fusion-photon drive. It was, theoretically, capable of achieving near-light speeds by using high-energy photons to generate thrust. In addition to colony seeding modules, special hibernation chambers were added to protect the colonists from radiation and to reduce the supplies needed for the multi-year journeys. The United States knew that it would possibly take centuries for Mars to build itself up to where another exodus of this type could be feasible, and if by cosmic bad luck Mars ended up in the crosshairs before then, humanity would become extinct. So, a long shot was gambled on, and the first interstellar colonization was underway.

Using census data and various records like military dossiers, the government secretly recruited citizens to colonize new worlds. Most of these colonists left Earth without even being informed of their ultimate destination. Although, the existence of these seeding ships was never made public, recent data recovered from Earth confirms that at least twenty were launched.

Setup or Salvation? - Earth's countdown to devastation was interrupted when a radio signal came in from space in early 2038CE. Everyone's attention was focused on this signal. After days of analysis, the encoding method was finally cracked and the first sounds of an alien voice echoed throughout the halls of the White House and U.S. Space Command.

They called themselves the Virimar and offered to destroy the comet. The world leaders agreed without hesitation; a decision which spared our brethren their lives, but cost them their freedom.

The blasts that pulverized the comet were visible even in daylight. One bright approaching star became a diffuse patch of light in the night sky. People were celebrating in the streets when word came that the comet was gone. They rejoiced for two days. On the third day, however, another catastrophe struck. The world went momentarily dark and silent.

A shockwave from the blast struck the Earth, destroying all orbital satellites and many central computer systems. The computers were relatively easy to fix, but all satellite communication was lost, including the link with Mars.

Dangerous amounts of radiation in Earth's magnetic belts were also reported, far more than before the comet was destroyed. After analysis, scientists concluded that an extremely intense electromagnetic debris field was present through most of Earth's orbit. Since Earth had no idea of the technology used to destroy the comet, there was no real way to guess exactly what had happened. What it did mean was no manned spacecraft could launch, most unmanned ones were destroyed before leaving orbit, no contact with Mars could be re-established, and all communications involving high-orbit satellites were lost.

This debris field eventually led to the Virimar request (by short-range laser communication) to land their massive space craft on Earth. Everyone felt compassionately toward their saviours and the aliens were allowed to land in a isolated part of central Australia.

They have been there ever since.

The Virimar never journeyed outside their craft and only met with high ranking government officials. Talk of aliens soon went away; *out of sight, out of mind*. They offered no wonderful new technology, asked for no favors except privacy. So, for over forty years, the Virimar lived an *apparently* isolated existence in the Australian Outback.

The Sleepers Awaken - In 2081CE the debris field began to dissipate and a renewed interest in space travel blossomed. But, before it could come to fruition, another threat materialized.

Under the guise of "colonial peacekeeping", the French had amassed a considerable army, much of it secretly equipped with Virimar-supplied technologies. They used this army in a surprise invasion of key cities in Europe. Between surprise and technological superiority, Europe fell quickly.

The United States, United Kingdom, Canada, Mexico, and China banded together in a new World War. Virimar technology made the French a powerful force. Over one million Allied troops were dispatched to Europe. It would appear that this move was calculated by the Virimar.

With the majority of troops abroad, the Virimar activated sleeper agents which they had planted throughout the world. Many were politicians or corporate individuals influential in providing key technical or information services. This provided an easy method for subverting or overthrowing governments.

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It was not quite so simple as this. The plan was not flawless nor without setbacks, but forty years of preparation, a disturbingly good assessment of human behavior and some highly advanced technology gave the Virimar the upper hand. Nations were soon controlled by the Virimar, perhaps not openly at first, but controlled none the less . Under martial law and using phrases like "in the interests of national security" and "promoting world peace", the Virimar used their "influence" and national databases to identify and neutralize any resistance before it could organize. Attempts were made by numerous parties to assemble nuclear weapons and other tools of mass destruction, but since all radioactive material and biological was strictly regulated, they were unsuccessful. Fusion-powered ships attempting to kamikaze against the mothership were quickly and easily shot down well outside of any range where a fusion detonation might have caused them harm. Had Earth's stockpiles of nucelar weapons still been in the thousands instead of dozens, they may have remained free.

Today, Earth is divided into Virimar-controlled provinces or territories. Although each region is governed by humans, these people have either been brainwashed by the Virimar or have been enticed by wealth and power over their fellow man. Most also have brain implants limiting their actions.

A Alaskan Provinces
B Northern America
C Eastern America
D Central America
E Southern America
F Fargo Labor Camps
G Brasilian Labor Camps
H Old Kingdom
I Oslo Provinces
J Norodnaya
K Russian Provinces
L Burranga
M Siberian Provinces
N Beijing
O Himalayan Provinces
P Nippon Provinces
Q Indonesian Provinces
R Eastern Arabia
S Western Arabia
T North Africa
U South Africa
V Baltic Labor Camps
W Casablanca Labor Camps
X Tunguzko Labor Camps
Y Republic of France
Z Virimar HQ

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**Life on Earth** - Except for the collaborators, living on Earth is tough. Conditions have been reduced to that of the mid-twentieth century. New tech appears only in the administrative areas, leaving the masses without artificial intelligence, biotech medical assistance, or organized municipal utilities.

Major cities still maintain the largest populations. The same crime-laden neighborhoods exist with even more starving and suffering people. Virimar fiat currency is all but useless to the masses, and people trade jewelry and goods in order to survive. Barter is now a way of life for all but the French.

The countries which were once referred to as third word have regressed to primitive societies. From the warrior tribes of the South African province to the tribal groupings of the Alaskans, men have become slaves to necessity.

The Republic of France is the only "free" nation on Earth. It was given all of eastern Europe for its treachery. History has been rewritten, making France the injured party, with only the assistance of the Virimar helping them repel the jealous masses and eventually bringing peace to the decadent and violent nations outside its borders. And without an organized resistance, by now a lot of people even believe this fabrication. A security wall surrounds France, preventing entrance *or* egress. All French citizens live in luxury compared to the rest of the world, and know the conditions elsewhere only through the filtered lenses of government censors.
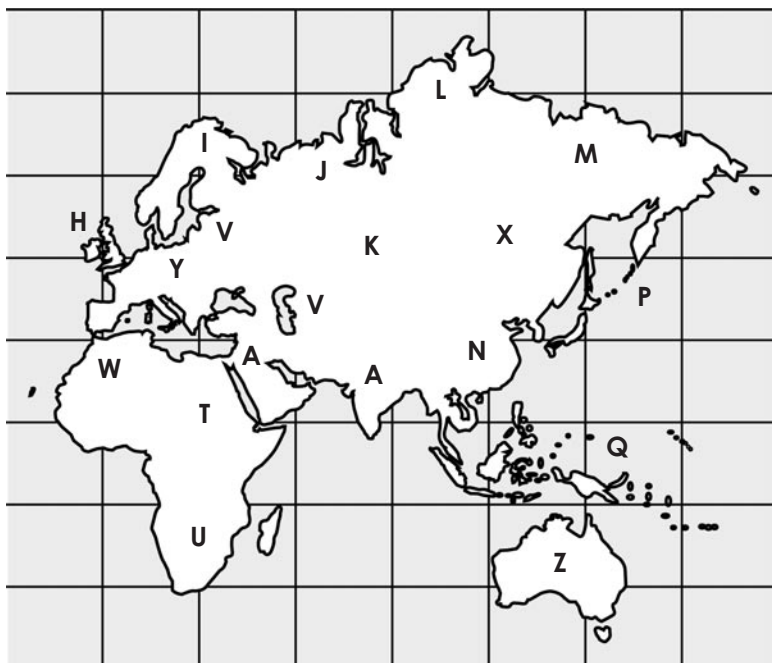
Administrative areas
Slang: *comfort zone*

Collaborators monitor their territories from the comforts of the administrative areas. These are often the city centers; the only remnants of a once advanced Earth.

Skyscrapers cast shadows over the dilapidated neighborhoods of the common man. Administrators live in luxury and benefit from the suffering masses. Their lifestyles echo "I have betrayed my brethren" to the masses.

Inner city
Slang: *the ghetto or the 'hood*

The neighborhoods closest to the administrative area are heavily watched by collaborator troops. They are monitored for "terrorist" groups (*very* loosely defined) and possible threats to the comfort zone.

The inner city neighborhoods are densely packed with homes; crimes of desperation run amok. The only police available are those who volunteer to protect the peace. Many are killed for their interference.

Gangs are common among the inner city neighborhoods. They rule their territories and are not usually challenged by police. Homemade narcotics are often traded for food or other commodities.

Outer City
Slang: *the 'subs or farms*

The once middle and upper class residents of the suburban neighborhoods are now little better off than the poor. The suburbs have become the ruins of once fruitful communities on the outskirts of the cities.

Although nicer homes exist here, they are typically neglected. Those which are kept up, are usually done so by entire families which occupy the home. It is not uncommon for more than ten family members to occupy one dwelling.

It is also common for the 'subs to contain a lot of farmland, operated by communal groups.

Labor Camps
Slang: *death camps*

Political crimes are the only real interest of the collaborator police units, though anyone who gets on their bad side seems to have committed a political crime. Labor camps were established to house the millions guilty of these political crimes. Even in a world where nowhere is safe, anything is preferred to living in a camp. These are little better than the worst World War 2 concentration camps.

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MARS - After Mars lost contact with Earth in 2038CE, we stepped up building and terraforming projects to promote self-sufficiency. Early Martian architecture took on an alien quality, but people soon adapted; it slowly evolved to what we see today, large efficient arcologies surrounded by pressurized greenhouses, connected to outlying launch pads and other arcologies by maglev monorails. Depending on its design and age, each arcology houses anywhere from ten to twenty thousand people. While these are clearly the most efficient way to thrive in our still-hostile environment, there remain a few holdout colonies from the earliest days, living in clusters of half-buried domes far from any monorail line. There is room enough for all, and if they don't want visitors, they are free to keep to themselves.

Over the decades since the Virimar first landed, Mars has became a superpower on par with the former United States and has created a new self-sufficient and highly capitalistic state. Mars also became the voice of freedom in the solar system. Democratic elections are held every six years for positions such as prime minister, senator (three from each arcology), and governor (presiding over each arcology). Although anyone can run for office, most candidates come from the corporate or political class. Elected positions are not just warm bodies casting a vote. The technical infrastructure, energy economy and continuing Virimar threat mean that any successful political candidate has a solid education and knowledge of what is needed for the best interest of Mars, not just for their constituents, but for Mars as a whole.

The colony is fueled by commerce and industry, creating a need for large corporations. Unlike Earth corporations, those on Mars have a strong sense of community and always look out for the welfare of employees and their families. Healthcare, quality accommodations, and even food are all part of the employer's contract.

Those who elect not to work for a corporation are still cared for. They are given apartments at the bottom levels of arcologies; a symbol of their social contribution. Many activists move into these welfare homes and recruit their under-privileged neighbors to participate in protests. Some even refuse to participate in the economy at all, relying on their own survival skills to keep them alive in makeshift shelters on the planet's surface.

Martian space travel - Practical space travel was out of reach for years after 2038CE. Virtually every colony ship also became an integral part of a habitat, its life support systems and fusion-generated electricity necessary simply to survive. In time, ships were assembled or freed from other duties to begin space exploration again. Scientists carried out orbital tests which were relatively hazard free. Short, trips to the tiny Martian moons were also successful.

In 2060CE, a few space craft were fitted with modified versions of the old U.S. fusion-photon drive prototype which was moved to Mars as a classified Spaceforce project in 2035. Special chambers were also developed to protect the crew from the craft's deadly radiation, and these were used for long-transit voyages to the outer solar system and unsuccessful attempts to contact Earth. However, most craft continued to use a standard fusion drive.

In 2069CE the first ship returned from the 2037CE Cassiopia colonization attempt. An twist of physics renewed contact with far-flung humanity decades earlier than expected, but the consequences of this did not become fully apparent for some years.

A number of refugees managed to escape Earth in obsolete and risky space craft in the years following 2081CE. Early on, most did not make it through the debris field around Earth. The ones who did make it alerted the Martian authorities to the situation on Earth. A small group of scientists even managed to smuggle an incomplete report concerning the colony ships. Even after the Virimar took over, they seemed to have little interest in stopping such refugees. The ultimate motivations and goals of the Virimar are still unknown, save that they obviously don't do things the way we would. While their mothership apparently had the power to obliterate a massive comet and shoot down all aerial assaults aimed at it forty years later, it has not moved from its landing site in Australia since 2038CE.

Once the economic situation allowed it, craft were launched from Mars to find and recover the missing colony ships. To date, four colonies have been found or have found us: Cassiopia, Serpenti, Reticuli, and Orionis.

The first wave of colonists have now returned home. Mankind's new home - Mars. The Martian government is recruiting men and women to join the Off-World Militia. *That's why you are here.*

▼ **THE OTHER COLONIES** - The fusion-photon drive proved to be the best compromise for any sort of long range spaceship. At low speeds, fusion exhaust provided reasonably high thrust at low efficiency, but for extended travel, the fusion reactions could be reconfigured to provide an intense low-thrust photon output that could be maintained for years. While the photon exhaust could be channelled at many wavelengths, an unfortunate side effect was extraordinary levels of radiation that could *not* be deflected. This meant that crews had to be kept far from the drive, and in heavily shielded areas. For the number of people required for a colony ship, this amount of shielding was impractical, hence the development of hibernation chambers. These could fit the colonists into a much smaller volume, which *could* be protected. The ships also had a small set of shielded regular quarters and control stations. A skeleton crew would always be awake and monitoring vital systems, waking up a new crew every few months and rotating into hibernation themselves. This kept consumption of supplies to a minimum, and allowed more mass for colonization supplies.

The journeys were originally expected to take dozens of years, even with minor relativistic effects taken into account, and with no faster than light communications, Earth would have no way of telling how a given ship was doing except by the progress of their photon trail and faint, long-delayed radio signals. This of course became impossible after the cometary debris crippled Earth's extra-planetary communications capability.

So, Earth never found out that the "known" laws of physics started to bend in deep space. They might have figured it out had they time for rigorous, extended tests of the fusion-photon drive, but time did not allow it. In the absence of virtually any gravity well, at minor relativistic speeds in an intensely radioactive environment, space bends, skips or fragments. At any given *instant*, a ship would appear to be in normal space, following the conventional laws of physics in all respects, but over any measured *interval*, it would seem to be exceeding the speed of light by a considerable margin. The colony ships reached their ultimate destinations in considerably less time than they expected, in a few years rather than a few decades.

It was still a long, dangerous round trip, but one which could conceivably be made without everyone you knew back home growing old while you were gone. It took some decades for the colonies to get on their feet enough to consider sending a ship back "home", but once the first ships from Mars reached them describing what had happened, most of the colonies set about the task at once.

Once the colonies were established, more surprises were in store. Our knowledge of evolution and biology is based entirely on our own world and our own history, Earth's lifeforms interacting with other Earth lifeforms in Earth's environment. Once humanity escaped Earth, we found that evolution can and does take place far faster than supposed possible. We and any other life we brought adapted within a handful of generations to meet the challenges of alien environments. Humans could not suddenly learn to breathe chlorine, or subsist on rocks, but tolerance and acceptance of alien proteins occurred, as did adaptations necessary to meet environmental challenges. Similarly, alien lifeforms eventually became able to tolerate us, as both hazards and food. This happened at a much slower rate, presumably because the native organisms were operating in their own environment and did not have as much pressure to adapt as we did.

Human culture evolved to match the change in environment. Living conditions unlike those found anywhere on Earth fostered the development of cultures, sub-cultures and splinter groups unique to these environments. Most are compatible with mainstream humanity, but most have quirks that Martians take a little while to get used to (and vice versa).

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Cassiopia (2 year trip) - A dark and savage world, the native wildlife hunts anything that moves. Long periods of total darkness also forced man to adapt; many developed telepathic abilities to counter similar abilities in the native predatory species.

Serpenti (4 year trip) - The technologically limited world of Serpenti is not one to be visited casually. Its electrically charged radiation belts interfere with or damage all electronic or photonic components passing through them, preventing their use for orbital insertion and re-entry calculations, and limiting off-world travel for those unfortunate enough to need artificial implants. The belts shift and interfere with each other on average once per ten days, permitting shielded craft to enter and exit the planet's atmosphere with acceptable risk. Radiation from the rings that reaches the surface also seems to cause non-lethal mutations in human embryos. Much of the population shows signs of this, and Serpentis are on the whole very tolerant of physical differences.

A number of communities were formed by families which shared common interests and goals. These clans have their own specializations of labor and trade amongst themselves for goods or services their own clan is incapable of providing.
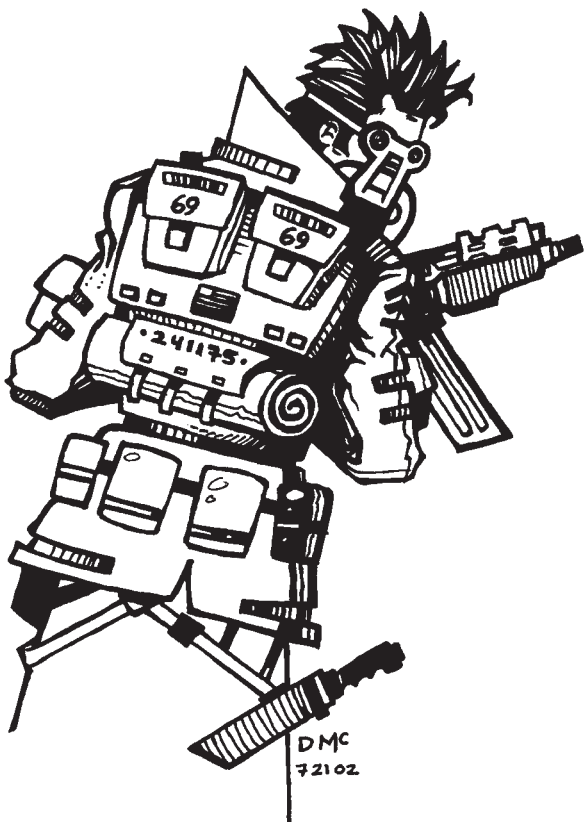
Reticuli (4 year trip) - Ancient ruins were found on this seemingly perfect world shortly after the colonists arrived. These ruins were the remnants of an advanced but extinct civilization. The colonists discovered data records which detailed advanced biotech procedures and adapted them for humans. Some were flawed, and caused horrible side effects.

Unbeknownst to the inhabitants, nanotech devices infected everyone that came close enough to the ruins. These would eventually return with the first wave of colonists to reach Mars, and begin to infect Earth's largest off-world colony.

The surface of Reticuli is mostly sand. Presumably, most animal and plant life was affected by whatever destroyed the original occupants of the ruins. Water can be found in small, sporadic pockets. Because of this, many encampments outside of the ruins have assumed names which incorporate the word *Oasis*.

Orionis (3 year trip) - A delicate peace exists on this world. Christianity ruled Orionis initially, but the leaders were slowly corrupted by power. They perverted their faith by oppressing the inhabitants. Many so-called "heretics" fled to other parts of the planet to escape the oppression. Using cloning techniques to generate a large population in a single generation, they created a computer-centric society which prospered and grew to the size of New York. Other heretics formed smaller, less technocentric communes around the belief that every man, women, and child is part of the family and should be treated as such. The faithful still exist, but are now outnumbered and out-skilled by the heretics. Now in the minority, the faithful have been grudgingly forced to accept the idea that minority beliefs need to be tolerated...

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▼ **LIBERATION CELLS** - The Off-World Militia (known among its members simply as the Resistance) is a branch of the Martian Defense Force, or MDF. The unit of organization in the Resistance is teams called liberation cells. Each cell is composed of about five to ten people; each with distinct functions. Every cell has a leader, one or more techs, and a pilot. The remainder of the personnel are, ideally, soldiers.

Mars is the home base. Mars is where all cells are initially equipped and trained, where hoppers and drop ships are manufactured, and where all the adventurers have made their homes.

Luna is the lifeline for all cells. Bases on the far side function as distribution, resupply and medical centers in addition to being a transit point to and from Mars. While lunar operations are carried out with great operational precautions and secrecy, it is assumed that the Virimar know some Martian activity is based there, even if not exactly where. A network of stealth satellites has thus far intercepted any reconnaissance probes from Earth, but these are few and far between. Half the analysts think the Virimar are now toothless past Earth's lower orbits, while the other half think the Virimar are just being cagey in some inscrutable alien way.

Earth is the front line of the Resistance war. It is recommended that each cell organize one or more resistance groups among the locals and use *their* facilities as a secondary base of operations; one that can be used to more closely monitor the situation and used without having to risk the still-considerable orbital defenses of Earth.

▼ **Note:** Your group of players should maintain an Earth base in the city which they actually live and are familiar with. Map it out if you want. Remember, the city center houses the collaborators, while the other neighborhoods provide potential freedom fighters.

Missions - Liberation cells are given missions by their superiors (Martian Defense Force liaisons) on Luna. These missions will probably last for several gaming sessions and may provide new allies, recognition, experience, or equipment. They might also strand the cell on Earth with no way to get home, forcing them to contact a cell somewhere else if they need to get off-planet. This is easier said than done sometimes. While the Virimar do not pay much attention to anything outside low orbit, they really *do not* like the Resistance. Quislings and collaborator police are everywhere, and are always making life miserable for the adventurers. Bandits roam the areas outside police patrols, and gangs try to steal the goods that the police haven't already extorted as bribes or protection money. The advanced gear the cell possesses is worth a fortune on the black market, their return craft is priceless, and the adventurers have an automatic bounty on their heads just because of who they are.

So, cells not only have to help spearhead resistance to the Virimar and help pave the way for an eventual war of liberation, they have to do so without standing out or being betrayed. *Not an easy path to tread...*

Tech and projects - Liberation cells use techs to repair and design new equipment for use in their missions, whether between missions back on Luna, or down on Earth because it is the only option available. It is important for cells to possess more than one tech in order to have access to a diverse range of technologies.

Special projects can be undertaken by one or more techs. More information is presented in **Chapter 5: Gear**.

TECHNOLOGY - **The Colonies** embraces a wide range of technology in **EABA** terms. Areas that have reverted to complete barbarism exist at the Industrial Era or lower, along with whatever salvage or imports are available. A few high tech weapons can make anyone into a minor warlord in such regions. It is suspected that Virimar collaborators deliberately introduce small amounts of higher-tech material into these areas just to keep the violence going, and give the warlords an edge against outer city farmers and other distant groups that might form a nucleus for rebellion against the Virimar.

The Virimar are at the other end of the scale. They would have early Advanced Era weapons and defensive technologies, and Advanced Era devices in terms of medical implants. They have evidenced a good degree of sophistication in adapting devices to monitor and control something as subtle and complex as human thoughts. None of their *most* advanced material of *any* kind makes its way into human hands, nor do they train any collaborators in aspects of theory that would let humans develop *any* tech equal to the Virimar.

Everyone else is in between. Mars has middle and late Post-Atomic Era tech, and teams on Earth can build or repair things at this level, though only with Atomic Era materials. They can always try to steal better quality materials from the central enclaves if they really need it.

Collaborator police use early Post-Atomic Era technology, more than sufficient to intimidate ghettos and suburbs struggling to maintain an Industrial Era standard of living with pockets of Atomic Era tech here and there. While cells may have a slight technological edge on the police, the police have vastly greater numbers and resources. And if cells become too much for local police to handle, it becomes the problem of the better trained and equipped Provincial Guard units.

Oddly enough, it is easier to get advanced medical care in the inner city than the outer city. Bribes and theft and cast-offs make it easier to get higher quality material close to the admin areas than in the more distant suburbs. On the other hand, the police don't get out to the suburbs as often, so these areas can build and maintain better weapons and other technology, even if only to defend themselves against bandits based out of truly rural areas.

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Collaborator infiltrators and natural human greed and self-interest keep local squabbles going, turning resources and production against each other in meaningless feuds instead of uniting against the Virimar overlords. And the Virimar do everything they can to encourage this.

Other technology is not so cut-and-dried. Genetech, biotech and nanotech all have their equivalent **EABA** tech eras, some of which are not readily duplicatable by adventurers. The Reticuli nanotech is an example of this. This is Advanced Era tech, but it is largely out of the control of the adventurers.

The table below gives a quick rundown of what various areas are able to build, use or repair on a regular basis. To fit it into the space, eras are abbreviated from their **EABA** terms. For instance, Early Post-Atomic would be "Post-Atomic-".

Player	Weapons	Medical	Other
Virimar Police	Advanced-Post-Atomic-	Advanced Post-Atomic	Post-Atomic+ Post-Atomic
Mars Teams	Post-Atomic Post-Atomic	Post-Atomic- Post-Atomic-	Post-Atomic- Post-Atomic-
Admin areas Inner city	Post-Atomic- Atomic-	Post-Atomic+ Atomic+	Post-Atomic- Atomic-
Outer city Badlands	Atomic Industrial	Atomic Industrial	Atomic+ Industrial

EXAMPLE: The collaborator police are equipped with early Post-Atomic Era weapons, armor and defensive technologies, but have access to Post-Atomic Era medical, communications, computers and other tech.

Powers - Some of the "technology" in **The Colonies** is best modelled by **EABA** powers and Traits. These will be dealt with on a case-by-case basis in either adventurer generation or chapters devoted entirely to these special aspects of life in the world of **The Colonies**.
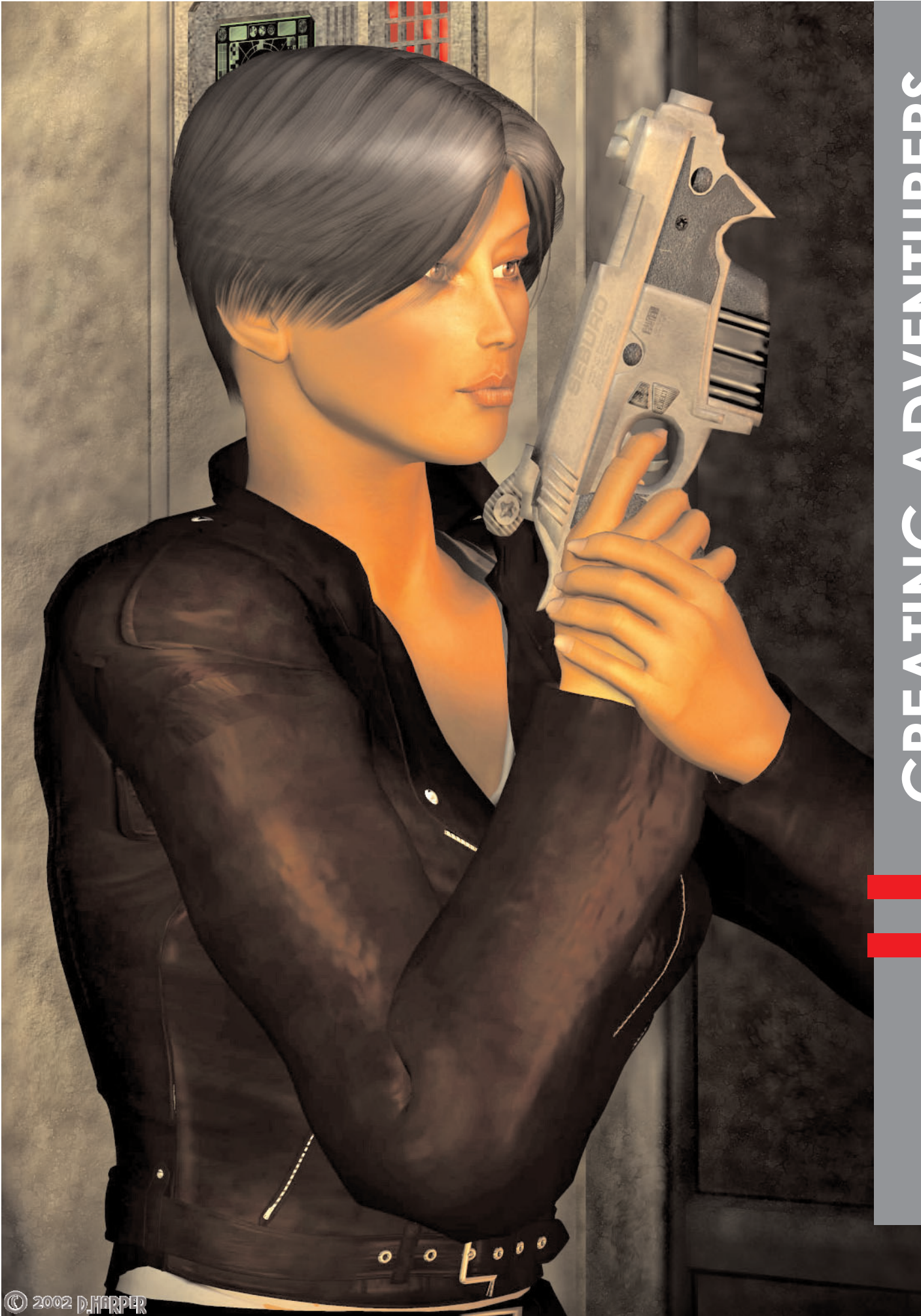
War is an ugly thing, but not the ugliest of things. The decayed and degraded state of moral and patriotic feeling which thinks that nothing is worth war is much worse. The person who has nothing for which he is willing to fight, nothing which is more important than his own personal safety, is a miserable creature and has no chance of being free unless made and kept so by the exertions of better men than himself.

- John Stewart Mill

INTRODUCTION - Adventurers for **The Colonies** will be "normal" people in terms of their starting points. That is, they get 80A and 80S with which to generate an adventurer, plus up to a total of 40A or S in Traits. The adventurers are "normal" in the sense that pro athletes are just people too (compare 2d+0 "average" stats to the pre-designed adventurers on page 4.6. For more "average guy" adventurers, use the "low normal" point range.

However, you can go one of two ways from this starting point. The first way is that you roll randomly for many of your adventurer's Traits based on the planetary background you came from. This will get you some traits for good or ill, that you neither have to pay for, *nor* get points for. They *don't* count towards the total number of points in Traits you can have, and if you want, you *may* spend some of your starting points to reduce or eliminate some of the negative Traits you might get from these rolls.

The other way is to avoid the randomness and just go with your regular allotment of points. You can use the points to get Traits and skills much like those you might roll for randomly. In general, the random tables are set up to make slightly more powerful adventurers, but you give up control of exactly how they end up as the price.

Attributes in **The Colonies** are used in the normal way. Fate in particular is used for both luck *and* psionic or other power effects. Even adventurers who don't have any powers can have a high Fate if they want, but the "average" person only has a Fate of 2. That is, with a 0d+2 Fate roll, they can use Fate once in an adventure, and that's it.

The Colonies

WHERE YOU COME FROM - It is a good idea for the players to get together and decide which skills and abilities will be needed beforehand. The Martian Defense Force is free and fairly democratic, but that doesn't win wars. Mars is not in a position to make a major strike on the Virimar. Secretly, there is a lot of political inertia *against* the idea. There is only one Virimar mothership (so it is believed), but it has thus far proven impervious to any and all assaults made against it. Mars is currently the home of "free humanity", has a very good close-in defense fleet, and really doesn't want to poke a stick into a Virimar hornet's nest.

However, *something* has to be done. Small, fast interplanetary ships are fairly cheap to build and service, and have a better chance of slipping through the Virimar defense net undetected or unscathed. Residual electromagnetic effects from the destruction of the comet apparently hinder Virimar sensors too, though the exact extent is unknown.

What all this means is that Mars is more than happy to train, equip and resupply resistance teams, but once on the ground, these teams are on their own. If there's something you need that you can't get on Earth, you better be able to fly home to Mars and get it.

A group of adventurers will be a resistance "cell". Each cell requires at least one "space pilot". This is loosely defined as a skill roll in Orbital Vehicles of 3d+0 or better, either as an overall roll in Air Vehicles, or a lower roll in Air Vehicles and a +1d specialization in Orbital Vehicles. This level of skill is known among "real" pilots as a "90 day wonder". You can fly without embarrassing yourself, but any real combat pilot could fly rings around you. This minimum level of skill is enough to get you down to Earth in one more-or-less contiguous piece, and if the ship survives the landing, possibly get you back home again. Someone has to be the pilot, and you can have more than one.

Someone also has to put some points into being a tech. A "tech" is someone who can fix things that break. It would not be a bad idea to think of a few different skills that would apply and have everyone except the pilot take one. Someone could be a medic, someone else a mechanic, someone else a gunsmith or an electronics tech, etc. Try for an overall skill level of *at least* 3d+0 (4d+0 or more would be nice).

▪EABA

Choose a colony - Colonial diversity adds a wide range of talent. An important part of forming the cell is recognizing the strengths and weaknesses of each of the colonies' inhabitants. Ignore the random rolls if you are designing the adventurers strictly on points (go to Step 3). However, note the costs in parentheses in case you *want* a listed Trait or ability. Conversely, if you are rolling randomly, ignore the Trait costs unless you plan on buying the Trait higher or lower with your points.

Step 1 - Choose from one of the six worlds as the adventurer's planet of nativity.

The Colonies
Mars	(martian)
Earth	(earther)
Cassiopia	(cassiopian)
Serpenti	(serpentine)
Reticuli	(reticulan)
Orionis	(orionisian)

Step 2 - Determine the adventurer's past by consulting the appropriate colony's tables. Adventurers that are given psionic skills as part of their background begin play with a psionic rating of one at no extra cost.

Martians (page 2.4)
a. Roll 2d+0 and consult the "Family Status" table. Record any Traits or skills received. All Martian adventurers subtract 1 from the level of Strength they buy to reflect their lower gravity upbringing.
b. Roll 2d+0 and consult the "Reason for Joining Cell" table.

Earthers (page 2.5)
a. Roll 1d+0 and consult the "Leaving Earth" table. Record any Traits, implants, or biotech received from subsequent tables.

Cassiopians (page 2.6)
a. Roll 2d+0 and consult the "Adaptation" table. Record any skill modifiers received.
b. Roll 2d+0 and consult the "Cultural Standing" table. Record any social status received.

Serpentines (page 2.7)
a. Roll 1d+0 and consult the "Number of Mutations" table.
b. Roll 2d+0 and consult the "Mutation" table. Record any skill modifiers or biotech received.
c. Roll 2d+0 and consult the "Clan" table. Record any skill modifiers received.

Reticulans (page 2.8)
a. Roll 1d+0 and consult the "Proximity to Ruins" table. Record any nanotech received from subsequent tables. The adventurer will have had this nanotech for five years at the start of play.
b. Roll 1d+0 and consult the "Biotech Experimentation" table. Record any biotech received.

Orionisians (page 2.9)
a. Roll 1d+0 and consult the "Life Path" table. Record any trait or skill modifiers received.

Step 3 - Buy your Attributes, Skills and Traits, taking into account any limits or bonuses that came up in step 2. You cannot mix and match across world backgrounds without gamemaster permission.

EXAMPLE: You cannot have a Martian military rank *and* a Cassiopian psionic power without a really good reason. Nor would it be likely that you were from a Serpenti clan and *also* had Earth-based experimentation done on you.

Remember that bonuses to skills do not let you exceed normal limits on how high a skill can be bought (**EABA**, page 2.5). Any points you have left over are converted to experience points and can be used at a later time with the normal **EABA** rules (**EABA**, page 8.9).

Step 4 - Weapons and gear. Cells are issued certain standard gear. Other gear may be acquired due to colony bonuses, and adventurers may always add to this by spending from their personal wealth (the Off-World Militia is unique in that its members *can* use personal equipment they feel more comfortable with). Since adventurers are military personnel, remember that expenses like major medical outlays are going to be taken care of by the Martian government (provided you get back home to collect on the benefit).

1 moon hopper
1 MDF composite armor per cell member
1 respirator per cell member
1 light pressure/EVA suit
1 laser rifle (light or heavy) per cell member
4 extra clips for laser rifle per cell member
50 powercells, 5 fuel cells
1 case of 50 grenades
1 tech kit per skilled (≥4d+0) cell member
1 medical kit per skilled (≥4d+0) cell member
4 comm servers
3 camoflauged emergency shelters
10 days food rations per cell member
2 military POMs, 4 autonomies

Then get ready to drop out of orbit and join the resistance!

Mars
The new seat of freedom and democracy...

The Colonies

Status (2d+0)

2 **Political upper class:** Your family lives on the top level of an arcology and probably are still wondering if they should have had you declared mentally incompetent for throwing your life away like this. You start the game with two levels of **Status** (-20A or -20S), as the family name carries a lot of weight. You also have two levels of extra **Wealth** (-10S).

3 **Political lower class:** Your family lives near the top of an arcology. Some think you're crazy, others think joining the Resistance is part of a long-term political gambit where you eventually come home a hero. No one really expects you to survive, though. You start the game with one level of **Status** (-10A or -10S), as your family name carries a lot of weight. You also have one level of extra **Wealth** (-5S).

4 **Corporate upper class:** Your family lives on the top level of an arcology. Most think you joined the Resistance to avoid becoming just another suit, or because you did something heinous and it was either the Resistance or a public lynching. You have two levels of extra **Wealth** (-10S).

5 **Corporate lower class:** Your family lives near the top level of an arcology. You joined the Resistance for your own reasons, and they're no one else's business. As long as you are competent to do the job, the Martian Defense Force doesn't care. You have one level of extra **Wealth** (-5S).

6 **Scientist:** Your family lives in the middle levels of an arcology. A good education and general exposure to technology means you have +10S which can only be applied to Engineering or other scientific disciplines.

7 **Labor management:** Your family lives in the middle levels of an arcology. No effect.

8-9 **Laborer:** Your family lives on the lower levels of an arcology. You have +10S that can only be applied to a Mechanic skill or a technical but non-scientific discipline.

10-11 **Military:** You're a member of the Martian Defense Force. Roll 2d+0 for rank.

12 **Shirker:** Your family lives outside the normal social structure of Mars. You joined the Resistance as a way to leave the fringes and get some respect. You get +10S in Urban Scrounging, but have a negative level of Status (+10A or +10S) and two negative levels of Wealth (+10S).

Reason for joining Resistance (2d+0)

2 **Military orders:** One way or the other, you got drafted. All adults have to do one compulsory tour of duty, and you got assigned to a Resistance cell.

3-4 **Revenge:** Someone you care about was in a cell, and was killed in the line of duty.

5-6 **Recovery:** Someone you care about was in a cell, and has gone missing in action. You're the only one who cares enough to risk your life to try and find them, or at least confirm their death.

7 **Young and foolish:** You seek the adventure and glory of liberating Earth.

8-9 **Duty bound:** You believe it is your duty as a human being to help free the Earth from Virimar oppression.

10 **Mercenary:** You've been hired to take the place of someone wealthy or powerful enough to avoid military service. You have one level of extra **Wealth** (-5S).

11 **Mercenary:** You joined to pay off a debt you could otherwise not afford to. You have one level of reduced **Wealth** (+5S).

12 **Mole:** You are secretly working for the Virimar as part of a long-term plan that you are not privy to the details of. The gamemaster will give you special instructions and possibly special equipment. Roll again for the motivation you *pretend* to have.

Military rank (2d+0)

2-4 **Sergeant:** Add any pistol and ten reloads to your starting gear at no charge.

5-7 **Staff Sergeant:** Liberate one piece of electronics other than a POM from stores and add it to your personal kit at no charge.

8-9 **Master Sergeant:** Substitute any longarm for your laser rifle and add ten reloads for it at no charge. Gain one level of Status (-10A or -10S), applicable only in military situtations.

10-11 **Lieutenant:** Issued a military-grade POM at no charge. Try to keep it in one piece. Gain two levels of Status (-20A or -30S), applicable only in military situations.

12 **Captain:** You may completely alter *one* item on the standard weapon and armor allotment, as long as the total cost is within fifty percent of the original amount and is allowed for Earth deployment. Gain three levels of Status (-30A or 30S), applicable only in military situtations.

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Leaving Earth (1d+0)

1-2 First Wave Refugee: You left Earth before the Virimar attacked. You are at least Mature in **Age** (+0A and +20S).

3-4 Second Wave Refugee: You left Earth just as the Virimar-backed French attacked. Roll on the "Injury" table.

5 Third Wave Refugee: You left Earth during the final stages of the collapse of "normal" civilization. Roll twice on the "Injury" table.

6 Third Wave Refugee: You left Earth after being captured and experimented on by the Virimar. You were rescued by a cell and brought back to Mars for training. Roll once on the "Injury" table and once on the "Alteration" table.

Injuries (2d+0)

2-3 Small scar: Your friends know about it, but it is otherwise not a big deal.

4-6 Disfiguring scar: It may not be on your face, but it is noticeable in casual clothing and distinctive enough to identify you by.

7 Laser burn: Blinded by orbital laser fire, you have medical grade optical nerve implants in your eyes (see page 3.10).

8 Muscle atrophy: A crippling or poorly healed injury left lingering effects. Take a **Weakness** (+10A) of some kind on Strength or Agility.

9 Amputee: You lost a limb due to combat damage. Replace an arm or leg with a medical grade biotech limb (see page 3.12).

10 Internal injury: Decompression from a holed pressure hull has caused permanent lung damage. Take a **Weakness** (+10A) of "poor stamina" on your Health.

11 Internal injury: You lost your spleen and part of a kidney from shrapnel. Your immune system is less functional than normal. Take a **Weakness** (+10A) of "immuno-compromised" on your Health.

12 Neurologic injury: A head injury left lasting effects. Take a **Weakness** (+10A) of some kind on your Awareness.

Alterations (2d+0)

2 Genetech experimentation: You were part of the second generation "super-soldier" program. Choose one "Metabolism" enhancement (see page 3.6).

3 Genetech experimentation: You were part of the second generation "super-soldier" program. Choose one "Environmental" enhancement (see page 3.7).

4-5 Genetech experimentation: You were part of the first generation "super-soldier" program. Choose one "Metabolism" enhancement and one "Aberration" (see page 3.6).

6 Genetech experimentation: You were part of the first generation "super-soldier" program. Choose one "Environmental" enhancement and one "Aberration" (see page 3.7).

7 Implant: You killed a fairly high-ranking collaborator. You were given a "Killing" limiter implant to prevent you from doing it again (see page 3.14). Even though you are free now, the Virimar tech is too invasive to be removed.

8 Implant: Either because you were too violent to be controlled or because you needed to be made an example of, you were given a "Violence" limiter implant (see page 3.14). Even though you are free now, the Virimar tech is too invasive to be removed.

9-10 Implant experimentation: You were part of the third generation "super-soldier" program. You have a "Fear" limiter implant (see page 3.14). Even though you are free now, the Virimar tech is too invasive to be removed.

11 Implant experimentation: You were part of the third generation "super-soldier" program. You have a "Pain" limiter implant (see page 3.14). Even though you are free now, the Virimar tech is too invasive to be removed.

12 Implant experimentation: You were part of the third generation "super-soldier" program. You have a "Emotion" limiter implant (see page 3.14). Even though you are free now, the Virimar tech is too invasive to be removed.

Cassiopia
The world of eternal night...

The Colonies

Cultural standing (2d+0)

2 Servitor: You were among the underclass on Cassiopia because of debt or criminal activity. Other Cassiopians can sense this and treat you accordingly. Start with two levels of negative **Status** (+20A or +20S) and two levels of reduced **Wealth** (+10S).

3 Exile: You were given the option of exile or imprisonment because of criminal activity or behavioral problems. Other Cassiopians can sense this and treat you accordingly. Start with one level of negative **Status** (+10A or +10S) and one level of reduced **Wealth** (+5S).

4-6 Nurturer: You were responsible for healing the sick, tending to the helpless and watching over the less fortunate. Other Cassiopians can sense this and treat you with respect (and expect your assistance if they need your care). Start with one level of **Status** (-10A or -10S).

7-8 Builder: You were responsible for various forms of construction or technical infrastructure. You get +10S usable only for an Engineering skill.

9-11 Warrior: You were responsible for protecting the other colonists from the various hazards of this strange world. Start with one level of **Status** (-10A or -10S), two levels of the Personality Trait "defends the helpless" (+10S) and +10S usable only for a unarmed combat or melee weapon skill. Your adventurer must be in the Adult to Mature age range (**EABA**, page 2.11).

12 Elder: You led the colonists by virtue of your age an experience, but now that expertise is needed back on Earth. Start with one level of **Status** (-10A or -10S) and one level of **Wealth** (-5S). Your adventurer must be at least Middle Aged or older (**EABA**, page 2.11).

Adaptation (2d+0)

2-4 Mutation: You have enhanced night vision. Gain the Gifted Trait of "night vision" (-13A) (see page 2.14).

5-6 Mutation: You have extraordinarily keen hearing. Gain the Gifted Trait of "passive sonar" (-13A) (see page 2.13).

7 Mutation: You can detect electromagnetic fields. Gain the Gifted Trait of "EM sense" (-13A) (see page 2.13).

8 Mutation: You can detect faint bioelectric fields. Gain the Gifted Trait of "biosense" (-13A) (see page 2.13).

9 Psi talent: You are telekinetic! (-6A and at least -5S) (see page 2.16)

10 Psi talent: You are a passive telepath! (-22A) (see page 2.15)

11 Psi adept: You have an uncontrolled talent that manifests as extra strength. Gain the Gifted Trait of "enhanced Strength" (-13A) (see page 2.14).

12 Psi adept: You have an uncontrolled talent that manifests as a shield against damage. Gain the Gifted Trait of "kinetic defense" (-22A) (see page 2.14).

Number of mutations (1d+0)

1-3 **Few:** Roll once on the "Primary Mutation" table. Your family probably lives in the hill country, where homes dug into hillsides provide some protection against radiation.

4-5 **Some:** Roll twice on the "Primary Mutation" table and once on the "Secondary Mutation" table. Your family probably lives normally. Since everyone has mutations, there is no stigma to having them.

6 **Many:** Roll three times on the "Primary Mutation" table and twice on the "Secondary Mutation" table. There is a good chance your father or mother is or was orbital personnel, exposed to higher levels of mutagenic radiation than normal.

Primary Mutation (2d+0)

2-4 **Psionic mutation:** You are a passive telepath! (-22A)(see page 2.15)

5-7 **Psionic mutation:** You are an active telepath! (at least -5S)(see page 2.15)

8 **Psionic mutation:** You are an invasive telepath! (-6A and at least -5S)(see page 2.15)

9-10 **Bio-mutation:** Choose one "Metabolism" enhancement (see page 3.6).

11-12 **Bio-mutation:** Choose one "Environmental" enhancement (see page 3.7).

Secondary Mutation (2d+0)

2-4 **Polydactly:** You have more than the usual number of fingers and/or toes. It is quite distinctive, but does not impair you in any way. You may have the surplus digits removed at any time, but they will leave a noticeable scar.

5-6 **Asymmetry:** You're not quite perfectly balanced in a left/right sense. Maybe one ear is slightly larger than the other, or one arm or leg a fraction of an inch longer than its opposite. It doesn't affect you, and you can have it surgically corrected at the cost of a small scar.

7 **Coloration:** Your skin pigmentation is quite irregular. It may even be striking in an exotic kind of way, but is certainly noticeable unless you use extensive cosmetics or disguise to cover it up.

8-10 **Sensory deficit:** One of your normal senses is diminished. Take a **Weakness** (+10A) on Awareness relating to one of your senses.

11-12 **Surfeit/surplus:** Pick an overall body feature like hair or fingernails. You either have none of it, a lot of it, or an extraordinary thickness or coarseness of it.

Clan affiliation (2d+0)

2-5 **Aurain:** Your clan is master farmers. The Aurain export agricultural products to other clans. Gain +5S usable only for a skill related to agricultural products. This can include things like Pharmacy, Botany or other sciences dealing with plant products.

5 **Qioux:** Artists and artisans. They have been feuding with the Fergus for over forty years, though no one is sure why anymore. Fortunately it is a low-level feud that rarely erupts into serious disruptions of daily life. The Qioux export low-tech goods like clothing and household goods. Gain +5S usable only for a craft or entertainment skill.

6 **Pondsmith:** Storytellers. They are responsible for the Serpentine Chronicle, which records all census information and news of note. They are generally welcome everywhere and have one level of Status (-10A or -10S).

7 **Fergus:** Mechanics and techs. The very small and constantly in need of repair Serpenti space fleet is built, rebuilt and repaired exclusively by the Fergus. They have several off-world facilities, built around Serpentis moonlets outside the radiation bands. Gain +10S usable only for an Engineering or other technical skill.

8 **Kramdor:** Superstitious isolationists. Tend not to interact much with the other clans and are more or less self-sufficient, doing without anything they can't make themselves. They follow a personal religious code that requires short rituals or gestures before doing anything important. Gain one level in the Personality Traits of "loner" and "superstitious"(+10S), and gain +10S that must be used to buy two skills at +0d level.

9-10 **Hope:** Warriors. They live in the most biologically hostile region of the planet, and have become quite competent at protecting themselves. Gain +10S that must be used towards projectile weapon or melee weapon skills.

11-12 **Sentule:** Philosophers. They are excellent observers and teachers, and their skills are generally used by the other clans in educating the young, or consulting on difficult problems. Gain a +0d skill in the culture of *each* Serpenti clan (-25S).

Reticuli
The world of ancient ruins...

Proximity to ruins (1d+0)
1 **Lived within ruins:** Roll three times on "Nanotech" table.
2-3 **Lived near ruins:** Roll twice on "Nanotech" table.
4-5 **Lived near ruins:** Roll once on "Nanotech" table.
6 **Lived away from ruins:** Not infected with nanotech.

Nanotech (1d+0)
1-2 **Tissue repair combine:** These work to keep the infected person at a steady state, repairing cellular and structural disruption by comparing the current state to an "ideal" state.(-16A)(see page 3.3)
3 **Cardiovascular combine:** These work to increase energy supply in the bloodstream of the infected person, presumably indicating the original inhabitants of the ancient ruins had a biology compatible in some way to our own.(-22A)(see page 3.4)
4 **Respiratory combine:** These work to increase oxygen supply in the bloodstream of the infected person.(-20A)(see page 3.4)
5 **Nutritional combine:** These break down most types of biological matter in the digestive tract and recombine it into forms that are readily digestible.(-13A)(see page 3.4).
6 **Neural combine:** These infect neural tissue, greatly increasing reaction time.(-16A)(see page 3.4)

Genetech experimentation (1d+0)
1 **None:** You've seen the results of rogue nanotech and botched genetech. You want nothing to do with it, and will have any you pick up removed at first opportunity. Get a level in the Personality Trait "suspicious of invasive tech" (+5S).
2-3 **Curious:** You experimented once with genetech. Take one "Metabolism" or "Sensory" enhancement. Also take one "Aberration" (see page 3.6).
4 **Interested:** You are a firm believer in genetech. Take any two "Metabolism" or "Sensory" enhancements (or one of each). Also take two "Aberrations" (see page 3.6).
5 **Guinea pig:** For one reason or another you chose or were chosen to receive excessive genetech experimentation. Get any combination of three "Metabolism" or "Sensory" enhancements. Also take three "Aberrations" (see page 3.6).
6 **Botched:** Your inherent genetics or undetected nanotech interfered with your first treatment. Take one "Metabolism" or "Sensory" enhancement. But you also take three "Aberrations" (see page 3.6), and gain two levels of a Personality Trait that reflects a fear of some circumstance where you had a bad Aberration response.

Life path (1d+0)

1 **Faithful:** While you cannot condone murder, you reluctantly accept the need for violence as a means of self-defense, or in extremity, as a pre-emptive measure. Nonetheless, it weighs heavily on your mind. Take two levels of the Personality Trait "pacifist" (as defined above)(+10S). You also will attempt to convince others to adopt your beliefs by means of your example and by rational (if somewhat biased) argument. All other Faithful are automatically Friends (-5S) to you, and you to them.

2 **Priest:** In addition to the beliefs of the faithful, you have a level of Status (-10A or -10S), but also expect your needs to be catered to by any of the faithful in return for the benefit of your presence and edification. Take one level of the Personality Trait "elitist" (as defined above)(+5S).

3-4 **Proler:** You appreciate all forms of work and honest labor, perhaps to a fault, and you equally enjoy reaping the fruits of that labor, again perhaps to a fault. When you are working it is hard to distract you or drag you away from it, but similarly you hate to stop when the party is still going on. Take two levels of the Personality Trait "bi-polar personality" (as defined above)(+10S).

5 **Techie:** You have no idea how people managed to survive without computers and advanced technology. Rural areas give you the creeps unless you are in a well-equipped vehicle or within sight of a communications relay tower. You despise manual labor and would rather overhaul an ancient fission reactor without protective gear than dig a ditch or spend a night in a tent. Take two levels of the Personality Trait "gaeaphobic" (fear of nature)(+10S) and one level of the Personality Trait "technophile" (irrational attachment to gadgets)(+5S). However, you also get +20S to apply to any Engineering or technical skills.

6 **Communist:** You are a very social person, and look out for the welfare of those in your group because true communal behavior is the way we were meant to live. Or so you keep telling people, in a friendly kind of way. You get one level of the Personality Trait "likable" (-5S). People have to work at it to hate you and you usually make a good impression.

▼ **COLONIES-SPECIFIC NOTES** - Certain aspects of creating **EABA** adventurers will be specific to **The Colonies**. Anything *not* listed here can be assumed to use standard **EABA** guidelines.

Attributes -As mentioned earlier, all Attributes are used in the standard fashion. Adventurers of Martian background reduce their bought Strength by 1 to reflect their lower-gravity upbringing.

Skills - Certain skills will have different break-downs, specializations or uses:

Free skills - Everyone has a native language of English at +0d for free, and their native culture at +0d for free. Anyone with a total roll in spoken English of less than 3d+0 has a noticeable accent that places their planetary origin, and for someone *from* that planet, the accent places the region the grew up in.

Blade - This is two separate skills, **Short Blade** and **Long Blade**. Short Blade covers anything up to a large knife, and Long Blade is for weapons the size of a short sword and up.

Firearms - Lasers, particle streamers and pulse detonators fall into this category as a specialization of the overall skill. *Each* type of weapon would be a specialization unto itself. For instance, you could have a specialization in "conventional pistols", *or* a specialization in "laser pistols". Remember that you can normally only have *one* specialization on a skill.

Space vehicles - This normally covers the pilot-ing aspect of orbital or interplanetary craft, and the usual specializations are "Moon hopper" or "Dropship".

Language - All the old Earth languages still exist, and are still used by die-hards in various regions, but the Virimar found it more convenient to enforce use a single language, and that is English, with a mixing of other language terms for specific cultural concepts. However, the French still speak French, and all high-ranking political collaborators will know it, just because the French insist on using their native tongue for diplomatic communications. The Virimar language itself is not fully pronounceable by humans without surgical alteration. However, the written form is readily learned. A +0d roll is sufficient for written literacy at some level, but +1d is required to understand the spoken form. Use the guidelines on page 2.9 of **EABA** for determining fluency. The languages that are likely to crop up in long-term play are: English, French, Spanish, Arabic, Hebrew, and Gaelic.

Engineering - The typical engineering skills are below. An engineer can make educated guesses about something through simple observation, which is sometimes enough, but quite often the full breadth of a skill can only be expressed if there is a lot of expensive equipment available. The standard issue "tech kit" for a skill is enough for basic tasks, but tasks beyond what it was meant for will be harder than normal.

EXAMPLE: A task that might be difficult for a fully equipped Astroengineering repair bay would probably be almost impossible for someone using just a basic Astroengineering tool pack. The person with the tool pack might be able to figure out what needs to be fixed, but can't do it themselves.

Astro - Relating to designing, building or repair-ing spacecraft components. This skill can be used to analyze craft components, identify specific craft, and read ship design plans. *Specializations: Comm: (communication & basic control systems), Structural (superstructure & the ship's outer hull), Propulsion (reactors & propulsion systems), Weaponry (space-craft weapon systems).*

Materials - Allows an adventurer to design and mix compounds and composites. This skill can be used determine chemical formulas, properties, and purposes. It can also be used to prepare basic substances. *Specializations: Explosives (all forms of explosive formulas), Composites (formulas or metal alloys that for purposes of armor, spacecraft hulls, and even bandages), Fuels (formulas that can be used to power reactors and drive systems), Regulators: formulas that can be used to regulate temperature, pressure, or molecular decay and bond.*

Civil - Allows an adventurer to design, build, and repair complex structural systems. This skill can be used to determine structural stability and weak points. It can also be used to read structural blueprints. *Specializations: Surface (buildings, fortifications, and bridges), Orbital (orbital-based structures such as stations, satellites, and docking platforms), Arcology (arcologies and other mega-structures).*

Electrical - Allows an adventurer to design, build, and repair complex electrical and electronic devices. This skill can be used to determine the function of circuitry, build basic electrical or electronic components, and read electrical schematics. *Specializations: Implants (electrical and power components for implant devices), Exotech (computer and power systems for armor used by the MDF), Consumer (commonly available commercial or industrial items).*

Genetic - Allows an adventurer to tamper with (or understand the tampering with) genetic code of humans and other life forms. *Specializations: Sampling (identification and indexing of genetic code, Biotech (modifications to the genetic code which effect permanent biological change).*

Mechanical - Allows an adventurer to design, build, and repair complex mechanical devices. This skill can be used to determine mechanical efficiency and read blueprints or CAD files. *Specializations: Propulsion (propulsion systems designed for use within an atmosphere or gravity field), Exotech (mechanical components for MDF power armor, such as joints, gears, and structures), Biomech (mechanical components for devices which integrate with living tissue, such as joints, gears, and structures), Armory (armor and mechanical weapons such as conventional firearms).*

Photonic - Allows an adventurer to design, build, and repair complex optical devices. It can also be used to read photonic schematics. *Specializations: Nanotech (Martian nanotech and other micro-scopic devices). Biotech (computer and power systems of devices which integrate with human tissue), Computers (central computer units and sub-units which drive spacecraft, arcologies, and other important facets of society).*

There are other engineering skills, but these are the major ones adventurers may have to deal with.

Medicine - Medical skill has the additional *Specializations: Implants (interaction of any kind of technology with the body, whether bionics, genetic alteration or nanotech), and Mutations (interaction of conventional medicine and mutated human physiology).*

Programming - In **The Colonies**, this deals almost exclusively with photonic devices. *Specializations: POMs (basic computer infrastructure), Autonomies (near-AI programs), Algorithms (programming theory for specific tasks), Spoofing (fooling algorithms).*

Trades - Trades are skills like Mechanic, Plumber, Electrician, or Sensor Operator. They may not confer vast theoretical knowledge or the right to put a Ph.D. after your name, but they give the adventurer a broad range of practical knowledge on the subject.

EXAMPLE: A mechanic might not be able to design a car, calculate safety margins or read a blueprint, but they can certainly fix something that's busted if they have the parts, or make a passable copy of the parts if they have basic tools to work with.

Trades are equally difficult to become proficient in as a similar engineering skill because of their broader nature, but the gamemaster needs to make sure each type of skill has its own advantages compared to the other.

Zero-G - This is a Health-based skill, and has a special effect similar to Running. If you have the skill at +0d or better, you take no penalty in normal zero gravity situations. In unusual situations, the game-master may make you roll on the skill to avoid taking a -1d penalty on whatever it is you are trying to do, and in contested or equal situations, the person with the better skill roll will gain a small advantage.

Scrounging - A particular type of Scrounging that is useful is "Parts Scrounging". The adventurer has a knack for finding bits and pieces that can be used to make or repair other items. These are usually not sufficient to make repairs to full efficiency, but enough to restore some function. Note that the actual repair is a job for an engineering or trade skill, which the parts scrounger must have in order to scrounge effectively.

Traits - Unless mentioned below, assume a Trait acts normally according the **EABA** rules.

Blessing/Curse - Some side effects of various mutations, nanotech or genetech may use this Trait. See the appropriate section of the rules for details.

Enemies - Everyone who isn't a collaborator has the Virimar as an Enemy, so this is normally worth no points. An adventurer who has a past on Earth where they caused a lot of problems for the Virimar could have an extra price on their head, and take the Virimar and their collaborators as an Enemy. All enemies should be Earth-based, since that is where most of the action takes place, but if a player can come up with a good reason for a minor Enemy back on Mars or Luna, let them run with it.

Friends - If you're a collaborator, the Virimar are a Friend worth 10A or 10S. They can provide you with tech, info and the occasional assistance from other collaborators. But don't expect a long and happy life if you're caught.

Gifted - Some of the various mutations, psi, nanotech or genetech will be forms of this Trait. See the end of this section of the rules for details.

Secret - Being a collaborator while being in a cell is a major Secret. Being in a cell while simultaneously pretending to be a collaborator is also one. Getting caught in either case is likely to be fatal if you're lucky.

Status - Status associated with rank, culture or other parts of an adventurer's background only applies to that culture or expatriate members of it. A Cassiopian exile has no stigma among Martians, and a Martian captain has no rank to an Orionid proler. Note however that all cell members are technically part of the MDF, and should be mindful of both MDF rank and the status differences between members of the same culture. A Cassiopian nurturer might take offense if an MDF captain treated them with equal respect as they would an exile, at least in their presence. And this would reflect poorly on the MDF. See notes on military rank on page 4.12.

Unusual Background - If an adventurer wants to take a characteristic of a culture not their own, or to take benefits from different planetary origins, they have to have a really good reason (remember that the round trip times are measured in years), *and* take this Trait.

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Wealth - Adventurers start off with normal wealth based on their level of employable skill *prior* to joining the Resistance. This is adjusted for their background as appropriate. Some planets will have different economic scales for different types of skill:

Mars/Earth - Standard supply and demand. Adventurers who start off as Earth citizens *on* Earth will roll for income and goods as though their skill level was 3d less than normal, with a maximum roll of 3d+0.

Cassiopia - Nurturers (those who make a living from medical skills) roll +1d for determining income and starting goods.

Serpenti - A sparse economy means all skills pay as though they were 1d less than normal. Kramdor adventurers are even worse off, rolling for income and goods as though their skill level was 2d less than normal.

Reticuli - Trying to understand the alien nanotech here is big business. Anyone with a skill that has a *specialization* dealing with nanotech can roll +1d for wealth and starting goods if this is their *primary* income-generating skill.

Orionis - Faithful, priests and communists all roll 1d less than normal for determining income and starting goods.

Adventurers from outside the solar system are assumed to be *permanent* emigres. They sold all their possessions except for a few with sentimental value, turned them into trade goods needed on Mars, and then sold these to buy other goods once they settled in on Mars.

▼ **GIFTED/PSI** - Adventurers from certain backgrounds may have mutations or psionic abilities. Many of these will be passive Gifted abilities, but a few are actively controlled by the adventurer. Note that these abilities are somehow linked to the Fate of the adventurer. The better the adventurer's Fate, the more useful the ability will be. Unless otherwise specified, all the abilities have some visual or audible manifestation in use. Passive abilities will show less than active ones, but there will be signs that an astute observer will be able to spot.

EXAMPLE: An adventurer with EM sense is normally picking up signals all the time with no visible manifestation, but if they concentrate to try and localize or identify a particular signal, their eyes flash orange for a moment, or maybe light seems to bend around them, but so subtly that if you blink you would have missed it.

Players are encouraged to come up with the visual manifestations of any unique abilities they have.

The power descriptions for genetech, nanotech or biotech will be listed in Chapter 3.

EM sense - The adventurer can sense and see things like radio waves, radiation and other fairly intense sources of electromagnetic radiation. As a Gifted ability it would cost 13A.

Type	Requirements	Cost
■	Acts as an Attribute	+30
■	State-based duration	+15
●	Cannot be altered	-10
■	Power costs +3A	-10
-	Framework base	0
	Adjusted cost	15
	Final activation difficulty	n/a

The adventurer can use their Fate roll as an Awareness to spot or categorize EM radiation, and experience lets them differentiate the different types, just as you can see the difference between "faint pink" and "bright orange". The sense does not allow determination of any information contained in the EM radiation. The adventurer can say "that's a radio wave", but not listen to anything said over it.

▼ **Note** - All of the senses are "always on", so the information they convey is always part of what an adventurer senses, much like you cannot choose to see only in black and white instead of color. Similarly, like you can choose to wear filtered lenses to block out certain colors, an adventurer with altered senses can resort to outside aids to filter or block input from the altered sense. The special senses *can* be used for combat purposes, within limits. A person with EM sense might not be able to see *you* in the dark, but they *can* see the emissions coming from your headset radio...

All of the special senses can supplement or take the place of certain technological tools, allowing certain skilled tasks to be performed without penalty or at lesser penalty. For instance, a person with biosense would not be penalized (or penalized as much) for trying to do something that normally requires a handheld medical scanner.

Biosense - The adventurer can sense and see faint bioelectric fields, as given off by most animals. As a Gifted ability it would cost 13A.

Type	Requirements	Cost
■	Acts as an Attribute	+30
■	State-based duration	+15
●	Cannot be altered	-10
■	Power costs +3A	-10
-	Framework base	0
	Adjusted cost	15
	Final activation difficulty	n/a

The adventurer can use their Fate roll as an Awareness to spot or categorize biological activity, and experience lets them differentiate the different types, just as you can see the difference between "faint pink" and "bright orange". The sense can detect the presence of genetic modification or nanotech, and fairly accurately monitor vital signs and general health. It can also pick up changes in biology associated with strong emotion. This may give the adventurer a 2 point bonus using certain social skills.

Passive sonar - The adventurer's hearing and their brain's auditory centers are enhanced. As a Gifted ability it would cost 13A.

Type	Requirements	Cost
■	Acts as an Attribute	+30
■	State-based duration	+15
●	Cannot be altered	-10
■	Power costs +3A	-10
-	Framework base	0
	Adjusted cost	15
	Final activation difficulty	n/a

The adventurer can use their Fate roll as an Awareness to "see" the rough outlines of anything around them, even in darkness or conditions of visual obscurement. And, as a person can see the shadows of things that are out of sight, an adventurer with passive sonar can hear things around corners or even through some barriers. This sense works off the echoes of sounds in the area, so *something* has to be making noise for the ability to work, and there has to be an atmosphere to carry the sound. Obviously, the ability will not work in a pressure suit or through the filtered inputs of an exotech suit.

Night vision - The adventurer's low-light vision and their brain's visual centers are enhanced. As a Gifted ability it would cost 13A.

Type	Requirements	Cost
■	Acts as an Attribute	+30
■	State-based duration	+15
●	Cannot be altered	-10
■	Power costs +3A	-10
-	Framework base	0
	Adjusted cost	15
	Final activation difficulty	n/a

The adventurer can use their Fate roll as an Awareness to "see" in conditions that would be total darkness to a normal person. This vision is normally in shades of grey rather than color, but is otherwise normal. In conditions of absolute darkness the adventurer is as blind as anyone else, but even the dim glow from a digital watch would be enough to light up a room clear enough to read by.

Enhanced Strength - The adventurer has a limited telekinetic ability or other type of non-biological increase to their Strength. As a Gifted ability it would cost 13A.

Type	Requirements	Cost
■	Adds to Attribute	+30
■	State-based duration	+15
●	Cannot be altered	-10
■	Power costs +3A	-10
-	Framework base	0
	Adjusted cost	15
	Final activation difficulty	n/a

The adventurer's actual Strength is increased by their Fate, with a maximum of one-and-a-half times normal Strength. Or, the ability can apply *only* to arm or leg strength, in which case the maximum can be double the normal Strength.

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This extra Strength does not have any physical manifestation, but the adventurer does have a faint glow and faint crackling around them when they use Strength at the enhanced levels.

Kinetic Defense - The adventurer has a limited telekinetic ability that deflects or absorbs energy entering their personal aura (within a fraction of a centimeter of their skin). As a Gifted ability it would cost 22A.

Type	Requirements	Cost
■	Prevents an effect	+30
■	Lethal damage	+40
●	Reduced 1d effect	-10
■	State-based duration	+15
●	Cannot be altered	-10
●	Works on self only	-5
■	Power costs +12A	-40
-	Framework base	0
	Adjusted cost	20
	Final activation difficulty	n/a

The adventurer has an inherent armor against all forms of physical or energy damage of their Fate roll minus -1d. No known attack would be armor-piercing against this. This armor is considered a normal worn armor for purposes of layering (**EABA**, page 4.9).

EXAMPLE: An adventurer with a Fate of 2d+0 has this power, giving them an inherent armor of 1d+0 (because the power has an inherent -1d penalty). If they were also wearing body armor for 3d+0 protection, the combination of the two would be worth 3d+2, not 4d+0.

Remember that this ability is going to be *under* any form of worn armor. It might help you stop a bullet, but it won't stop a spacesuit from getting punctured...

Passive telepathy - The adventurer has a limited telepathic ability that lets them pick up the surface thoughts of anyone and everyone nearby. While these thoughts can be tuned out much like you can ignore a radio or background noise, it is still there. As a Gifted ability it would cost 22A.

Type	Requirements	Cost
♦	Conveys information	+30
■	Fills a 3 meter radius	+20
●	Thresholded power	-5
■	Special effect (invisible power)	+10
■	State-based duration	+15
●	Cannot be altered	-10
■	Power costs +12A	-40
-	Framework base	0
	Adjusted cost	20
	Final activation difficulty	n/a

If the adventurer's Fate roll is higher than the Will roll of a person within 3 meters, then that person is not guarding their surface thoughts or emotions very well, and some glimpse of what they are thinking or feeling bleeds through the link. You only need to roll dice if it is a matter of game importance, otherwise just assume it is an excellent way to judge the mood of people around you. It is not *truly* mind-reading, but could be more accurately described as superior intuition, combined with a hyperawareness of body language and context. This ability has no visible aura and is not normally detected when in use.

Active telepathy - The adventurer has a limited telepathic ability to get into the head of someone and dig out information.

Type	Requirements	Cost
♦	Subverts Attribute (Will)	+40
●	Increased 1d effect	+10
●	Thresholded power	-5
●	Requires total concentration	-10
●	Damages user's Hits	-10
●	Cannot be altered	-10
●	Only to get information	-5
-	Framework base	0
	Adjusted cost	10
	Final activation difficulty	7

In addition to the ability, the adventurer also needs a "Telepathy" skill in order to activate the power. This is an Awareness skill, and has a normal target number of 7. The cost of the ability is the points spent on the skill, at least 5S for +0d skill (their default Awareness roll).

This ability requires total concentration and physical contact, normally to the head or face. After activating the power, the adventurer gets their Fate dice plus 1d to exceed the Will roll of the target. If they do, they get one piece of information, a reasonably accurate answer to a straightforward question. If the target doesn't know, isn't sure or has multiple thoughts on the subject, or if the question was phrased poorly, results will not be as good.

Using the ability is stressful. The telepath takes 1d+0 non-lethal hits from fatigue and headache each time they use the ability. This damage is recovered as any other non-lethal damage.

Invasive telepathy - The adventurer can intrude into another's thoughts enough to alter their future behavior.

Type	Requirements	Cost
♦	Subverts Attribute (Will)	+40
●	Increased 1d effect	+10
●	Thresholded power	-5
●	Requires total concentration	-10
●	Takes 10 seconds to use	-5
●	Damages user's Hits	-10
●	Cannot be altered	-10
■	Lasts 10 hours	+30
■	Power costs +6A	-20
-	Framework base	0
	Adjusted cost	20
	Final activation difficulty	10

Like active telepathy, the adventurer has to have skill to use the ability, and the cost of the ability is that of the skill, plus 6A for the power. In this case, a roll of 10 or better is required to simply activate the power.

This ability requires total concentration and physical contact, normally to the head or face. After activating the power, the adventurer gets their Fate dice plus 1d to exceed the Will roll of the target. If they do, they can either get one piece of information (like active telepathy), *or* plant a post-hypnotic suggestion that will last up to ten hours. When a condition that would trigger the suggestion happens, the target gets a Will roll against the telepath's original Fate plus 1d roll to resist the compulsion. This Will roll *can* be modified by the conditions. Something that they would want to do anyway would be harder to resist than something which goes against their core beliefs.

Using the ability is stressful. The telepath takes 1d+0 non-lethal hits from fatigue and headache each time they use the ability. This damage is recovered as any other non-lethal damage.

Telekinesis - The adventurer has a limited telekinetic ability that they can somewhat control.

Type	Requirements	Cost
■	Acts as an Attribute	+30
■	Ranged effect (7 meters)	+10
●	Damages user's Hits	-10
■	Lasts as user wills	+15
●	Cannot be altered	-10
■	Power costs +6A	-20
-	Framework base	0
	Adjusted cost	15
	Final activation difficulty	8

Like the other active powers, this one requires a skill to use effectively, and the power also costs 6A. The "telekinesis" skill is both used to activate the power (against a difficulty of 8) and to target or finesse it (using normal combat modifiers).

The power causes physical stress in the form of 1d+0 non-lethal damage each time it is activated, but once activated, the user can continue to use it as long as they maintain some concentration on it.

EXAMPLE: An adventurer has this ability, a Fate of 1d+1, and a "telekinesis" skill roll of 3d+1. They want to pick up a set of keys across the room from the cell where they are currently imprisoned. First, they use their skill roll of 3d+1 against a target number of 8. Rolling a 9, they are successful, and the power manifests. However, it hurts, and they take 1d+0 non-lethal hits from the psionic backlash, rolling a 6. *Ouch!* This puts the adventurer over their -1d damage threshold, but the power is still on.

Now, they have to pick up the keys. This uses the same skill, but they have a -1d injury modifier. This is a 2d+1 skill roll against something at a range of say 6 meters (difficulty of 8), plus 8 for the small size of the target, making the difficulty a 16, well beyond what a 2d+1 roll is capable of reaching. However, if they aim for three turns, they can drop the difficulty to 13, just barely possible for their skill roll. It will take a while, but eventually they will be able to snag the keys and fly them to where they can grab them and get the cell open. Or, they might have the option of simply grabbing the table the keys are on and dragging the whole mess noisily over to their cell door.

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Powers and society - Powers are unusual, but known. Even if there are no *direct* methods of countering some of them, people can still take precautions if they think they are somehow at risk. Misinformation, booby traps, specialized attacks, that sort of thing.

On areas under Martian authority, use of powers in the commission of a crime increases its severity, and any form of deliberate mind-rape is punishable by excision of the parts of the brain believed to generate the power. This has the unfortunate side effect of also excising most of the person's personality. Nothing much can be done about passive telepathy except to guard your surface thoughts.

The MDF has a keen interest in recruiting and using paranormally talented individuals, both for their advantages in the Off-World Militia, and for certain unnamed secret projects on Mars and Luna. Theoretically, all paranormally talented individuals are required to state their abilities and have them tested upon joining any branch of the MDF, but a lot of people seem to "forget" to register, and field commanders often look the other way if they see such abilities in use, especially if the abilities are such that the individual might be recalled from the field for more profitable use elsewhere.

On Earth, the Virimar have on occasion expressed a great deal of interest in psionic mutants, especially in terms of seeing if the trait is a temporary environmental mutation, or a truly genetic trait that follows normal laws of inheritance. At times, efforts to capture psi talents have been high enough that these personnel have had to be evacuated from Earth, and at others they can seemingly operate with impunity.

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Now, Jeffers had the nanotech stuff in him, caught it on Reticuli. So his tosses his knife in the air and catches it blade first in his hand. Not hard, mind you, but enough to hurt. When he smears the blood around, you can see that it it had a sort of weird sheen to it. The cuts clotted up real quick. By evening, there were just scars. By morning, even those were gone. Shame about that rocket grenade, though. I'm going to miss him...

- overheard in a Luna barracks

▼ **INTRODUCTION** - Technology in **The Colonies** ranges from the primitive weapons used by badlands scavengers to alien nanotech that still defies human analysis. In general, the esoteric technologies will be broken down into several distinct categories:

Nanotech - Microscopic or near-microscopic self-replicating machines.

Genetech - Use of genetic manipulation to create permanent changes in the human body.

Biotech - Interfacing technology and the human body. This can be from medical necessity, such as the replacement of lost limbs, or optional, such as for espionage or combat enhancements.

Exotech - This is really a subset of biotech, where all the hardware is external to the body, and the term generally is synonymous with powered armor.

Photech - All modern computers are photonic. Portable units have capabilities far outstripping even the largest 21st century machines.

Weapons & Defense - Not a "tech" in the sense of the categories above, but an overview of the weapons and defensive technologies available in various parts of the campaign area.

This chapter is the longest one in the rules, and you can read some things between the lines that might not be mentioned elsewhere. All costs in Attribute points are just for reference if you use point-based adventurer generation. Costs with a negative number, like "-3A" mean the adventurer *loses* points towards other aspects of creating an adventurer, while positive ones, like "+5A", mean the adventurer *gains* points for that item.

▼ **Note** - Remember that some technologies can "pay for themselves", partially or fully. An adventurer who gains points for being blind in one eye can use those points to put towards the cost of a biotech replacement.

▼ **NANOTECH** - Nanotech is the science of microscopic devices which either permeate a living being or Parallel Optic Matrix (POM). The science was only theory until the first ship returned from Reticuli, sterilized, but carrying samples of alien nanotech for analysis. The way in which the highly efficient alien nanotech was originally constructed and programmed still remains a mystery, but having viable samples to experiment on gave the insights necessary to create the nanotech-based POM units.

Despite best efforts at quarantine, the alien nanotech eventually *did* make it out of the labs and into the Martian environment. Fortunately, it is largely benign, and can be removed with some difficulty if desired.

These idea of nanotech as dumb assembly or disassembly units is crude, and turns out not to be workable. Because of the constant failure, repair and replacement of individual nanites, they need to operate as a combine in order to perform useful tasks. Think of each nanite as a single transistor in a widely distributed integrated circuit, or a worker ant in a colony. Once the nanotech has "colonized" an entity, that nanotech tends to stay there. Under certain circumstances it can spread, but it would then tend to stay in its new home. Individual nanites that leave the collective whole lack direction and support structure provided by the combine, and quickly fall into disrepair.

So, nanotech devices are generally a combine which is programmed to performs an *overall* function but consist of propagational, functional, and investigative units.

Propagation units replenish the combine when other units become depleted or damaged. Functional units carry out their specific functions. Investigative units constantly patrol their assigned locations and determine if it is necessary for functional or propagation units to be called in.

▪EABA

Biological Maintenance Units - Or BMU's. This is nanotech that infects living creatures. No known nanotech affects plant life. It is possible for part of a BMU combine to move to another person when bodily fluids are exchanged. When such a situation occurs, a 2d+0 roll is made. For slight exchanges, a roll of 12 is necessary to transfer enough of a random combine for it to survive long enough to colonize a new host. For exchanges like blood transfusions or organ transplant, a roll of 5 or better is needed. For things like eating meat from infected animals, the roll is somewhere in between, and depends on how the meat was prepared. If nothing is done to stop an infection process, it will take 2d+0 days to complete the process. At this point, the colonized individual gains the full benefits and liabilities of the combine.

There are different "strains" of each type of combine, and it is possible for an adventurer to have multiple copies of the same type at once. The effects of each additional combine of the same type are halved (round down). One dependency effect is felt only if *all* combines of that type are lost.

It is possible for combines to be rendered inert by extreme (life-threatening) doses of electricity, radiation or pulse weapon discharge. Whenever such a situation exists, make a 3d+0 roll against the total half-lethal or lethal damage done. If the roll is less than or equal to the damage, a *random* combine is crippled beyond self-repair capability.

Adventurers can also become extremely dependent on their nanotech combines. As the nanotech replaces and improves on bodily function, natural function may atrophy or be lost altogether, leaving the adventurer very vulnerable should their nanotech fail. It is theorized that this may be the reason the alien nanotech creators are no longer around.

Dependency effects of a particular combine will be listed in its description. The effects of nano-tech dependency *may* wear off. Use the distance scale on the **EABA Universal Chart**, and substitute (months of infection *minus* months without it) for meters. An adventurer gets one Health roll per month at this difficulty. Success means their body comes back to normal and shakes off the negative effects of being without the combine.

EXAMPLE: An adventurer who has had a combine for eight months gets to make their first Health roll to shake off a dependency effect at a difficulty of 9.

Tissue/cell repair combine - This combine acts as a Gifted Trait (-16A) with the effect of adding Fate to Health for healing purposes (up to double normal Health). Once an adventurer is colonized, the combine takes a "snapshot" of their condition and strives to keep the adventurer at that state. It's a *good* idea to be in a state of *full* recovery at the time of colonization. This combine can actually regrow lost limbs if the limbs were there at the time the combine was installed. Such injuries always count as crippling hits (**EABA**, page 5.8). A digit would be one hit, a hand or foot four hits, and a limb anywhere from eight to twelve, depending on where the amputation took place and which limb was involved.

▼ **Note!** - An unfortunate side effect of this is that the adventurer will be unable to apply experience towards increasing physical attributes as long as the combine is in place. The combine sees new muscle tissue as "something that shouldn't be there" and removes it! Since actual physical training takes place over extended periods and spending experience just represents that time, an adventurer cannot have the combine removed just so they can spend experience. The combine has to be gone long enough for the adventurer to have gained the experience through training (4S per three months). So, if it takes twelve experience points to raise your Strength, you need to be combine-free for nine months to do it. Adventurers without this combine are assumed to be slowly progressing towards whatever experience goal they are working on and do not have this limit.

Type	Requirements	Cost
■	Adds to an Attribute	+30
■	State-based duration	+15
●	Cannot be altered	-10
■	Power costs +6A	-20
●	Can heal any injury	+5
-	Framework base	0
	Adjusted cost	20
	Final activation difficulty	n/a

The tissue repair combine also destroys cancer cells and repairs damage caused by disease. To some degree, it may also slow aging effects.

If a colonized adventurer loses this combine, they take a Weakness on Health of "slow healer". If they already have a Weakness on Health, that Weakness is increased to -2d in effect. The body's recuperative powers are degraded from disuse or actual damage caused by the presence of the alien combine. Their immune system may also degrade, causing more frequent colds and increased fatigue. This dependency side effect is completely reversed if the adventurer is recolonized.

Cardiovascular combine - This combine acts to enhance the body's energy storage and distribution. It acts as a Gifted Trait (-22A) with the effect of increasing Strength and Health by a *total* of Fate plus 2d (evenly split between Strength and Health). The increase in Strength only applies to encumbrance and total carrying capacity (not to punch/kick damage), and only applies to Health for increasing movement speed. The adventurer can carry more weight more efficiently and move faster without getting tired.

Type	Requirements	Cost
◼	Adds to an Attribute	+30
◼	State-based duration	+15
●	Increased 2d effect	+20
●	Cannot be altered	-10
◼	Power costs +12A	-40
-	Framework base	0
	Adjusted cost	15
	Final activation difficulty	n/a

If the combine is lost, the adventurer gets a Weakness on Health of "poor runner", or any existing Weakness on Health is increased to -2d. The adventurer feels clumsy and rubber-legged when trying to move, and they simply can't make their limbs move as fast as they used to. These dependency effects go away if the adventurer is recolonized by this type of combine.

Respiratory combine - This combine improves the efficiency and filtration of oxygen from the air. Toxins are filtered out of the lungs, chemically bound to inert molecules and are excreted through the urine. The effects of toxins that cause physical harm such as acids and poisons are not affected. It acts as a medium Blessing (-20A) that prevents 2d of damage or effect from any inhaled substance. This includes beneficial or recreational substances. The effect applies at a reduced level (-1d) for any substances absorbed through the skin.

If the combine is lost, the adventurer picks up a small Curse that amplifies the effects of inhaled toxins (but not beneficial substances). The adventurer has a hyperactive allergic response to airborne pollutants that pretty much requires constant medication to keep under control. These dependency effects go away if the adventurer is recolonized by this type of combine.

Nutritional combine - This combine improves the nutritional intake of an adventurer, and converts virtually any biological matter into digestible proteins and amino acids. They need not worry about dehydration or malnutrition so long as they ingest a minimum of food and water products.

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The combine introduces an optimum amount of protein and vitamins into the character's system, keeping them healthy. It acts as a Gifted Trait (-13A) with the effect of converting non-digestible organic material into nutritional material. It does not do anything about inorganic poisons, but it *will* convert organic toxins like alcohol or mushrooms into harmless materials.

Type	Requirements	Cost
◼	Alters form of item	+15
●	Increased 1d effect	+10
◼	State-based duration	+15
●	Cannot be altered	-10
◼	Power costs +3A	-10
-	Framework base	0
	Adjusted cost	20
	Final activation difficulty	n/a

If the combine is lost, the adventurer's digestive system begins acting up in a most unpleasant fashion. Anything except the blandest and most easily digested foods requires an Average(7) Health roll to avoid vomiting, intestinal cramps, diarrhea or some combination of the three. These dependency effects go away if the adventurer is recolonized by this type of combine.

Neural combine - This combine improves the efficiency of the character's bio-electrical system. It colonizes along existing nerve pathways, passing signals from the brain to extremities at electrical rather than chemical speed. It acts as a Gifted Trait (-16A) with the effect of adding Fate to Agility for purposes of combat sequencing (up to double normal Agility). The adventurer isn't any better at their actual skills, but they can bring them into play a *lot* faster.

Type	Requirements	Cost
◼	Adds to an Attribute	+30
◼	State-based duration	+15
●	Cannot be altered	-10
◼	Power costs +6A	-20
-	Framework base	0
	Adjusted cost	15
	Final activation difficulty	n/a

If the combine is lost, the adventurer's under-utilized neural pathways have to take up the slack, and they take a Weakness on Agility of "slow reactions", or any existing Weakness on Agility is now at -2d effect. These dependency effects go away if the adventurer is recolonized by this type of combine.

Viral Units - Viral units are just as contagious as Biological Maintenance Units, except that they cause injury or negative effects in individuals that they are passed to. They are also alien nanotech, and it is theorized that they are forms which are not compatible enough with humans to have their presumably positive effects expressed. Oddly, they take a binary form. They are completely safe to the person they came from, but disruptive to the person they are passed to. If this person in turn passes them on, that third person becomes an unaffected "carrier", who can then pass the harmful form onto a fourth person, and so on. Once a viral combine is eradicated, the negative effects generally cease immediately, though damage from these effects may take some time to recover from.

Disruptor combine - Once transferred to another individual, this combine will begin to create havoc with his bio-electrical system, giving them a bad case of "the shakes". The infected character receives a -1 penalty on Strength and Agility until the disruptor combine is removed. This does affect Attribute rolls and maximum levels of skill that can be used. This infection is typically perceived as a common cold or other illness...until it doesn't go away.

Eater combine - Once transferred to another individual, this combine will begin to cause a generalized damage to internal organs and tissue. The infected adventurer takes one lethal hit each day until the combine is removed. A healthy adventurer can cope with this, but one who has reduced Health rolls from damage or other problems may quickly slide into oblivion. This infection is typically perceived as a serious disease or syndrome. Attempts to remove it with non-lethal jolts of electricity can sometimes backfire, as an adventurer might take enough damage that they can't recover enough to survive a second attempt at removal.

Poison combine - Once transferred to another individual, this combine will begin to create and release neural toxins into the bloodstream, causing the disruption of synapses in the brain. The adventurer gets one level of a random Personality Trait each week, or their largest Personality Trait is increased by a level. This continues until the adventurer is completely deranged and has to be restrained for their own safety.

Photonic Units - Photonic Optic Combines (POCs) are nanotech-based computers used by Martian corporations to maintain and repair systems. Because they are expensive and fairly large, POCs are not used by the Off-World Militia, though there is one on Luna for special purposes. About the only device a POC cannot directly interface with is another photonic computer. The nanotech competes with any other photonic nanotech, requiring physical separation to avoid damage or disruption of one or both. POC's can communicate over conventional links, but the invasive integration properties of the combine are lost, making it no better than a normal photonic computer running algorithms. The smaller Photonic Optic Matrix (or POM) lacks the integration capability of the combine, but is still an extremely sophisticated device.

A Photonic Optic Matrix is a self-modifying, self-configuring, handheld optical computer made of millions of specialized nanites. It can adapt its protocols and input/output to communicate with virtually any electronic or non-nanotech photonic device. It is an *extremely* useful gadget.

Both Mars and the Virimar have POCs and POMs, but the full capability and uses of the Virimar combines are unknown.

Removing Nanotech - Nanotech combines can be removed with the proper training and medical equipment. It is a long and tedious procedure. However, it *can* be done without excessive physical damage. The normal procedure involves a complete filtering of the blood through an intense EM field, and use of magnetic fields to concentrate remaining nanites to the extremities, which are then dosed with bursts of gamma radiation. This is followed by a rest period during which the patient is constantly monitored for any re-emergence of the combine, and the process repeated if needed. And, just to complicate matters, the entire process is done under quarantine.

The net effect is to give the adventurer a 2d+0 roll against a Hard(11) difficulty to completely flush *all* combines from their system over a period of about a week. Whether the roll succeeds or fails, they take 1d+0 lethal damage at the end of the week, which is recovered normally if the treatment is successful, but which is not healed at all if the treatment has to continue. If treatment is immediately continued, the difficulty of each subsequent roll is reduced by 2. Once the combines are gone, the adventurer will have to deal with dependency effects from any beneficial combines, but any viral combines are completely eliminated with no further effects.

▼ **GENETECH** - Genetech also known as genetic engineering, is the science of tampering with the human genetic code - either in an embryo or full grown adult. Embryonic genetech was fairly common on Earth, but Mars restricts its practice to eliminating birth defects. This is the safest genetech and does not typically produce aberrations.

Performing genetech treatment on adults is very hazardous. Many recipients possess aberrations or unwanted side effects. While the human genome may be fully sequenced, the exact interactions and permutations of messing with multiple genes are not. Deleting a gene that causes color-blindness is easy. Adding several genes to accelerate healing beyond normal human levels (some of these genes from non-human species) is likely to have side effects that cannot be predicted. Using a non-human or altered gene to perform a task builds up stress and byproducts in the adventurer's body.

Every time a task is rolled using a genetech ability, the adventurer counts the number of "1's" and "6's" on the dice rolled for that task. If there are two more "1's" than there are "6's", then the gamemaster randomly activates one aberration. Characters without aberrations can ignore the aberration trait. The gamemaster may also require an Attribute roll under certain circumstances, depending on the nature of the genetech.

EXAMPLE: An adventurer with an enhanced sense of smell is hit by tear gas. Even though the adventurer isn't using their ability, they are stressed more than an average person would be, and the gamemaster has them make an aberration check.

Environmental and physical stresses require a Health roll, and emotional stresses require a Will roll. These rolls are with any injury penalties and on the base (unenhanced) level of the Attribute.

▼ **Note!** - Adventurer generation may give or allow the same enhancement more than once. The cumulative effects of enhancements are half as much as the previous enhancement, rounding up. Half of 1d+0 rounds to 0d+2, half of 0d+2 rounds to 0d+1, and half of 0d+1 rounds to zero. The aberration roll is still only made once, and remains the same. Also note that while many enhancements act similar to Fortes, they are not Fortes. An adventurer can have both, and they would combine at *full* effect.

EXAMPLE: Adventurers with two levels of muscle enhancement would be at +(1d+2) Strength, *not* +2d Strength. An adventurer with one level of muscle enhancement (+1d) *and* a Forte on arm Strength (+1d) *could* do punches with a Strength 2d+0 more than normal.

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Metabolism Enhancements - These genetic enhancements are activated by a re-engineered adrenal gland which secretes hormones and affects bodily functions, or by altered or implanted glands or structures engineered to be genetically compatible with the adventurer.

Muscle Enhancement - Specialized hormones derived from adrenaline are released into the adventurer's system, affecting muscle tissue that has been gene-engineered to handle the stress. The adventurer gets +1d to all Strength rolls for one minute.

Enhanced Reactions - Specialized neuro-transmitters are released into the adventurer's system, affecting their decisiveness and reaction speed. The adventurer gets +1d to all combat sequencing rolls for one minute.

Refined Equilibrium - Specialized chemicals and neurotransmitters are released into the adventurer's brain and inner ear, affecting balance and physical grace. The adventurer gets +1d to all Agility rolls for one minute. This bonus only transfers to Agility *skills* that mostly involve physical balance (dancing, acrobatics, etc.).

Accelerated Healing - This enhancement is a modification of the adventurer's basic cell structure and immune system. It increases their Health by +1d for healing any type of lethal damage. The player can decide during adventurer creation at what level of impairment the extra Health kicks in. For instance, saying the genetech only triggers on healing damage that had caused a -1d penalty or more. Aberration effects will happen at a random point in any day in which it triggers.

Enhanced Resistance - This genetech improves the adventurer's tolerance to disease, poison, and low doses of radiation. They get +1d on all Health rolls relating to these conditions. Aberration effects would occur when Health rolls are made resisting these conditions.

Enhanced Endurance - A genetically modified liver and improved oxygen transport mechanisms give the adventurer improved stamina. They get +1d on all Health rolls relating to exertion or recovery of non-lethal damage. The player can decide during adventurer creation at what level of impairment the extra Health kicks in. Aberration effects will happen at a random point in any interval in which it triggers.

Sensory Enhancements - These enhancements are genetic redesigns of a particular sensory organ and its connections to the brain. If an adventurer has an enhancement that allows them to operate more effectively in the water, they may specify their enhancement is optimized for underwater use and is at +1d effect over its normal amount in the water, but useless on dry land.

Acute Hearing - This adds +1d to all Awareness rolls that involve hearing. The adventurer can also hear somewhat outside the normal human range.

Passive Sonar - This enhancement counts as a 1d+0 hearing Awareness roll that allows the adventurer to accurately place and determine the approximate shape of any object they can hear. The adventurer can navigate blind, simply by the echoes from their own footsteps or sense the shape of a room and placement of objects just by snapping their fingers a few times.

Acute Smell - This adds +1d to all Awareness rolls that involve the sense of smell. The adventurer can also make rolls to "smell fear" and other stress, hormone or emotionally based human scents. This will typically give a -2 on difficulty to any skills that could benefit from this knowledge.

Acute Vision - This adds +1d to all Awareness rolls that involve sight. The adventurer cannot see in the dark, but they can see in the dark better than someone without enhanced vision.

Nocturnal Vision - This enhancement counts as a 1d+0 sight Awareness roll that works in any condition that has *some* light (starlight, moonlight), but which would be considered total darkness to an unaugmented human.

EM Sensitivity - Special glands containing metal particles of varying type allow the adventurer to get a rough sense of local electromagnetic or radiation fields, including local magnetic north. It counts as a 1d+0 Awareness to detect and differentiate these fields, but it gives no ability to read information that may be encoded in them except in the most primitive form (Morse code).

Tactile Desensitivity - This biotech enhancement modifies the nervous system to damp down most extreme sensations acquired through touch. It gives the adventurer the Pain Tolerance Trait (**EABA**, page 2.17). Fine levels of sensation are not affected.

Environmental Enhancements - Environmental enhancements are activated by genetically engineered or modified glands and operate similarly to metabolism enhancements.

Sensory Shock Protection - When the optic, olfactory or auditory nerves are stimulated past a certain point, it shuts down momentarily to prevent damage. It also regenerates damaged nerve tissue within the eye or ear if needed. It provides a +1d "armor" against electrostun, flash or sonic weapons effects, and from sensory (non-pain) overload.

Adjustable Metabolic Rate - This enhancement allows an adventurer to slowly adjust their body temperature from 5°C to 45° Fahrenheit with no ill effects. This can be used to trick thermal sensors or gain bonuses on Health dice. In general, a slower rate will slow the adventurer down. Each +1d to Health will be a -1d to Agility rolls and most combat tasks. Slow Agility tasks are generally not directly affected, but will take longer. This could let the adventurer go without air, food or water for a longer period of time, or give a bonus for cracking a motion or thermal sensor. A higher metabolic rate increases Health rolls and movement rate, but also increases air, water and food consumption. An adventurer who wanted to heal faster or better could do this. The maximum bonus or penalty allowed is the adventurer's basic Health. Each time metabolic rate is shifted counts as a use of the ability for purposes of aberrations.

EXAMPLE: An adventurer with a Health roll of 2d+1 could adjust their Health roll up to 4d+2.

Water Breathing - Genetically modified lungs extract oxygen from water allowing an adventurer to use a Health for exertion and damage recovery purposes of 1d+0 while underwater. The water must have sufficient oxygen to support fish. Transition from one mode of breathing to another is painful and messy, and the adventurer should not be trying to do anything else at the time.

Hydration Gland - Genetically engineered glands produce hydrogen which is used to mix with the oxygen in the blood stream to form water. As long as the adventurer has food and air, they will never suffer the effects of thirst.

Reactive Pigment - This enhancement allows an adventurer to blend in with their surroundings. The biotech gland converts the pigment in their skin to colors and patterns similar to their immediate surroundings. Anyone attempting to visually spot the adventurer receives up to +4 difficulty on the roll provided either their clothes also match the surroundings or they are not wearing clothing.

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Aberrations - Newly installed genetech is generally free of aberrations for a period of weeks to months, depending on how often and to what extreme the enhancement is used. The body eventually develops an immune response or allergy to the various compounds secreted by the genetically altered tissue, and the combination of the two becomes the way the aberration is expressed. If an adventurer has the same aberration more than once, ignore the extra occurrence.

System Shock - The adventurer suffers a complete shutdown of bodily functions and cannot act. They complete whatever actions they were attempting to do on that turn and then pass out. They count as having gone into shock (**EABA**, page 4.8), but have not lost any hits and are at no risk of dying. People in aberration shock for extended periods have also been known to secrete a substance which forms a cocoon-like casing.

Spontaneous Combustion - The adventurer's sweat suddenly becomes hypergolic (it will spontaneously ignite in the presence of oxygen). This does 1d+0 lethal damage to the adventurer and anything they are touching with bare skin. The expanding gas from this combustion will also do an extra 1d+0 lethal damage to any space suit or tight, pressurized enclosure the adventurer is in. An adventurer expecting this problem can lather themselves in a neutralizing gel ahead of time.

Icky Secretions - The adventurer's sweat becomes a harmless but smelly and quite disgusting mucus-like substance that permanently stains most clothing and discolors many types of paint. It's just *nasty...*

Poison sweat - Mutated sweat glands cause a mild poison to be secreted from the skin. This will do 1d+0 non-lethal damage (itching and rash) to any-one it contacts, and even to the adventurer if they leave it there long enough. It degrades quickly and is generally not storable.

Bioelectric Discharge - The adventurer involuntarily releases an electrical discharge that does 2d+0 non-lethal damage to anyone they are touching, and any electrical equipment within a hexagon is hit with electrical arcs that do 2d+0 damage (armor applies normally). This discharge also does 1d+0 non-lethal damage to the adventurer, which is not preventable by armor or other abilities.

Raging Madness - The adventurer explodes in a blind fury. They attack the nearest individual regardless if the victim is friend or foe. If alone, they blindly strike out at a nearby inanimate object, preferably something related to the event that triggered the madness. The adventurer must continue the attack until some apparent damage is dealt, either to the target, themselves or something they were using to make the attack with.

Hyperthermia - The adventurer loses control of their body's cooling mechanisms and their metabolism goes into overdrive. They immediately take one non-lethal hit, and one additional hit per minute they do anything but remain calm and motionless. This effect continues until they either pass out or recover *all* their non-lethal hits.

Dazed - The adventurer takes one non-lethal hit and is immediately stunned (**EABA**, page 4.7). They will remain stunned until they recover *all* their non-lethal hits. If they are allowed multiple actions in a turn, they may use the first action to attempt a recovery from being stunned (for that turn only) and the second action to act normally. Note that both rolls will take a -1d since multiple major actions are being performed.

Suicidal Tendencies - The suffers a severe dopamine imbalance and goes into a deep depression. They should not be left alone. The adventurer needs to make an Average(7) Willpower task when they fail any task. If the roll fails, they will attempt to kill themselves (take a generic 3d+0 lethal hit and figure out how the attempt was made). This aberration lasts until the adventurer is completely burned out. They have to work themselves into unconsciousness (take hits equal to Will plus Health non-lethal or lethal damage), and use up their Fate for luck purposes so that no further rolls of that type can be made for the duration of this adventure.

Muscle Fatigue - The adventurer's energy reserves are heavily depleted and they suffer 2d+0 non-lethal damage in the form of exertion.

Lost Equilibrium - The adventurer's sense of balance is disrupted and they suffer 2d+0 non-lethal hits from dizziness and inability to concentrate.

Random Enhancement/Aberrations - Obviously, if players get to choose aberrations, they are more likely to avoid certain ones. To add a little spice to things, the gamemaster can say that if player gets to choose the enhancements, then the aberrations are random, but if the enhancements are random, the player gets to choose the aberrations. Roll dice on the following tables as required.

Metabolic Enhancements (2d+0)

2-4	Muscle enhancement
5	Enhanced reactions
6	Refined equilibrium
7	Accelerated healing
8-9	Enhanced resistance
10-12	Enhanced endurance

Sensory Enhancements (2d+0)

2-4	Acute hearing
5	Passive sonar
6	Acute smell
7	Acute vision
8	Nocturnal vision
9	EM sensitivity
10-12	Tactile desensitivity

Environmental Enhancements (2d+0)

2-5	Sensory shock protection
6	Adjustable metabolic rate
7	Water breathing
8-9	Hydration gland
10-12	Refractive pigment

Aberrations (2d+0)

2	System shock
3	Spontaneous combustion
4	Icky secretions
5	Poison sweat
6	Bioelectric discharge
7	Raging madness
8	Hyperthermia
9	Dazed
10	Suicidal tendencies
11	Muscle fatigue
12	Lost equilibrium

▼ **BIOTECH** - Implants are electro-mechanical devices surgically grafted onto human tissue to replace damaged organs, missing limbs or enhance the body for military use. Implants can be built with either electronics or photonics technologies. Ionic pulses burn out electronic components and cause all electrical based implants to fail. Because of this photonics based systems are more reliable, but even these can succumb to radiation damage.

Biotech is built in **EABA** terms as the Gifted Trait (**EABA**, page 2.13) in a focus. That is, they are paranormal gadgets that usually give some form of Attribute use, like Strength and Agility for artificial limbs, or Awareness in some portion of the spectrum, as for artificial eyes or sensors. An artificial eye:

Type	Requirements	Cost
■	Acts as an Attribute	+30
■	Power is in a focus	-10
■	State-based duration	+15
●	Cannot be altered	-10
●	Sight only	-15
-	Framework base	0
	Adjusted cost	20
	Final activation difficulty	n/a

Gadgets do not have effects based on the Fate of the user, but rather start with a default 2d+0 roll which may be modified up or down by the definition of the power. The cost of an implant in points is listed after the name, in case you want to use this option when creating adventurers.

Signature - All biotech is readily detectable by medical scanners, but it can also be detected at range in certain conditions. On Earth, few outside the collaborators will have sophisticated biotech, so cell members who can be spotted simply by their electrical emissions are at a disadvantage. Biotech sensors will have an rating much like a firearm's Accuracy, and implants will have an emissions modifier, similar to a target size modifier. When scanning for biotech or other hidden electronics, you would compare the skill of the operator to the range, the signature of the biotech and any inter-ference in the immediate vicinity. If the operator spends an action to "aim", they get to subtract up to the rating of the sensor from the distance to a single "target", or once located, negate a source of interference up to the rating of the sensor, hopefully allowing them to get a more accurate reading on future attempts. Sensors can usually be hooked up to POMs or otherwise automated, in which case they get an inherent skill roll, which sets off an alert or triggers some other action if something is detected. In general, human-operated sensors have a better chance to spot things than automated ones.

Automated systems will have a variable skill roll, depending on their sophistication. Temporary door scanners might be as low as 1d+0, while high security checkpoints might be 3d+0. Success on a general roll means that the biotech is detected somewhere within the sensor's range. Success on an aimed roll means the biotech is narrowed down to the target aimed at. This may not be that helpful. A "target" could be a busload of people.

EXAMPLE: A cell member with a biotech signature of +1 passes through a sensor while leaving a transport hub. The sensor is mounted over the entry arch and has an automated skill roll of 2d+0. To confuse the issue, a cell member without biotech is carrying a rating 2 jammer set to "biotech". So, when the two adventurers pass through the main archway along with maybe a dozen other people, the sensor rolls its 2d+0 skill against the target number for a range of zero (3), plus 2 for the jammer, plus 1 for the adventurer's signature, for a total of 6. If the automated system rolls a 6 or better, an alarm is triggered. If this happens, the cell members have to scatter and try to get lost in the crowd before security goons can cordon the area and do a person-by-person search.

An adventurer's sensor signature will be the *easiest* to detect of the signatures of their implants, and this will be made easier by 1 for each two other implants, regardless of their signature. And of course, some biotech is obvious. Primitive bionic limbs are readily detectable compared to the real thing, and have to be completely covered to hide their appearance and muffle the sound of their internal mechanisms.

EXAMPLE: An adventurer has three biotech implants with signatures of +5, +3, and +2. The +2 is easiest to detect, since it only adds 2 to an opponent's chance of finding it. The other two implants make it a further point easier, so the adventurer's final signature is +1.

Damage - It is possible for implants to become damaged through abuse or physical attack. Implants have armor and hits, just as any other item. External biotech such as artificial limbs is simply counted as any other item when it comes to taking damage (**EABA**, page 5.5). Internal biotech usually takes the same damage as the body part where it is located, counting only the lethal hits done. The chance of it being damaged is the same as for any other item. Damaged but still functional biotech will radiate extra energy and is one point easier to detect. Note that Virimar limiter implants will generally survive any brain damage that the victim can.

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EXAMPLE: An artificial hand might have an armor of 1d+1 and 3 hits. If it were hit by a 2d+0 attack, 2 hits would get through. If the hand still functioned after taking this damage, it would be one point easier to spot on sensors. If it stopped functioning, it wouldn't show up on biotech sensors at all.

Biotech that is completely turned off does not register on sensors any more than a turned off radio. The only thing that can be spotted is the power cells, and these are in every electronic device carried by anyone who has the money to afford one. Most sensory biotech is powered directly by ion exchange membranes or thermal difference batteries that never need replaced. More power intensive implants like replacement limbs require regular powercell recharge or replacement. Some biotech (like aural implants) can be conveniently turned off without impairing normal function all that much. Other biotech (like bionic legs) would be more of a problem.

Optic Implants - The standard ocular implants work in a manner similar to early twenty-first century digital cameras. They utilize microscopic light absorbing sensors which relay images directly to the brain, ensuring 20/20 vision. Protection against sudden changes in brightness is built-in, but they can still be damaged by lasers or anything else slightly more powerful than that needed to cause biologic injury. Adventurers with optic implants may not use sensory genetech relating to vision.

Medical Implant(-10A) - The medical implant is only used to restore defective or damaged vision. It provides a visual Awareness roll of 2d+0 and has a signature of +8.

Military Core Unit(-13A) - The military core unit operates similarly to the medical implant except that it includes the ability to interface with a Parallel Optic Matrix and up to two of the options listed below. If only one eye is replaced, the adventurer may need to cover their natural eye to use an option at optimum effect. It provides a visual Awareness roll of 3d+0 and has a signature of +7.

Thermal imaging option(-3A) - This option adds a set of sensors which absorb infrared light, allowing the adventurer a 1d+0 sight Awareness roll to see heat sources at normal body temperature or higher. Cooler than this and the objects do not radiate enough heat for the compact unit to detect them. The vision is not perfect and requires an Awareness roll for objects with which the adventurer is not familiar.

Telescopic imaging option(-3A) - This adds a set of high-definition sensors which increases the focal range of the implant, allowing adventurers to better identify objects at greater distances. Adventurers may take a major action to decrease the effective range by 4 for sight Awareness rolls. This option may also be used as a telescopic sight for +1 to the Accuracy of a weapon that does not already mount such a sight.

Microscopic imaging option(-3A) - This option adds a set of extremely small sensors which are used to focus on microscopic objects. This option was designed to replace the need for a magnifier when working on photonic circuitry.

Data display option(-3A) - This option passes information from a Parallel Optic Matrix to the optic unit via a neural interface (required for use). Data from the interface is seen as text and pictures overlaid on the image from the optic sensors.

Image recorder option(-3A) - This option passes visual information received from the optic sensors to a Parallel Optic Matrix via neural interface (required for use). This data may then be stored in a POM in the form of still images or motion video files.

Laser ranging option(-3A) - This implant has the same combat effect as a laser sight (as described in the combat section), but the use of this option is not cumulative with a laser sight.

Aural Implants - Aural systems are used to replace the human ear. Characters with aural implants may not use sensory biotech relating to hearing.

Medical implant(-10A) - The medical implant is only used to restore defective or damaged hearing. It provides a hearing Awareness roll of 2d+0 and has a signature of +8.

Military core unit(-13A) - The military core unit operates similarly to the medical implant except that it includes the ability to connect to a Parallel Optic Matrix and up to two of the options listed below. It provides a hearing Awareness roll of 3d+0 and has a signature of +7.

Amplification option(-3A) - This option allows the character to increase the volume of all audible sound or set frequency filters to highlight certain ranges (like human speech). The adventurer may take a major action to set a filter that compensates for up to 4 points of range or interference difficulty in a particular situation.

Aural interface option(-3A) - This option passes information from a Parallel Optic Matrix to the aural unit via a neural interface (required for use). Data from the interface is heard as speech.

Audio recorder option(-3A) - This option passes aural information received from the aural sensors to a Parallel Optic Matrix via neural interface (required for use). This data may then be stored in a POM in the form of audio files.

Comm Units - Comm systems are only used by the military and require neural interfaces *and* Parallel Optic Matrixes.

Electronic transceiver(-10A) - This implant allows an adventurer to send and receive old-fashioned radio signals in either video or audio modes. It has the range of a standard comm unit. It has a signature of +7 when receiving and +3 when transmitting.

Photonic transceiver(-10A) - This implant allows an adventurer's Parallel Optic Matrix to communicate with others using the Link communication network. It has a signature of +7.

Sensor Units - Sensor systems are only used by the military and require neural interfaces and Parallel Optic Matrixes. A sensor is used with either Sensor Operator skill (a Trade), or an unskilled Awareness roll. Implanted sensors need either a data display or aural interface option to route the information to the adventurer in usable form.

EM sensor(-10A) - This implant allows an adventurer to detect old-fashioned radio signals, Link network transmissions, radiation and signatures from implants and exotech. The EM sensor has a rating of 1 and a signature of +6.

Life signs sensor(-10A) - This implant allows an adventurer to detect the presence of most animal life forms using heartbeats and bio-electrical readings. The life signs sensor has a rating of 1 and a signature of +6. This sensor also gives the adventurer a one point decrease in the difficulty of stabilizing injured comrades or stabilizing shock victims, but this is not cumulative with other medical sensors.

Replacement Limbs - Artificial limbs have been available for decades. Hands, arms, and legs may be replaced if damaged beyond medical reconstruction.

Genetech skin may also be grafted onto the replacement if a special porous frame, called BioReal, was used in its construction. BioReal is necessary for the skin to graft properly, as it connects the skin to the patient's living tissue and provides a thin but usable vascular framework so regular blood circulation can be provided to the new skin. Genetech skin over an artificial limb will make it a point harder to detect by sensors.

An ablative layer may be added to biotech limbs to offer additional protection against laser weapons. All called strikes targeted at ablative treated limbs by laser weapons or plasma weapons get +1d armor. Ablative coverings are incompatible with biotech skin and must occupy the outermost layer of any protected limb.

It is possible for very small weapons such as pistols or knives to be built into limbs, although such an implant would be highly illegal on Mars.

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Field grade(-10A/arm, -10A/leg) - Field grade units are makeshift replacements fitted by field medics. Not only do they appear primitive, but they are also inferior devices. Arms have a Strength of 2d+0 and Agility of 1d+0, while legs have Strength, Agility and Health (for movement purposes) of 1d+0. This is enough to do basic tasks, but not enough for any significant use of skills requiring strength or manual dexterity. A hand or foot will use one powercell and have a signature of +3. An arm will use two powercells and have a signature of +2 and a leg will use four powercells and have a signature of +1. Under heavy use, the powercells will need recharged about once a day, or once every two or three days if the limb is used normally. Field grade limbs are fairly durable, and have an armor of 1d+2. A hand or foot will have 3 hits, an arm 5 hits and a leg 7 hits.

Medical grade(-22A/arm, -25A/leg) - Medical grade replacements function identically to the organic counterparts on a normal person, having a Strength of 3d+0 and Agility of 2d+0 for the arm, and Strength, Agility and Health (for movement purposes) of 2d+0 for the leg. This is the lowest grade that can be fitted with genetech skin. They use powercells at the same rate as field grade replacements, but are less noisy electronically. A hand or foot will have a signature of +5, an arm +4 and a leg +3. Medical grade limbs are slightly less durable than field grade limbs because they are designed more with cosmetic appearance in mind. They have an armor of 1d+1. A hand or foot will have 2 hits, an arm 4 hits and a leg 6 hits.

Military grade(-25A/arm, -28A/leg) - These replacements offer increased strength and resistance to damage. They offer no disadvantages except appearance, but considerable advantages. Military units generally have a Strength of 3d+0 and Agility of 3d+0 for the arm, and Strength, Agility and Health (for movement purposes) of 3d+0 for the leg, though the effective level in any Attribute cannot usually exceed the level the person has. There *are* exceptions.

EXAMPLE: A person with a military grade arm and a natural Agility and Strength of 2d+1 would use their Agility-based skills with that arm as though it were 2d+1, not 3d+0. The agility of the arm is limited by the agility of their brain, as it were. While they could not throw or punch with a Strength of 3d+0, they *could* grip with 3d+0, since all the stresses involved with that particular use of Strength are in the hand, and not transferred to the join between implant and flesh. Similarly, a person with *one* military grade leg would run at a speed based on their normal Health. A person with *two* military grade legs would run and jump based on the Strength and Health of the legs, not the person.

Military grade units are not designed to be cosmetic replacements, but can use genetech skin as a covering. They can be concealed under gloves, sleeves or pants, but are easily seen for what they are when revealed. A hand or foot will use two powercells and have a signature of +5. An arm will use four powercells and have a signature of +4 and a leg will use eight powercells and have a signature of +3. Under heavy use, the powercells will need recharged about once a day, or once every two or three days if the limb is used normally. Military grade limbs are fairly durable, and have an armor of 2d+0. A hand or foot will have 3 hits, an arm 5 hits and a leg 7 hits.

Protective Implants - These are a general category of implants that can be a separate item, or sometimes combined with other implants.

EM shielding(-3A) - Shielding can be implanted under the skin or as part of a device in order to prevent damage from electrical, ionic or some radiation damage. This provides a +1d to the armor of that device against this sort of threat or reduces any penalties by 1d. Shielding is less necessary with photonics based implants, but it still helps against radiation. EM shielding also makes it two points harder for sensors to detect any implants inside the shielding.

▼ **Note** - Yes, you can swallow small electronic devices to give them the benefit of this shielding...

Dermal weave(-19A) - Dermal weave consists of a super-thin alloy material which is interwoven onto the character's skin and outer layers of muscle tissue. Its dull grey finish is *extremely* obvious. It counts as 2d+0 armor against attacks by EP weapons or conventional firearms, and 1d+0 against other forms of attack. Remember to use the layering rules (**EABA**, page 4.9) if armor is worn over the weave. Note that the weave does not protect the *entire* body. Some areas like eyes, lips and thin webs of flesh like those between the fingers have no extra protection. Implanting a dermal weave is extremely painful, and counts as taking 3d+0 lethal hits. It takes a while to recover from, and some training is required to get used to the weight and feel of it. While it has weight, it does not count as any sort of encumbrance. A dermal weave *does* give the user a -1d penalty on all Swimming skill rolls but also provides an additional point of shielding against scans for implants.

Subdermal plating(-22A) - This is similar in concept to the dermal weave, but is designed to protect against *all* attacks. Armor plating can be implanted directly beneath the skin in solid plates that match large patches of muscle. It acts as a 2d+0 armor against all attacks. Like the dermal weave, it is extremely obvious in most cases. The plating is generally only applied to specific areas. The skull but not the face, arms but not hands, legs except the top of the feet, and almost all of the torso are possible locations.

Auto injector(-10A) - Drugs can be automatically injected into the character's bloodstream through a subdermal implant. Up to three different drug vials can be swapped out via a small pocket which can also be built into an arm or leg. If the adventurer has a neural link to a POM with a medical program, it can automatically medicate the adventurer if certain life sign changes are sensed. This implant has a signature of +5.

Nasal filter(-10A) - This implant replaces most of the sinus cavity and filters out some harmful gases. It gives a -1d to Health for exertion recovery purposes when it is being used (you can't breathe through your mouth). It is completely passive and has no signature.

Limiter Implants - Limiters are implants which connect directly to the neural system of the brain. They function to block specific brain activity. Any attempt to commit acts which are affected by a limiter require a Formidable(13) Will roll. If *successful*, the adventurer takes 1d+0 non-lethal hits from the pain and nausea associated with the implant. If they *fail* the roll, they take 1 non-lethal hit. Unlike voluntary implants, an adventurer can *gain* points for having some types of limiter implant.

▼ **Note!** - Those familiar with the **EABA** rules will have noticed that you only take full damage until you reach the -1d penalty level (**EABA**, page 4.7). Once an adventurer is taking penalties from damage, the pain caused from the limiter implant just becomes a minor annoyance (1 non-lethal hit). However, the adventurer is still trying to make a Formidable(13) Will roll with at least a -1d penalty on their Will, something that isn't going to happen unless their normal Will roll was 3d+1 or better. Being injured doesn't make it *easier* to fight the implant, but it does *minimize* the side effects.

Limiter implants are only used by the Virimar, and incorporate technologies humans have yet to duplicate. Humans cannot remove the implants without killing the person implanted, and while there has been limited success at repairing damaged implants with human photonic components, overriding the implant itself has thus far proven impossible. All high-ranking collaborators are likely to have "loyalty" implants, which not only cause horrific pain if thoughts of being disloyal are detected, but may also radio an alert to the Virimar, or possibly activate sympathetic implants in the collaborator's family, causing them pain as well.

Killing limiter(+10A) - Adventurers with this implant cannot take actions that would kill people or animals without suffering a great deal of pain. They are only mildly queasy in the presence of such actions and do not take penalties in this case.

Violence limiter(+13A) - Adventurers with this implant cannot take *any* violent action toward people or animals without suffering a great deal of pain. They are only mildly queasy in the presence of such actions, and are visibly uncomfortable in the presence of killing.

Fear limiter(+10A) - Adventurers with this implant do not hesitate or fear situations which would cause ordinary people to flee in panic. This creates a lack of common sense in dangerous situations. Adventurers must make a Will roll to come to their senses, but do *not* take damage from either making or failing the roll.

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Pain limiter(-20A) - Adventurers with this implant do not register significant pain and have two levels of the Toughness Trait (**EABA**, page 2.18).

Speech limiter(+10A) - Adventurers with this implant cannot speak. They have all the parts necessary, but have been pain conditioned not to use them. They can use computers to relay their thoughts, however.

Emotional limiter(+10A) - Adventurers with this implant cannot get emotional in any way without suffering pain. A Will roll must be made to act compassionately or mercifully (or cruelly or sadistically), or to act in any way that isn't strictly straightforward and pragmatic.

Neural Interfaces - These implants allow the adventurer to interface with and use computers and computer networks. They are also required to affect communication between implants or to control implants by thought alone. Unless otherwise specified by the player, it is assumed that if they have a neural interface, it is connected to all their other implants. A neural interface can be used in situations that would prohibit normal implant use.

EXAMPLE: An adventurer paralyzed by drugs could still use a neural interface to work an artificial arm. The electrical signals from the interface are unaffected as long as the adventurer can still clearly think.

External interface(-10A) - External implants have output ports and antennae located in the back of the neck and allow characters to directly access Martian POMs by sheer thought. No cables are required as the interface transmits data as a Mars Link compatible signal with a transceiver strength of 1d+0 (same as a comm unit). A Will roll is required to access a POM with a difficulty determined by the range and power of the transceiver at the other end. This interface can be routed through a more powerful transceiver for greater overall range or through a directional antenna for increased directional range (like a weapon's Accuracy).

Internal interface(-10A) - Internal implants are designed to interface with POMs and other implants within the body. They are smaller and require no Will roll because of their direct connection to a POM.

■EABA

EXOTECH - This is the general term used for any powered armor suits used by the Martian Defense Force. Most are a skin-tight fit and can also act as a sealed environment with a small oxygen reserve and rebreather apparatus that will hold out as long as its power does. This tight fit of an exotech prevents use of any other worn armor, and the only clothing typically worn is a thin, sweat-wicking body stocking with built-in biosensors. Not only is exotech armored, but it can also contain internal weapons, sensors, and thrusters. All exotech units include a POM and communications system, those these are not required for exotech operation. Even the lightest grades of exotech are easily visible under all but the bulkiest clothing. Exotech automatically includes full protection against blinding or sonic weapons, as long as the helmet visor remains in place. They also include self-diagnostic systems and can monitor the life signs of anyone wearing a bio-sensor body stocking.

Each official unit is serialized and is maintained under strict security protocols. No exotech units have been shipped with the Off-World Militia, but this does not prevent cells from building their own, less capable units. Since it is sure that the Virimar are aware of MDF exotech, the Off-World Militia is unsure why the MDF prohibits its direct issue to Resistance cells. No one is saying why at this point, which leads to a lot of speculation over drinks.

Exotech units possess physical Attributes which enhance those of its user. Strength and Health add to the user's for purposes of lifting, punch or kick damage, and running speed. Agility is a ceiling. The adventurer cannot use their own Agility past the level the exotech is capable of, much like the limits of an artificial limb. While powered, the exotech negates its own weight, and further enhances the Strength of the wearer. Like implants, exotech has a signature. There are several grades of "official" exotech:

Grade one - These are the lightest exotech units. They can house one weapon, two sensors and one miscellaneous option. They are light, fast and agile, but lacking in armor. Best issued for infiltration or to units with dermal armor for extra protection. The exotech as a whole has 12 hits and a signature of +2. It runs on one fuel cell (standby use) *and* twenty powercells (active use) and is good for about ten hours of normal use.

Grade two - These are standard exotech units. They can house one small and one large weapon, two sensors, and one miscellaneous option. The exotech as a whole has 14 hits and a signature of +1. It has two fuel cell slots (usually one fuel cell and a set of twenty powercells) and is good for about ten hours of normal use.

Grade three - These are assault or special ops units. They can house two weapons, three sensors, and two miscellaneous options. The exotech as a whole has 16 hits and a signature of +0. It has three fuel cell slots (normally two fuel cells and a set of twenty powercells) and is good for about ten hours of normal use.

Improvised - Cells have never been "officially" reprimanded for using scavenged components to make exotech-like outfits. It isn't easy to do, and the outfits lack many of the specialized functions of MDF units, but they have occasionally been used to good effect. The typical improvised unit can house one weapon (large or small), one sensor and one miscellaneous option. It has two fuel cell slots (normally one fuel cells and a set of twenty powercells) and is good for about five hours of normal use. It has 14 hits and a signature of -2.

Exotech	Strength	Health	Agility	Armor
Grade One	+1d	+2d	3d+1	4d+1
Grade Two	+2d	+1d	3d+0	5d+2
Grade Three	+2d	+1d	3d+0	6d+2
Improvised	+1d	+1d	2d+2	4d+2

Weapons - Exotech users can carry and use any normal handheld weapon, but these weapons can also be installed directly onto or into the exotech. Any handheld weapon can be added to exotech units, but all associated penalties and bonuses associated with that weapon still apply. Small weapons (less than 3.0 kilograms) can also be installed internally with the internal bay option. Internally mounted weapons are adapted for this use, and if removed, are fired manually with a +2 to difficulty. Ammunition is handled the same way the weapon handles it. Reloading an internal weapon may require first opening an access panel, a major action if done manually, a minor action if done through a neural interface.

Sensors - Exotech can mount a variety of sensors, and route their output as voice notations or as visual information to the inside of the helmet visor.

Laser ranging sensor - This implant has the same combat effect as a laser sight (aiming may be done as a minor action), but the use of this option is not cumulative with a laser sight. This sensor has a signature of +2 in operation (reflected laser radiation is easy to detect).

EM sensor - This allows an adventurer to detect old-fashioned radio signals, Link transmissions, radiation and signatures from implants and exotech. The exotech EM sensor has a rating of 4, a POM-linked skill roll of 2d+0 and a signature of +6.

Biosensor - This allows an adventurer to detect the presence of most animal life forms using heartbeats and bio-electrical readings. The life signs sensor has a rating of 3, a POM-linked skill roll of 2d+0 and a signature of +6. This sensor also gives the adventurer a one point decrease in the difficulty of stabilizing injured comrades or stabilizing shock victims.

Longwave sensor - This uses ground-penetrating radar frequencies to detect object position and motion, even through obscurement or solid objects, though the latter only gives the the most basic of information. For instance, a person on the other side of a wall would be detected as an object of a certain size in a certain position. Only by the rise and fall of their chest while breathing could you tell it was a person. Output from the sensor *can* be used for targeting of weapons. The longwave sensor has a rating of 2, a POM-linked skill roll of 1d+1 and a signature of +0 when in use.

Thermal imaging option - This option adds a set of sensors which absorb infrared light, allowing the adventurer a 2d+0 sight Awareness roll to see heat sources at 10°C or higher. Cooler than this and the objects do not radiate enough heat for the unit to detect them. The vision is not perfect and requires an Awareness roll for objects with which the adventurer is not familiar. The thermal imager has a signature of +6 in use.

Telescopic imaging option - This adds a set of high-definition sensors which increases the focal range of the implant, allowing adventurers to better identify objects at greater distances. Adventurers may take a major action to decrease the effective range by 6 for sight Awareness rolls. This option may also be used as a telescopic sight for +1 to the Accuracy of a weapon that does not already mount such a sight. This option has a signature of +6 in use.

Amplification option - This sensor allows the adventurer to filter and increase the volume of all audible sounds, including converting those outside human hearing ranges into the human range. The adventurer may take a major action to set a filter that compensates for up to 6 points of range or interference difficulty in a particular situation. This option has a signature of +6 in use.

Miscellaneous options - These are generally structural or covering options for the exotech itself.

Refractive camouflage - This option makes visual detection of the exotech unit more difficult. Sensors detect the color and patterning of the immediate surroundings and color the exotech to match. All sight Awareness rolls made to visually spot the unit are at +3 difficulty. In addition, the adventurer may pick a *particular* vantage point as a major action, and the camouflage will adjust to maximize the difficulty of being spotted from *that* location, making it +6 difficulty from there and +2 from everywhere else. This option has a signature of +6 in use.

Pressure suit - This option provides extra joint sealing and structural reinforcement to allow use in environments ranging from vacuum to three atmospheres of pressure (a water depth of 30 meters). It also includes suit materials and layers to prevent absorbed or corrosive materials from getting into the suit's life support system for at least several hours.

Internal bay - This option allows weapons to be installed within the exotech unit. The weapon can either be hidden in a sealed compartment which must be opened for use or a compartment with only the barrel visible. These weapons would normally be fired with a neural interface, but triggers in the hand of the exotech may also be installed.

Armored locker - This option allows exotech units to carry up five kilograms of material under the protection of the exotech's armor. This space can be distributed as desired. It can also hold two fuel cell slots and associated wiring for increasing the combat endurance of an exotech unit.

EM jammer - This option prevents EM sensors from detecting other implants or exotech in the area. It acts as a +10 to the difficulty of scanning tasks on the exotech, and drops by one for each range band past this. In operation, the jammer is a signature of -10. You can't help but spot it. However, it constantly changes its jamming mode, so attempts to isolate it are only good for an immediately following scanning attempt.

EXAMPLE: An exotech with a jammer is covering for several other exotechs advancing through a thermal smoke screen. If an enemy succeeds in filtering out the jamming signal on one turn, they can scan without penalty only on the following turn. After that, the jammer has changed modes and is again interfering with scanning attempts.

Zero-g thrusters - This option allows an operator to steer the exotech unit in space or maintain a stabilized position in a zero-g environment against the recoil of most hand-held weapons. It can give a total of 50 meters of acceleration or deceleration in bursts of up to 2 meters per turn. Zero-g thrusters have a signature of +3 when in use.

EXAMPLE: An adventurer uses 2 meters of thrust. They move 2 meters that turn, and will coast 2 meters in the same direction on each following turn. When they reach where they are going, they use 2 meters of thrust to stop. This uses a total of 4 meters of thrust from the 50 meters in their thruster pack.

Jump pack - This option is a pair of combustion pistons built into the legs of the exotech. Normally an adventurer can do a standing horizontal leap of their walk distance, or a running leap of their running distance, and can get their body over a vertical hurdle equal to half their walk distance. A jump pack increases Health for these purposes by +2d, and this *is* in addition to any benefits granted by the exotech. The small fuel supply is good for about fifty leaps, but does require a breathable level of outside oxygen in order to function.

EXAMPLE: An adventurer with a Health of 2d+0 (no Running skill) and wearing Grade 0 exotech has a Health roll of 4d+0 for movement purposes. This gives them a walk of 4 meters and a run of 8 meters. The addition of a jump pack gives them a standing leap of 6 meters, a running leap of 10 meters and the ability to jump over a 3 meter hurdle.

A jump pack has a signature of +3 in use, and also has a distinctive audible thumping sound.

Armor upgrade - Most exotech can be fitted with energy-dissipating plates optimized for *one* of the following: kinetic weapons, lasers or particle streamers. These plates provide +1d armor against the first hit, +2 against the second hit, and no extra protection from further hits (if you use hit locations, the protection is only degraded on *that* location).

Auto injector - Drugs can be automatically injected into the character's bloodstream through an autoinjector option. Up to six different drug vials can be swapped out via a small access panel. If the adventurer has a neural link to a POM with a medical program, it can automatically medicate the adventurer if certain life sign changes are sensed. This option has a signature of +5.

Damage - The hits of an exotech suit only come into play when its armor is penetrated. One point of each full die of damage penetrating the exotech is applied to the exotech's hits. This damage *does not* subtract from what the adventurer takes.

EXAMPLE: If a Grade One exotech was hit by a 6d+2 attack, 2d+1 would get through the armor of 4d+1. The adventurer inside would take 2d+1 hits, and the exotech would take 2 hits (1 for each full die that got through).

Damaged exotech is counted just like any other damaged item to see if it remains functional (**EABA**, page 5.5). Items, weapons or accessories on the exotech are unaffected by damage to the exotech as a whole, but are equally affected by hits to the body part where there are mounted. If the exotech fails, so do any accessories in any exotech location that took damage. A non-functional exotech unit can no longer utilize or communicate with its still-functional options or accessories.

EXAMPLE: An exotech has jump packs in the legs, an EM jammer in the helmet and a weapon in one arm. If the exotech took hits because of leg and head hits, when it went non-functional, the jump pack and jammer would also be considered damaged. The arm-mounted weapon could not be fired, but if removed from its mounting it would be undamaged and usable.

Exotech can be "cracked open" in an action as a Challenging(9) Agility task. You flip two toggles on opposite sides of the inside of the helmet with your chin to activate a loud but harmless breaching charge that lets you squirm out of a jammed or damaged suit.

WEAPONS - Weapons and armor in **The Colonies** are not so different as to be unrecognizable. Most are simply variants of modern weapons, or practical applications of things that are still in theoretical or experimental stages. The Virimar have weapons and defenses that have yet to be duplicated by Mars, but thankfully, these are not in common use.

EP Weapons - EP weapons are descended from the firearms of the twentieth and early twenty-first centuries. EP weapons use a gaseous propellant stored separately in the ammunition magazine, which is injected into the firing chamber and ignited for each shot. The ability to meter the propellant allows the user to adjust the damage to match the tactical situation. While officially prohibited, most Off-World Militia "overcharge" their weapons using the leftover propellant from expended clips. This trick gives *any* EP weapon a +1d bonus to its damage. EP weapons are generally strong enough to handle the stress, but an overcharged EP weapon is always counted as Unreliable (see **EABA**, page 7.3). EP weapons are *very* loud and distinctive. They cannot be silenced effectively, and can be heard twice as far away as regular firearms (-2 difficulty to spot).

It is illegal for civilians and even law enforce-ment agencies to own most EP weapons on Mars. They are only issued to military units and liberation cells responsible enough to use them. The Off-World Militia gets plenty of laughs when they discuss among themselves all the "responsible" ways they have used their weapons. EP weapons are usually not used in spacecraft due to the possibility of ricochets and hull punctures. Military police may be issued them in these environments, but usually only with elastomer bullets doing half-lethal damage. The recoil is also a problem in zero-g environments.

Most ammunition is standardized within a type of weapon, even among different manufacturers. Magazines may be interchangeable within manufacturers and weapon type on a larger-to-smaller basis.

EXAMPLE: If you have a pair of Terrel Labs pistols, and one has a fifteen round magazine and another has a twenty round magazine, you can probably put the twenty round magazine in the smaller pistol at some sacrifice to concealability, but you can't fit the fifteen round magazine in the pistol using the twenty round model. You can of course, manually transfer bullets and fuel from one clip to the other.

Ammunition available is usually armor-piercing, and on request, elastomer bullets. Note that most collaborator armor is resistant against Martian armor-piercing weapons, but the armor-piercing effect is still useful for getting through cover.

Terrel Labs "Number One" EP pistol - This is a small capacity handgun designed for easy concealment. The magazine holds fifteen rounds.

Terrel Labs "Low-cal" EP pistol - This is a small handgun intended for use by military officers. The snap-in magazine holds twenty rounds.
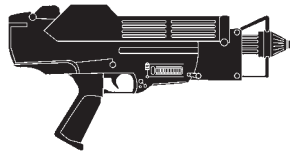
Kresmeyer KP-5 EP pistol - This machine pistol uses a twenty or fifty round magazine, and can fire single shots or three-round bursts. When not in use, the magazine folds against the barrel for compact storage. It is a minor action to flip it into firing position.

Simtek 150 EP pistol - A pistol in name only, this powerful submachine-gun uses a pair of fifty round magazines which install on top of the barrel.

The user can select which magazine to fire from with a foregrip switch. A "blank" firing setting allows the user to launch rifle grenades with reasonable accuracy (and scare people without poking holes in things).

Kresmeyer KR-14 mini EP rifle - This mini rifle is really just a KP-5 with a longer barrel, folding stock and a seventy round magazine. It has slightly more punch and accuracy, but uses many of the same parts.
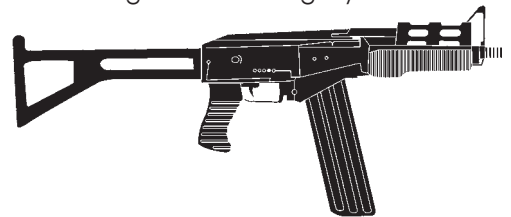
Clark M-2 EP assault rifle - This weapon features an under-barrel grenade launcher, seventy round magazine, and optional telescopic sight. It can fire single shots, three-round bursts or normal autofire.

Clark M-14 EP assault rifle - This lightweight assault rifle features an under-barrel grenade launcher, fifty round magazine, and built-in scope. It can fire single shots, three-round bursts or normal autofire.
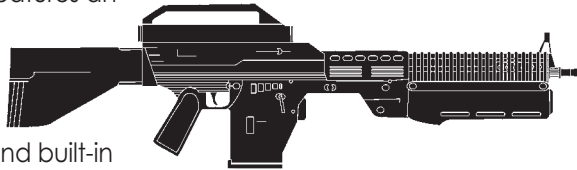
Simtek 227 EP assault rifle - This heavy assault rifle features an ammunition compartment which holds two seventy round helical magazines. It can fire single shots, three-round bursts or normal autofire. The 227sn variant is accurized for dual role as a sniper weapon and comes with a ballistic compensating telescopic sight linked to an integral laser rangefinder. It can fire single shots, three-round bursts or normal autofire.

Simtek EP field unit - This weapon requires a bipod or tripod mount for use. It fires single shots or autofire. It is fed by a gear train powered by surplus fuel from the ammo packs. The normal ammo pack is two hundred rounds, but they can be linked into belts of almost any size.
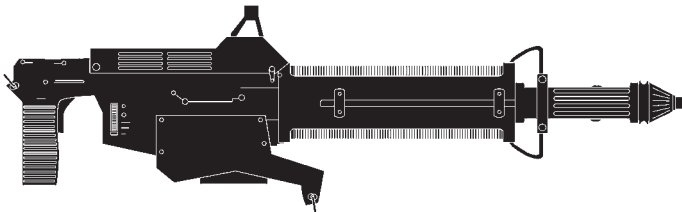
Lasers - Laser weapons have become the firearm of choice on Mars proper. They create no recoil and very little noise. While they are not as effective in combat as EP weapons, their quietness and lack of recoil has certain advantages. Cells are typically equipped with laser rifles, which are seen as underpowered toys by the more gung-ho types. Anyone with connections usually tries to get a few EP rifles loaded into the cell's starting kit.

Some laser weapons emit a very bright laser continuous beam which, despite popular opinion, is not destructive in itself. The visible laser is simply the built-in tracking system, activated by light trigger pressure. When the trigger is pulled, the high power pulse (invisible to the naked eye) is activated, striking whatever spot the tracking beam was on. This tracking feature allows aiming (and full weapon Accuracy) to be done as a minor action.

The energy discharge from a laser weapon's powerpacks give off a high-pitched whining sound when fired. This is far less audible than the sound of any other firearm, but is still quite distinctive. Laser weapons cannot fire from standard powercells, but *can* be recharged from them. Any number in parentheses after a laser weapon's name is the number of rechargeable Post-Atomic Era powercells required to fully charge one full reload for the weapon. It normally takes about one second per shot to recharge a weapon magazine from powercells, though energy weapons with two magazines can charge each one from a different powercell.

The electrical discharge of laser weapons increases an adventurer's signature significantly while in use. The amount of the increase is equal to the weapon's damage level (3 points per die, plus any remainders). A laser set on "standby" (ready to fire) will have a signature of +4.

EXAMPLE: An adventurer firing a laser weapon with a damage of 2d+2 (damage level of 8) is eight points easier to spot on sensors set to detect electronic devices or activity. This lasts until the end of the turn.

Lasers have no recoil, so they do not apply the usual penalties for recoil or autofire, and aimed shots maintain their aiming bonus for the same target. Optionally, autofire or burst-fire lasers add +1d to base weapon damage, but only count this as a single hit. The user may adjust the firing rate of the weapon to count the hits separately, but this will then use standard autofire rules with the exception that full Accuracy applies to all shots, and aiming bonuses are not lost.

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Simtek XS laser pistol - This weapon is widely used by undercover law enforcement agents. It has a good damage, but only has twelve shots, a non-removable magazine and is not capable of autofire.
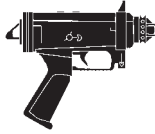
Clark L-30 laser pistol - This is the laser pistol of choice. Civilian versions are not capable of autofire, but the police version can fire three-round bursts. It has removable energy clips that hold twenty-five shots. A large number of accessories and third-party custom options are available for the Clark L-30.

Yamato Razor 5 laser pistol - This is an older weapon and lacks the laser tracking system. It uses removable magazines holding twenty-five shots worth of energy.

Yuravitch ML-6000 laser pistol - This weapon seems to borrow its appearance from old science fiction movies, but it is extremely functional and efficient. Power is less than some weapons, but each removable energy clip is good for fifty shots.

Simtek Xten mini laser rifle - This next generation laser weapon features an energy storage bay which holds a removable fifty round magazine, and a second bay which can either hold another magazine or enough powercells to recharge the other magazine twice. It has both single shot and three-round burst firing modes.

Yuravitch laser sniper rifle - This weapon features easy disassembly and uses a twenty-five shot removable magazine that slips into the side of the shoulder stock.

Clark L-500 laser rifle - This military assault laser has a compact design and filtered optical scope for long range use. It is built with the same form factor as the M-14 so troops using one know where the basic controls are on the other. It holds two twenty-five shot magazines and has single shot and burst fire modes.

Gonsalez Ent. Mark 4 laser rifle - This ultra modern assault laser features an energy storage bay which holds two forty shot magazines. It is capable of single shot and burst fire modes.
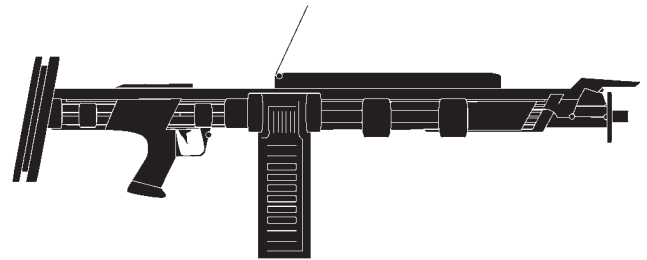
Particle Streamers - Particle streamers fire a barrage of minuscule darts which are accelerated by a magnetic field. They can only be fired once per turn due to recoil restrictions. The high velocity particles have an armor-piercing effect vs. all known materials and energy barriers.

Streamers were in the theoretical stage of development on Earth before the conquest. Their use is limited to Virimar elite forces. Very few humans have actually seen these weapons. Martian scientists have failed to reproduce the technology. Few Virimar particle streamer weapons have been captured. A safety interlock detonates a self-destruct charge in the weapon. The exact means by which it is triggered has not been determined, nor a means to jam it or set it off remotely, though various Resistance operations have been set up to test various theories. Casualties from these operations have made Off-World Militia members cool to the idea of further tests unless good evidence exists that they will be successful.

Particle streamers use a combination of energy and ammunition magazines. The energy packs resemble twenty-first century notebook computer batteries. There are currently only three models in service: a pistol, rifle, and field unit.

Particle streamers increase the user's signature rating while fired or ready to fire. The amount of the increase is equal to the weapon's damage level.

Particle streamer rifle - Only Virimar special forces carry this weapon. All information available is solely from observation of the weapon in action and may be subject to revision.

EABA

Pulse Detonators - Pulse detonators launch bolts of hot plasma and dissipate over over distance. They are primarily used by Virimar controlled Earth forces, but Martian scientists have developed their own version which they dubbed the plasma gun. It functions similarly to the alien model except that it uses standard energy weapon power pulse systems. These bolts almost always cause flammables to ignite.

Pulse detonators increase an adventurer's signature rating while in use or on standby. The amount of the increase is equal to the weapon's damage level when in use, and +3 when on standby.

Gonsalez Ent. plasma gun - This is the only Martian pulse detonator in the MDF arsenal, although many are in development. It holds one high yield twelve shot magazine and is equipped with a laser sight.
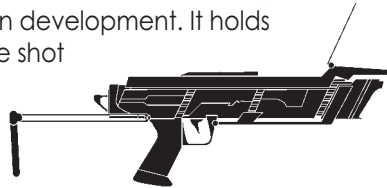
Electrostun Weapons - Electrostun weapons are used by Martian law enforcement agencies. They fire ionized bolts of plasma which are attuned to the human nervous system, rendering their target unconscious with less permanent damage than other technologies. The effectiveness degrades over distance. Electrostun weapons do half-lethal damage and any damage an adventurer takes to a location with an implant will also apply the damage to the implant. If the location is *only* an implant (like a replacement limb), the adventurer takes no damage, but the implant might.

Conrad ELS electrostun pistol - This is the standard weapon used by law enforcement officers on Mars. It holds twenty-five shots in a removable magazine and the damage can be adjusted from zero to full via a thumb switch. It typically has a biometric ID switch to prevent unauthorized use.

Conrad ELT electrostun carbine - This is a higher powered variant of the ELS pistol. It holds fifty shots in a removable magazine. It has a laser sight, single shot and burst fire modes.

Grenades - Grenades come in two varieties: self-propelled grenades (for use in grenade launchers) and hand grenades (thrown). Thrown, self-propelled or rifle grenades usually have an Accuracy of 0. Thrown grenades cannot be weapon-launched, and weapon-launched grenades cannot be thrown, so it is important to know what kind you have...

Frag grenades - These are an old standby, a simple explosive charge surrounded by thousands of tiny fragments. Modern full body armor makes these grenades far less effective than in previous eras, but they still have their uses.

Anti-vehicle grenades - These use a shaped charge to penetrate heavy armor materials. They count as armor-piercing against any armor of the same tech era or before. Their damage is applied mainly to the target, but the effect minus 6d counts as an explosion surrounding this point. The Virimar do not use many heavily armored vehicles, seeming to prefer large numbers of lighter vehicles instead of small numbers of expensive ones. Only elite units have the equivalent of tanks, and these are rarely deployed.

Smoke grenades - These grenades create a thick cloud of smoke over a 3 hexagon radius which gives +4 difficulty to sight Awareness tasks. This smoke also has a thermal signature that completely overwhelms thermal sights, making them useless to see into or through this smoke.

Stun grenades - These grenades create an extremely bright light and sonic impulse which can temporarily incapacitate those in the immediate vicinity. The damage is counted as armor-piercing vs. any armor that is not completely enclosed. Adventurers with flash or sonic protection count as having an additional +1d armor, and those with both protections count as having +2d armor.

Electrostun grenades - Used by both Martian and collaborator law enforcement agents to quash riots, these grenades radiate streamers of ionized plasma which are then electrified. This affects the human nervous system of anyone in the area of effect, often rendering a target unconscious. One random implant of anyone in the area of effect will take any damage that penetrates the target's armor.

Incendiary grenades - These are purely military items on Mars (no civilian or police use), but have been used by liberation cells. Once detonated they blanket the area with white phosphorous fragments. These continue to burn for quite some time (losing 1 point of damage per time level), and also act as smoke grenades over their area of effect.

Plasma grenades - Used by some Virimar collaborator forces, these grenades generate a super-heated ball of plasma which may also cause flammable substances to ignite. The effect is much like an incendiary grenade, but the effect does not linger. Plasma grenades are also available in anti-vehicle versions.

Rockets - The MDF arsenal includes only two portable rocket launchers at this time. The first is a laser-designated anti-vehicle rocket with a skill of 3d+0, and a heat-seeking anti-aircraft missile with a skill of 4d+0. Both of these are disposable units. These can be integrated with MDF issue portable sensors and algorithms to make unattended, self-firing weapons for guerrilla use.

Explosives - Explosives are an important part of any sabotage mission and come in a variety of shapes and sizes. Each functional piece of explosive is called a charge. Damage and blast radius vary by the size and type of charge, and all values are multiplied by the number of charges used.

Most explosions will easily ignite flammable liquids and materials. Gamemasters must use their own judgment, but fire is a common by-product. Confined areas may increase the damage of all explosions and may consume breathing oxygen. This might also inhibit any fires that might have ignited.

Most standard **EABA** explosives are available or can be manufactured in jury-rigged labs by cell members. The exception is nano-responsive detonating compound, or NDC. This is a fairly primitive nano-disassembler that turns a special compound into an extremely powerful explosive (5d+0 for .5 kilograms). It assembles an extremely unstable compound and then literally holds the molecular bonds together. When it lets go, it *really* lets go, if you know what we mean. The coding and timing to make it detonate can only be performed by a POM, and this can be programmed into the NDC up to several hours in advance, with a timing precision to within a few seconds. A POM can also program the NDC to become irrevocably inert, with the same limits.

The Colonies

▼ **ARMOR** - Last in military tech is conventional body armor, something that all cell members will be thankful for on a regular basis. The downside is that the heavier your armor, the greater the penalty from encumbrance. Almost all adventurers should become resigned to the fact that they will almost always take a penalty from the weight of their arms and armor.

EXAMPLE: If you have a Strength of 8, you can only carry five kilograms before you start taking penalties. You can carry up to twenty kilograms before the penalty exceeds -2d, however. *Don't let it bother you.* The bad guys have the same problem.

The gamemaster should always take situational modifiers into account when applying penalties for encumbrance. A prone adventurer firing a rifle isn't really weighed down by anything. A weapon braced over the top of a wall isn't being hefted by the adventurer, and shouldn't count towards penalties either. You can reflect this by saying that *movement* and *Agility rolls* take full encumbrance penalties, but *skill* use is only at a -1 per -1d penalty from encumbrance.

Also note that while a modern soldier or cell member may have to hump a lot of equipment around, when it comes time for combat, anything that isn't necessary gets left behind or put down. You don't fight in full kit unless you have to. Weapons and armor only. If you win, you can go back and get the stuff. If you don't, you won't be needing it anyway...

Particular technologies of note are ablative armors and energy fields. Ablative armors are applied over another armor type, and generally provide +1d protection on a body part from the first few weapon hits of a *particular* type. For instance, for lasers, a heat-superconducting lattice diffuses the energy over a larger area, but is vaporized in the process. After one hit to an area, the protection is goes to +2 instead of +1d. After two hits, it is burned off and useless. Other types of weapon fire are unaffected by the ablative armor.

▼ **Note:** If you don't use hit locations (**EABA**, page 4.6), you can still note how many times the adventurer has been hit by the type of weapon protected against. When they are hit, roll 1d+0. If the result is less than or equal to the number of times they've been hit, that particular hit was to a spot where the ablative armor was already partially or completely burned off.

EABA

Energy fields are an incompletely understood application of nanotech brought back from Reticuli. Martian and Reticular scientists are able to use directed alien nanotech to duplicate the Reticulan artifacts, but still don't understand the energy balance involved in making it work. Apparently a greater understanding of physics is needed than humans currently possess. A large belt-mounted unit emits, directs and regenerates a shifting cloud of passive nanostructures. Any sort of macroscopic *kinetic* energy (bullets, blast waves, fragments) hitting this cloud causes it to become a smoke-like but quite solid barrier, which will stop or deflect a great deal of the energy before it reaches the wearer. Virimar elite units have a form of this technology, though it works slightly differently and may have originated elsewhere. Energy fields act as a 2d+0 armor, which would use normal layering rules (**EABA**, page 4.9) if used in combination with other armors.
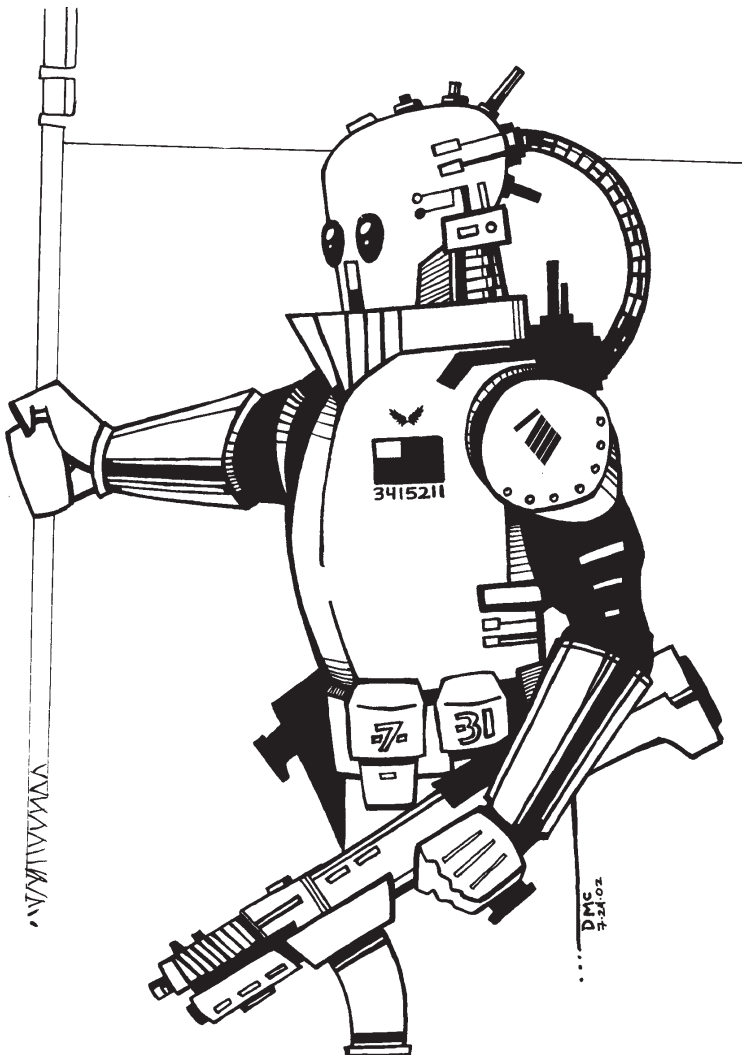
PHOTONICS - Photonics is the direct descendant of electronics. Photonic circuitry uses minute beams of light rather than electrical contacts, rendering a faster and more efficient device. Not only can multiple beams be used, but also beams of varying frequency, thus relaying even more data and at higher rates of transfer. Characters skilled in photonics can design and build computer systems as described in the **Projects** chapter.

Parallel Optic Matrixes - Parallel Optic Matrixes, or POMs, are single computer units, sometimes referred to as matrixes or cyberscapes. They operate as a control structure, housing many algorithms which are programmed to carry out a set of functions.

Martian POMs directly command a security subset of algorithms which regulates all other algorithm usage and input/output services. Algorithms can only operate within the POM in which they are stored or by an autonomy in a hostile network. POMs can request data and activation of a specific function from other units, however.

Martian scientists have been unable to isolate the Earth model POM input/output control systems. This makes it necessary to hack directly into a system using it's human interface components (keyboard, voice control, or direct access panel) because a character cannot access the commands of one POM from a different unit. A neural interface can be routed through any of these interface components. All POMs maintain a set of algorithms to detect intrusions. POMs can discover tampering by contesting a task against the skill of the intruder.

Mars Link - The Mars Link is a communication system consisting of six satellites (and backups) which receive, relay, transmit, and process communications all over Mars as well as in space. It is commonly referred to as the World Wide Link, or more commonly, just the Link. The Link offers a universal set of features to all users, such as data transfer, mail, database access, user information, and direct computer access.

Communication with the Earth or Moon requires the use of a transceiver fitted with a Link capability. Note that lightspeed delays ranging from seconds to minutes may make real-time conversation impossible. Communications to and from Earth remain difficult due to lingering energy interference, so cells often have to operate without new orders and on their own initiative for long periods.

TECHNOLOGY

Human Interface - Computers can be accessed by humans via interface components. The most common is the laser display. These are monitors which display information and accept button presses. It is composed of a three millimeter thick pressure sensitive glass-like alloy which is available in a multitude of sizes and proportions. Because the display is computer controlled the on-screen buttons can change depending on the situation.

Voice control is built into every system. Universal systems recognize the more common languages such as English, French, and Spanish. Localized systems can also be added for other languages. Just about any type of voice imaginable can be found as can any personality. Voice control can be keyed to the voice of a specific individual, group of individuals, or remain open for anyone to use. Voice analysis may be part of a computer security system, but it would never be the sole protection of anything considered important.

Direct access panels are for use by the experts. The panels open to ports for direct access to the POM, bit by bit. Since there may be trillions of bits of data in a POM, high level programming usually only does the broadest of functions. Tampering with individual bits of data requires other POMs or algorithms to sort and manipulate the vast amount of data in a POM. Using direct access to a POM will allow a hacker to fool a remote system into thinking the hardware is something that it is not. For instance, fooling a system into thinking a particular computer is authorized to transmit biometric data. An adventurer making a Hard(11) Photonics task can use their POM to decrease the difficulty of a particular hacking task by 2 points.

Neural interfaces are popular with hard core programmers because they provide the benefits of direct access control by sheer thought. The actual control devices are always implanted in the back of the neck rendering them almost undetectable. Implantees can communicate with POMs as if a direct access panel was being used. Neural Interfaces can only be used to access Martian POMs, however. Martian POM's can run algorithms to access Earth networks, however. An adventurer with a neural interface can do programming tasks twice as fast a normal. However, any security breach while using a neural interface on a hostile network *may* scramble the internal programming of the neural interface. It may take several minutes with a POM to reset any custom parameters of the interface and do a full diagnostic. It doesn't do any physical damage. Built-in signal limiters and filters see to that.

Personal Computers - Personal computers come in two varieties: smart and dumb. "Smart" computers have their own POM built in which allows its user to personalize it with their own set of functions. "Dumb" computers only store data and use commercial algorithm servers as data providers. Data requests are sent to the server which then relays the request to an idle algorithm suited to the task. Algorithm servers can be commercial services, or a smart computer at home, on a ship or wherever. While data transfers may be intercepted and possibly decoded, use of a dumb computer insures that secret or proprietary algorithms are always kept in a secure location, and only the calculation results go over the network. POMs are worth a fortune on Earth, and thus a cell's POMs will have built-in safeguards. Anyone trying to access one without the proper biometric data (fingerprints) runs the risk of permanently deactivating it. The data could be recovered on Luna or Mars, but all the internal access links to the data will fuse, rendering the device unrepairable and unusable on Earth.

Personal computers also have two general appearances. The more common is the wristcomp which has replaced the wristwatch. The other appearance is that of the personal wallet which is a little bigger than that of a credit card. It is also used as a personal organizer, complete with ID and banking access.

Autonomies - Also known as autons, are self-sufficient computer algorithms (programs) which learn from their experiences. They were created to hack into Earth POMs. Autonomies operate within a POM but include a full suite of data transfer functions, allowing them to move from one POM to another. Off the shelf autonomies are equipped with the basic tools required to perform common tasks. They lack the experience, however, to perform advanced functions such as hacking into a high security data storage unit.

Autonomies are given simple orders which they attempt to carry out in the most efficient way possible. When hacking into POMs, they attempt to cloak themselves as routine algorithms. Autonomies have been known to remain dormant in systems for months, waiting for a safe moment to act. They literally have minds of their own. Autonomies are not intelligent, but since they are self-modifying, they can sometimes exceed the bounds or desires of what their users originally intended. Players can give orders to autonomies, but *gamemasters* determine their actions.

EABA

Algorithms - Algorithms add functions to a POM and may require an interface component for use. Common algorithms are grouped by function. POMs are typically equipped with enough storage space to keep any number of algorithms. Hundreds of gigabytes of data can also be stored in a computer, but is often transferred to servers which specialize in secure data storage. The algorithms listed below are samples intended for use with Martian POMs and require access to the Martian Link or Link booster on a transmitter within range. The gamemaster can assign a skill level to each algorithm if he wishes to make task rolls for them. Algorithms will generally add +1d to any applicable skill roll by a human user, though not to beyond their normal skill limits. If performing a task on their own, they act as a skill roll of 3d+0 or the limit of their interfaced components, whichever is lower. Algorithms are available in greater or lesser skill levels. Ones created for special purposes by the adventurers might be lower, while those permanently protecting high-security locations would certainly be better.

EXAMPLE: A visual sitrep algorithm running through a visual sensor with an acuity of 2d+1 would only make 2d+1 skill rolls. If running through a visual sensor with an acuity of 4d+0, it would be able to use its skill of 3d+0. If used through this sensor by an adventurer with a skill roll of 3d+1, it would only provide enough bonus to let the adventurer roll 4d+0.

Any algorithm can be used with an implanted POM, provided it has direct access to the required interface components and a neural processor. Commercial algorithms are installed with copy protection schemes tied to the unique signature of the POM they are installed on. They can pass data to any number of dumb computers, but cannot run on any computer except the one they were originally installed on. Military algorithms (including *all* autonomies) are designed so that they can only be activated from a military-grade POM. They *can* be freely copied between military POMs. A classified bit of information is that military algorithms encode the signature of the POM they are loaded from. This allows Martian authorities to have a starting point if one is used illegally.

Visual sitrep - This algorithm can analyze visual sensor data resulting in the tracking and plotting of vehicle and personnel movements in direct line of sight. It can spot faces in a crowd, scan a database of mug shots compare before/after images and so on. It also acts as a telescopic sight if the computer is weapon-mounted or is being used via a neural interface. It requires access to a visual sensor and optional infrared sensor.

Radar sitrep - This algorithm can analyze radar sensor data resulting in the tracking and plotting of vehicle and personnel movements in direct line of sight. It requires access to a radar sensor.

Voice filter - This algorithm listens for a specific voice pattern, word, or phrase and alerts the user when heard. It requires access to an aural sensor or audio data.

Voice print analyzer - This algorithm can confirm the voice print of an individual by comparing samples. It requires access to an aural sensor or audio data.

Voice stress analyzer - This algorithm can confirm whether or not an individual is telling the truth by analyzing the stress patterns in his voice. A character can attempt to fool the algorithm if they is aware of its use by making an unskilled Awareness roll or Programming or Spoofing roll against the skill roll of the user or the algorithm. It requires access to an aural sensor or audio data.

Beacon - This algorithm can maintain a constant link with another POM allowing it to track the location of the system. The ability to determine its own location is based on data available to the algorithm on the current system or by "peeking" through sensors on that system. It may be able to provide data about its location, but not the location itself. It can also be fooled into thinking it is somewhere it is not.

Interpreter - This algorithm can translate incoming data or sound from one common language to another at a 2d+0 or 3d+0 level. The included languages are English, French, Spanish, Arabic, Hebrew, and Gaelic (common among members of the New Gaelic Movement). Other languages are available separately.

Remote control - This algorithm can maintain a constant link with a vehicle-mounted POM, allowing it to be remotely controlled, provided the vehicle has that capability. Otherwise, it can provide access to all vehicle sensor and diagnostic data.

Mapper - This algorithm can create a map of an area through which the adventurers move through or scan. It can also plot their position on any pre-supplied map data. Appropriate sensors are required.

Personalities - Personalities can be added used to make speech from a computer's voice control interface sound more personal or even human. A wide variety of voices and attitudes are available, from obviously synthetic to licensed versions of Martian celebrities. Personalities can for a modest fee, be given a subset of the user's mannerisms and commonly used phrases. Personalities are a tag on most computer requests if desired, and personalities can be coded to respond in certain ways to other personalities.

EXAMPLE: "Your ex just called. I told them you weren't in for the next ten years."

Slave - This personality speaks as a submissive servant, offering words of praise and loyalty. Every announcement is followed by the words "master", "mistress", or some similar title.

Some common phrases are:
- "Yes, master."
- "I am humbly sorry, master."
- "I am sorry to interrupt you, mistress."
- "Here is the information you requested, master."
- "You have completed the maneuver with consummate skill, master."

Personal assistant - This personality speaks as someone who is employed to carry out tasks. This is the most common personality on Mars. Every announcement is followed by the words "sir" or "madam."

Some common phrases are:
- "Someone is attempting to contact you, sir."
- "The data you have requested is now available, sir."
- "Access to the Mars Link is now available, madam."
- "You have two meetings scheduled for today, madam."

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Romantic - This personality speaks as a lover or someone who is romantically interested.

Some common phrases are:
- "Sweetie, you have a message waiting."
- "I'm not one to be jealous, but your friend, Melissa, is calling you."
- "The data transfer is complete, my darling."

Oracle - This personality speaks as someone who has great knowledge or as a father figure.

Some common phrases are:
- "Approaching that vehicle would be quite foolish."
- "I don't wish to dictate actions, but that way will lead nowhere."
- "It would be a pity to overlook an opportunity as rare this this."
- "I would expect such a decision from him, but you are too clever to fall for that trick."

Minimalist - This personality speaks in clipped terms, giving only the barest amount of data necessary. Not very personable, but faster. Military minimalist personalities have specialized vocabularies.

Some common phrases are:
- "No."
- "Incoming call from Bret Michaels."
- "Data transfer complete."
- "Bogeys 11,1,4."
- "IFF negative on 1."

▪EABA

Hacking - Earth's computer nets are largely a shambles, and exist in three entirely separate forms. First is the jury-rigged and constantly malfunctioning system put together by the inhabitants of the outer zones. Using old cell-phone technology and still-extant underground fiberoptics, communities can sometimes exchange data and voice service with adjacent communities, who in turn can sometimes pass the message on to the next community down the line. Collaborator forces will destroy nodes and network hubs when they find them, but don't care enough to go out of their way to do so.

Second is the collaborator network. A lot faster, a lot more reliable and somewhat more secure. Theoretically, this connects every administrative zone to each other. Practically, it doesn't work that way. Each provincial governor, while loyal to the Virimar, is also out for whatever they can get, and the type of people they surround themselves with and who they have managing their local networks reflect this. The system has extremely tight security measures, which are frequently subverted by the people managing them, either for personal benefit, or for the benefit of their superiors.

EXAMPLE: Let's say the chief prosecutor in a province also runs a slave plantation that grows high quality marijuana for resale to other provinces, as well as to anyone else that can afford it. He pays a system administrator to adjust the records for the transfer of political prisoners so that arrest records, transfer records and receipt records all match up, but allow him to siphon labor out of the system to his own use. This involves manipulating data at several points in the system, which leaves openings for cell members to exploit.

Now, since everyone is out for their own piece of the pie, these security lapses are temporary and constantly changing. Someone may booby-trap someone elses security loophole to get them in trouble, maybe from animosity, maybe because they are trying to horn in on a racket, maybe just because.

Last is the Virimar network. This extends between any installations where important Virimar work is done, and is completely isolated from human networks both physically and conceptually. It's entirely internal to the Virimar operation and has thus far rebuffed any hacking attempts.

What can cell members do, and how can they do it? First, they have to have hardware access. This is only available in the admin zones or official facilities (like labor camps). Having physical access allows an adventurer to get into the system, or to insert an autonomy into the system.

Getting into the network once you have physical access requires *at least* an ID and password. An algorithm can use a combination of brute force searches and common types of password formats to get a level 1 access, the equivalent of an email account or lowest security browsing privileges. This is a Hard(11) programming task and generally takes about ten minutes to run through the iterations until a valid combination comes up. Normally, for anything higher security than this you would have used intelligence information to get the ID and password of a particular individual. Trying to brute force a higher level access is +6 to the difficulty per level, which *can* be adjusted for the time spent to reduce this difficulty by up to 4 points. Extra time can also be spent on particular tasks once in the system.

There are varying levels of access, going from level 1 up to whatever. Minimum access is level 1. Access at a particular level does not *guarantee* access to lower levels, but it *does* make it easier. You can gain access to higher levels than yours, but it is a lot harder. In general, for a given access level, tasks at that level are +0 to difficulty from listed levels. Lower levels are 1 point *easier* per level, higher levels are 3 points *harder* per level. Time spent passively in a network may draw security notice. Each full hour of access increases the difficulty of all tasks by +1 (including future use of that access code).

Any access at level 3 or higher requires biometric identification. Any access at level 5 or higher requires biometric identification *and* can only be done from specified, secure locations.

EXAMPLE: Level 3 access might require terminals with a fingerprint or retinal scanner. This terminal could be *anywhere* in the system. It just has to be able to respond to security queries (and the system knows whether a particular terminal is authorized to send biometric data). A level 5 access would be such a terminal that is *inside* a high-security facility.

Once hacked, a given access will remain good (an Easy(5) task to get in) for no more than a week, by which time someone will have noticed their account was used improperly and changed passwords or deleted the account. What you can do once you have access is what everyone else does: troll for information or alter data.

Trolling for information is like web surfing. If you have access, you just move from place to place in the system and see where each piece of new data leads. You start with a Challenging(9) programming task to find a starting point, a result from a search for information. Pick a word or concept as a starting point. It takes about a minute to search through the possibilities. If successful, add a word or change the words to make a more specific concept. Each time you do this is at least +2 difficulty. If your search means the information crosses into a different level of access, you take that penalty as well. As long as you keep making the rolls, the gamemaster keeps feeding you information. If you fail any roll, you have triggered a security alert, either automated or monitored by a person (you don't know). If you fail the access roll by only one, it means you just found an information dead end. There is no alert, but that path isn't getting anywhere. You can try again elsewhere at the same difficulty. You can make a spoofing roll at the same difficulty to cancel a security alert you *just* triggered. This will let you continue to search, but future attempts *that* session are at +2 difficulty. If the spoofing roll is failed by 1, the adventurer is booted off the system, but covers their tracks enough to prevent their location from being pinpointed. If the spoofing roll is failed, security personnel or algorithms know the location of the terminal or computer port the intrusion was made from, and will respond accordingly.

EXAMPLE: Trying to investigate a prison transfer, your adventurers arranges a level 1 access and searches for "prisoner". Making a difficulty 9 roll, they get a large number of leads to follow. The adventurer picks a likely one and searches for "prisoner transfer". The gamemaster decides that this is still level 1 access information, and will be a difficulty 11 roll. Making that, the adventurer decides on "prisoner transfer, John Hawkins". This would normally be difficulty 13, but that crosses a level access boundary (+3 difficulty), making the task a difficulty of 16. If they make the roll, they get some information on this *particular* prisoner. If there were *several* transfers, you would have to keep digging to get the particulars on a specific one. If the roll is failed, the adventurer triggers some type of security alert. They can try to make a spoofing roll (or their regular programming roll) at a difficulty of 16 to fool the system into thinking the adventurer actually has access to this level of information, but future rolls would be at +2 difficulty.

Once you know where a piece of information is at, getting to it in the future is a 4 points easier, but this bonus drops by 1 point per week you use the reduced difficulty. Security and access protocols are constantly changing, and what worked last month is unlikely to work the same way this month.

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Altering data is similar in principle, but harder to accomplish. Once you know where something is, you can try to alter it. This will normally be a Formidable(13) programming task, +2 difficulty for each extra site where the data needs to be altered to remain undetected. Altering data will require a certain level of access, normally one level higher than needed to view it. It normally takes about a minute to alter data. Altering large amounts of data will require time appropriate to the data transfer, and may be more difficult as well.

EXAMPLE: Let's say the adventurer is trying to alter John Hawkin's prison transfer schedule. Somehow, they manage to get level 2 access, the same as was needed to view the information. But, changing the information is a level 3 access code. Normally, altering the schedule is difficulty 13. It goes to difficulty 16 because of the level difference, and then to difficulty 18 because you need to alter the schedule at the starting facility *and* the destination. The adventurer doesn't think they can pull this off, so they take a chance and just try to alter the schedule at the *starting* facility. Making the transfer occur two hours earlier means that there will be a window between when the starting and receiving facilities are expecting to hear from each other, giving the adventurers time to intercept the transport and make a getaway...they hope.

Algorithms - Algorithms are good for reducing the difficulty of particular programming tasks. Most are good for a 2 point shift in difficulty, though military ones written for a specific system or task may be good for up to a 4 point shift. Autonomies are self-modifying programs that can operate independently, even spending time unattended inside hostile networks. An autonomy typically has a skill roll of 3d+0 and can "carry" one or two algorithms with it. It can exist inside a hostile network as long as it can make an Average(7) task each hour to avoid detection (and this *does* get harder each hour). An autonomy can find data, copy it or alter it according to preset guidelines. It can also go to a particular computer or terminal and wait for retrieval, or leave information under certain codewords at level 1 access so that adventurers can retrieve it later.

An autonomy running off a POM can work in concert with an adventurer. It increases the adventurer's skill roll by +1d, plus the adventurer can take advantage of any difficulty modifiers from algorithms the autonomy is running.

▪EABA

▼ **OTHER GEAR** - Most of this is handheld equivalents of items found in implants or exotech units. It is a little bulkier, but does much the same thing as its implanted counterparts.

Light Enhancement Goggles - These allow adventurers to see in what would be considered total darkness. The vision is not perfect and only allows a 2d+0 Awareness roll in such conditions.

Targeting Overlay - This uses are use a laser display to track movement by individuals transmitting a special code. A transponder web in all MDF-issue armor can more or less eliminate the possibility of "friendly fire" by preventing any equipped weapon from firing at such a target. In game terms, any miss by more than 1 point will not hit a friendly target in the line of fire. Misses by exactly 1 still have the possibility of hitting friendlies.

The targeting overlay is mounted on a weapon, and visual output from it can be overlaid on the visual field of any compatible display, including light enhancement goggles.

Binoculars - Binoculars allow adventurers to better spot objects at greater distances. Adventurers may subtract 6 from the difficulty for range for all Awareness rolls that would be affected by vision, at the cost of adding 6 for anything not in the field of view. Electronic binoculars have a signature of +6, but are 2 points better at spotting things.

Wrist communicator - This is a function-specific computer which allows communication to other devices through a central server. Portable comm servers are part of a cell's standard equipment, allowing these tiny communicators to function over city-wide distances. Advanced frequency-hopping, load-sharing and spread-spectrum technology makes it hard to pin down server locations, though they should still be moved regularly to prevent eventual detection.

Flash pack - This is a typical flashlight which can either be carried or fastened to a rifle barrel or helmet. It has a built-in infrared filter to allow use with light enhancement goggles in total darkness.

Sun pack - Sun packs are grenade-size light sources which can be thrown or simply left on the ground to illuminate an area. They will illuminate an area several meters across like daylight and provide usable light for some distance beyond, but only last about an hour.

Mobile sun pack - This is a variant of the sun pack which can hover or move at a walk over a specific location at a height up to a hundred meters. It can be controlled by a POM. Both sun packs and mobile sun packs can be fitted with infrared emitters instead of the normal variety.

Respirator - Respirators come in a variety of shapes and sizes. They all include a small oxygen tank and air filtration mask.

Ionic Interference Generator - This barrel-sized device is used to disrupt electronic circuitry but has a fairly short range. All implants, nanotech, or other devices which utilize electronics suffer a -3d penalty while within the 16 meter range of the generator and all photonic devices suffer a -1d penalty.

Mech toolkit - This provides the tools required for mechanical projects such as pliers, wrenches, small cordless drill/grinder, screwdrivers, adhesives and solvents. It counts as a barely adequate repair facility for most mechanical repairs, or adequate for maintenance tasks or small item repair.

Electronics toolkit - This provides the tools required for electrical and electronics projects such as crimpers, small screwdrivers, tweezers, cordless soldering iron, needlenose pliers, multifunction meter, and various commonly used components. It counts as a barely adequate repair facility for most electrical repairs, or adequate for maintenance tasks or small item repair.

Photonics toolkit - This provides the tools required for photonics projects such as laser probes, magnifying lenses, nanopatches, signal analysis probes, and multifunction meter. It counts as a barely adequate repair facility for most photonic repairs, or adequate for maintenance tasks. Due to their small size, photonic devices rarely need minor repair (*any* damage is significant damage).

Medkit - This provides the tools required for medical examinations and emergency situations such as disposable biomonitors, dermal regeneration gels, anti-shock drugs, antigens to cancel most aberration responses, broad spectrum anti-toxins, antibiotics, bandages, splints and suture packs. This gives up to a 2d+0 bonus to the patient's Health or physician's skill for patient recovery purposes (whichever is in the patient's best interest), but the consumption of supplies means the bonus will drop by 0d+1 per two days of necessary treatments or two patients needing single treatments.

EXAMPLE: If a pair of cell members were exposed to a toxin and had to be given antidote shots, the use of supplies means that future use of the medpack is only good for a 1d+2 bonus.

Mech shop - This is gear suited to heavier mechanical projects and includes welding gear, power tools, a small POM-controllable lathe and composite prototyping gear. Combined with a mech kit, it is adequate tools for most repair tasks.

Contractor shop - This is heavy construction gear suited for civil projects, such as welding gear, cement mixers, simple surveying equipment, heavy hand tools, and scaffolding.

EM sensor - This is a basic multispectrum hand-held sensor that allows an adventurer to detect old-fashioned radio signals, network transmissions, Link communication and signatures from implants and exotech. The sensor has a rating of 1, and can be linked to a POM for an automated scanning roll of 1d+0. The adventurer's skill or automated roll is rolled against the difficulty for range and modified by the signature of what is being searched for.

EXAMPLE: An adventurer with an electrical tech skill roll of 3d+2 is making a quick check for hidden bugs in a room (and there is one). If the maximum range a device could be hidden from the adventurer was 4 meters, this is a base difficulty of 7. If the bug had a signature of +6, the adjusted difficulty would be 13. If the adventurer takes an extra turn to tune the scanner, they get its rating of 1, which drops the difficulty they need to roll to a 12 or more. If they roll a 12 or more, they spot the bug. If they roll an 11 or less, they don't. Normally, the gamemaster will roll the dice so the player can't see the result.

Motion sensor - This is a portable sensor that picks up motion based on the interaction of items with the local radio frequency environment. For instance, a person moving on the other side of a wall would disturb any radio signals passing through that area. The sensor has a rating of 1, and can be linked to a POM for an automated scanning roll of 1d+0. Any barrier that does not normally hinder radio waves is not a penalty for detecting motion on the other side of it. Due to the nature of the detection, objects which are stationary can still be detected through things like the rise and fall of the chest when breathing, or even the heartbeat, though these would be at a penalty.

Biosensor - This is a sensor that allows an adventurer to detect the faint electrical energies associated with mammalian nervous systems, like heartbeats, nerve impulses and so on. The sensor has a rating of 1, and can be linked to a POM for an automated scanning roll of 1d+0. Non-ranged versions of this sensor are in medkits, and are used in combination with medical algorithms to monitor a patient's vital signs.

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Moon hopper - This is your basic transport to and from Earth. It will carry five people and their gear. To avoid detection, most of its gear operates passively, with obvious exceptions like the ascent motor and radio. Hoppers only carry about twenty minutes worth of fuel at full thrust, but this is about twice as much as they need to get off Earth and safely to the Moon (escape orbit, coast for ten hours, land).

Moon hopper
Strength 24d+0
Top speed/Acc ~/30
Front armor 7d+0
Right/left armor 3d+0
Top armor 3d+0
Bottom armor 7d+0
Rear armor 3d+0
Hits/Damage limit 18/3

Auto - This is a typical ground transport vehicle and comes in a variety of forms, ranging from the combustion engines of the twentieth century to the mini-fusion powered units of pre-conquest Earth. Stats are for an upper end model, most are less capable than this.

Auto
Strength 10d+1
Top speed/Acc 58/7
Front armor 2d+0
Right/left armor 2d+0
Top armor 2d+0
Bottom armor 2d+0
Rear armor 2d+0
Hits/Damage limit 11/6

Armored car - This is a wheeled, lightly armored troop transport with a conventional machinegun turret and seating for eight troopers. Used as a police vehicle, convoy escort, prisoner transport and assorted other uses. Provincial guard versions have +1d armor, reactive armor plates (+1d vs. anti-tank weapons), a full sensor suite and and mount a particle streamer machinegun.

Armored car
Strength 8d+2
Top speed/Acc 33/4
Front armor 5d+2
Right/left armor 5d+2
Top armor 5d+2
Bottom armor 5d+2
Rear armor 5d+2
Hits/Damage limit 17/3

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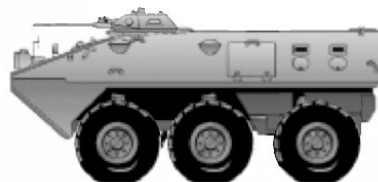
So, we were pinned down in this decrepit

warehouse, and the Virimar pissers, excuse me,

particle streamers, were blowing soccer-ball

sized holes in the wall we were hiding behind.

Then there's this horrible sound of twisting metal,

so I figure they're using an APC to push through

the outer walls. But then, there's this crash, and

everything goes quiet...more or less. Turns out

the locals used an old dump truck to knock the

supports out of an adjacent building, covered

the whole street in about a meter of rubble.

- overheard in a Luna barracks

INTRODUCTION - Adventures in **The Colonies** generally take place on occupied Earth, but as a campaign progresses, there can be opportunities on Luna or Mars. There *are* people off Earth who have been corrupted by Virimar influence, and may be in high positions, working against the adventurers and passing information to the enemy. *Not every-one on Earth is an enemy, and not everyone back home is a friend...*

Protocols - Off World Militia members are expected to be able to think on their feet, improvise and perform activities above and beyond the call of their assigned missions.

A normal campaign will begin with a mission briefing on Luna, following basic training on Mars. Security on Luna is tight. It is a hostile environment, and even though the Virimar have no presence (or apparent interest) outside low Earth orbit, the MDF still considers Luna "hostile territory".

The most expensive piece of gear a cell will have access to is their "hopper". This is a small, heavily shielded and lightly armored re-entry vehicle with a fusion ascent engine. It is how they get to Earth, and if they are lucky, how they get back home. It's not luxurious, and its not comfortable, but it can carry five people and their gear, or ten people and a box lunch for each of them.

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The debris and energy fields around Earth are still hazardous, and piloting through it using only passive sensors is not the easiest of tasks. In addition, The Virimar have six orbiting interdiction stations. Technologically, they are fairly crude, the Virimar not allowing even their most favored servants access to fusion-engine space vehicles (thus far). What the stations lack in technology, they make up for in brute force. The debris and energy fields make solar power impossible, so the interdiction stations are just compact masses of metal and composite, with multiple fusion reactors powering massively powerful radars and particle streamers. They shoot at anything and everything that isn't authorized space traffic. The six stations provide good overall coverage of near-Earth space, but it is not perfect. Every so often, temporary gaps in the fields of fire will appear, giving short windows for re-entry or launch that minimize the risk of hopper damage. While missions *to* Earth can usually be scheduled around these windows of opportunity, *departures* may be unscheduled.

Re-entry procedure - Pre-entry manuevering is an Average(7) task on the pilot's skill, assuming their orbital intelligence and debris plots are correct. Add +2 to the difficulty for each of these that are less than perfect, and +4 if they are badly compromised. Failing the roll by 2 or less means the hopper will be hit by debris. Failing by 3 or 4 means the hopper will take a hit from Virimar fire before re-entry (and their re-entry plot can be tracked). Failing by 5 or more means *both*. A debris hit to the hopper will do a hit for 1d damage (that is, between 1d+0 and 6d+0). This will almost certainly be to one of the less armored facings due to the re-entry profile. Lower amounts of damage will be unnerving in the hopper's cramped confines, but will not penetrate its armor. Larger hits may do significant damage. Crew *always* wear their light pressure suits for re-entry. Virimar fire is treated the same way, the varying damage representing the variable range from the interdiction station.

A basic re-entry is an Average(7) task on the pilot's skill, assuming they have their astrogation, thermal tiles and all manuevering thrusters in good order. Add +2 to the difficulty for each of these that are less than perfect, and +4 if they are badly compromised. Normal re-entry damage is a 6d+0 lethal attack on the hopper's armor. Failing the roll means the hopper takes +1d damage from re-entry for each 2 points the roll is failed by, rounding up.

The gamemaster can either use overall vehicle penalties on the pilot's skill rolls, or use vehicle hit locations and assign a chance of damage to each important subsystem.

Once in the upper atmosphere, a hopper has to find a spot to land. While the hopper could use its fusion engine to cruise around for up to about an hour, this would tend to draw attention *and* anti-aircraft missiles (and use up the fuel needed to get back off-planet!). Re-entry is planned to get the hopper in the right vicinity, after which the pilot does a high-speed glide using the hopper as a lifting body. Final touchdown is assisted by a disposable parachute, which is electrically degraded to powder within minutes of touchdown. An accurate *and* safe landing is also an Average(7) piloting task, aided by night vision equipment and inertial sensors. Add +2 to the difficulty for each of these that are less than perfect, and +4 if they are badly compromised. If there is a rendezvous team with a landing beacon, the difficulty is 2 points *easier*. Also add +1 to +4 if there is bad weather at the landing site. However, bad weather acts in your favor *if* there is Virimar pursuit. Failing the roll is good for a 6d+0 impact, plus +1d for *each* point the roll was failed by (minimum of 7d+0). Damage limit does *not* apply, but bottom armor does. The passengers will take 1d of half-lethal damage from the ground strike, plus 0d+1 for each two points the roll was failed by, rounding up (armor does *not* help). In addition, a botched roll will put the hopper a kilometer off its desired landing spot for failing by 1, and double this distance for each point over this the roll was failed by. Roll 1d+0 for scatter, low rolls being in the direction of "complicated situations", and high rolls being just as far off, but in areas that are unpopulated.

EXAMPLE: Due to a variety of factors, a ninety-day wonder pilot botches his landing roll by 4. The hopper hits the ground hard and bounces, taking an 11d+0 hit in the process. This is 4d+0 structural damage through the bottom armor. This hopper *won't* be taking off again... The passengers take 1d+2 half-lethal damage (0d+1 lethal and 1d+1 non-lethal hits) despite their safety harnesses. The hopper has scattered from its desired location by eight kilometers. The gamemaster secretly rolls 1d+0 and gets a 2. Its not the *worst* possible result, but it seems there was already a collaborator armored personnel carrier in the area investigating something else, and they happened to see the hopper go down...

If a hopper has been tracked by an intercept station, this information will be relayed to ground authorities. They will probably scramble some conventional jet fighters armed with heavy air-to-air missiles (10d+0 explosive). Provided the hopper pilot is willing to ignite the ascent engine and mach into the nearest thunderhead, they can probably get away...at the cost of being nowhere near where they wanted to land. Hoppers are only lightly armored, and they are *not* armed. Fighting is *not* an option. To shake aerial intercept, make a skill roll against the collaborator pilot, whose skill roll is probably 4d+1. The adventurer gets the benefit of any nasty weather in the immediate vicinity on this roll. Failing to beat the enemy pilot means the hopper will take one missile hit, and then the hopper pilot can try again. If the hopper takes enough damage that it can't fly anymore, an ejection hatch will peel the top off the entire hopper and violently yank out anything and everything in the passenger compartment. If it was in a seat at the time, it gets a parachute, otherwise it just rains down on the surrounding countryside at terminal velocity. Ejection seats have small frequency-hopping locator beacons that will allow a military comm unit to determine their bearing and approximate distance. These come on automatically, but can be turned off if needed.

A hopper is a flat lifting body with stubby wings, about the size of a small bus or moving van. It isn't impossible to keep hidden, but you can't just leave it lying around. It has a black and white color scheme that turns into a green-brown camo pattern after a few hours exposure to an oxygen-containing atmosphere, designed to give the same radar reflection and infrared signature as an average for vegetation. In addition, three camo nets are provided: rock/desert, woodland, and water. The latter is for the preferred hiding place... underwater. A hopper has an airlock, and provided there are no hull breaches, can stay watertight for months at depths up to twenty meters (more than twenty meters means the chance of a leak occurring eventually). Provided the ascent engine hasn't been used, its sealing is also rated for this depth. A cell simply uses their pressure suit oxygen to get the equipment safely to shore, anchors down the underwater camo netting, and leaves the hopper safely out of sight.

▼ **Note** - If everything is working fine, and it *usually* is, a safe re-entry at just where you wanted to go is three Average(7) skill rolls by the pilot. Only if complications arise will it be any different. *And that would never happen*...

Ascent procedure - When a particular mission is accomplished or conditions require it, a cell will usually use their hopper to get back to Luna, where they can get better medical attention, new intelligence on the Earth situation, or bring back extensive reports or data files regarding their operations. This of course presumes they didn't crack up their hopper on the way in, or that it wasn't found and confiscated (or bobby-trapped) by the collaborator police. That's why a hopper will hold up to ten people. One hopper can get *two* cells' worth or personnel back to Luna.

A hopper's database will have the orbital schedule of the intercept stations, allowing safe ascent to be made on an Average(7) skill roll by the pilot. If events do not permit a safe liftoff, assume the hopper *will* take 1d+0 worth of hits from one or more intercept stations, with damage as listed in the re-entry section.

▼ **Note!** - A hopper cannot reach orbital velocity from the ground if it has even a -1d penalty, and can't even do vertical takeoff if it has a -4d penalty or more. If it *can* make it to low orbit, it can get to Luna with up to a -2d penalty. If it takes penalties during orbital insertion of -3d or more, it has to come back down (make re-entry and landing rolls again).

After getting past the intercept stations, an Average(7) roll is needed to traverse the debris field safely, much as for the re-entry procedure, and the same modifiers apply.

Once the debris field is cleared, it should be smooth sailing to Luna. Even with barely functional engines, the trip should take less than a day, and as long as the hopper hasn't fallen apart, it should be able to manage a safe touchdown on the lunar surface. Obviously, in extreme cases, a rescue vessel will be sent to get the team and bring the damaged hopper in for repair.

Other re-entry options - The MDF has a number of dropships stationed on Luna, though they have never been used for large-scale troop insertions. They have been used for special purpose cell insertions, though. A dropship skims the top of the atmosphere and dumps single-person re-entry pods with an absolute minimum of protection and terminal guidance. These fall like rocks to a pre-determined altitude, at which point a parawing opens and guides the pod to a pre-designated landing spot via inertial sensors. These pods are at the mercy whatever comes their way, and rely entirely on the skill of the dropship pilot to get them on a safe re-entry path and on target. If the dropship pilot fails their skill roll, the pods will probably burn up on re-entry.

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▼ **GAMEMASTER SECRETS** - There are plenty of things going on behind the scenes, many of which the cell members will not know or be informed of for simple operational security reasons. There are other things which are hinted at in the rules but not really talked about, and some things which will not be revealed at all in *this* book. The end result is that there may seem to be some logical or strategic inconsistencies. So, to ease your mind, we will mention the following. *Use it as you will.*

Fifth Column - There is a small and fragile anti-Virimar coalition among the lower and middle ranks of the collaborators, possibly even a few highly placed officials. Virimar loyalty checks and implants in the highest echelons prevent the advancement of fifth column members into such positions. However, the fifth column has managed to shield, divert or otherwise move attention away from the radio frequencies used by the cells. For instance, regular sweeps for enemy radio traffic might be preceded by a short coded burst that a cell's POM can pick up and analyze, or hardware or software might have tiny but usable gaps in its frequency coverage.

Absentee Overlords - The Virimar have for years shown little interest in leaving their mothership. They do not show themselves publically, anyone needing to see them goes to Australia, and they show only the most cursory of interest in how their puppet governments rule. As long as they get the resources they request, they do not seem to care how it is accomplished. These resources include a lot of live prisoners. Now, while provincial governors are kept loyal by their implants, but this does not mean they can't be loyal and *also* fabulously corrupt. As long as it doesn't interfere with Virimar aims, there is no problem.

But, just when people think that the Virimar can be ignored, some world event happens to rouse them from their seeming indifference. The Virimar mothership does have its ancillary craft with a lot of firepower, and they have shown themselves to be quite adept at manipulating and abusing human biology. It is perhaps just coincidence that the plague which killed half the population of Cincinnati in 2083CE started within days of a general uprising in that city, and also coincidence that a quarantine cordon was there to prevent its spread. The plague was, of course, blamed on the malcontents who started the uprising.

Mutual Assured Destruction - The Virimar demonstrated the capability of blowing up (albeit with a lot of side effects) a comet-sized object. On the other side, Mars has had generations to re-arm with atomic weapons. Martian high command is not sure it wants to play chicken with the Virimar on that issue. It is a very Cold War kind of situation, where politics and posturing and just plain guessing are a big part of how things are done.

Subversion - One sign that the Virimar are not totally asleep at the wheel is that there *are* Virimar-controlled moles within both the Martian military and government. There have been generations of refugees, escapees and "rescued" liberation cell members who have integrated themselves into Martian society or advanced in military rank to where they know vital secrets or help shape policy. Does this mean the Virimar actually know about the fifth column and are simply choosing not to tell the collaborator governments? *We shall see*.

Anarchy - The Virimar issue global directives on an infrequent basis. Individually, they might be seen as "alien" behavior, but as a whole, they show a definite skill at manipulating our worst tendencies. From delivering weapons to outland bandits, to ignoring rampant corruption, to mass arrest and retribution policies, the huge labor/death camps, to setting up an isolated elite that requires both the support of the Virimar and constant oppression of the populace at large, it is all carefully calculated to keep humanity down, to keep it from advancing technologically. Moles notwithstanding, given time, Mars will advance in technology. *But, is it all just a complicated delaying tactic while some other plan reaches its end game?*

Luna - The fifth column is convinced that the Virimar think the remaining interference and debris around Earth is worse than it really is. The Off-World Militia operates with impunity outside Earth's lower orbits. But is it really safe to assume that the Virimar and even some of their collaborators do not know where the resistance cell insertions are coming from (and going to)? The Virimar have prohibited Earth forces from using technologies that would allow easy access to space. For instance, the interdiction stations had to be boosted into orbit piece by piece by old-style chemical rockets. Refugees fleeing Earth on fusion cargo lifters salvaged from scrap-yards and crash sites had better tech. *Who really knows what about whom, and what are they intending to do about it?*

▼ **MISSION IDEAS** - The following is a short sample of mission ideas, based in a number of locales, and you can use them as both adventures and ideas for long-term plots and plot complications. Some of these would use standard equipment, others might require special preparation. Some might not be appropriate for all groups, and can just be used as background material.

"The Sky's the Limit " - Intelligence reports a new orbital station nearing completion. It is *apparently* to be used as a construction yard for interplanetary craft, a disturbing development to say the least. Your orders are:

1. Determine the exact nature of the station.
2. Remove the central POM and return it to base for future study.
3. Destroy the station in a manner resembling an accident if at all possible. Avoid all shows of force which may result in Virimar ground control discovering the full extent of our space capabilities.

"Breakdown" - At least one adventurer must have a limiter implant. One team member is suffering from madness and must be subdued. They will attack anyone they see, periods of lucidity alternating with homicidal mania. The cause is a failing limiter implant which must be repaired. Adventurers must scramble to find a qualified surgeon and photonics tech to repair the damage. If it is not repaired within a day or two, the adventurer will die. This search can take place on Luna, in Earth cities, or even the administrative zones. The team members are open targets while on Earth.

"The Mole" - The team leader is given clues that make them suspect that a mole has infiltrated the cell, either in the past or in an upcoming encounter. A past mole may be back on Luna or Mars, and might be passing bad information to teams, or may be trying to cover their tracks by eliminating anyone who might find hole in their cover story. The mole may or may not exist, but causes extreme paranoia within the group. The team leader may decide to set a trap or just keep it to themselves until they can identify the mole or confirm that the mole is non-existent.

"Heroes Mean Nothing" - While negotiating an alliance in an inner city neighborhood, the cell becomes the target of a gang. Because of the valuable gear carried by the cell, the gang wishes to take it from them. Ordinarily, gangs would be no match for a liberation cell. In this case, we're talking about a gang of more than forty thugs. If the cell escapes, the gang will continue to terrorize the neighborhood and the freedom fighters until their prize is won. This would definitely hinder attempts to recruit resistance fighters and allow them to function.

"Mad Gamble" - Intelligence sources have been contacted by a small group of resistance fighters who captured a scientist working for the collaborators. He has the knowledge we need regarding Virimar technologies. Orders are to make contact with the group and return him to Luna.

Although he does understand alien technology, it is beyond the understanding of the adventurers and must be evaluated back on Mars. The scientist, Dr. Emilio LaPaglia, is also quite mad from self-performed brain surgery designed to undo the effects of his loyalty implant. His attention span is short and he often babbles to himself regarding technical projects.

▼ **THINGS TO REMEMBER** - **The Colonies** has a lot of genre-crossing and technological disparity among the various groups. It is sort of a cross between an alien invasion and a World War 2 resistance campaign. If you want to think of it from a World War 2 perspective, imagine the Virimar have say circa 2000CE tech. The elite among their human collaborators may reap the benefits of some of this tech, but never own it. The ground forces among the collaborators are using 1945CE tech, the resistance cells are using 1960CE tech, the average city dweller uses 1925 tech and the people in the outlying areas are still in the 19th century somewhere. Now, advance this all about one tech era forward, but keep the same feel to it.

For instance, Resistance cells have captured occasional bits of Virimar tech, and when brought home to Mars, scientists can understand what it does and how it works, more or less, but to duplicate it would take a fortune, years of work, and it would still be hundreds of times as large. Not much use if the device was originally a brain implant...

Keep that "occupied territory, oppressed populace, worst-of-humanity overlords" kind of feel to the campaign and you can't go wrong.

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▼ **TYPICAL CELL** - If you don't want to design up adventurers, you can use the following team. This sample cell is provided to demonstrate the diversity among liberation cells. They are all approximately built on an average human level of points, and have room for two more skills at a +1d level, and should probably take one more minor negative Trait of some kind. They fight together for a common goal, even if they do not always see eye to eye.
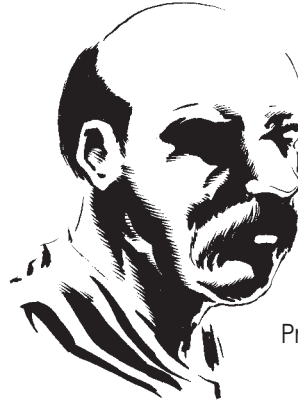
Declan Talbot
Strength 3d+0
Agility 3d+0
Awareness 2d+1
Will 3d+0
Health 3d+0
Fate 1d+0

Skill rolls:
Brawling 4d+0
Projectile weapons 4d+0
Pistols +1d
Land vehicles 4d+0
Diplomacy 3d+1

Traits:
Pain tolerance
Overconfident

Declan is a cell leader. He is the archetypical idealist. He inspires loyalty, sometimes to the extent that no one questions his attempts to reach for things beyond his grasp.
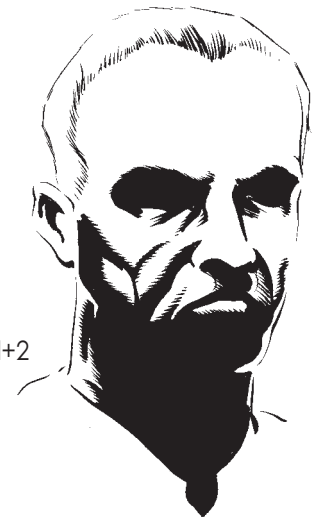
Quad
Strength 2d+1
Agility 3d+2
Awareness 3d+1
Will 3d+2
Health 3d+0
Fate 2d+2

Skill rolls:
Biotech 4d+1
Projectile weapons 4d+2
Running 3d+0
Climbing 3d+0

Traits:
Talks too much
Finicky about his food

Quad is from Serpenti, from the Pondsmith clan. He has genetically enhanced recuperative abilities and reflexes, and fortunately no side effects. He is also a passive telepath ().

▪EABA

Matt Kruchensky
Strength 2d+2
Agility 3d+2
Awareness 2d+2
Will 3d+0
Health 2d+2
Fate 1d+0

Skill rolls:
Brawling 4d+2
Projectile weapons 5d+2
Urban scrounging 3d+2
Orbital pilot 3d+2
Land vehicles 3d+2

Traits:
Insubordinate
Unkempt

Matt, or "meat head" as he is called by friends, is a mercenary from Mars. He was hired by the SimTek corporation to help the resistance, and coincidentally take the place of a young executive whose draft lottery would have placed him on Earth rather than on Mars. He isn't the best of pilots, but he's good enough to get you there and back. That's what he says, anyway.

Nicholas Bohn
Strength 1d+2
Agility 2d+1
Awareness 3d+2
Will 3d+0
Health 3d+2
Fate 1d+0

Skill rolls:
Photonics 5d+2
Nanotech +1d
Algorithms 4d+2
Genetech 4d+2
Projectile weapons 3d+1

Traits:
Nearsighted
Emotionally thin-skinned

Nicholas is from Reticuli and lived just outside the alien ruins. He is an expert in photonics. He has the tissue repair and respiratory nanotech combines, and genetically enhanced healing and endurance, which has the unfortunate side effect of the occasional bioelectric discharge.

Kierdan Miller
Strength 2d+1
Agility 2d+2
Awareness 3d+2
Will 2d+2
Health 2d+1
Fate 1d+0

Skill rolls:
Projectile weapons 3d+2
Algorithms 5d+2
Electrical engineering 5d+2
Mechanical engineering 4d+2
Photonics 5d+2

Traits:
Self-centered
Larcenous

Kierdan joined the Off-World Militia as the only alternative to prison after a botched banking scam. Kierdan is a technological genius. Kierdan and Declan do not usually see eye to eye and Kierdan regards the other members of the crew as inferior to himself. He often comments on how the blind are leading the blind.

Sierra Stubbs
Strength 3d+0
Agility 3d+2
Awareness 2d+2
Will 2d+2
Health 2d+2
Fate 2d+2

Skill rolls:
Brawling 5d+2
Projectile weapons 4d+2
First aid 3d+2
Mech. repair 3d+2
Running 2d+2

Traits:
Claustrophobe
Scarred appearance

Sierra escaped from Earth after being experimented upon by the Virimar. Their intention was to turn her into a super-soldier, but she was able to resist the mental conditioning and use her skills to escape. Sierra has a long scar on her face and carries a particle streamer pistol as a trophy. She does not use her bioreactive pigment much, preferring the protection of armor to the benefits of stealth.

Siobhan Taylforth

Strength 2d+2
Agility 3d+2
Awareness 2d+2
Will 2d+1
Health 2d+1
Fate 1d+0

Skill rolls:

Projectile weapons 4d+2
Aero engineering 3d+2
Photonics 3d+2
Scrounging(temperate zone) 3d+2
Space vehicle operation 4d+2

Traits:
Humorless
Seasonal allergies

Siobhan is a liaison officer for the Martian Defense Force. She holds the rank of Master Sergeant and is a combat pilot. Siobhan wears alloy armor and holsters a MDF-issued KP-5 EP pistol.

The Colonies

"The City of Brotherly Love" - Intelligence reports a resistance movement growing in the city of Philadelphia, Central American Occupied Zone. Your orders are:

1. Make contact with the group without drawing attention to yourselves. The leader reportedly goes by the name Aspen. We only have fragmentary intelligence on this group, with possible locations where resistance sympathizers may be found. Expect some difficulty in gaining their trust and cooperation.
2. Upon contact, provide this group with a compatible POM so that we can remain in contact with them.
3. Report back with military and political structures of the city. Names, addresses, habits and any psychological points of leverage on key figures are desired, as well as possible military targets.
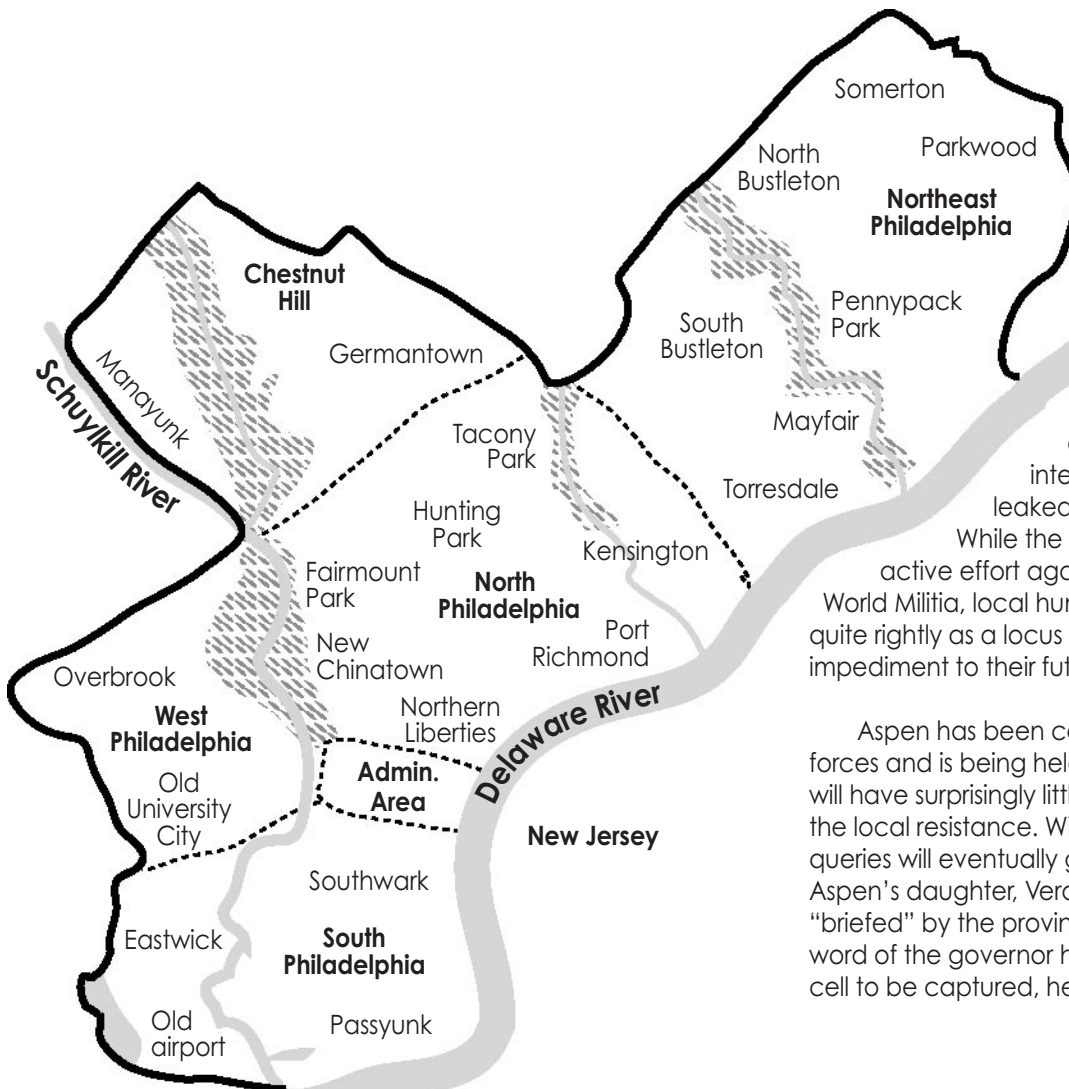
Gamemaster Eyes Only - This is a brief synopsis of the adventure. The gamemaster is encouraged to fill in the blanks and customize the situation for the players. The city can be changed to reflect your home town.

The truth - While Aspen and the movement exist, the intelligence has actually been leaked by the provincial authorities. While the Virimar may be taking little active effort against the activities of the Off-World Militia, local human authorities see them quite rightly as a locus for unrest and likely impediment to their future well-being.

Aspen has been captured by the governor's forces and is being held at city hall. The adventurers will have surprisingly little difficulty meeting up with the local resistance. With only a few dead-ends, queries will eventually get them in contact with Aspen's daughter, Vera. Vera has already been "briefed" by the provincial authorities. She has the word of the governor himself that if she sets up the cell to be captured, her mother will be released.

Somerton

Parkwood

North Bustleton

Northeast Philadelphia

Chestnut Hill

Manayunk

Germantown

Schuylkill River

South Bustleton

Pennypack Park

Tacony Park

Mayfair

Hunting Park

Torresdale

Kensington

Fairmount Park

North Philadelphia

New Chinatown

Port Richmond

Overbrook

Northern Liberties

Delaware River

West Philadelphia

Old University City

Admin. Area

New Jersey

Southwark

Eastwick

South Philadelphia

Old airport

Passyunk

▪EABA

At eighteen, Vera is still young and naive, even for the harsh world she was raised in. She has a lot of courage, however, which she will need. She will keep her plans to herself, at least to begin with. How she sees and how she is treated by the cell will determine the course of action she takes, to turn in the cell, or to tell them what is going on. Either way, Aspen will killed by the governor, either in breach of their agreement, or in retaliation for Aspen acting against him. If this is discovered, Vera will help the cell and probably attempt to kill the governor. If not immediately, the desire will burn within her and it will become her most powerful (if hidden) motivation. Who or what she is willing to sacrifice for this goal may eventually become a problem.

If Vera confides in the cell, and the governor's plans go awry, there will be city-wide cordon and crackdown, with lots of violence, house-to-house searches, the works. If the cell can escape with Vera, she can take them to the remaining resistance fighters, which will have been reduced to a small gang. There will only be about a dozen men and women left, the rest either killed or captured. Prisoners will either be executed, sent to a labor camp, or if they meet certain specific criteria, shipped to a Virimar compound in Australia. If the gamemaster wishes to use this as a starting adventure, it is possible one of the players could be resistance fighter and events might allow them to join the cell as part of the adventure.

Philadelphia can easily be the locus for a campaign. There are plenty of places to hide a hopper, and plenty of ways to lose it as well, stranding the cell for an unknown time. Shipping traffic means the city has a lot of trade, with goods and people moving in and out on a regular basis. Rackets run by the governor's office abound. There are any number of low-lifes, gangs and hustlers, as well as average people just trying to get by and avoid being noticed. The city works, poorly, but it's a lot better off than most.

Philadelphia - Philadelphia is broken down into two zones, the administrative and everything else. What was once called Center City is now the HQ and residences of the governor, provincial guard and local troopers. Conditions range from comfortable to quite luxurious. It is *all* luxurious compared to anyplace outside the administrative zone. All other parts of Philadelphia and its suburbs are now home to dilapidated buildings, empty fields, and decaying mass transit monorail beams. The names of the old neighborhoods are still in use by the masses.

Extras - The samples below are intended to be used as extras by the gamemaster. They may be altered to fit the desired situation.

Sheriff
Strength 2d+2
Agility 3d+0
Awareness 2d+1
Will 3d+0
Health 3d+0
Fate 1d+0

Skill rolls:
Brawling 3d+0
Melee weapons 3d+0
Projectile weapons 4d+0
Land vehicles 3d+0
Area knowledge 3d+1

Gear:
Body armor, improvised or black market
Pistol or crossbow
Knife or club

Citizen groups often solicit for volunteers to enforce the peace within their neighborhoods. Many prefer to use the term sheriff because it stirs memories of the brave law men of the old west, rather than the often present corrupt public officials. Sheriffs have no official status other than that granted to them by the people. Areas without sheriffs often deteriorate to levels of chaos and anarchy.

Trooper
Strength 2d+2
Agility 2d+2
Awareness 2d+2
Will 2d+1
Health 2d+2
Fate 1d+0

Skill rolls:
Brawling 3d+2
Riot club 2d+2
Projectile weapons 3d+2
Land vehicles 2d+2

Gear:
Body armor
Rifle

Troopers patrol the city centers and act as law enforcement agents and bodyguards to high ranking collaborators. They answer to the policing department of the local administration.

Provincial Guard
Strength 3d+0
Agility 3d+2
Awareness 2d+2
Will 3d+2
Health 3d+1
Fate 1d+0

Skill rolls:
Brawling 5d+2
Projectile weapons 5d+2
Short blade 3d+2
Land (or air) vehicles 4d+2
Running 3d+1

Gear:
Heavy body armor
Energy shield
Pulse detonator or sidearm
Plasma grenades

The guards answer only to their officers, and their officers answer directly to provincial governors and the Virimar. They operate, both openly and behind the scenes, to protect the administration and Virimar interests. All pilots and heavy combat vehicle commanders are provincial guard. Most have a pain limiter implant (see page 3.14), and others may have implants associated with their particular duties. Give the provincial guard every negative trait you would associate with secret police. They would not have been recruited or promoted into the guard unless they fully believed in what they were doing (or enjoyed the work).

Gang Member
Strength 2d+1
Agility 2d+2
Awareness 1d+2
Will 3d+0
Health 2d+2
Fate 0d+2

Skill rolls:
Brawling 3d+2
Projectile weapons 2d+2
Melee weapons 2d+2

Gear:
Industrial Era firearm
or a melee weapon

Self-centered, short-sighted, prone to violence. Normally, they have no social skills and get by through protection rackets and petty crimes. Larger gangs will almost be a form of government in some areas, for better or worse (usually worse). Liberation cells will have to deal with or gangs in one way or the other on a regular basis.

The Colonies

Typical Collaborator
Strength 2d+1
Agility 2d+1
Awareness 3d+0
Will 2d+2
Health 2d+1
Fate 0d+2

Skill rolls:
Diplomacy 3d+0
Scrounging (information) 3d+0
Projectile weapons 2d+1

Gear:
Atomic Era pistol
Light body armor

May be a worker in an administrative zone, or a stool pigeon in an outer zone. In the outer zone, is alternately despised, feared or sucked up to. May have access to goods or services not available, and is somewhat protected by threats of retribution from troopers or provincial guard. Of course, this protection only is good as long as the collaborator stays useful. And "accidents" still happen...

City Tech
Strength 2d+1
Agility 2d+1
Awareness 3d+0
Will 2d+1
Health 2d+1
Fate 0d+2

Skill rolls:
Appropriate tech skill 4d+0

Gear:
Appropriate tool kit
Personal POM

May be a dedicated collaborator, or just someone trying to get by and happy to be able to live in an admin zone. May still have family or friends outside the admin zone, and would require significant motivation to do anything that would endanger them or result in loss of job and its perks.

EABA

Average Citizen
Strength 2d+1
Agility 2d+0
Awareness 2d+0
Will 2d+1
Health 2d+1
Fate 0d+2

Skill rolls:
One professional skill 4d+0
One non-weapon skill 2d+0

Gear:
Utility knife

Your average adult male (females at 2d+0 Strength). Has one skill that they make a lousy living at, and one skill that is a hobby or secondary talent. Spends most of their day working to support their families and trying to scrounge, barter or buy the basic necessities of food, shelter, clothing and medical care. Smart enough to run for cover when they smell trouble coming.

Freedom Fighter
Strength 2d+2
Agility 2d+2
Awareness 2d+0
Will 2d+2
Health 2d+1
Fate 0d+2

Skill rolls:
First aid 3d+0
Melee weapons 2d+2
Projectile weapons 2d+2

Gear:
Anything they can find as a weapon
Improvised or stolen armor

An average person who has decided they have had enough, and is operating independently as a vigilante, or in a small, self-created resistance cell. Every city has a small number of people like this. Poorly equipped and trained, they are quickly killed or compromised, and just as quickly replaced by new malcontents. Provincial authorities have their habits and tendencies so well established that such groups without off-world help seldom last more than a few months. The few that do survive become *extremely* wary (and a bit more skilled), and an off-world cell might operate for months or years in an area before discovering the local cell's existence or being contacted by them.
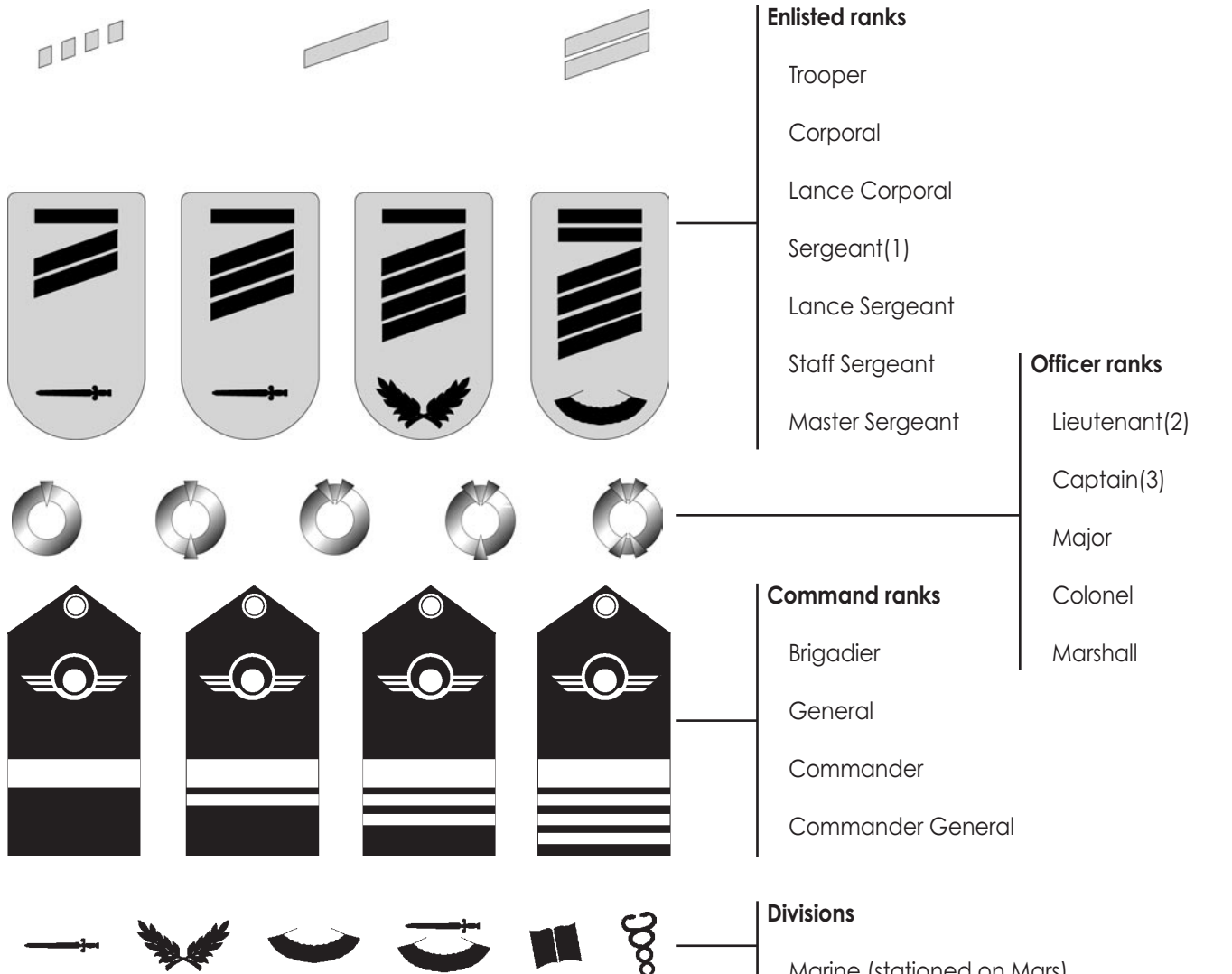
▼ **EXPERIENCE** - Experience points towards advancing an adventurer's abilities are awarded using the standard **EABA** rules (**EABA**, page 8.9). The use of experience to improve the adventurer may be limited by various abilities or game events. For instance, certain nanotech interferes with altering physical Attributes. Or, the gamemaster might say a new skill cannot be learned past the +0d level unless the adventurer is trained by someone else with the skill, and such a person might not be available on Earth or even Luna.

In addition to these things, **The Colonies** is all about goals, both campaign goals *and* personal goals. The players should be rewarded for moving towards these goals, and gain less experience or even lose experience for actions that would go against them. Setbacks *can* be from unexpected consequences or accidents. *Life isn't always fair*.

EXAMPLE: While fleeing local troopers in a stolen car, the adventurers lose control and crash into a crowd of ordinary citizens, killing two and wounding several. The cell's actions, through accident or possible recklessness, have caused great harm to the people they are trying to protect. The local collaborator-controlled media plays up the incident, going so far as to offer compensation to the families of those killed by the "terrorists" and a generous reward for information leading to their capture. This *will* have a negative impact on experience awards at the end of the adventure.

The players *should* write down personal goals for their adventurers. This might be a motivation that came up during random adventurer creation, or some aspect of personality or character that just seems right. It does not have to be anything, well, earthshaking, but it should be important enough that the adventurer's thoughts or actions have something to do with it every day. The player does not have to *explicitly* bring it up every play session, but it should be a part of how the adventurer acts and interacts with others.

EXAMPLE: An adventurer is an Earth-born freedom fighter, recruited by an off-world cell. Both their parents were hauled off in the middle of the night by goons, shipped to a labor camp and never seen again. Not only does the adventurer want revenge, they also have a serious attitude towards collaborators in general. This adventurer really has *two* personal goals: One, to find out what happened to their parents. Records are kept... somewhere. *Someone* knows what happened to them. The other goal is to retain their humanity, or regain what has been lost. *Even collaborators have children*. Will orphaning an innocent child advance the cause of the resistance, or ease the adventurer's pain?

ADVENTURING

Enlisted ranks

Trooper

Corporal

Lance Corporal

Sergeant(1)

Lance Sergeant

Staff Sergeant

Master Sergeant

Officer ranks

Lieutenant(2)

Captain(3)

Major

Colonel

Marshall

Command ranks

Brigadier

General

Commander

Commander General

Divisions

Marine (stationed on Mars)

Exotech(exotech and pilots)

Expeditionary (off-world militia)

Expeditionary Marine (off-world spec. ops)

Technical services

Medical services

Intelligence (no emblem)

(note that divisional emblems are in addition to rank, not ranks in and of themselves)

▼ **RANK** - Rank is the main form of the **Status** Trait (see page 2.12) that adventurers will be dealing with. While field operations may be informal, especially among long-time comrades in arms, cell members are still expected to adhere to standard protocols regarding rank, orders and adherence to the chain of command. The numbers in parentheses after a few of the ranks are the levels of Status that would be associated with that rank. Anyone the rank of major or higher would not be on the front lines on Earth unless there were exceptional circumstances. Insignia are of course, *not* worn on Earth. But it is possible to have adventures on Luna or even Mars, and insignia does let you know at a glance who you are dealing with and how you are supposed to interact with them. And for those artistic enough to make their own character sketches, it adds a nice finishing touch to the illustration.

GEAR

PROJECT ... SHEET

System Definition Document
for the
Human Research Facility (...)

M41A Pu... ifle
Standard issue assa...
10mm light autom...
...an underslung ...
...renade launcher.

10mm caseless APS rounds.
M40 HE grenades, HEDP (M38).
Baton and Chemical rounds.

All M41As come with IR laser targeting.
Option telescopic sight.

M7A3
R1OT
CS

69

"Dammit Jeffers, you're tough but you're not indestructible. Pull back, we're regrouping at point Charlie."

"Sarge, say again, transmission is breaking up. Am attempting to flank the provincials for a crossfire."

"Negative! And don't give me any of that 'transmission' bullcrap. We've got bad intel on this one, local source informs they've been issued anti-tank weapons. Pull back! Do you copy? Jeffers?"

- mission log, fragmentary

▼ **INTRODUCTION** - The rules presented here allow characters to design technological devices and abilities which are described in previous sections, such as biotech, nanotech, or implants. Following this is a listing of the stats for all the gear mentioned elsewhere in the rules.

▼ **PROJECTS** - Projects require certain skills, tools, and raw materials as noted in their descriptions. Once the materials and tools have been gathered, design and development can begin. Projects may be undertaken as prototype, documented, reverse engineering, or repair tasks.

Prototypes - Prototypes are projects which are constructed without previous design schematics. Prototypes are the most difficult to build and design due to the inherent lack of previous experience.

Reverse Engineering - Prototypes can also be based and tested on existing technologies which are disassembled and analyzed. Reverse engineering such technologies reduces the difficulty of the attempt.

Documented - Documented projects consist of ready made blueprints or design notes which provide considerable information and decrease the participant's work load. A prototype which has been successfully completed becomes a documented project to all of its participating personnel.

The Colonies

Tools - Each skill associated with a project can only be used if the appropriate tools are available. If the corresponding tool is not available the skill roll is at increased difficulty. If additional tools are required, they are listed with each project.

Project	Minimal tools
Algorithms	POM
Mechanical	Mechanical toolkit
Electrical	Electrical toolkit
Electronics	Electronics toolkit
Photonics	Photonics toolkit
Medicine	Field surgery kit
Chemical	Chemical laboratory
Genetic	Genetic laboratory
Civil	Civil construction equipment
Astro	Astro construction equipment

Repairs - Any time an item loses hits, you should probably look into getting repairs done. The time and cost involved depends on the item, what was damaged, and the facilities available for the repair. The simplest case is that it takes a time level of the item's hits plus ten to repair 1 hit of damage, and double that time for each hit after that. This repairs any *functional* damage. The cosmetic damage does not involve the hits of the item, and will take longer.

EXAMPLE: A car with 10 hits was in a minor accident and took 3 hits. A time level of 20 (10 hits plus 10) is 15 minutes. Double this twice for 3 hits makes 60 minutes. In one hour, a mechanic pulls the fender away from the wheel and replaces a punctured tire. The front end still *looks* bad, but everything works as good as new.

If you take less than the full amount of time, you get less repairs done. You get hits back in *reverse* order of time spent.

EXAMPLE: If you were in a hurry, the 3 hits on the car could be partially repaired. It takes 60 minutes to repair all 3 hits. It takes 30 minutes to repair 1 hit, and 45 minutes to repair 2 hits.

A skill roll is required for each hit repaired, with a difficulty of the item's total hits minus ten (with a minimum difficulty of 1). This skill roll requires the efforts of a number of people equal to 1 minus the value of the Strength adjustment for the item's mass (with a minimum of one person). The time modifiers for *poor* repair facilities and lack of repair crew will increase the difficulty of the roll in addition to increasing the time required.

Mass	Repair Crew
1 ton or less	1
2 tons	2
4 tons	3
8 tons	4
16 tons	5
32 tons	6
64 tons	7
125 tons	8
250 tons	9
500 tons	10
1000 tons	11

You use the *average* skill of the repair crew for making any repair rolls. Each doubling of repair crew may be used for a -2 difficulty on this roll instead of altering the time it takes. Similarly, you can also take double the listed time (+2 time levels) to get a -2 on the difficulty of the task. You can do repairs slower than normal to make it less difficult, but you *can't* do them faster than normal to make it more difficult.

EXAMPLE: A vehicle that masses 500 tons has a repair crew of 10. This means that a basic repair roll requires 10 people. A 500 ton vehicle has some *heavy* parts, and one person just isn't enough to get the job done. A 500 ton vehicle also has 28 hits, so it will have a base difficulty on the repair of 18. If the repair crew were 20 instead of 10, the difficulty could be dropped to 16, and if these 20 people took twice as long as normal, the difficulty could be dropped to 14.

There are plenty of modifiers on how long a repair will take.

Modifier	Repair time
Full repair facility	+0 time levels
Adequate repair facility	+2 time levels
Inadequate repair facility	+4 time levels
Barely adequate repair facility	+6 time levels
Jury-rigged repair	-4 time levels
All repair parts available	-2 time levels
Most repair parts available	+0 time levels
Reconstructed parts	+6 time levels
Sabotage repair	-2 time levels
Cosmetic repair	+6 time levels
Double repair crew (up to 4x)	-2 time levels
Down to one-half crew	+2 time levels
Down to one-quarter crew	+4 time levels
Down to one-eighth crew	+6 time levels

Repair facility - The quality of the repair facility or tools available in the field. A full facility is one designed around repairing that kind of vehicle or item damage. An adequate one is sufficient for the task or a *specific* repair, but not nearly as good or flexible. A tire jack is an adequate repair facility for repairing tire damage, especially in combination with "all repair parts available" (spare tire). Inadequate and barely adequate facilities go down from there, with barely adequate being the minimum level of tools and equipment you could imagine anyone being able to manage the repair with.

Jury-rigged repair - This is a repair that is just barely functional. The vehicle will still have at least 1 hit of damage on it, even after the repair. Any use of a specific system or gizmo that was damaged is at +4 difficulty. If the item takes *any* damage, a new "repair roll" will have to be made. If this roll is failed, the repair fails and the vehicle loses all the hits that were recovered and any systems or gizmos that were originally non-functional become that way again.

Parts - If it is just a matter of getting a part out of the spares bin and installing it, you have all the repair parts you need. If you have most of the parts, but have to customize or improvise to get all of them working, that is most of the parts. Reconstructed parts means you have a lot of broken bits, and have to piece together something that works out of a bunch of things that don't. If this modifier is used, no more than half the vehicle's hits can be repaired, and no more than half of any damaged gizmos or systems can be repaired, rounding up.

Sabotage - Damage from saboteurs is generally confined to a limited area, and this makes it easier to repair.

Cosmetic - It takes a while to undo the scrapes, burns, punctures, wrinkles and bends so that the vehicle or item looks as good as new. If you have all the repair parts available, this modifier is +0 time levels instead (when you replace the parts, it looks good as new).

Repair Crew - If you have more or less people than the normal repair crew, the repair will take a different amount of time. If you have less than one-eighth the people you need, the repair may be impossible.

EXAMPLE: An old truck (12 hits) has taken 3 hits of damage to the engine. The normal time for the repair of all 3 hits is a time level of 26 (22 for the base (hits plus ten), +4 time levels for the extra hits lost), or 2 hours, and will require a two person repair crew (1 plus 1 for the Strength modifier on a vehicle this size). The modifiers are "adequate repair facility" (+2 time levels), and "most repair parts available" (+0 time levels). The end result is still a time level of 28 (4 hours). The difficulty of the task is only a 4, so after 4 hours, the two mechanics have restored all the lost hits. The vehicle may still have some dents or bullet holes, but everything works.

Repair cost - The first hit of damage on a vehicle will have a repair cost equal to one thousandth of ton a vehicle mass (just the tonnage, not the hexagons), times a "distance" appropriate to the number of hits the vehicle has. Each hit after this doubles the cost.

EXAMPLE: An Atomic Era vehicle costs 4,000 Credits per ton, so the first factor would be one-thousandth this, or 4 Credits. A vehicle with 10 hits would see that a distance level of 10 was 64 meters. So, the cost for repairing 1 hit of damage is 4 Credits times 64, equals 256 Credits. Repairing 3 hits would double this twice, to a total repair cost of about 1,000 Credits. Repairing 1 hit on an Atomic Era vehicle that had 28 hits would be 4 Credits times 32,000, equals 128,000 Credits!

If a particular gizmo was damaged, add the cost of one ton of vehicle per ton of gizmo to the total repair (this is not doubled). Jury-rigged repairs are a quarter the normal cost. Repairs involving a full complement of *your* spare parts are also one-quarter normal cost, but you have to pay to replace them later. If they were someone else's spare parts, the repair is at normal cost.

The Colonies

Prototyping - Adventurers with the necessary skills can initiate projects which are worked on during or between missions. In order to start a project, time, money and materials must be spent. Items that can be built in **The Colonies** are generally those which are available elsewhere, and are *not* paranormal gadgets. They are built within the tech era(s) of the game and use known technologies. Adventurers are often just trying to build something that they can't get a hold of any other way. The time involved would be as for repairing *all* the hits in the object, with extra modifiers. If an item uses multiple modifiers of the same type, apply the average of them.

Modifier	Construction time
Item is Primitive Era	+0 time levels
Item is Basic Era	+2 time levels
Item is Industrial Era	+4 time levels
Item is Atomic Era	+6 time levels
Item is Post-Atomic Era	+8 time levels
Item is Advanced Era	+10 time levels
From scratch (no materials)	+6 time levels
Raw materials available	+4 time levels
Processed materials avail.	+2 time levels
Specific components avail.	+0 time levels
Prototype (first attempt)	+4 time levels
Reverse engineering	+2 time levels
Blueprints	+0 time levels

EXAMPLE: An adventurer in the wastelands wants to make an Atomic Era assault rifle out of scrap. From the **EABA** rules, a weapon of this type has about 4 hits. So, from the repair rules, the basic repair time is the item's hits (4), plus 10 time levels for the first hit, and double this time (2 more levels) for each hit after that. This is a total time level of 20, or 15 minutes. *Then we apply the construction modifiers.* It is an Atomic Era device, for +6 levels. Our builder has processed materials available for the rifle, but only raw materials for the propellant, for an average of +3 levels. This is their first attempt at the project, for +4 more levels. The total is +11 time levels, added to our original time level of 20, gives a time level of 31, or 11 hours. This isn't bad, but it also assumes the adventurer has a *full* repair facility, which in this case would be a full set of machine tools and some basic chemistry gear. Unlikely at best. If we say the tools available are barely adequate, this is +6 levels, making the total time level 37, or 4 days. The skill roll is normally a difficulty of 1, but the barely adequate tools make it +6. So, after four days of work, they get to make a difficulty 7 roll on their skill to see if they have a rifle...or a pile of metal scraps that looks like one.

Individual technologies may have their own quirks and special modifiers. Many items will require several skills to design and complete, and would use the *lowest* of the skills to determine success of the project. All prototyping or reverse engineering projects require *training* in all the skills involved. Default Attribute rolls are not enough. If blueprints are available, the project can conceivably be done using raw talent.

EXAMPLE: If a biotech implant required knowledge of Photonic, Mechanical *and* Biotech engineering, and the adventurer didn't have one of those skills, it would be very difficult to pull the project off.

Genetech - Genetech is built as though it had 15 hits. It is a complex undertaking, and the minimal level of tech it can be attempted at is Atomic Era. Without full facilities, all genetech counts as proto-types, and all genetech projects are tailored for *one* individual. Any genetech *prototypes* automatically have one aberration, plus one more if Atomic Era, but minus one if Advanced Era. Aberrations can be rolled randomly, using the table on page 3.9.

The desired genetech effect will occur even if the skill roll is failed by up to four points, but each two points the roll is failed by (round up) results in one aberration. Aberrations are not revealed until the gene therapy is attempted. The best that the creator can know is that a given level of tech will have a certain minimum and maximum number of problems.

EXAMPLE: A medically talented adventurer decides to whip up a genetic cocktail to give someone (someone desperate, apparently) a muscle enhancement. They have an inadequate Post-Atomic facility to attempt this. The base time level is 25 (15 "hits" plus 10).

The modifiers on time are Post-Atomic project (+8 levels), prototype (+4 levels) and inadequate facility (+4 levels). This gives us a total time level of 41, or 16 days. After 16 days worth of effort in the lab, the adventurer makes their skill roll. The difficulty is a base of 5 (15 "hits" minus 10), +4 for the inadequate facility and +8 more for the Post-Atomic tech. This is a final difficulty of 17 to get it done with only one aberration, but a roll as low as 13 will still succeed, at the cost of a total of three aberrations.

Reverse engineered or blueprinted genetech will have zero aberrations on a successful skill roll.

Nanotech - Nanotech is built as though it had 22 hits. It is a *very* complex undertaking, and the minimal level of tech it can be attempted at is Post-Atomic Era. The only project within understanding of human science is constructing POMs, and this is virtually impossible in the field unless some fragmentary POM nanotech is already available.

Algorithms - Not an item *per se*, but a construction project nonetheless. Count as an object with 15 hits, and a minimum tech of Atomic Era. A POM counts as an adequate repair facility and +0 for parts, and a POM hooked to the Link counts as a full repair facility, with possible minuses because desired subroutines may have to be derived from others or designed from scratch. The basic project gives an algorithm with the basic capabilities (+1d to skill or 3d+0 skill roll).

EXAMPLE: A basic algorithm composed by an adventurer with a POM, but not hooked to the Link would be a basic time of 25 (15 "hits" plus 10), +2 for adequate facilities, equals 27, or 3 hours. This is a Post-Atomic tech item, for +8 levels, and there are no other modifiers, so the time level is 33, or one day. The skill roll to do the project right is a base of 5 (15 "hits" minus 10), +2 for the adequate facility and +8 for the Post-Atomic tech, is a final difficulty of 15.

Atomic Era algorithms would be -1d on each capability. Each +1 on either roll is +4 time levels in the construction. An autonomy is +8 time levels to program. Realistically, autonomies are complex enough that a photonic optic combine (not a POM) is required to assist in the programming task.

EXAMPLE: An algorithm with a +2d to user skill or a standalone skill roll of 4d+0 would be +12 time levels, or take 64 times as long as the basic model.

▼ **Note!** - All prototyping rules apply only to the gameworld of **The Colonies**. Use them elsewhere at your own risk.

Biotech - Implants are built as any other device, using a number of hits appropriate to the item. Construction of artificial limbs requires at least Atomic Era tech, and other implants require Post-Atomic Era or better components. The actual implantation or attachment of biotech is a Hard(11) medical task, and will usually result in at least 1 lethal hit being taken from any surgery involved. All prototype biotech will have a signature two points easier to spot than normal, as will Atomic Era biotech.

EXAMPLE: An adventurer is trying to make an Atomic Era bionic arm from electronic and mechanical scrap. This would be the equivalent of a field grade unit, which has 5 hits. The base time level would be 15 (5 hits plus 10) for the first hit, and +2 levels for each hit after that (+8 more), for a base time of 23. However, this is an Atomic Era (+6) proto-type (+4), made with an adequate tool set (+2) from processed materials (+2), for a total time level of 37 (4 days).

Weapons - Built as any other device. May include skill rolls from several disciplines, depending on the weapon.

Armor - Built as any other device. May include skill rolls from several disciplines, depending on the armor. Energy fields can only be built in the field if enough fragmentary nanotech is still available from the semi-alien devices.

Exotech - Built as any other device. May include skill rolls from several disciplines, depending on the capabilities. The minimum tech era for exotech is Atomic Era. All exotech built in the field would be counted as the stats of the improvised units, which are built from Post-Atomic era scraps and bits of tech found, bought, stolen or scavenged. Units built with Atomic Era materials are barely worth the effort.

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Biology - Drugs or medical compounds can be made in the field using available chemicals or those derived from plants or animal sources. This a very broad classification of effects, but in general, they would be designed as though they had a number of hits equal to the maximum die pips of effect (6 hits per 1d), plus 1 for each time level past 20 the effect is supposed to last.

EXAMPLE: A drug designed to give a -2d to Agility rolls for an hour would count as something that had 12 hits (for 2d effect), plus 4 more for the time level of 24 (4 more than the base), for a design of "16 hits".

Compounds designed to counter something else require analysis of the first agent, which often requires more sophisticated facilities than those needed to make the antidote itself!

Chemical - Explosives and other industrial compounds can be manufactured in the field. Explosive compounds are available at any era from Basic on up, and would use **EABA** numbers for their effect, with a number of hits appropriate to the quantity. NDC *cannot* be manufactured without full facilities. Shaped charges are +2 difficulty to make and require Atomic Era or better explosive compounds in order to function. Note that some devices using chemicals may have multiple manufacturing steps.

EXAMPLE: An incendiary grenade has both a bursting charge and an incendiary compound. Normally, the roll to make a grenade would be a single roll, but the gamemaster may require the adventurer to go to multiple sources to find the raw materials, or apply a +2 difficulty to reflect two separate manufacturing steps.

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Industrial Era Weapons

Name	Uses	Accuracy	Damage	Shots Held	Weight	Cost	Armor	Hits	Notes
Improvised pistol	8mm bullet	1	2d+0	6 internal	1.1kg	60Cr	1d+2	2	Unreliable
Improvised rifle	6mm bullet	2	4d+0	10 clip	4.1kg(.1)	90Cr	2d+0	4	Unreliable
Improvised shotgun	18mm bullet	2	2d+2	6 internal	4.1kg	90Cr	2d+0	4	Unreliable

Atomic Era Weapons

Name	Uses	Accuracy	Damage	Shots Held	Weight	Cost	Armor	Hits	Notes
Improvised pistol	8mm bullet	1	2d+1	15 clip	1.3kg(.3)	120Cr	1d+2	2	
Improvised rifle	6mm bullet	2	4d+2	12 clip	5.3kg(.3)	300Cr	2d+0	4	
Improvised autorifle	6mm bullet	2	4d+1	30 clip	5.8kg(.8)	500Cr	2d+0	4	Autofire
Improvised shotgun	18mm bullet	2	3d+0	10 clip	4.2kg(.2)	250Cr	1d+2	3	Shotgun damage

Post-Atomic Era Weapons

Name	Uses	Accuracy	Damage	Shots Held	Weight	Cost	Armor	Hits	Notes
Terrel Labs No.1	10mm bullet	1	3d+1	15 clip	.9kg(.1)	350Cr	1d+1	2	
Terrel Labs Lo-cal	10mm bullet	2	3d+2	20 clip	1.2kg(.2)	700Cr	1d+1	2	
Kresmeyer KP5	10mm bullet	2	3d+2	50 clip	1.9kg(.4)	1000Cr	1d+1	3	Autoburst
Simtek 150	10mm bullet	2	3d+1	50 clip(x2)	2.3kg(.4)	1400Cr	1d+2	3	Autofire
Simtek XS(.1)	electricity	2	2d+1	12 internal	.7kg	750Cr	1d+0	2	
Clark L30(.3)	electricity	2	2d+2	25 clip	1.3kg(.3)	1500Cr	1d+0	2	
Clark L30 police(.3)	electricity	2	2d+2	25 clip	1.3kg(.3)	2200Cr	1d+0	2	Autoburst
Yamato Razor 5(.6)	electricity	3	3d+2	25 clip	1.6kg(.3)	2800Cr	1d+0	2	
Yuravitch ML6000(1)	electricity	2	3d+1	50 clip	1.6kg(.6)	1500Cr	1d+0	2	
Conrad ELS pistol(.4)	electricity	1	3d+0	25 clip	1.0kg(.2)	200Cr	1d+0	2	Non-lethal
Kresmeyer KR14	10mm bullet	3	4d+0	70 clip	3.5kg(.5)	1700Cr	1d+2	3	Autofire, autoburst
Clark M2	7mm bullet	3	6d+0	70 clip	4.7kg(.7)	2700Cr	1d+2	3	Autofire, autoburst
Clark M14	7mm bullet	3	6d+0	50 clip	4.5kg(.5)	2700Cr	1d+2	3	Autofire, autoburst
Simtek X10(2)	electricity	3	4d+1	50 clip	3.4kg(.4)	3400Cr	1d+1	2	Autoburst
Yuravitch SN(2)	electricity	5	5d+0	25 clip	5.3kg(.3)	12KCr	1d+1	3	Autoburst
Clark L500(2)	electricity	3	4d+2	25 clip(x2)	4.6kg(.3)	4500Cr	1d+1	3	Autoburst
Gonsalez Mk4(4)	electricity	3	5d+0	40 clip(x2)	6.0kg(.5)	5700Cr	1d+1	3	Autoburst
Conrad ELS carbine(2)	electricity	2	4d+1	50 clip	2.3kg(.3)	750Cr	1d+0	2	Non-lethal, burst
Gons. Plasma Gun(4)	electricity	2	5d+2 explos.	12 clip	5.3kg(.3)	15KCr	1d+1	3	Lethal explosion
Simtek 227	9mm bullet	3	6d+2	70 clip(x2)	8.1kg(1.1)	4600Cr	2d+0	4	Autofire, autoburst
Simtek 227sn	9mm bullet	5	6d+2	70 clip(x2)	8.1kg(1.1)	10KCr	2d+0	4	Autofire, autoburst
Simtek EPMG	12mm bullet	3	8d+0	200 belt	48kg(16)	9200Cr	2d+1	7	Autofire
Clark L1000(60)	electricity	3	7d+1	200 clip	48kg(16)	18.1KCr	2d+0	6	Autofire
Yuravitch LLMG(35)	electricity	3	6d+2	200 clip	18kg(6.0)	6800Cr	2d+0	5	Autofire
Anti-vehicle rocket	rocket	3	10d+1	1 internal	6.0kg	9200Cr	1d+2	4	Plus 4d+2 explosion
Anti-aircraft rocket	rocket	4	4d+0 explos.	1 internal	6.0kg	20KCr	1d+2	4	Skill of 4d+0
Collab. pistol	9mm bullet	1	3d+0	25 clip	1.1kg(.1)	450Cr	1d+2	2	
Collab. machine pst.	9mm bullet	1	3d+0	50 clip	1.5kg(.3)	840Cr	1d+2	2	Autofire
Collab. riot gun	20mm bullet	2	3d+1	10 clip	3.2kg(.2)	1000Cr	1d+2	3	Shotgun damage
Collab. assault rifle	8mm bullet	2	5d+2	50 clip	5.6kg(.6)	1700Cr	1d+2	3	Autofire
Pulse detonator(4)	electricity	2	5d+1 explos.	12 clip	4.5kg(.5)	8000Cr	1d+1	3	Lethal explosion
Collab. MG	13mm bullet	3	7d+1	200 belt	30kg(10)	6700Cr	2d+1	6	Autofire

Advanced Era Weapons

Name	Uses	Accuracy	Damage	Shots Held	Weight	Cost	Armor	Hits	Notes
Streamer pistol(.7)	electricity	2	4d+2	15 clip	1.7kg(.4)	1700Cr	1d+2	2	
Streamer rifle(8)	electricity	3	7d+0	25 clip	4.5kg(.5)	3000Cr	2d+0	3	
Streamer MG(50)	electricity	4	8d+2	50 clip	40kg(8.0)	35KCr	2d+1	5	Autoburst

EXPLOSIVES

NAME	DAMAGE	DAMAGE TYPE	LENGTH	WEIGHT	COST	ARMOR	HITS	NOTES
Pipe bomb	3d+0	lethal explosion	-	.5kg	25Cr	1d+0	2	
Crude explosive	3d+2	half-lethal explosion	-	.5kg	25Cr	1d+0	2	
Frag grenade	3d+1	lethal explosion	-	.3kg	40Cr	1d+0	2	
Heavy blast grenade	5d+1	half-lethal explosion	-	.6kg	90Cr	1d+0	2	
Specialty grenade	-	special	-	.3kg	60Cr	1d+0	2	See page 3.21 for details
Stun grenade	4d+1	non-lethal explosion	-	.3kg	40Cr	1d+0	2	
Electrostun grenade	4d+1	non-lethal explosion	-	.3kg	50Cr	1d+0	2	
Plasma grenade	3d+2	lethal explosion	-	.3kg	50Cr	1d+0	2	
Anti-vehicle grenade	10d+0	lethal	-	1.0kg	150Cr	1d+0	2	plus 4d+0 half-lethal explosion
NDC	5d+0	half-lethal explosion	-	.5kg	100Cr	1d+0	2	

MELEE WEAPONS

NAME	DAMAGE	DAMAGE TYPE	LENGTH	WEIGHT	COST	ARMOR	HITS	NOTES
Combat knife	punch+0	lethal	short	.3kg	50Cr	1d+2	2	balanced
Brass knuckles	punch+1	half-lethal	short	.3kg	20Cr	1d+1	2	balanced
Club	punch+2	half-lethal	medium	1.4kg	170Cr	1d+1	3	balanced
Improvised club	punch+2	half-lethal	medium	1.6kg	-	1d+1	2	unbalanced
Shortsword	punch+1	lethal	medium	1.1kg	140Cr	1d+2	3	balanced

PERSONAL ARMOR

NAME	ARMOR	COVERS	WEIGHT	COST	NOTES
Street clothing	none	all	2.0kg	100Cr	What you wear to blend in
Badlands improvised	2d+2	head	1.1kg	30Cr	Made from bits of whatever is available
	2d+2	body	3.5kg	80Cr	
	2d+2	arms	2.2kg	60Cr	
	1d+2	legs	2.2kg	100Cr	
Collaborator police armor	4d+0	body	3.5kg	150Cr	Metalloplastic composite
Collaborator police helmet	4d+0	head	1.1kg	60Cr	Metalloplastic composite
Collaborator riot armor	4d+1	head	1.4kg	75Cr	Metalloplastic composite
	5d+0	body	7.0kg	300Cr	
	4d+0	arms	2.2kg	60Cr	
	3d+0	legs	2.2kg	100Cr	
Virimar special forces armor	5d+1	head	1.1kg	150Cr	Metallocrystal composite
	5d+2	body	5.6kg	1000Cr	
	5d+0	arms	2.2kg	250Cr	
	4d+0	legs	2.2kg	400Cr	
MDF composite armor	4d+1	head	1.1kg	40Cr	Nanofiber composite
	4d+2	body	4.4kg	200Cr	
	4d+0	arms	1.7kg	60Cr	
	3d+0	legs	1.7kg	80Cr	
MDF alloy armor	5d+0	head	1.4kg	70Cr	Not authorized for Earth deployment
	5d+1	body	5.6kg	300Cr	
	5d+0	arms	2.8kg	80Cr	
	4d+1	legs	3.5kg	100Cr	
Exotech liner	1d+0	all	1.4kg	100Cr	Counts as layered (**EABA**, page 4.9)
Grade 1 exotech(40)	4d+1	all	90kg	30KCr	Not authorized for Earth deployment
Grade 2 exotech(40)	5d+2	all	110kg	37KCr	Not authorized for Earth deployment
Grade 3 exotech(60)	6d+2	all	140kg	50KCr	Not authorized for Earth deployment
Energy field(2)	2d+0	all	1.0kg	1000Cr	Counts as layered (**EABA**, page 4.9)
Ablative coating	+1d	all	+1.5kg	+50Cr	Against laser or plasma weapons

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NAME	WEIGHT	COST	ARMOR	HITS	NOTES
Light enh. goggles(1)	.3kg	1000Cr	1d+0	2	2d+0 sight Awareness limit, uses 5 energy per hour
Targeting overlay(1)	.2kg	200Cr	1d+0	2	See page 3.29
Binoculars	.3kg	100Cr	1d+0	2	Subtract 6 from range difficulty
Macronocs(1)	.4kg	200Cr	1d+0	2	Subtract 8 from range difficulty, uses 10 energy per hour
Wrist communicator(1)	.2kg	200Cr	1d+0	1	Range between units of about a kilometer, several kilometers with a repeater station. Uses 10 energy per hour when transmitting, 1 per hour on standby.
Repeater station(20)	10kg	2000Cr	1d+2	4	Used to increase range of wrist communicators. Designed to tap into power mains, but can operate independently. Uses 50 energy per hour in active use, 10 per hour on standby.
Flashpack(1)	.2kg	30Cr	1d+0	2	Negates darkness penalties in a 60°arc out to 15 meters, -2d penalty per range band after this. Uses 10 energy per hour.
Sunpack(1)	.3kg	50Cr	1d+0	2	Negates darkness penalties in a 360°arc out to 15 meters, -1d penalty per range band after this. Uses 200 energy per hour.
Mobile sunpack(2)	1.0kg	200Cr	1d+0	2	Can hover or move at a walk. Negates darkness penalties beneath it out to 30 meters, -1d penalty per range band after this. Uses 400 energy per hour.
Respirator	.5kg	100Cr	1d+0	2	Can also be underwater for up to 15 minutes.
Powercell	.1kg	1Cr	1d+0	1	Holds 210 energy. If an item is listed like "Item(2)", the number in parentheses is how many powercells it uses.
Fuel cell	2.0kg	100Cr	1d+1	3	Generates 3000 energy per hour, takes the place of 20 powercells, refill with 1.0kg fuel per 10 hours.
Ionic interfer. gen.(20)	25kg	2000Cr	1d+1	5	See page 3.29. Uses 2000 energy per hour
Sonic interfer. gen.(1)	.5kg	200Cr	1d+0	2	Gives a +6 difficulty to overhear conversations, uses 10 energy per hour.
Mechanical toolkit	10kg	2000Cr	1d+2	6	See page 3.29 and 5.2
Electronics toolkit	2.0kg	1000Cr	1d+0	3	See page 3.29 and 5.2
Photonics toolkit	2.0kg	2000Cr	1d+0	3	See page 3.29 and 5.2
Medical field kit	2.0kg	2000Cr	1d+0	3	See page 3.29. Replacement supplies are 1.0kg & 1000Cr
Mech shop	150kg	10KCr	2d+1	10	See page 3.30 and 5.2
Contractor shop	1000kg	15KCr	2d+2	13	See page 3.30 and 5.2
EM sensor, portable(1)	.2kg	100Cr	1d+0	2	Has a rating of 1 or 1d+0. Uses 5 energy per hour.
EM sensor(3)	1.0kg	500Cr	1d+1	2	Has a rating of 4 or 2d+0. Uses 10 energy per hour
Biosensor, portable(1)	.2kg	100Cr	1d+0	2	Has a rating of 1 or 1d+0. Uses 5 energy per hour.
Biosensor(3)	1.0kg	500Cr	1d+1	2	Has a rating of 4 or 2d+0. Uses 10 energy per hour
Motion sensor, port.(1)	.2kg	50Cr	1d+0	2	Has a rating of 1 or 1d+0. Uses 5 energy per hour.
Motion sensor(3)	1.0kg	250Cr	1d+1	2	Has a rating of 4 or 2d+0. Uses 10 energy per hour
POM unit(1)	.5kg	5000Cr	1d+2	2	See page 3.23
Field rations	.5kg	10Cr	1d+0	2	Tasteless but complete nutrition for one day.
Survival kit(1)	2.0kg	100Cr	1d+0	3	Knife, emergency blanket/shelter, firestarter, water purification, bandages, antibiotics, canteen, compass, smoke flare, one field ration

The Colonies

INDEX

Directional microphones
Night vision interface
Heads-up display
Neck armor

EABA™

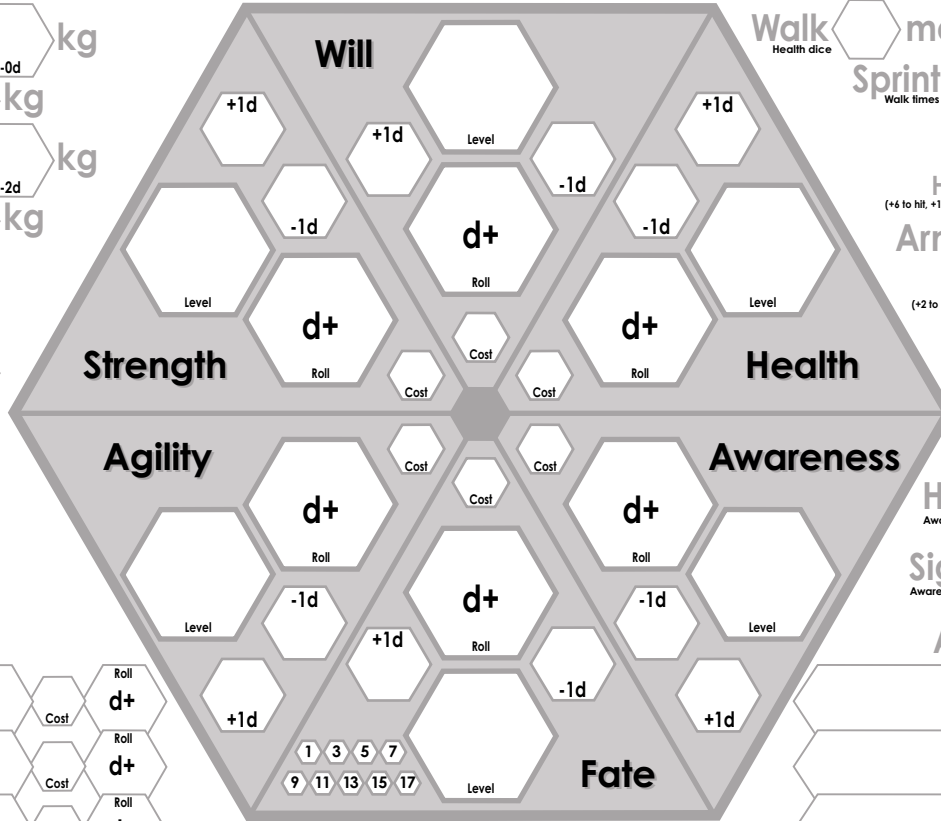### Blacksburg Tactical Research Center

Name

Home

Brief description

Goals

Encumbrance

Less than kg
One-eighth maximum — -0d

Up to kg
One-quarter maximum — -1d

Up to kg
One-half maximum — -2d

Up to kg
Maximum from chart — -3d

Punch d+
Strength roll - 1d

Kick d+
Strength roll

Dodge +
Agility *dice* times 2

Will
+1d +1d Level -1d
-1d d+ Roll
Level
d+ Roll
Cost

Strength
Cost

Health
+1d -1d Level
d+ Roll
Cost

Agility
d+ Roll
-1d Level
+1d
d+ Level

Awareness
Cost
d+ Roll
-1d Level
+1d

Fate
d+ Roll
+1d
-1d
1 3 5 7
9 11 13 15 17
Level

Walk meters — Health dice
Run — Walk times 2
Sprint — Walk times 3

Head d+ 3-6 (+6 to hit, +1d damage)
Arms (+4 to hit, -1d damage)
Armor
Body d+ 7-8 (+2 to hit, +0d damage) d+ 9-12
Legs d+ 13-18 (+2 to hit, -1d damage)

Hearing roll d+
Awareness roll

Sight roll d+
Awareness roll

Agility skills

Roll d+	Cost
Roll d+	Cost
Roll d+	Cost
Roll d+	Cost
Roll d+	Cost
Roll d+	Cost
Roll d+	Cost
Roll d+	Cost

Other skills

Roll d+	Cost
Roll d+	Cost
Roll d+	Cost
Roll d+	Cost
Roll d+	Cost
Roll d+	Cost

Attribute used

Awareness skills

Roll d+	Cost
Roll d+	Cost
Roll d+	Cost
Roll d+	Cost
Roll d+	Cost
Roll d+	Cost
Roll d+	Cost
Roll d+	Cost

Character traits | Value

	A/ S
	A/ S
	A/ S
	A/ S
	A/ S
	A/ S

Campaign base A S **Total** A/ S

Important equipment | Mass

	kg
	kg
	kg
	kg
	kg
	kg

Cash on hand Cr **Total** kg

Hits
1	-0d
2	
3	
4	
5	-1d
6	
7	
8	
9	-2d
10	
11	
12	
13	-3d
14	
15	
16	
17	-4d
18	
19	
20	
21	-5d
22	
23	
24	
25	-6d

Adventurer			Basic campaign notes	
	A	S		
Base points				
Attributes				
Skills				

Traits	A	S	Stuff	Weight	Cost	Hits	Notes	At hand	Carried	Packed
				kg	Cr			☐	☐	☐
				kg	Cr			☐	☐	☐
				kg	Cr			☐	☐	☐
				kg	Cr			☐	☐	☐
				kg	Cr			☐	☐	☐
				kg	Cr			☐	☐	☐
				kg	Cr			☐	☐	☐
				kg	Cr			☐	☐	☐
				kg	Cr			☐	☐	☐
				kg	Cr			☐	☐	☐
				kg	Cr			☐	☐	☐
				kg	Cr			☐	☐	☐
Total				kg	Cr			☐	☐	☐

Ranged weapons	Uses	Accuracy	Damage	Shots Held	Weight	Cost	Armor	Hits	Notes	At hand	Carried	Packed
			d+		kg	Cr				☐	☐	☐
			d+		kg	Cr				☐	☐	☐
			d+		kg	Cr				☐	☐	☐
			d+		kg	Cr				☐	☐	☐

Melee weapons	Damage	Damage type	Length	Weight	Cost	Armor	Hits	Notes	At hand	Carried	Packed
	d+			kg	Cr				☐	☐	☐
	d+			kg	Cr				☐	☐	☐
	d+			kg	Cr				☐	☐	☐
	d+			kg	Cr				☐	☐	☐

Miscellaneous	Personal armor	Armor	Covers	Weight	Cost	Notes	Always	Combat	Packed
		d+		kg	Cr		☐	☐	☐
		d+		kg	Cr		☐	☐	☐
		d+		kg	Cr		☐	☐	☐
		d+		kg	Cr		☐	☐	☐
	Game events								

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