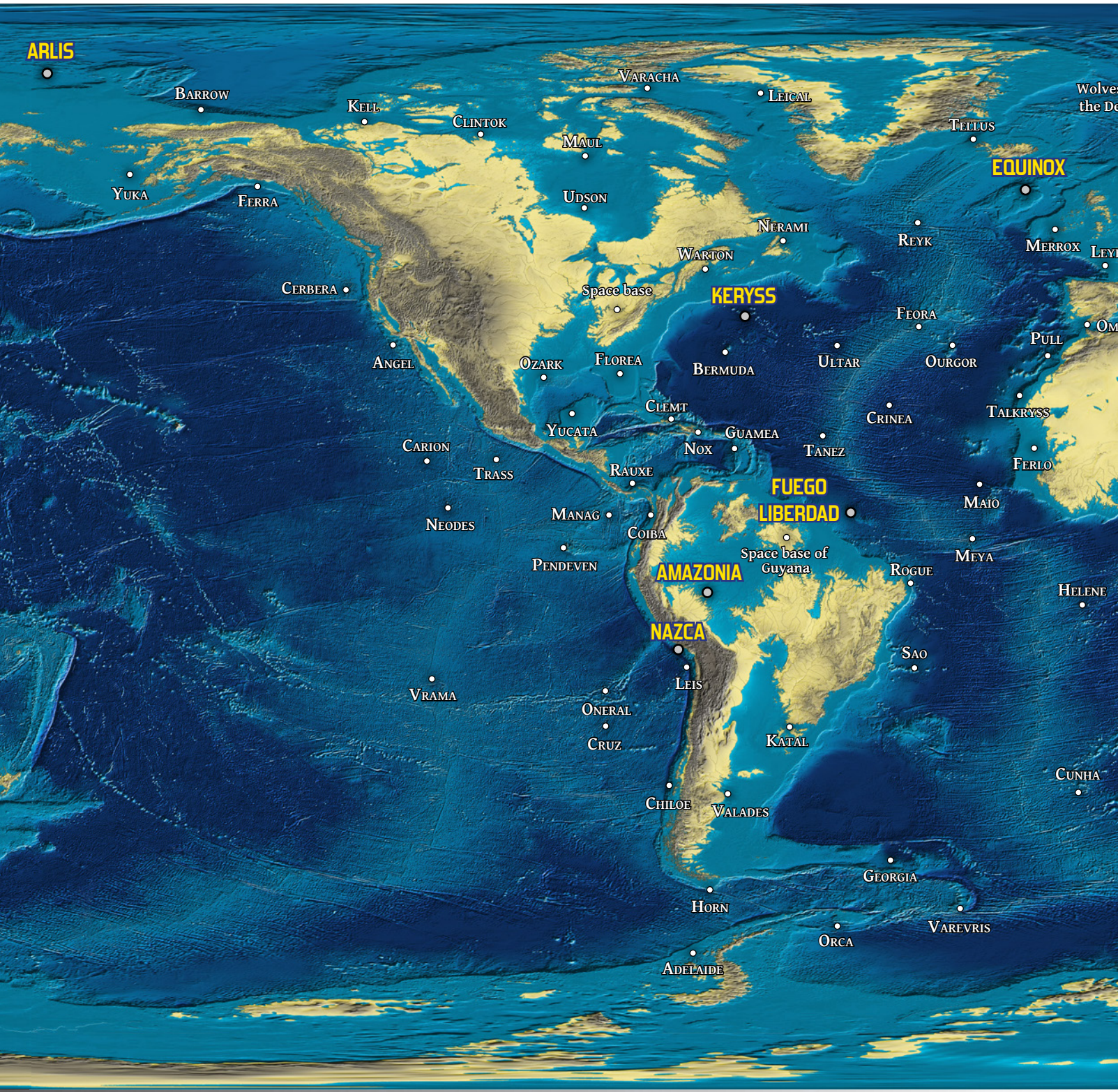
POLARIS™

THE ROLEPLAYING GAME



CORE RULEBOOK 2

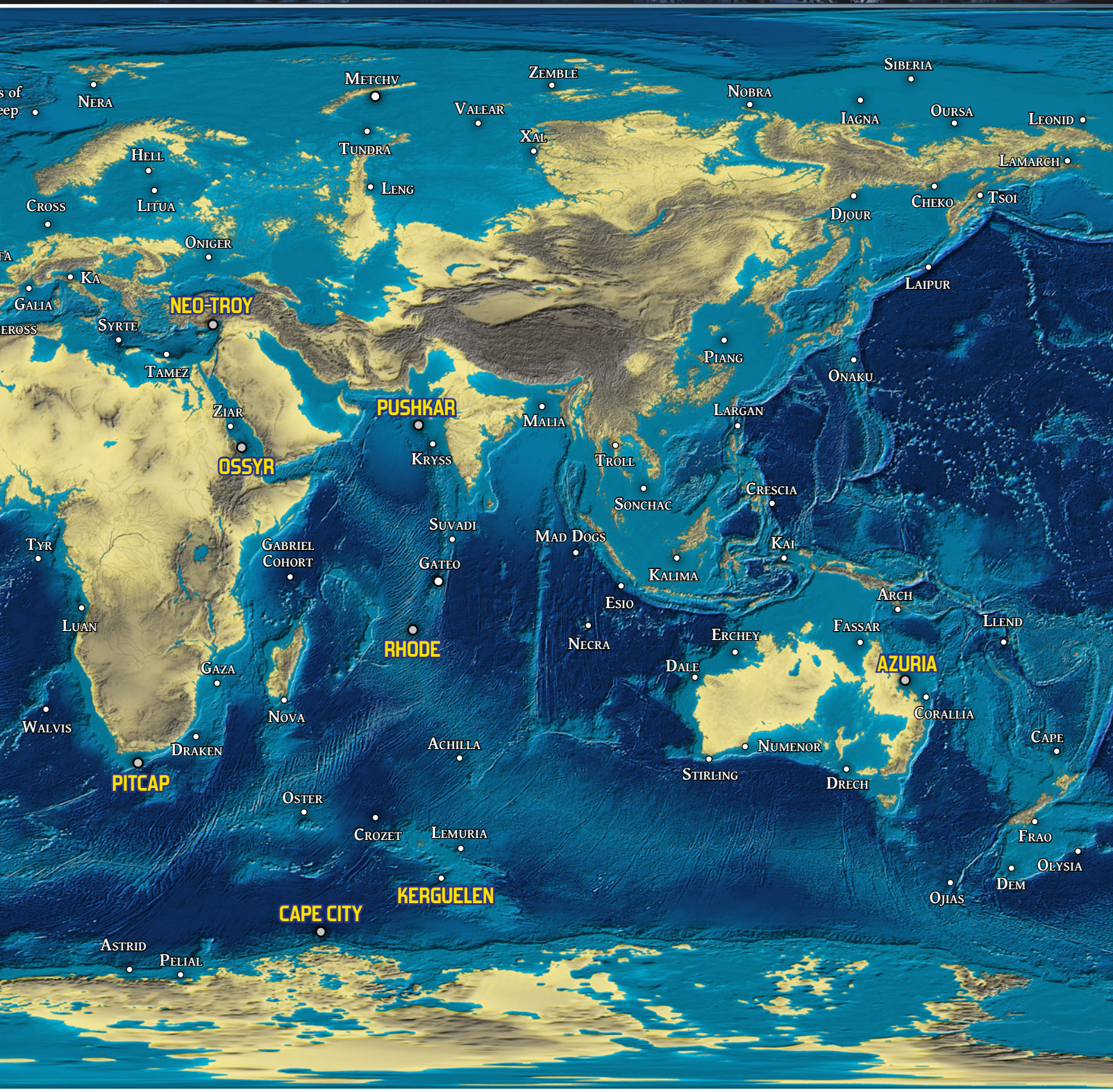
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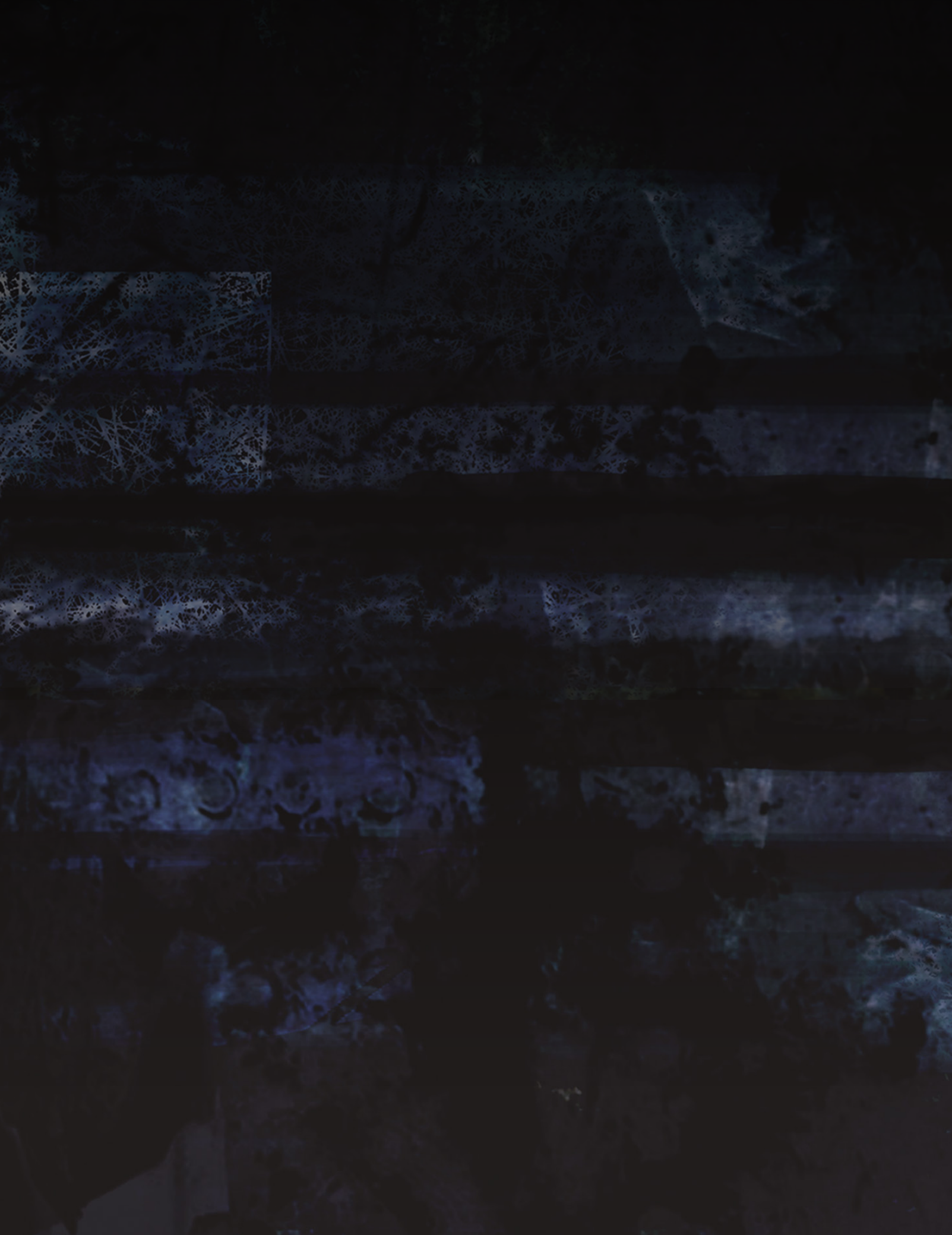


CAPTIONS

- Communities / Cities
- CAPITAL CITIES

COMMUNITIES & CITIES







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POLARIS™

THE ROLEPLAYING GAME

CORE RULEBOOK: 2

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CHAPTER FOUR

TECHNOLOGY

CHAPTER 4.1

GEAR

"Getting your hands on the right gear is no easy task, even on the black market. There are way too many crooks who'll sell you stuff that'll break down after just a few days, and the really good quality, brand-new stuff is only available to the armed forces. So, if one day you come across a really good fence, make sure you treat him real good, because it could very well save your life.

—Statement from an adventurer in Equinox



ACQUIRING AND MANAGING YOUR GEAR

In the world of the *Polaris RPG*, there are several levels of technology when it comes to gear, from the most primitive to the most elaborate. In the vast majority of stations, however, the equipment is usually pretty old, well-used, and the technology is quite basic. The inhabitants mainly survive by tinkering and reusing their equipment—it's not like you can count on finding Genetician or Azurean artifacts on every street corner, or any of the military technologies that are only used by the larger nations. Although the science of the Azureans remains fairly understandable for contemporary engineers, Genetician science is completely beyond their understanding. From intelligent metals that communicate with each other and self-duplicate, to the science of changing the state of matter, we are still a long way from having even barely grasped the technology of those who were once the masters of this world.

The Technology Level (TL), as its name suggests, describes the advancement level of the technology of a piece of equipment or material. Often, the higher the TL, the more difficult the equipment will be to produce and the more expensive it will be to obtain. A society with a given Technology Level can produce material of a lower Technology Level but rarely of a higher level. These are the Technology Levels that you can come across:

- **TL I:** out-of-date technology.
- **TL II:** current technology, that of our world. In some stations, you can find a slightly more evolved technology that could be classified as a technology II+.
- **TL III:** advanced technology, the normal Technology Level for the world of the *Polaris RPG*.
- **TL IV:** high technology, rare and very expensive, usually only available to the great nations.

- **TL V:** Azurean technology, based on that of the Geneticians and of the Azure Alliance. It was mainly used between the year 150 and the year 400 for the construction of cities, such as Equinox.
- **TL VI:** known Genetician technology (as well as some of the Azurean technologies). This kind of technology can still be found randomly, during a search, for example. However, it is impossible to reproduce, and not always possible to use this kind of technology.
- **TL VII:** unknown technology (Genetician or other).

INTEGRITY OF THE GEAR

LEVEL OF INTEGRITY AND STATE OF THE GEAR

The Integrity (ITG) of a piece of gear is a measure of the general state of the equipment and its reliability. This Attribute is graded on a scale of 25:

- **21–25. Gear in perfect condition:** this object is as good as new, and poses no risk of breaking down. Furthermore, its excellent condition provides a bonus of +2 for the Tests of the character who is using it.

Risk of breakdown: *only in special circumstances—an attack that uses an electromagnetic impulse, for example (never when rolling a Catastrophe).*

- **16–20. Gear in good condition:** this kind of gear only has a minimal risk of breaking down.

Risk of breakdown: *only when a Catastrophe occurs.*

- **11–15. Gear in average state:** this object has been well-used already, but it is still in an useable state. The risk of it breaking down is always present, although not very critical.

Risk of breakdown: *when a Catastrophe occurs, or during intensive or unusual use.*

- **6–10. Well-worn gear:** this object is worn out and in bad condition. If this is applicable, its use will apply a penalty of -3 (a weapon will be less precise, a piece of technological gear will be less efficient, etc.). The risk of it breaking down is fairly high.

Risk of breakdown: *when a Catastrophe occurs, or during intensive or unusual use.*

- **1–5. Damaged gear:** this piece of equipment is in a very bad condition and does not work well at all. If this is applicable, the character who is using it should receive a penalty of -5. With gear in this kind of condition, breakdowns are frequent occurrences.

Risk of breakdown: *on a simple failure (systematic breakdown during intensive or unusual use).*

- **0 or less. Unusable gear:** this piece of equipment no longer works. You can always try to fix it, but it won't necessarily be an easy task. On the other hand, it is possible to take it apart and use the spare parts.

You should bear in mind that not all gear starts its "life cycle" with an Integrity of 25, even when it's brand new. That kind of level is reserved for very well-made objects, produced by well-known companies or artisans, and they are extremely rare. More modest products, or those made on the cheap with low-quality materials, will begin with a much lower Integrity, and this will therefore be their **Maximum Integrity**. Here is an approximate scale of the level of gear quality, depending on its Maximum Integrity:

- **Lowest quality:** max. ITG 5.
- **Low quality:** max. ITG 10.
- **Standard quality:** max. ITG 15.
- **Good quality:** max. ITG 20.
- **Excellent quality:** max. ITG 25.

The level of Integrity of a piece of equipment can vary either temporarily or permanently: it will become lower if the gear is damaged or breaks down, and it can increase when the gear receives maintenance or repairs. Therefore, this Attribute can be displayed as two figures; for example, "12/15," where the first number is the current Integrity (which suffered a decrease due to bad treatment in this case), and the second is the maximum Integrity, which depends on the object's basic quality, and can also decrease over time through natural wear and tear.

Note on the ITG : in an adventure, the ITG will often be needed to test a drone, a robot or a technological equipment when it is affected by an EMP attack. If the ITG of a robot or equipment is not specified, use an ITG of 20 or determine it yourself.

BREAKDOWN TESTS

Nobody is immune to technological gear breaking down while it's in use. If you want to, you can use the indications in the previous section to determine the risks of the gear breaking down, depending on the results of the Tests or the situation. Some specific attacks, such as attacks based on electromagnetic impulses, can automatically require that all electronic devices submit to a Breakdown Test.

Every time that a piece of equipment is at risk of breaking down, **the Player must roll a score lower than the object's Integrity on 1D20**. If he succeeds, nothing happens. If he fails the Test, the object breaks down: it loses 1 Integrity point and stops working, but it can be repaired by performing a Test with the Skill that is relevant to the use of the object (for example *Handguns* for a jammed pistol, *Computing* for a computer that needs fixing, etc.). If no specific Skill really applies (in the case of simple objects, for example), carry out an Intelligence Test (or a Coordination Test, depending on the situation). The time required for the repair depends on the complexity of the object (example: 1D6 Combat Rounds for a weapon and 1D6 x 10 minutes for a computer, a vehicle, etc.).

If the result of the Breakdown Test is a Catastrophe, the object suffers a severe breakdown: it loses 1D6+1 Integrity points and stops working until it can be repaired by an expert technician (someone with a Skill in *Armory*, *Electronics*, *Mechanics*, etc.), in a workshop or a specialized lab. A weapon (a gun or a torpedo, for example) can even explode in this kind of situation (Integrity reduced to 0 or below).

WORK, DAMMIT, YOU PIECE OF JUNK!

When a device has broken down, it is always possible to give it a good kick, or shake it around madly, in the hope that it will start working again. This is a method that can prove to be useful in the middle of a combat, but which usually results in damaging the device even more. Then again, sometimes, there really isn't anything else to do. When a character uses this technique, the GM simply performs a Luck Test for him, with a penalty equal to the number of Integrity points that the object has lost so far. The object automatically loses 1 more Integrity point, whether the Test is a Success or not. If the Test result is a Success, the device miraculously works ! The Success Modifier indicates the number of Combat Rounds during which the device will continue to operate before it breaks down again.

WHEN SHOULD YOU REALLY TAKE THE STATE OF THE GEAR INTO ACCOUNT?

Many of the rules in this section are optional—you should only use them if you really want to manage the whole "recycling and tinkering" side of the *Polaris RPG* universe more precisely. It would, however, be time-consuming, pointless, and even impossible to keep a precise record of the state of every piece of equipment that the PCs have in their possession. However, here are a few situations where managing the state of the characters' gear can prove interesting...

First of all, when it comes to important technological equipment. This could refer to computing technology or high-tech electronics, but also essential weapons, tools, etc. The importance of one particular piece of equipment compared to another is mainly defined by the kind of campaign you are running and your group of PCs. A group of warriors will be well advised to own weapons and armor that are in a good condition, while a group of explorers will require a good-quality submarine or quality diving armors. In most cases, it is completely superfluous to manage the state of the simplest objects.

Secondly, if you are playing in a campaign. Indeed, when playing in the long term, paying attention to their gear, having to replace objects that have broken down, and looking for new equipment should usually be one of the main concerns for the characters. This is where the rules on the wear and tear of the equipment become interesting: nothing lasts forever, especially if you don't take care of it.

Last but not least, if it contributes to the atmosphere. Usually, of course, nobody cares about the state of a simple flashlight. But what happens if the character ends up—without having planned it—walking around the dark and creepy lower levels of Equinox, or the shadowy walkways of a sunken wreck, and the only thing he has available is this battered old torch? What would happen if the only weapon he can count on is his rusty old gun that he got from a convenient street beggar in exchange for a handful of dried-food packs?

As you can see, there is no point taking into account the state of all the gear all the time. All you need to do is to press where it hurts every now and again... Generally speaking, even if you do not want to manage all of this in a precise fashion, the Integrity of this or that object will allow you to get a general idea of its quality and you can improvise from that basis as the situation requires.

REPAIRING YOUR GEAR

Fixing your equipment is the only way to keep it in a good state of repair. In the world of the *Polaris RPG*, brand new equipment is very expensive: recycling, tinkering, and resourcefulness are the way to go. Repairing equipment can only be done by a professional; in other words, someone who can call upon specific technical Skills, for example *Armory*, *Craftsmanship*, *Mechanics*, *Electronics*, etc. Another consideration is that, in most cases, repairing an object takes quite some time. It is up to the Gamemaster to fix the exact amount of time, depending on the size and complexity of the object that needs repairing, as well as the loss of Integrity that it has suffered. Of course, the professional will need to have the correct tools—and in some cases a workshop—as well as any spare parts that may be required to replace faulty components (it is always possible to try and buy these, at a price defined by the GM depending on their availability).

REPAIR PENALTY

To repair an object of another TL, the Test will have a bonus or a penalty depending of the respective TLs of the repairer and object to repair. You can't repair an object if its TL is equal or higher than twice your TL. The penalty is doubled for TL VII equipment.

TL OF THE REPAIRER	TL OF THE OBJECT TO REPAIR						
	TL I	TL II	TL III	TL IV	TL V	TL VI	TL VII
I	-	-2	NA	NA	NA	NA	NA
II	+2	-	-2	-4	NA	NA	NA
III	+4	+2	-	-2	-4	-6	NA
IV	+6	+4	+2	-	-2	-4	-12
V	+8	+6	+4	+2	-	-2	-8
VI	+10	+8	+6	+4	+2	-	-4
VII	+12	+10	+8	+6	+4	+2	-

To repair an object, the character attempting the repairs must carry out a Test with the relevant Skill. If he succeeds, the Success Modifier indicates the number of Integrity points that the object recovers. Of course, it is not possible to increase the current Integrity above the object's Maximum Integrity (you should also remember that any permanently lost Integrity points cannot be retrieved). If the repairs were not enough to return all the object's lost Integrity points, it is possible to continue the repairs (and perform another Test), which will, of course, require more time. If the result is a Catastrophe, the repairs are a failure and the object permanently loses 1 Integrity point...

HARVESTING SPARE PARTS

Keeping or acquiring gear that is damaged or out of order is not as useless an activity as you may think. Indeed, these objects can provide spare parts that can help to repair an object that is in better condition. Whenever a character wants to harvest spare parts from this kind of object, he has to carry out a Luck Test (the negative Integrity score of an object in *Out of Order condition* acts as a penalty for the Test). If he succeeds, he manages to remove the part that he needs, and the device that it was taken from suffers a further decrease of 1D6 Integrity points. There is no need to carry out a Luck Test to harvest a spare part from a device that is in a better condition, but the device will no longer work, unless the harvested part is replaced. As time goes on, it is therefore possible to build up a stock of spare parts, by taking them from other pieces of equipment.

ACQUIRING GEAR

Weapons, armors, and diving vehicles are not all that hard to come by in the world of the *Polaris RPG*. Humanity is confronted with a hostile environment, which means that the population needs to be able to defend itself. The hard part, however, is managing to find equipment that is in good condition...

LEVEL OF AVAILABILITY (AVA)

Each object has a level of Availability, which serves as a measure of the ease with which the object can be found. The higher the level of Availability, the easier it will be to find the object, even at the least well-stocked dealers. On the contrary, a low level of Availability means that the equipment is not common and will be hard to find. Some extremely sensitive products even have a negative level of Availability! Here is a list of what the various levels of Availability mean, as well as an indication as to the time required to find the equipment.

- **20 and over:** Very common (available immediately).
- **15:** Common (available in 1D6 hours).
- **10:** Uncommon (available in 2D6 hours).
- **5:** Rare (available in 1D6 days).
- **1:** Very rare (available in 1D6 weeks).
- **-5:** Extremely rare (available in 1D6 months, or after a period defined by the GM. It will probably require playing a scenario just to find the people or places that will be able to provide this type of equipment).
- **-10:** Unobtainable (as above, except that one scenario may not be enough...).
- **-15 –or more:** In your dreams (as above).

Some items may have two levels of Availability—one for the legal market and one for the black market. The Availability Test, requiring a roll under the Availability level of the item on 1D20, allows the character to find out if it is indeed available to buy on one market or the other (see below for a more precise description of the procedure). Bear in mind that the GM can apply a Modifier to the Availability, depending on the location of the characters. It can be in the form of a penalty if the characters are looking for equipment in a small, isolated station (-3 to -7 in general). In a larger city, such as Equinox, the GM can, on the contrary, decide to apply a bonus (+3 to +5), as the traders in the city will have more stock. Finally, if the GM agrees to it, the characters' specific connections and actions (investigations, building of networks, bribes, etc.) can also allow them to obtain a bonus, as long as this is justified (this is the perfect occasion to act out a few scenes). This is often the only way to get your hands on especially rare items of equipment.

Note: any shortages of a category of equipment that may occur will be translated in game terms as a penalty on the Availability.

THE VALUE OF ITEMS

The prices of the products mentioned in the lists of gear are average prices, purely theoretical values. It is, of course, possible to haggle on the price, depending on the general condition of the object that you are trying to buy (remember that a crook can very well be trying to sell off an item in poor condition at an extortionate price...). Merchants are often willing to lower their prices, if the object has lost Integrity points from its new state... but haggling is just a part of the usual practice! It is a little game in which each party is trying to win. Don't forget that it is extremely rare to find brand-new or military-grade products on the public markets. These types of products are usually found on the black market.

Bartering is the preferred means of trading, even among merchants, as people often see objects themselves—easily and immediately useful—as being more valuable than currency. Generally speaking, trying to haggle based on an exchange of goods will always be more likely to succeed. The other advantage of trading goods is that it allows the characters to play out scenarios readily, using the relative value of the objects that seem more or less useful depending on where they are and who they are dealing with. For example, an object that is considered very useful is very easy to exchange, and can also easily be traded for more than its true value.

THE LEGAL MARKET

The levels of Availability and the prices given in the lists of gear refer to the value of the desired item on the legal market. Most of the time, it can only provide secondhand equipment, which has a considerably higher probability of breaking down. Brand new equipment is extremely rare to come by and, generally speaking, characters will need to look to the black market to find any. Indeed, the security services, the armed forces, and all the official organizations tend to keep the most recent products for themselves and then sell them off to the public when they are done using them. Although it is less reliable and more likely to break down than new equipment, secondhand gear is everywhere in the market stalls of all the ports under the oceans. Buyers have plenty of choice, but they should be wary of con artists, as they are a dime a dozen and some have become masters in the art of selling unusable goods. These scoundrels rapidly disappear once they have sold off all their goods and then travel to the next port where they will continue under a new identity. Here is the procedure that governs the acquisition of goods on the legal market:

1. **A character with the *Commerce/Trafficking* Skill** (with the specific Skill relevant to the type of product he is looking for) can, if he wishes, use his knowledge of the market. In this case, he should perform a Skill Test, and take a note, if applicable, of his Success/Failure Modifier.
2. **The GM carries out an Availability Test for the desired object** (applying, if relevant, a bonus equal to the Success Modifier obtained on the *Commerce/Trafficking* Skill Test). If the Test result is a Success, then the object is available at the end of the search period (see **Availability** above). If the Test result is a Failure, the GM can always allow the character to continue looking for the item (see step 4). If a Catastrophe occurs, the character comes across a crook...
3. **Any equipment bought on the legal market receives a randomly assigned Integrity** (see **Integrity of equipment at purchase** below). This represents the best value for money that the character could find at the end of the search period. If the item is as required, the character can purchase it (and haggle a bit if he wants to, depending on the condition of the equipment). If not, he can, if he so wishes, continue his search (step 4). This step is only useful if you are taking into account the state of the equipment.
4. **Continue the search:** if a piece of gear is not available, it may become available later on, depending on the incoming stock of the traders. If a character hasn't found the item that he was looking for, he can always continue looking, or he can wait for his suppliers to obtain new stock. In this case, he should simply start the process again at step 1.

As you can see, the search period required to find an object is an important element of the game. This represents the time spent visiting shops, comparing prices, asking questions, etc. to find the best possible quality. This search period can be slightly decreased by the GM, depending on the quality of the Success rolled on the Availability Test for the object. If a character is in a hurry, he can simply choose to buy in the first shop he comes across: in this case, the GM should feel free to reduce the Integrity of the purchased gear.

Bear in mind that a Supplier (see **Connections and Adversaries**, in the chapter on **Professions**, *CRB1* page 176) can provide important services, cutting the search period in half. This merchant can also keep items of gear for the character, or use his own network of contacts. Of course, you can only call on the services of a Supplier in the station or city where he works...

THE BLACK MARKET

The black market represents a major part of the sales of equipment. There is, however, no reason to go lurking around slummy and cutthroat areas to find your gear in this parallel market, unless you're looking for "sensitive" equipment—those who supply the black market are the same merchants who sell their wares in the legal market stalls. Generally speaking, a merchant will have two types of products available: those he proudly displays for all—most importantly, the agents of the security services—and the ones that he is hiding beneath his legal products. And then, there are also the individuals who have gear for sale off the books; in other words, 99% of the population...

The main advantage of the black market is that you can find new equipment there, or items that are forbidden to the general public. Gaining access to the products available on the black market, however, is not an easy thing, as merchants tend to be wary. The best way to do so is to use a Supplier, as he will know that he can (in general) count on the character's discretion. If you don't use a Supplier, it is always possible to investigate discreetly; ask a few questions here and there (if necessary, by using the character's *Commerce/Trafficking* and *Knowledge of Smugglers*, *Knowledge of Organized Crime*, etc.). In this case, the GM can very well double or even triple (in a very closely watched city) the search period required to find an object, or even make the characters play out a short scenario if they are looking for illegal material without having the appropriate contacts.

Technically speaking, once the characters have found their way to the right people or the right networks, the procedure to follow is pretty much the same as the one detailed above for the legal market. There are, however, a few specificities:

- **Condition of the equipment:** the black market provides access to brand-new equipment. The Integrity of common material is therefore at its highest, and not defined randomly as it is on the legal market. The downside of this? This new equipment usually costs **double the price** mentioned on the lists of gear...
- **Illegal or sensitive equipment:** it is also possible to gain access to illegal equipment, often stolen from military forces or private companies (weapons, information,

prototypes, high-tech equipment, etc.). Expect to pay **double** the listed price for equipment with a randomly established Integrity, and **triple** the listed price for brand new illegal equipment with a maximum Integrity. Everything comes at a price...

- **Catastrophe:** rolling a Catastrophe during an Availability Test can have some very unpleasant consequences. The characters could, for example, have been spotted by the security forces, and get in trouble, though a bribe can help smooth things out in some cases... If they were attempting to buy military equipment or completely illegal items, they won't get off the hook that easily, and they will be put on watch lists, arrested, or even interrogated for hours (or days) on end. The problems can also come from the sellers; let's be perfectly clear, most of the traffickers of military equipment are complete scoundrels. The characters could easily come across guys who decide that in the end it is easier to shoot them and take their money from their dead bodies...

Of course, it is also possible to find stolen goods of varying qualities on the black market at prices far lower than those of the legal markets. If the GM allows the characters to purchase this type of equipment, only a Supplier (or a criminal organization) will be able to provide them with it. The same applies for forbidden smuggled goods (drugs, for example): they are not always more expensive to buy, but you will need to know who to go to. Finally, when it comes to certain products, it is also possible to come across poor-quality counterfeit versions, which do not follow the same quality norms as the originals. Their price is far lower, but so is their level of Integrity (often only half of the original product).

IMPORTANT GROUPS

Certain groups are well known for the equipment that they can provide. The type of gear that they specialize in will be easier to find from them, will cost less, and will certainly be in better condition.

Ruins raiders: anything that you can imagine coming from the ruins of the ancient times is on sale from these raiders who spend their lives braving the dangers of underwater cemeteries. The raiders are dour fellows whose living conditions are probably some of the worst that you could imagine.

Scavengers: these bottom-scroungers are specialized in the reclaiming of equipment for underwater vehicles and diving armors. When it comes to these areas, nobody can rival their expertise.

Pirates: on the black market, pirates excel in providing light weaponry and various other products. Everything that they don't use themselves, they sell off at unbeatable prices... even if the product is brand new. It is possible to get great bargains by dealing with them, but it is just as possible to get ripped off.

INTEGRITY OF EQUIPMENT AT PURCHASE

Generally speaking, and unless otherwise indicated in the gear lists of this chapter, you should consider that all legal objects can be purchased secondhand, with a randomly defined Integrity score equal to 2D6+6. Note that it is always possible to spend more time looking for gear, in order to find objects in a better condition (see **The Legal Market** on page 12). By buying on the black market, it is possible to acquire brand-new equipment. In this case, the Integrity level of the object will be at its maximum, 20 (unless specified otherwise).

INTEGRITY AND QUALITY

The Integrity values mentioned here do, however, correspond to good-quality objects (see **Level of Integrity and State of the Gear** on page 9). **If it's okay with the GM,** it is possible for characters who are in a hurry (or who just aren't bothered) to find gear of a lower quality, which will be both cheaper and easier to find, but also in a less perfect condition. Here are the Integrity points that go with each level of quality, and the Modifiers to apply to the level of Availability:

- **Lowest cost:** ITG 1D4+1 (5 on black market), AVA +6, price -70%.
- **Low cost:** ITG 1D6+4 (10 on black market), AVA +4, price -50%.
- **Standard cost:** ITG 2D6+3 (15 on black market), AVA +2, price -20%.
- **Good quality:** no Modifier
- **Excellent quality:** ITG 3D6+5 (25 on black market), AVA -3, price +30% to +50%

Bear in mind that it is not always possible to choose a variation on the quality of the gear, depending on what the item is. The GM gets the last word on this subject (as elsewhere).

MISCELLANEOUS RULES

OPERATION OF THE EQUIPMENT

Items of technological gear can work in two different ways:

- **Automated gear** works in an independent fashion. Its abilities are represented by a level, which will be used for Tests as a Skill level. This is the case of many electronic devices.
- **Helping gear** provides a bonus to the character who is using it.

The abilities of an object or the bonuses provided very much depend on the Technology Level of the object.

DEPTH AND COMMUNICATIONS/DETECTIONS

Soundscans and communicator ranges decrease with depth. In addition, depth imposes a penalty when someone

wants to use one of these devices. For a communicator, it is necessary to make a Test (using the ITG of the device) to understand the message with the indicated penalty. For a soundscan, the penalty is for both the analysis and detection Tests.

DEPTH	RANGE	PENALTY
< to -2,000 m	100%	0
> to -2,000 m	90%	-1
> to -4,000 m	80%	-2
> to -6,000 m	70%	-3
> to -8,000 m	60%	-4
> to -10,000 m	50%	-5
> to -12,000 m	40%	-6
> to -14,000 m	30%	-7
> to -16,000 m	20%	-8
> to -18,000 m	10%	-9
> to -20,000 m	5%	-10

GENERAL GEAR

"There's more to life than weapons and medicinal drugs, you know. A good rope can stop you from ending up like a pancake, a camera can let you film stuff that can make you a fortune, and a radio communicator will usually help you call for backup! But you should never, ever neglect your flask. A good flask will let you keep your alcohol safe without giving it a foul taste."

—Valens, mercenary

Reminder:

- **Lvl./Bonus:** Skill level of the device (automated gear) or bonus for Tests provided by the object to the character who is using it.
- **Price:** theoretical value of the object in Sols.
- **AVA (B. mkt):** Availability. The number in parentheses indicates the Availability of the object on the black market.
- **TL:** Technology Level

TOOLS

Cables

Fibra Plus makes the lightest and most resistant cables on the market. These cables are delivered in a roll-out case and can support several tons, the plastitanium being the most resistant one available. The characteristics on the following page are given for 1 meter of cable. For several meters, you will need to multiply the cost and the weight.

Fire extinguisher

This system allows the user to smother a fire that has not yet gotten out of control. The Universal Fire Extinguisher is the one most frequently used in stations.

Grappling hook

The Mk 4 grappling hook is the classic tool that everyone is familiar with. Discreet (retractable barbs) and sturdy (made from an alloy of molecular steel and titanium), the Mk 4 can be adapted to any launcher or be used manually. This grappling hook can support a weight of 450 kg without any problem.

Grappling hook launcher

The portable grappling hook launcher can be used in water (max. range: 10 m) or out of water (max. range: 50 m). It can take any kind of grappling hook.

Note: you will need to successfully pass a Coordination Test, with a Modifier depending on the aimed distance, to correctly attach the grappling hook. Used as a weapon (at point-blank range only), it causes 1D10 Damage points.

Magnetic grapple

The Rhaz grappling hook is an extremely powerful magnetic disk, which can stick to any flat metallic surface. It can be adapted onto any launcher. This grappling hook can support a weight of up to 200 kg without any problem. If it becomes fixed to a vehicle, the targeted driver can attempt to dislodge a grappling hook by maneuvering.

Portable lab

A portable lab allows the user to carry out tests or make small preparations of chemicals. In some cases, the use of a portable lab is mandatory. A person who has the necessary Skill can use a portable lab. The device gives him a bonus of +1 per Technology Level. These portable labs are available at various Technology Levels. Their cost is equal to 1,200 x (TL x TL).

Rope

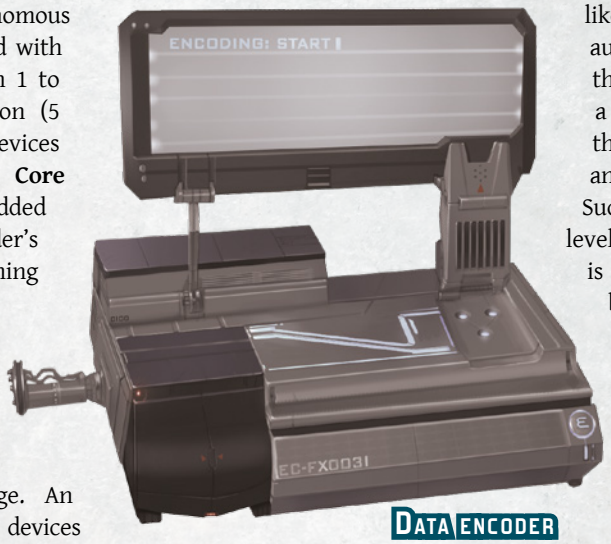
The ropes made by Fibra Plus, nylon reinforced by molecular titanium fibers, are the sturdiest ones on the market, and certainly the most compact. They can support several hundreds of kilos. Fibra Plus also provides a range of ropes made from nanotubes. The Cale II model is delivered in a dispenser tube that is worn on a belt. Two small sliders, fixed to the sides of the belt, make it easy to climb the rope, the diameter of which is four times that of a human hair. Under tension, the rope length increases by 20%. The characteristics on the following page are given for a length of 50-meter of rope.

Toolkits

These kits contain a number of basic tools and are adapted for either mechanical repairs or for electronic repairs. Most *Electronics* and *Mechanics* Tests will require the use of a toolkit. Some more modern toolkits may be necessary for certain operations, and they also provide a bonus for the Tests. The cost of a toolkit of TL II or higher is equal to (base cost) x (TL x TL), and each increase in the Technology Level above level I provides a bonus of +1.

COMMUNICATION

Data encoder



Data encoder

These autonomous devices are ranked with a Generation from 1 to 10. This Generation (5 by default for devices displayed in the **Core Rulebook**) is added to the data encoder's level when performing a Test. When connected to a transmission system, this device allows the user to encode a message. An encoder, like most devices of the same kind, is only used in automatic mode. Its level works the same way as that of an encoding program. The level of the encoding (its strength) is the Success Margin of a Test performed with the encoder's level plus its Generation (+5 in this case). Its price is usually 1,000 multiplied by the Program Cost Multiplier (see price of programs in Computer Hardware and Programs, page 18, using the device's level as the program level). The price of the device is increased/decreased by 20% for each Generation point above or below 5. Therefore, a Generation 7 device would cost 40% more. There are also non-automated encoders, which will be mentioned in the upcoming supplement **Technical Guide**.

Decoder

These autonomous devices are ranked with a Generation from 1 to 10. This Generation (5 by default for devices displayed in the Core Rulebook) is added to the decoder's level when performing a Test. This device allows the user to decode an encoded message. A decoder, like most devices of the same kind, is only used in automatic mode. Its level works the same way as that of a decoding program. To decode, perform a Test with a Difficulty equal to the opposite of the encoding level, adding the decoder's level and its Generation (+5 in this case). The Test's Success Modifier is subtracted from the encoding level. As soon as the latter reaches 0, the message is decoded. Its price is usually 1,200 multiplied by the Program Cost Multiplier (see price of programs in Computer Hardware and Programs, page 18, using the device's level as the program level). The price of the device is increased/decreased by 20% for each Generation point above or below 5. Therefore, a generation 7 device would cost 40% more. There are non-automated decoders, which will be mentioned in the upcoming **Technical Guide**.

The Clyss model is a small decoder that can be plugged into any existing receiver. Its efficiency is limited against the new encoding systems of the armed forces (level reduced by half). However, for everything else, it remains just as efficient.

TOOLS

ITEM	LVL./BONUS	PRICE	AVA (B. MKT)	WEIGHT	TL	MANUFACTURER
Cables - Classic +	-	200	20 (20)	0.5 kg	II	Fibra Plus
Cables - Plasti +	-	4,000	10 (15)	1 kg	III	Fibra Plus
Fire Extinguisher (Universal) - UFE	-	200	10 (5)	20 kg	II	Wildfire Solutions
Grappling hook - Mk 4	-	750	20 (20)	0.5 kg	II	Fibra Plus
Grappling hook launcher - Piton	-	600	10 (5)	2 kg	II	Lasburry
Magnetic grapple - Rhaz	-	4,500	15 (15)	1 kg	III	Electrotech
Portable lab - Lab (TL II)	+2	4,800	5 (10)	8 kg	II	Cortex
Rope - Cale	-	120	20 (10)	2.8 kg	III	Fibra Plus
Rope - Cale II	-	900	5 (1)	1.1 kg	IV	Fibra Plus
Toolkits: Electrical toolkit (TL I)	+0	2,000	20 (20)	2 kg	I	Mecha Plus
Toolkits: Mechanical toolkit (TL I)	+0	1,000	20 (20)	6 kg	I	Mecha Plus

Radio communicator

Radio communications underwater are very problematic. Divers have equipment with a rather limited range and that decrease in range as they go deeper. The further down you go, the more the signal will become scrambled and incomprehensible (see Depth and communications/ detections, above). Furthermore, the signal can be detected (if not understood) over a range of four times its broadcast range. Therefore, divers often prefer to call upon the good old communication techniques, such as sign language or by communication cables.

Communication out of the water poses many fewer problems. Inside a station, you can either communicate via a communication terminal, or use a regular communicator, although the latter may suffer some limitations depending on the structure of the place. Aboveground, however, communications suffer from the effects of the atmospheric disturbances that reduce both their range and the quality of the signal (usually, the range and the device's functional Test will be reduced by the intensity of the atmospheric disturbances or 1D10 x 10%).

Communicators can be equipped with Electronic Shielding to help avoid detection. Their shielding modifies the Test of radio scanners and determines whether or not the device is scrambled. They can also be connected to encoding or decoding devices.



Radio Communicator Global 12

The Global 12 model is probably the most common radio communicator used below the seas, in spite of its high price. Small and sturdy, it is worn on the wrist and it gives universal time. It can be linked to a very discreet earpiece and microphone (included with the device) so that it can be used when wearing armor or without having to raise the wrist. The standard device has an Electronic Shielding level of 4, as well as level 2 encoding and decoding modules. These devices are approved by most security services. The range of this communicator is about 1 km, and this makes it powerful enough to cover most of the larger underwater stations. The ComDive 100 is quite popular among divers. Its range is about 100 meters.

Radio scanners

These devices can intercept a radio transmission on the surface. A radio scanner has a basic range of 500 meters per level. The price and the weight both increase by 10% for every extra 100 meters of range.

Video camera

The Triton 245 is a small, portable video camera just 30 centimeters in length, which can be used under water down to a depth of 6,000 meters. There are models that can go further down, but the price increases by 25% for every extra 1,000 meters of depth. This camera uses recordable microdisks that have a capacity of 12 hours of recording.

SECURITY

Codebreaker

These autonomous devices are ranked with a Generation from 1 to 10. This Generation (5 by default for devices displayed in the Core Rulebook) is added to the codebreaker's level when performing a Test. This system can unlock autonomous electronic locks. A codebreaker, as with most devices of the same kind, is only used in automatic mode. Its level works the same way as that of a codebreaking program. To use the device, perform a Test against the Difficulty of the electronic lock, adding the codebreaker's level and its Generation (+5 in this case). The Success Modifier is subtracted from the lock's level. When the latter reaches 0, the lock is unlocked. Its price is usually 1,200 multiplied by the Program Cost Multiplier (see price of programs in

COMMUNICATION

ITEM	Lvl./Bonus	Price	AVA (B. mkt)	Weight	TL	Manufacturer
Data encoder - *Sybar*	6	21,000	1 (10)	1 kg	III	Enigma
Decoder - *Clyss*	4	12,000	1 (10)	1 kg	III	Enigma
Disk-recording video camera	-	20	15 (10)	0.1 kg	II	Visual Dream
Radio Communicator - *ComDive 100* (underwater)	-	1,000	20 (20)	0.1 kg	III	ComDive
Radio Communicator - *Global 12* (surface)	-	4,200	20 (20)	0.1 kg	II	Global Com
Radio scanner - *Cyclops*	12	9,000	5 (10)	9 kg	III	Enigma
Video camera - *Triton 245*	-	300	15 (10)	1.4 kg	II	Visual Dream

Computer Hardware and Programs, page 18, using the device's level as the program level). The price of the device is increased/decreased by 20% for each Generation point above or below 5. Therefore, a generation 7 device would cost 40% more. There are non-automated codebreakers, which will be mentioned in the *Technical Guide*.

Extremely stealthy, the Picklock model is undoubtedly one of the best currently available codebreakers. It fits in the pocket and its abilities will satisfy even the most discerning customers.

Forged documents

A character can either attempt to purchase fake documents on the black market, or obtain what he needs to make the forgeries (he will then need to have the *Forgery* Skill). An ID card is about the size of a cigarette case. The opening of this case triggers the display of the individual's information as a hologram or on a screen. His photo will also appear. There is a modification that allows the security services' IDscans to detect forgeries. The level of the forged document acts as a penalty on the Intelligence Test of the person who is checking it, or the scanning device.

Ink canister

These canisters can be released into the water to prevent visual detection. A single canister can flood an area of around 100 cubic meters with black ink, for 2D10 Combat Rounds. The anti-sonar model also jams detection by both passive and active sonar devices. Tests for Perception and detection are given a penalty of -5. These canisters are usually worn on a belt in packs of 10. The price indicated on the next page is given for ten canisters.

Motion detector

These devices only work out of the water, and allow the user to detect fluctuations in a given area, indicating the presence of a moving body. A level 1 motion detector covers an area 10 m in radius, and has a detection "Skill" of 1 (activated once for each Combat Round). Each additional level either allows you to increase the range by 10 m or to add 1 point to the detection level. The price of these devices is 3,000 Sols per level, and their weight increases by 0.5 kg every two levels. The most commonly found model is the Ash VS.

SECURITY

ITEM	Lvl./Bonus	Price	AVA (B. mkt)	Weight	TL	Manufacturer
Codebreaker - *PickLock*	10	66,000	5 (20)	0.5 kg	III	Enigma
Handcuffs - *Securit*	-	600	5 (20)	0.1 kg	I	Ragnar
IDScans - *Securit 200*	15	12,000	-10 (5)	1 kg	III	Gladius
Inhibitor - *Coria XV*	-	28,000	-10 (1)	0.5 kg	III	Gladius
Ink canister - *Kraken II* (anti-sonar)	-	6,000	10 (5)	1 kg	II	Squid
Ink canister – *Octopus II*	-	600	15 (10)	1 kg	II	Squid
Intelligent camouflage clothes	7	35 000 (5 000/ point of penalty)	-5 (1)	-	IV	-
Motion detectors - *Ash VS* (range 20 m)	5	18,000	5 (10)	1 kg	II	Trinicom
Thermoptical cloak	13	65,000	-5 (1)	1.5 kg	V	-
Thermosuppressant coverall	-	18,000	-5 (1)	1 kg	IV	-
Forged documents						
Administrative documents	Variable	500/lvl.	1 (20)	0.1 kg	II	-
Firearms license*	Variable	1,000/lvl.	1 (10)	0.1 kg	II	-
IDScan	Variable	4,000/lvl.	1 (10)	0.1 kg	II	-
Various licenses	Variable	1,000/lvl.	1 (15)	0,1 kg	II	-
** Light weapons only*						
Forgery equipment						
Administrative documents	-	2,000*	-10 (10)	0.2 kg	II	-
Firearms license	-	8,000*	-10 (10)	0.2 kg	II	-
ID	-	12,000*	-10 (10)	0.2 kg	II	-
Various licenses	-	4,000*	-10 (10)	0.2 kg	II	-

** For basic gear. By paying a bit more, you can obtain better quality gear, which will provide a bonus for the* **Forgery** *Test.*

IDScans

These devices allow the user to check if a piece of ID is a forgery. Their level acts like a Skill, with a penalty equal to the level of the forgery. These devices are only made available to the security services.

Inhibitor

This system is used against prisoners, in the form of collars. These devices reduce by half the character's level of physical Attributes and Skills. Furthermore, if a character wants to act in an aggressive fashion, the collar administers an electric shock that inflicts 3D10 shock Damage points.

Stealth garments

Intelligent camouflage: any garment (clothing, armor...) can be fitted with this system, which automatically adapts to the surrounding environment. When the wearer is completely still, the camouflage applies a penalty of -X (the penalty depends of the cost of the camouflage; cumulative with any other penalties due to darkness or distance, for example) to all Perception, *Observation*, and other similar Tests. If the wearer is moving, then the penalty is halved (rounded down). During shooting Tests, the GM can apply an additional penalty of -2 if the combat is taking place in the dark or in difficult visibility conditions.

Thermosuppressant coverall: as it sticks to the skin and covers the whole body, this very lightweight garment completely cancels out a person's thermal signature. The penalty to locate the wearer with a heat-detecting system is -20.

Thermoptical cloak: the thermoptical cloak allows the wearer to become partially invisible. This is a very efficient camouflage device that curves light waves around itself, and which still functions well when the wearer is moving. If the user is completely still, this garment applies a penalty of -13 (cumulative with any other penalties due to darkness, for example) to all Perception, *Observation* and other similar Tests. If the user is moving, the penalty is only -7. During shooting and melee combat Tests, the GM can also apply an additional penalty of -2 (or more if the combat is taking place in the dark or in poor visibility conditions). The cloak can be worn over a light protection (category A, B, or C).

COMPUTER HARDWARE AND PROGRAMS

USING COMPUTER SKILLS

Technical engineering (programming) Skill: this Skill is used to design programs.

Computing Skill: this Limiting Skill is used whenever a computer is used with authorized access.

Computer hacking Skill: this Skill is used when attempting to intrude into a computer system for any purpose. It is not possible to have the Computer hacking Skill at a higher level than the Computer Skill.

CAPACITY OF COMPUTERS

The power of a computer depends on its Technology Level, but also on its generation (Gen. I, Gen. II, etc. up to Gen. X).

The Generation of a computer defines its overall processing power for a given Technology Level. Thus, a Generation II computer's CPU will be more powerful than the CPU of a Generation I computer of the same TL. It will also have more RAM (memory) and a larger storage capacity (hard drive or other).

All these criteria determine the price and the overall power of the machine, and limit the level of components and program with which it can be equipped:

- The **Working Level of a program** is equal to sum of the program level and half the computer's Generation (rounded up) if the computer is autonomous, or the sum of the program level and half the operator Global Skill Level (see **Using Computer Skills** above) if the computer is controlled by someone. The Working Level is always used when performing Tests and programs are involved (such as in computer duels).
- The **Program Maximum level** on a given computer is equal to (Gen. + TL) x 2 + (Gen. /2), rounded up. This is the maximum level of the programs that a computer can run.
- **Systems Management:** (Generation x TL). This is the number of systems that a computer can control and manage at the same time (a vessel, drone, or other similar device is counted as one system). A system that is not managed by computer needs to be



activated manually. If a computer cannot manage all the systems at the same time, it will disable the least important ones.

- **Storage Capacity:** 5 x (Gen. x Gen. x TL x TL). This is the sum of all the levels of programs that can be stored on the computer.
- **Processing Capacity:** 2 x (Gen. x Gen. x TL). This is the sum of all the levels of programs that can be simultaneously run on the computer.
- **Price:** 500 x (Gen x TL).

For example, a Gen. V and TL III computer costs 7,500 Sols and can be equipped with programs with a maximum level of 19. This computer can control 15 systems simultaneously and store a total of 1,125 levels of programs and run a total of 150 levels of programs at the same time.

Note: one of the most basic functions of a computer is to store information. Unless the GM has decided this is not the case, a computer can store an infinite quantity of information.

SIZE AND WEIGHT

The higher the Technology Level of a computer, the lighter and more compact it is. However, the higher a computer Generation, the heavier it is. Here are the average desktop computers weights (in kg) for a given TL and generation:

COMPUTER WEIGHT

GEN.	TL I	TL II	TL III	TL IV	TL V	TL VI
I	5 kg	500 g	125 g	21 g	2,6 g	0,3 g
II	10 kg	1.0 kg	250 g	42 g	5,2 g	0,5 g
III	20 kg	2.0 kg	500 g	83 g	10 g	1,0 g
IV	40 kg	4.0 kg	1.0 kg	167 g	21 g	2,1 g
V	80 kg	8.0 kg	2.0 kg	333 g	42 g	4,2 g
VI	160 kg	16 kg	4.0 kg	667 g	83 g	8,3 g
VII	320 kg	32 kg	8.0 kg	1,3 kg	167 g	17 g
VIII	640 kg	64 kg	16 kg	2,7 kg	333 g	33 g
IX	1,280 kg	128 kg	32 kg	5,3 kg	667 g	67 g
X	2,560 kg	256 kg	64 kg	11 kg	1,3 kg	133 g

At TL IV and up, computers do not have screens to display data, but use holographic projections instead.

At TL V and up, there is no real processing power difference between the various computer form factors (portable, desktop, and so on). Of course, desktop computers do not have battery life limitations.

At TL IV (and at TL V for Gen. I to VI), computers can be carried as a watch (see below) with the addition of a wristband weighing 15 g at TL V and 10 g at TL VI.

In addition to desktop computers, various form factors exist. Here are several examples:

- **Portable computers:** A portable computer is more compact than its desktop counterpart. Its battery life is 4 to 8 hours. Here are its attributes, in comparison to a desktop computer:
Maximum Program level: -10 %
Systems Management: -20 %
Storage Capacity: -40 %
Processing Capacity: - 20 %
Price: x 1.5

PORTABLE COMPUTER WEIGHT

	TL I	TL II	TL III	TL IV	TL V	TL VI
Weight	–	-50%	-40%	-30%	–	–

- **Ultraportable computers:** An ultraportable computer is even more compact than their portable counterparts. Its battery life is 2 to 4 hours. Here are its attributes, in comparison to a desktop computer:
Maximum Program Level: -20 %
Systems Management: -40 %
Storage Capacity: -60 %
Processing Capacity: - 30 %
Price : x 2

ULTRAPORTABLE COMPUTER WEIGHT

	TL I	TL II	TL III	TL IV	TL V	TL VI
Weight	–	-70%	-60%	-50%	–	–

- **Belt computers:** belt computers are ultraportable computers with a longer battery life (6 to 9 hours). They weight the same as comparable portable computers and cost 2.5 times more.
- **Watch computers:** A tiny computer the size of a large watch. Its battery life is about 24 hours. Here are its attributes, in comparison to a desktop computer:
Maximum Program Level: -30 %
Systems Management: 1
Storage Capacity: -80 %
Processing Capacity: - 50 %
Price: x 4

WATCH COMPUTER WEIGHT

	TL I	TL II	TL III	TL IV	TL V	TL VI
Weight	–	-90%	-80%	-60%	–	–

- **Personal assistants:** These small devices combine a computer with various other electronic devices, such as a radio communicator and/or an analyzer. The personal assistant can receive a number of additional devices equal to its TL. Here are its attributes, in comparison to a desktop computer:
Maximum Program Level: -20 %
Systems Management: as many devices as its TL
Storage Capacity: -60 %
Processing Capacity: - 40 %
Cost: x 2 (for the computer and all attached devices)

PERSONAL ASSISTANT WEIGHT

	TL I	TL II	TL III	TL IV	TL V	TL VI
Weight	–	-60%	-50%	-40%	Same	Same

- **Retinal datalenses:** this device is in the form of a lens placed on the individual's retina. A datalens is the equivalent of a Gen. I computer. It can only store data and use recognition and analysis programs. The lens uses the human body as a source of energy. Datalenses cost 20 times more than a standard computer and their weight is negligible.
- **Nanomolecular computers:** The Genetician computers, or nanomolecular computers, are microscopic in size. They are directly implanted into the brain of an individual and, using a system implanted in the eyes, they project the three-dimensional images that they require to function straight into the user's line of vision. These computers are considered to be Gen. X, TL VII. The semi-conscious Genetician and Azurean computers are not classified as "Computers." They are far more advanced artificial intelligences.

AVAILABILITY

Here is the Availability for computers, according to their Gen. and TL:

AVAILABILITY						
GEN.	TL I	TL II	TL III	TL IV	TL V	TL VI
I	20	20	20	15	10	1
II	20	15	15	10	10	1
III	20	15	10	10	5	1
IV	20	15	10	5	5	1
V	20	15	10	5	1	-5
VI	15	15	10	5	1	-5
VII	15	10	10	5	1	-10
VIII	15	10	5	5	1	-10
IX	15	10	5	1	-5	-10
X	10	5	1	-5	-10	-15

INTEGRITY

- **Generations I to II:** 2D6+3 (15 if brand new).
- **Generations III to VIII:** 2D6+8 (20 if brand new).
- **Generations IX to X:** 3D6+7 (25 if brand new).

EMP SHIELDING

Computers can be fitted with EMP Shielding, which provides a bonus equal to the shielding's level for Breakdown Tests in the case of an electromagnetic pulse. The price of EMP Shielding is (lvl. x lvl.) x 200. Therefore, a computer with level 5 EMP Shielding (bonus of +5 for Breakdown Tests) costs an extra 5,000 Sols.

PROGRAMS

The price of a program is equal to its base cost (which depends on the type of program, see below) multiplied by the Program Cost Multiplier (the sum of the program's levels). For example, a level 4 program with a base price of 1,800 will cost: 1,800 × (1+2+3+4), amounting to 1,800 × 10: 18,000 Sols.

- **Attack program:** This program makes it possible to attack another computer. Base price: 1,200.
- **Codebreaker program:** This program is specialized in security code analysis (electronic locks, for example) in order to break them. Base price: 1,500.
- **Communication program:** This program makes it possible to make and receive voice calls and send and receive data. Base price: 300.
- **Data program:** These are databases about specific topics. Base price: 1,000.
- **Decoding program:** Program used to decipher encoded files. Base price: 1,600
- **Detection program or reactive program:** This program defines the way a computer connected to detectors/sensors will react when it detects a target. Only one program is necessary for several pieces of equipment if they all react the same way. Otherwise, several reactive programs are needed. Base price: 500.
- **Encoding program:** Program used to scramble files. Base price: 1,200.
- **Friend or Foe Identification program:** This program allows a computer controlling a weapon to identify a target and prevent firing if it is a "friendly" one. The target can be either equipped with a transponder (sending a friend or foe signal) or be identified in the database of the computer. One program is needed per controlled weapon. Base price: 400.
- **Security program:** This is the general defense program of the computer. Its main purpose is to kick an intruding program or hacker out of the system it defends. If it is being attacked by another computer or a virus, this program will respond. Base price: 1,200.
- **Sensor/sonar/radar analyzer program:** A computer can be connected to multiple sensors (infrared, thermal, ultraviolet, active sonars, passive sonars, radars, etc.), and this program makes it possible to analyze the collected data. Base price: 400.
- **Specialized program:** The computers assigned to specific tasks often require specialized programs performing them. They typically are level 1 programs. Base price: 1,600.
- **Shield program:** this program is like a firewall but for hacker. Base price: 600
- **Spyware:** This program is placed on a computer and records everything that happens there. Additionally, it can be set to trigger a system in some circumstances (it may activate a virus or communicate with another computer, etc.) Base price: 2,800.
- **Topographical program:** This program holds an important database on the topography of the most frequented underwater regions. Moreover, it can

establish the topography of new underwater areas. Base price: 800.

- **Virus:** It is an attack program placed on a computer so that it may destroy its defenses. Base price: 2,200.
- **Weapon control program:** This program allows the control of the weaponry connected to a computer. The program level is the attack level. One program per weapon is required. Base price: 1,600.
- **Antispyware program:** This program looks for any potential spyware installed on the computer. Each time it is activated, you may perform an Opposed Test for the antispyware program, against the level of the spyware. In the case of a Success, the spyware is detected and destroyed. Base price: 1,600.
- **Device control program:** Such a program is required for each device managed by the computer. Base price: 400.
- **Firewall program:** This security program erects one or several firewalls to protect the computer against any adverse attack. If you attack a computer protected by a firewall, you first have to take this protection down. A firewall will not strike back; it is only here to slow the attacking program down. Perform an Opposed Test for the attack program against the level of the firewall program (using their Working Level). In case of success, the Success Modifier reduces the firewall level Modifier (see **Opposed Tests, Success or Failure Margins**, *CRB1* page 206): the latter is taken down once its level is reduced to 0. Base cost: 1,000.

COMPUTER DUELS

A hacker can connect his computer to another system in order to try and take control of it. A hacking attempt can be used against any electronic system, such as an electronic lock, an armor lock, or even a sonar, as long as this targeted system is controlled by a computer. The defense of a computer is determined by its security program. The attacker must perform an Opposed Test against the security software level (using his Working Level). The loser's program level is reduced by the winner's net Success Modifier (see **Opposed Tests, Success or Failure Margins**, *CRB1* page 206). When the hacker's attack program level drops to 0, he is ejected from the system. In this case, the targeted system switches to a lockdown mode, and hacking attempts are impossible for some time. The hacker's attack program is not destroyed and can be reused later on, during other hacking attempts. When the defending computer's security program drops to 0, the hacker has gained control.

Example: *Kyle has a level 12 attack program and a level 12 Computer hacking Global Skill. He attacks a system controlled by a Generation VI computer with a level 12 security program. Kyle's attack program Working Level is 18 (level of the attack program plus half his Computer hacking Skill level). The system's defense program Working Level is 15 (level of its defense program plus half its Generation). During the first round, Kyle performs his Test and rolls an 8. The system rolls a 6. Kyle wins the Opposed Test with a Net Success Margin of 2. This is alas not good enough to reduce the system's defense program level, because his Success Modifier is 0. During the second round, Kyle rolls a 4 and the defense program rolls a 14. The defense program's Success Margin is 10, resulting in a Success Modifier of +4. Kyle's attack program's level is reduced by 4 points. Kyle's attack program is now at level 8 only. His next Test will be performed with a Program Working Level of 14 (new level of the attack program plus half his Computer hacking Skill level). If his program's level drops to 0, Kyle is kicked out of the system.*

OPERATOR DUELS

It is possible to face a system operator instead of an autonomous security system. In this case, the system operator can choose to use his Skill level in Computing or Computer hacking plus half the level of the security program running on his computer as his Program Working Level.

SYSTEMS WITH FIREWALLS

A computer can be protected by one or more firewalls. These firewalls must all be defeated before anything can be done to the system.

When a computer protected by a firewall is hacked, two actions occur simultaneously. The first one is the action of the hacker against the firewall, the other is the action of the defending computer's security program against the hacker.

First action: the hacker facing the firewall performs an Opposed Test against the firewall program's level (using their Working Level). If the hacker wins, the firewall program's level is reduced by the Test's Success Modifier (see **Opposed Tests, Success or Failure Margins**, *CRB1* page 206). If the hacker loses, nothing happens.

Second action: the security system goes through a normal "duel." However, if the hacker wins, nothing happens because the latter still needs to take the firewall down.

These are therefore two distinct actions: an action of the hacker against the firewall, and an action of the security program against the hacker. If there are several firewalls, they have to be disabled one after another.

HACKER WITH A SHIELD PROGRAM

A shield program is like a firewall but it protects the hacker. A hacker can only have one Shield program active at the same time.

ACCESSING A SYSTEM WITHOUT USING ANY PROGRAM

It is possible to access a system without using an attack program (by having direct access to the terminal), but odds are that the security program is going to quickly detect and kick the intruder out (or just go into lockdown in some cases). The security program performs a Test, just like in a computer duel, and the Success Modifier reduces the intruder's Computer hacking skill level. When the latter drops to 0, the hacker is kicked out.

DISABLING A PROGRAM

A program can be automatically disabled once the opposing computer is controlled (when its security program's level has dropped to 0 during a duel). It is however possible to try to disable a program (other than the security program) even if the opposing computer is not controlled by the hacker yet. The hacker attacks the targeted system's program and tries to disable it before the security program manages to kick him out. The Test to disable the targeted program is not an Opposed Test. Any firewall program protecting the system must be disabled first.

In this situation, two actions are performed simultaneously: the action of the hacker trying to disable his targeted program, and the action of the security program trying to kick the hacker out of the system.

The hacker performs a Computer hacking Test with a Difficulty Modifier equal to the opposite of the level of the program he is trying to disable (-5 with a program level 5 for example). If the hacker wins, the targeted program's level (not the security program's level) is reduced by the Test's Success Modifier. If this is not enough to disable the targeted program (by reducing its level to 0), the hacker can keep performing Tests, which are increasingly easier because the targeted program's level is reduced by his previous attempts. The targeted program is disabled when its level drops to 0.

However, the system's security program does not stay idle while the hacker tries to disable the program. This is handled like a computer duel between the hacker and the security system, but the Success Modifier reduces the hacker's Computer hacking level whenever the security program wins (the hacker's level is however not reduced for his ongoing action, but will be for the next one). When his Computer hacking level drops to 0, the hacker is ejected from the system. If the hacker wins this Opposed Test, nothing happens.

When the hacker wins the duel (by dropping the targeted program's level to 0), the targeted program is disabled but the security program is still functional. It is not possible to disable a security program with this method because it is protected: it has to be defeated in a computer duel (i.e. using Opposed Tests).

AUTOMATED WEAPONS

These weapons are always equipped with or connected to a computer and a lock-on system (a detector, an analyzer, and a targeting system). As soon as something enters its control area (that may be set depending on the weapon range and, above all, on the sensors), the weapon performs a detection (detection program), a possible analysis (through friend or foe identification program for example), and fires (weapon control program). As a general rule, the weapon attacks once per Combat Round, with an Initiative of 12. The Gamemaster can, however, adapt this depending notably on the Technological Level of the computer.

At the beginning of the Combat Round, the computer must acquire a target, which requires a Test from the detection program, and possibly an analysis Test if the attack is conditional. If one of the Tests fails, the weapon can start searching again 5 Initiative points later (at Initiative 7 for example, if the starting Initiative is 12). Once a target is acquired, the weapon is locked on it as long as the target is in its control area. The automated weapon then performs its attacks using the weapon control program as a Skill. If the acquired target leaves the area, the weapon will have to detect it again if it comes again into range.

ELECTRONICS

Analyzer

Analyzers allow you to obtain information on a sonar contact. They are part of a sonar and therefore do not take up any space. The level of the device acts like a Skill: if the analysis is successful, the Success Margin indicates the accuracy of the obtained information (size, weight, movement, speed, etc.). An automated analyzer, like most devices of that kind, is used only in automated mode. They are designed to be small portable devices such as the Crysta or Leo models. Its cost is usually equal to 300 multiplied by the Program Cost Multiplier.

Environment Analyzer

An environment analyzer makes it possible to analyze the ambient atmosphere and thus to determine its composition. It mainly helps to determine if an atmosphere is breathable and if there are any toxic or pathogenic agents. The analyzer is also useful in measuring radiation.

Electronic Shielding

Any devices can have an electronic shielding, which is used to reduce the effects of various electronic devices that can affect it (the electronic shielding must be installed on a specific device). The shielding gives no bonus: it only counters a potential penalty. For example, a passive sonar equipped with a level 2 electronic shielding will reduce the effects of a noise inhibitor by 2 levels. Likewise, a torpedo with a level 3 electronic shielding will reduce the effects of an anti-torpedo

field by 3 levels. The cost of an electronic shielding is equal to: (10% of the price of the device) x (lvl. x lvl.)

EMP Shielding

EMP shielding counters the devastating effects of electromagnetic pulses by protecting the electronic components of a specific device with a special coating. The EMP shielding level acts as a bonus for the Breakdown Test in case of an EMP attack. The cost of EMP shielding is equal to: (5% of the price of the device) x (lvl. X lvl.)

Goggles, Binoculars, and Visors

Goggles, visors and binoculars can be equipped with specialized detection subsystems.

Antidazzle subsystems protect against the intensity of sun rays, magnesium grenades or other weapons emitting very bright light.

With Infrared and Light Intensification subsystems it is possible to see in the dark, but an individual using them could be blinded for 2D6 rounds by a sudden flash of light or if his eyes are targeted by an opponent with a laser (Luck Test to avoid being blinded).

The Radiation subsystem allows the measurement of radiation levels in the area.

The Zoom subsystem magnifies images at long range like a targeting scope, but does not provide a targeting bonus.

The Sense subsystem increases the Character's Perception Attribute for Tests involving vision, if the system has been specifically calibrated for that individual.

The Tactical subsystem provides a display of the nearby environment, revealing information that would normally not be noticeable (because of darkness, for example) and highlights the position of any detected target. If this system is linked to a suitable analysis program, the latter can provide information about located targets. Any detection system can be linked to a computer to take advantage of its analysis program.



Jammer

Jammers

Jammers inflict a penalty to any devices they affect in a determined range. A jamming attempt is automatically detectable. A level 1 jammer causes a -1 penalty and covers a 5-meter diameter area. Each extra level increases the penalty by one point, or increases the sphere's diameter by 5 meters.

The table below describes common equipment, as well as the kind of devices they affect.

Note: each electronic shielding level installed on a device reduces the penalty due to the jammer by one point.

Omniscanner

This small device is a kind of long box with a thin slot at its end. It has a handle and it is held like a pistol. By aiming at an object or a creature or any other material thing, it analyzes it and looks for a match in its data program. If it finds a close match, the user sees all the info about the scanned object on a small screen on the other side of the device. The range of the apparatus is one meter. An omniscanner is connected to a small computer that can hold 50 cumulated data programs levels.

Portable Active Soundscan

The Crista sonar is equipped with a Molle Mk II analyzer. It is a sonar in the shape of a rifle, which is directional. Its range is 2 nautical miles.

Portable Active/Passive Soundscan

The sonar Pelock II is equipped with an analyzer Molle Mk II. It looks like a big rifle. The active sonar is directional. Only one of the two functions can be used at a time. Its range is 2 nautical miles in active mode and 6 nautical miles in passive mode.

Portable Passive Soundscan

The Lero sonar is equipped with a Molle Mk II analyzer. The sonar has the shape of a rifle and its range can go up to 7 nautical miles.

Portable Radar

The radar is directional. It looks like a big rifle with a disk at its end. Its range is 2 kilometers.

T-ray

The T-ray is what is best when you want to scan an area, a device, or an individual. This ray goes through everything and you just have to sweep a target with this ray to know what it may hide. This very cumbersome device is mainly used by customs officials and physicians.

Visor 360°

Highly appreciated by pirates, the 360° visor reproduces on the sides of the visual field a flattened view of what a character cannot see. This apparatus allows a character to be aware of everything that is happening around him in order to avoid being surprised.

Zone Generator

This device produces strong disturbances in the area surrounding it. The zone is easily perceptible but it is very difficult to identify what is inside. A Level 1 generator causes a -1 penalty to all analysis Tests and covers a 10-meter diameter surface. Each extra level increases the penalty by one point, or increases the sphere diameter by 10 meters. Keep in mind that only one successful analysis will neutralize the zone jamming system. The Pyrio model shown below can only be used underwater. It is effective against passive and active sonars.

Note: each electronic shielding installed on a device reduces the analysis penalty by one point.

ELECTRONICS

MODEL	LVL./BONUS	COST	AVA (B. MKT)	WEIGHT	TL	MANUFACTURER
Analyzer - *Molle Mk II*	8	10,800	15 (15)	-	II	Menta
Binoculars	-	1,200	15 (15)	0.8 kg	III	Omnia
Environment analyzer - *Seryon P250*	-	6,700	10 (5)	1.5 kg	III	Seryon
Goggles	-	200	15 (15)	0.1 kg	III	Omnia
Jammers - *Falcom* (infrasounds)**	6	12,000	-5 (10)	7 kg	III	Menta
Jammers - *Nexor IV* (communications)*	6	6,000	-5 (1)	9 kg	III	Menta
Jammers - *Arenea* (active sonar)	6	9,000	10 (15)	8 kg	III	Menta
Jammers - *Epyton* (passive sonar)	6	9,000	10 (15)	8 kg	III	Menta
Omniscanner - *Scan OU*	-	6,000	5 (1)	2 kg	III	Omnia
Portable active soundscan - *Crysta*	-	14,800***	20 (20)	2 kg	II	Menta
Portable active/passive soundscan - *Pelock II*	-	18,000***	10 (5)	3 kg	II	Menta
Portable passive soundscan - *Lero*	-	16,800***	20 (20)	2 kg	II	Menta
Portable radar - *Ural*	-	1,800	5 (5)	2 kg	II	Menta
T-ray - *Mendel Alpha*	-	68,000	-10 (-5)	89 kg	IV	Mendel
Visor	-	2,600	5 (10)	0.1 kg	III	Omnia
Visor 360° - *Neokrian*	-	27,000	-10 (1)	0.2 kg	IV	Omnia
Zone generator - Pyrio	6	2,000/lvl. (max lvl.10)	5 (10)	2,5 kg + 0,5 kg/lvl	IV	Pixia

** Military device that can only be bought on the black market.*
*** Note that an infrasound jammer affects the Burrowers who suffer a penalty to communicate. Moreover, these creatures, as well as any individual using an infrasound weapon, suffer a -1 penalty per jamming level to all their attack Tests.*
**** Cost with the analyzer.*

SUBSYSTEMS FOR GOGGLES, BINOCULARS AND VISORS

MODEL	LVL./BONUS	COST	AVA (B. MKT)	WEIGHT	TL	MANUFACTURER
Antidazzle	-	2,000	Same as device	-	Same as device	Same as device
Electromagnetic	-	4,000	Same as device	-	Same as device	Same as device
Infrared	-	2,000	Same as device	-	Same as device	Same as device
Light Amplification	-	1,200	Same as device	-	Same as device	Same as device
Other (pick a wavelength)	-	4,000	Same as device	-	Same as device	Same as device
Radiation	-	4,000	Same as device	-	Same as device	Same as device
Sense	1-12	2,000 X Bonus^2	Same as device	-	Same as device	Same as device
Tactical	-	6,000	Same as device	-	Same as device	Same as device
Ultraviolet	-	4,000	Same as device	-	Same as device	Same as device
Zoom	1-12	200 X Lvl.^{2}	Same as device	-	Same as device	Same as device

SURVIVAL

Emergency Oxygen Tank

This small device is placed in the mouth and allows an individual to breathe normally for a dozen minutes. It definitely does not cancel the pressure problems, however. Many divers place such gadgets inside their visor, near the mouth, so that they may use it in case their survival system breaks down. Once it is used, the device is expended and cannot be recharged.

Oxygen Extractor

There are two underwater oxygen extraction devices. The first one is a small apparatus that covers the face and that comes with a semi-waterproof, silicon membrane, allowing the user to breathe at an underwater depth of up to 10 meters for Integrity level x 3 minutes. The device needs to be changed after each use (the Integrity level measures the quality of the device).

The second one is a device made of a centrifugal apparatus, worn on the back, which puts the seawater under pressure in order to extract the oxygen and allows the diver to breathe. This apparatus requires the use of a heavy lithium battery that weighs 1 kg per hour of autonomy. The apparatus functions at a depth up to 200 meters and is always coupled with a small oxygen reserve of 10 minutes in case of pollution or lack of a sufficient quantity of oxygen in the seawater. This apparatus is currently under study to determine if it will be provided to the shallowest underwater stations as well as to diving armors and vehicles.

Portable Distress Beacon

The Umar 57 distress beacon is one of the most popular. It is small and can be easily carried, so most of the travelers never go on a journey without it. It can be set to transmit underwater or out of water. Underwater, its signal is detectable over 10 nautical miles.

Portable Heating Unit

Definitely useful, these warmers are small pocket radiators. Slip one underneath your jacket if you are cold and you can be certain you will be able to wait for the rescue squad a few more hours. The portable heating unit Pyrus runs on gasoline and must be refueled every six hours.

Respirators

This gas mask comes with a canister allowing the effects of a harmful gas (via the airway) to be treated for five to six hours. The respirator mask comes with an independent oxygen canister that lasts roughly forty minutes. The heavy respirator is made of a respirator mask connected to an oxygen pod carried on the back. It allows the user to have air for an average of 20 hours.

Survival Rations

These small watertight boxes each include 8 days of nutritional paste, a small flask of a very strong alcohol, and hydrating pills. The A39 chest holds 18 days of nutritional paste, two rations of alcohol, hydrating pills, and a bar of synthetic chocolate. The chests do not take up a lot of space and can be slipped into a pocket.

SURVIVAL

MODEL	LVL./BONUS	COST	AVA (B. MKT)	WEIGHT	TL	MANUFACTURER
Autonomous oxygen extractor*	-	9,000	1 (5)	4.5 kg	III	Respira
** Add 1 kg and 1,000 Sols of battery per extra hour.*						
Emergency oxygen tank - *Onyx* Respirator	-	800	5 (5)	0.1 kg	III	Onyx
Gas mask	-	1,200	10 (15)	0.5 kg	II	Imunon Ind.
• Replacement canister	-	60	10 (15)	0.1 kg	II	Imunon Ind.
Heavy respirator	-	9,000	5 (10)	3 kg	II	Imunon Ind.
• Replacement Canister	-	500	5 (10)	4 kg	II	Imunon Ind.
Oxygen extractor membrane	-	600	1 (5)	0.5 kg	III	Respira
Portable distress beacon - *Umar 57*	-	450	20 (5)	2 kg	II	ElectroTech
Portable heating unit - *Pyrus*	-	100	20 (25)	0.1 kg	II	Thermo-Tech
Respirator	-	3,600	10 (15)	1 kg	II	Imunon Ind.
• Replacement Canister	-	180	10 (15)	0.2 kg	II	Imunon Ind.
Survival rations - *A27*	-	20	20 (20)	1 kg	II	Cultura
Survival rations - *A39*	-	60	20 (20)	1 kg	II	Cultura
Underwater breathing apparatus (diving kit)	-	160	20 (20)	20 kg	II	Explora
Water purifiers - *Aqua V54*	-	28,000	1 (10)	18 kg	II	Aqua Prime
• Replacement Filter (for one week)	-	2,000	5 (10)	1 kg	II	Aqua Prime

Underwater Breathing Apparatus

This classic piece of diving gear can prove very useful when you are maneuvering in shallow waters. Its autonomy is about one to two hours.

Water Purifiers

This device makes it possible to obtain drinkable water from seawater. The model described here is the most common; it is capable of purifying 1 liter of water per hour. It can be wired to a generator or use its own battery, which has 10 hours autonomy. Filters need to be regularly changed (once a week). Similar larger devices can be found in stations.

EVERYDAY LIFE

Accommodations (costs)

The average surface area of the habitation is indicated between parentheses.

- **Tubes* (special):** 20 to 40 Sols/night.
- **Second-rate hotel (4m²):** 40 to 60 Sols/day.
- **Ordinary hotel (8m²):** 80 to 140 Sols/day.
- **Luxurious hotel (16m²):** 400 to 800 Sols/day.
- **Prestigious hotel (40 m²):** 1,000 to 4,000 Sols/day.
- **Elite hotel (100m²):** 10,000 to 50,000 Sols/day.
- **Common room (1 bed):** 20 Sols/night.
- **Stairs (survival of the fittest):** 5 Sols/night.
- **Back alleys/walkways (survival of the fittest):** Usually free (special "security services" tax): 1 Sol per night).
- **Small individual quarter (4m²):** 2,000 to 4,000 Sols/month.
- **Average individual quarter (16m²):** 8,000 to 16,000 Sols/month.
- **Luxurious individual quarter (30m²):** 20,000 to 40,000 Sols/month.

** Tubes have been inspired by the principle applied in the vessels of low-cost transport companies: people sleep in 80 cm to 1.2 m in diameter and 2.5 m long tubes.*

Canteen

No sailor is going to sea without a flask of alcohol. More than a comforting beverage, alcohol is an excellent means of survival for sailors in case of a heating breakdown. The canteen allows for an excellent conservation of the best beverages without altering their taste too much.

Flashlight

These small flashlights are definitely indispensable for any underwater exploration or to see to the bottom of any harbor (these are beam lights; they light up in one direction and not an area). The Flash model is 30 centimeters long with a diameter of 3 centimeters, extremely elegant, with a 40-meter range underwater and 200 meters otherwise. More powerful Flash models are available. These flashlights can be used to a depth of up to 6,000 meters.

The small Prys lamps are very popular. The size of a finger, they can easily be mounted on the side of a helmet or on a small weapon. They light up in a beam and have an underwater range of 4 meters and 20 meters out of the water. The Prys light can be used to a depth of up to 8,000 meters.

Fluid, Mixes, and Oxygen

See the corresponding table, page 27.

Food and Beverages (Costs)

As a general rule, food and beverages are good barter items, very often at a theoretical value much higher than their real value.

A few typical dishes:

- **Shark fins:** 250 to 600 Sols per dish (about 250 g).
- **Cereal crisp breads, natural:** 180 to 600 Sols per 100 g.
- **Cereal crisp breads, synthetic:** 0.5 to 2 Sols per 100 g.
- **Gruel, seaweed (common food):** 5 to 10 Sols per bowl of soup.
- **Gruel, plankton (common food):** 2 to 8 Sols per bowl of soup.
- **Gruel, fish (common food):** 6 to 18 Sols per bowl of soup.
- **Seahorse kebabs:** 300 to 400 Sols per dish (about 180 g).
- **Coffee, natural:** 200 to 500 Sols per 100 g.
- **Coffee, synthetic:** 10 to 30 Sols per kg.
- **Abyss mushrooms:** 300 to 500 Sols per dish (about 100 g).
- **Chocolate, natural:** 5 to 10 Sols per 100 g.
- **Chocolate, synthetic:** 0.5 to 2 Sols per 100 g.
- **Anemone jam:** 50 to 90 Sols per 250 g.
- **Crustaceans (crabs, shrimps, lobsters, etc.):** 50 to 120 Sols per 200 g.
- **Dolphin fillet (forbidden, the risked sentence is the death penalty)**: 2,800 Sols per 250 g steak.
- **Fish fillet:** 30 to 400 Sols depending on the fish (per 200 g).
- **Sea turtle fillet:** 80 to 140 Sols per 200 g filet.
- **Dolphin liver (forbidden, the risked sentence is the death penalty):** 4,000 Sols each.
- **Fruits, natural:** 250 to 800 Sols each.
- **Fruits, synthetic:** 10 to 40 Sols each.
- **Vegetables, natural:** 40 to 120 Sols per 250 g.
- **Vegetables, synthetic:** 10 to 40 Sols per 250 g.
- **Molai (stone anemone fluid):** 20 to 40 Sols for a meal based on this nutritional fluid.
- **Mollusks (mussels, oysters, sea-slugs, etc.):** 20 to 60 Sols per 100 g.
- **Octopus:** 90 to 150 Sols per dish (about 180 g).
- **Riftias salad:** 50 to 70 Sols per salad (about 150 g).
- **Salt:** 40 to 50 Sols per 100 g.
- **Harpoon urchin steak:** 40 to 90 Sols per 150 g.

- **Sugar, fucus:** 30 to 80 Sols per kg.
- **Sugar, natural:** 360 to 500 Sols per 100 g.
- **Sugar, synthetic:** 1 to 3 Sols per kg.
- **Meat, reclaimed*:** 40 to 80 Sols per kg.
- **Meat, synthetic:** 160 to 280 Sols per 250 g steak.
- **Meat, natural:** 800 Sols per 100 g.

** Made from fish. This product is forbidden due to the risk of poisoning. The risked sentence is the seizing of the seller's inventory.*

Note: all forms of food are treated with hydrating products because of the global shortage of drinking water. So you can usually eat without needing to drink.

A few common beverages:

- **Beer, natural:** 50 to 200 Sols per liter.
- **Beer, synthetic:** 2 to 6 Sols per 50 cl.
- **Water, pure:** 100 to 2,000 Sols per liter.
- **Water, recycled*:** 1 to 3 Sols per liter.
- **Anemone juice**:** 2 to 5 Sols per 25 cl.
- **Milk, whale:** 10 to 30 Sols per liter.
- **Milk, otter:** 8 to 20 Sols per liter.
- **Liquor, seaweed:** 10 to 40 Sols per 20 cl.
- **Liquor, jellyfish:** 20 to 60 Sols per 20 cl.
- **Liquor, plankton:** 15 to 30 Sols per 20 cl.
- **Ravage:** 10 Sols per 5 cl (universal price).
- **Wine, natural:** 1,000 to 10,000 Sols per liter depending on the quality.
- **Wine, synthetic:** 60 to 160 Sols per liter.

** Recycled water from different sources, left unrevealed so as not to disgust anyone, tastes revolting and has a slightly green color.*

*** It is a rich, thirst-quenching beverage that tastes pretty good. It is most children's favorite beverage.*

Gear Rental (Costs)

The amount of the deposit is indicated in the parentheses.

- **Unarmed Exo-armor:** 100 to 1,000/day (100 to 1,000).
- **Surface vehicle:** 100 to 1,000/day (1,000 to 10,000).
- **Underwater vehicle:** 100 to 1,000/day (1,000 to 10,000).
- **Amphibious vehicle:** 100 to 1,000/day (1,000 to 10,000).
- **Workshop:** 500/day/level (5,000).
- **Equipped hangar:** 1,000 to 6,000/day/level (10,000 to 100,000).
- **Non equipped hangar:** 1,000 to 6,000/month (10,000 to 100,000).
- **Laboratory:** 1,000 to 6,000/day/level (10,000 to 100,000).

Isothermal Garment

A garment treated with this process warms up the wearer when he is cold and refreshes him when the weather is hot. This technique can only compensate for slight temperature variations, between 5° and 35°.

Miscellaneous Services (Costs)

- **Mechanic:** 1,000/work day.
- **Electronics engineer:** 2,000/work day.
- **Historian:** 2,000/work day.
- **Mercenary:** 800/work day.
- **Doctor:** 1,000/work day
- **Prostitution:** 1,000/trick.
- **Hospitalization:** 1,000/day.
- **Merchant transportation:** 1/km.

Portable Floodlight, Light Generator, and Lightsticks

Floodlights, known as simply Light by its manufacturers, can be carried on the shoulder, mounted on a drone or a device, or attached to a propulsion system drawing a diver. They light up in a beam with a 100 meters range underwater and 1,000 meters otherwise. The floodlight described here can be used to a depth of up to 8,000 meters.

EVERYDAY LIFE

MODEL	PENALTY	COST	AVA (B. MKT)	WEIGHT	TL	MANUFACTURER
Hyperfluid	-4 (FOF Breathing)	1,000/hour of use	0(5)	-	IV	Aeris
Neofluid	-10 (FOF Breathing)	200/hour of use	10 (15)	-	III	Multiple
Mix	-	100/hour of use	20 (20)	-	I or II	Aeris and others
Oxygen	-	100/hour of use	10 (10)	-	I	Multiple
Canteen/Flask	-	120	20/20	0.1 kg	I	Calvin
Flashlight - Flash	-	180	20 (20)	0.2 kg	II	Artitech
Flashlight - Flash II	-	360	20 (20)	0.3 kg	II	Artitech
Flashlight - Prys	-	100	20 (20)	0.1 kg	II	Artitech
Isothermal garment	-	500	10 (10)	-	II	Thermo-Tech
Light generator - Will-o-Wisp	-	2,000	20 (5)	1 kg	III	Artitech
Lightsticks - Luon		20	15 (20)	0.01 kg	II	Artitech
Portable floodlight - Light	-	5,000	20 (10)	3 kg	II	Artitech
Underwater bag - Ventura	-	400	20 (5)	2 kg	I	Ventura

The generators Will-o-Wisp emit a slightly blue light all around the diver in a 10 meter radius. They can be used at any depth.

The Luon light sticks can be used at any depth. They are activated by bending them in half until they crack or by shaking them (depending on the model) and they allow a small area in a 4-meter radius to be lit up for roughly one hour. They emit a greenish glow and cannot be reused.

Renting Docking Stations

- **Exo-alpha/exo-0/exo-1:** 5/15/25 per hour
- **Exo-2/exo-3/exo-4:** 30/40/50 per hour.
- **Exo-5/Exo-6/Exo Omega:** 80/100/110 per hour.
- **Vessel up to 20 t:** 125 per hour.
- **Vessel up to 40 t:** 200 per hour.
- **Vessel up to 60 t:** 250 per hour.
- **Vessel up to 80 t:** 300 per hour
- **Vessel up to 120 t:** 400 per hour.
- **Vessel up to 240 t:** 650 per hour.
- **Vessel up to 540 t:** 1,100 per hour.
- **Vessel up to 800 t:** 1,500 per hour.
- **Vessel up to 2,000 t:** 2,700 per hour.
- **Vessel up to 16,000 t:** 10,800 per hour.
- **Vessel up to 50,000 t:** 23,000 per hour.
- **Vessel up to 100,000 t:** 35,000 per hour.
- **Vessel up to 160,000 t:** 50,000 per hour.
- **Vessel up to 220,000 t** 60,000 per hour.
- **Tug boats*:** 5 to 15 Sols per ton (minimum 3,000 Sols).

* If a vessel needs a tug boat to bring it in to dock (because of a breakdown or anything else).

Note : for the private companies, the cost is calculated for a day and it's generally equal to the hour rate x10 to x30. The monthly rate is calculated on 18 days. Private hangars are seldom free.

Underwater Bag

Underwater bags are big pouches slightly inflated with air, with a flexible framework in the shape of an umbrella, that divers drag behind them and in which they can put some belongings. They come in any size. The Ventura bag is a model with a 3-cubic-meter volume capacity. Bags cannot usually be used beyond a depth of 2,000 meters, but it is possible to manufacture more solid ones.

GENETICIAN AND AZUREAN ARTIFACTS

All this gear is priceless and there are only a few items left, jealously guarded or locked in depots. Some devices, such as neutral masses or protoplasms, can be found with exceptional rareness on the black market.

Neutral mass. A neutral mass is some kind of multi-function tool. It is a small sphere made out of a grey matter, the size of a baseball ball. Depending on the way you press on it, it shifts into a tool or a plain utensil: knife, screwdriver, spoon, etc. The neutral mass is almost indestructible and it is thought that the Geneticians used it to test the skills of their subjects.

Genetician phase generator. A Genetician phase generator makes things immaterial. It is a strange machine, rather cumbersome, the sole discovered specimen of which no longer works, after a failed experiment...

Phase restorer. A phase restorer makes immaterial things be material again. Just like the generator, the machine is pretty big and, until now, no one has been able to make it work.

Organic schema projector, with exoskeleton. An organic schema projector is made of a projector (some sort of large circular mirror) and an autonomous exoskeleton. When you are using it, you stand in front of the projector and it immediately makes a connection with the chosen exo. What the exo sees is what the user of the projector sees. Once the contact is established, the user transfers his conscience into the exoskeleton, which secretes a mimetic fluid that recreates the body of the user. Once the operation is done, the "real" body of the user is in a state of vegetative life, whereas his conscience remains in the exoskeleton.

Genetician molecular transformer. A molecular transformer modifies the atomic structure of matter in a temporary fashion. It is possible to transform flesh into stone, go through a stone wall by "scattering" it, etc. Of course, even a technology that advanced has limitations. The more "complex" the matter, the slower the process will be. As a general rule, the transformer can only modify simple forms. The Genetician transformer looks like a metallic glove.

Permanent molecular transformer. This huge machine is said to be able to permanently transform matter. The word "said" is emphasized because a machine of that type in proper working order has never been found.

Molecular regenerator. The molecular regenerator makes it possible to heal "permanent" wounds, such as the ones inflicted by disintegrators. It also allows almost any wounds to be treated and any damaged objects to be fixed.

Protoplasm, life support. This techno-biological device is not a Genetician one; it is an Azurean one. It is a small flabby mass that can be held in one hand. If it is freed, the mass grows until it completely wraps the one who is using it. This individual then finds himself surrounded by some sort of transparent cocoon filled with an oxygenated and nutritional liquid. Usually the individual loses consciousness breathing the thick liquid, but he is protected from the pressure. The protoplasm can easily be torn from the inside, but it is a little more resistant on the outside. It captures the oxygen in water or air in order to feed its user. An individual protected by protoplasm can survive in there for a few days. Moreover, the protoplasm automatically stabilizes the diver if he is wounded. This kind of protoplasm cannot be reused. While it is almost certain that, at the time of the Azure Alliance, these protoplasms were entirely artificial objects created by the techno-biological science division, it seems that Amazonia is testing new living protoplasm prototypes...

Protoplasm, stabilizing. Similar to the protoplasm described above, this one stabilizes a wounded individual and secretes products helping him to recover. This kind of protoplasm cannot be reused.

Protoplasm, imprisonment. Similar to the other protoplasms, this one allows the neutralization of a target without harming it. Not only is it nearly impossible to tear the protoplasm from the inside or the outside, but it also secretes an anesthetic fluid. Once deployed, the protoplasm can only be deactivated by a special device, a small box that comes with it. The imprisonment protoplasm can be reused.

Portable stasis chamber. The Azureans developed particularly efficient stasis chambers. They automatically stabilize a wounded individual and put him in state of suspended animation, preventing the cells from deteriorating. An individual in a stasis chamber does not age and can survive as long as the chamber is power supplied.

Neutral pressure generator. This Genetician technology marvel, derived from the technology of force fields, gravitational fields, and energy fields, cancels the water pressure in a sphere of a certain diameter, depending on the device it equips. It is known that the Geneticians used the generators to move underwater on short travels and that they equipped some of their vessels with them. The energy such a device burns is huge and no current power source can supply it with sufficient energy. The neutral pressure generator does not prevent water from entering the sphere; it only cancels its pressure.

MEDICAL GEAR

"Medical gear? It is essential! But what's more vital is not to need any."

— Nezred, doctor from Equinox

TREATMENTS, PATCHES, AND PHARMACEUTICAL SUPPLIES

Antirad

This pill, if taken right after irradiation, makes it possible to reduce the irradiation level by 2D6. You must always roll 1D20 after ingesting a dose of antirad. On a 1, the body suffers a poisoning of 3D6 points.

Biological Transformers

Biological transformers have just been brought to market by a new pharmaceutical company of Amazonia, Biotek. It

TREATMENTS, PATCHES, AND PHARMACEUTICAL SUPPLIES

MODEL	LVL./BONUS	COST	AVA (B. MKT)	WEIGHT	TL	MANUFACTURER
Anti-infection patch -*Fulstar*	+10	800	10 (15)	0.1 kg	III	Cortex
Antirad	-	80	10 (15)	0.1 kg	III	Cortex
Biological transformers transformers -*Altera*	-	7,000	1 (10)	-	IV	Biotek
Cerebral shield - *Demia*	WIL +3	6,000	5 (10)	-	III	Principia
Drugs Rege+	-	7,500	5 (10)	-	III	Palia (Coral Republic)
Drugs Super Rege+	-	18,500	1 (5)	-	IV	Palia (Coral Republic)
Intraprobes Nano Op	+5	48,000	-10 (1)	-	IV	Cortex
Metabolic accelerator -*Boost A*	CON +5	1,200	10 (20)	-	II	Pharmazonia
Metabolic boosters - *Animia*	ADA +3	6,000	5 (10)	-	III	Principia
Metabolic boosters - *Hercia*	STR +3	6,000	5 (10)	-	III	Principia
Metabolic boosters - *Protia*	INT +3	6,000	5 (10)	-	III	Principia
Metabolic boosters -*Hermia*	COO +3	6,000	5 (10)	-	III	Principia
Nanoprobes Nano	***	1,000,000	-10 (-10)	-	VI	Cortex
Nanoprobes Nano Alpha	*	280,000	-10 (-10)	-	IV	Futura
Nanoprobes Nano E	**	650,000	-10 (-10)	-	V	Nano-Tech
Nanoprobes Nanocardiac	-	1,480,000	-10 (-10)	-	IV	Cortex
Specific poison antidote patch - *Melsa* series	-	1,800	5 (1)	0.1 kg	III	Xen (Amazonia)
Stabilizing patch - *Corzone*	+10	1,000	10 (15)	0.1 kg	III	Cortex
Treatments against diseases (Miscellaneous)	1 to 30	250/level	10 (20)	0.5 kg	III	Miscellaneous
Universal poison antidote patch - *Onydrine 4*	-	2,500	15 (10)	0.1 kg	III	Xen (Amazonia)

* **Surgery** *7, +2 to all the Cure, Resistance to poisons and diseases Tests improved by 2 levels.*
** **Surgery** *10, +4 to all the Cure, Resistance to poisons and diseases Tests improved by 3 levels.*
*** **Surgery** *13, +6 to all the Cure, Resistance to poisons and diseases Tests improved by 4 levels.*

is the same industry that takes part in the development of Amazonian geno-armors. A transformer causes a temporary modification of the genetic structure of an individual by giving him a mutation (randomly determined) for a short amount of time. Specific transformers are said to exist, but they are probably extremely expensive. The mutation takes place in 1D10 minutes and remains active for 10D10 minutes. After each injection, there is 1 chance out of 100 that the mutation does not wear off. The mutation process is particularly painful and automatically inflicts a Moderate Wound. Moreover, it has been reported that subjects overindulging in this substance develop uncontrollable and random mutations.

Cerebral Shield

The cerebral shield is a product similar to boosters but its effects are much more stable and there is no risk of losing Attribute points. It temporarily increases the Willpower against any mental attack.

Intraprobes

Intraprobes are injected into the body of an individual and will only be effective if he suffers any wounds. In that case, they immediately kick in to repair the damage. Probes are microscopic and can only be deactivated by the emergency switch that the individual carries with him (in that case, probes can only be reactivated in a hospital) or by a medical computer with the correct access code. A strong electrical discharge can also neutralize the probes. Intraprobes mainly work to repair the arteries and therefore fight hemorrhages in an efficient fashion. They give a +5 bonus to the stabilization Test and reduce the required time for healing the wounds by roughly 25%. Probes degrade as time passes. Each year there is 1 chance out of 10 (+1 per year) that they will stop working. On the black market, there is no real guarantee as to how "fresh" a probe can be.

Metabolic Accelerator

The metabolic accelerator is a very powerful drug with effects lasting for about an hour. During that time, the character is overactive and does not feel any weariness. He gains a +5 bonus to Constitution, cannot be put into unconsciousness, and does not feel any pain. On the other hand, once the effects of the product dissipate, the stress felt by the body often causes a loss of consciousness (Shock Test at -5, Stunned for 1D6 hours or Unconsciousness for 2D6 hours). There is also a slight risk (1 out of 100) the character has an episode of cardiac arrest. The product is in a small syringe enclosed in a vacuum pouch.

Metabolic Boosters

Metabolic boosters temporarily increase the Attributes of a character. The product must be injected and remains active for an hour. A booster inflicts tremendous stress on the body after the effects dissipate (Shock Test at -5, Stunned for 1D6 hours or Unconsciousness for 2D6 hours). There is 1 chance out of 100 that the character permanently loses 1 point in the related Attribute.

Nanoprobes

Nanoprobes are an evolved version of intraprobes. There are several categories. These nano-robots spread into the body and help it to fight any wounds, infections, or diseases. On top of giving a bonus to all Cure Tests, nanoprobes have a *Surgery* level and can try to automatically stabilize the wounds that need to be stabilized. If the Skill Test is successful, the wound is considered stabilized.

Cardiac nanoprobes are another type of probe. They regroup on the heart and act as a defibrillator in the event of a cardiac arrest. If the Character suffers a Mortal Wound, nanoprobes keep him alive by artificially stimulating his heart: the Character can then survive a number of additional minutes equal to three times his Constitution level (he must, however, be treated by a doctor). The GM can even consider that some Mortal Wounds that do not cause any hemorrhages can be turned into Critical Wounds.

Nanoprobes do not need a control center. They can be destroyed by an EMP attack, but they are protected against electrical discharges of small intensity.

Patch, Stabilizing

This very common patch is a sort of sterile compress. It must be put on the wound as soon as the patch is opened. The Corzone model offers a +10 bonus to the wound stabilization Tests.

Patch, Anti-infection

This patch offers a +10 bonus to the Constitution Tests of a wounded character during the Resistance Tests to infection. The patch must be changed every two days.



Stabilizing Patch

Patch, Universal Poison Antidote

This kind of patch does not fight a specific poison, but it increases the general resistance of an individual against the most common effects of poisons. The poisoning level is divided by two.

Patch, Specific Poison Antidote

These patches are soaked in a serum designed to fight a specific poison. They make it possible to totally cancel the poisoning.

Regenerative and Superregenerative Drugs

These drugs give an individual the equivalent of the Regeneration mutation for 2 days (Rege+) or 4 days (Super Rege+).



Medkit

Treatments Against Diseases

Each treatment is only efficient against one specific disease. These products (pills of various colors, products to inject, etc.), are usually sold on the black market. As a matter of fact, the population avoids dealing with the hygiene services at all costs (but very often, crooks sell treatments that are not as efficient as promised). The treatment allows the sick individual to normally perform his Constitution Test in order to fight the illness. The cost of a specific treatment depends directly on the virulence of the disease, that is to say, the number of disease points inflicted to the character when the illness breaks (potential evolutions are not taken into account). It is then necessary to get hold of a treatment at a level at least equal to the disease level. Medication is often contained in a small and rather discreet bag. With each bag it is possible to treat yourself for 10 days.

MEDICAL DEVICES

First Aid Kit and Medkits

A first aid kit includes everything that is needed for first aid of less serious injuries (Light Wounds up to Serious Wounds). First aid surgery kits are more complex first aid kits. They are not as efficient as a true operating room (they bring a -5 penalty to the *Surgery* Tests), but they can still be somewhat useful in a critical situation. Only a kit of that kind makes it possible to stabilize wounds (without this gear, a character trying to stabilize a wound suffers a -5 penalty).

Last, but not least, medkits are more evolved emergency equipment devices. On top of having all the functionality of the usual first aid and surgery kits, medkits include automated assistants that allow the benefit of a +3 bonus to the *First aid* Tests. *Surgery* Tests are performed without any penalty (contrary to the first aid surgery kits).

MEDICAL DEVICES

MODEL	LEVEL/BONUS	COST	AVA (B. MKT)	WEIGHT	TL	MANUFACTURER
First Aid Kit - *First Aid*	-	600	20 (15)	1 kg	II	Cortex
First Aid surgery kit -*Chiria T*	-	1,800	20 (5)	3 kg	II	Cortex
Medkits - *Medi 1,000*	+3	11,000	10 (15)	5 kg	III	Cortex
Healing Chamber - *Chamber Mod IV*	-	950,000	-10 (-5)	375 kg	III	GladTech
Hyperbaric Chamber, Portable (and Submarine) – *State II*	-	14,500	-5 (1)	100 kg	III	Cardia Industries
Life Support Chamber TRX	-	45,000	-5 (1)	20 kg	II	Cardia Industries
Mental State Probe - *ScanCeb*	12	28,000	-5 (5)	0.8 kg	III	Cortex
Personal Health Monitor -*Nichrome*	12	8,000	5 (1)	0.2 kg	III	Cortex
Portable Surgical Theater -*Survia*	+3	96,000	1 (5)	30 kg	III	Cardia Industries

Healing Chamber

The best way to be cured! All the Cure Tests penalties are reduced by half, as well as the mending time of the wounded. Wounds are automatically stabilized in a healing chamber. Chambers are extremely expensive and can usually be found in hospitals only. They must be connected to powerful computers and to generators.

Hyperbaric Chamber, Portable (and Submarine)

A hyperbaric chamber is pressurized room filled with pure oxygen and used to handle decompression sickness as well as treating conditions such as gas gangrene and carbon monoxide poisoning. The Stase II model is frequently used by the emergency teams that are sent underwater. It can easily be carried by two divers. A magnetic field allows the chamber to be used out of water on metallic surfaces. In that case, one person can move it with no problems. Out of water and without any magnetic system, the chamber weighs 58 kg. The lid is, in fact, made of 6-centimeter thick tempered hyperglass, which allows the chamber to be used in depths up to 10,000 meters.

Life Support Chamber

A character placed in a life support chamber can have his Critical Wounds stabilized. In the case of Mortal Wounds, the character can survive for a number of hours equal to his Constitution.

Mental State Probe

This small portable device detects electromagnetic waves emitted by neurons and makes it possible to know what emotional state an individual is in. It is, for example, possible to know if a target is nervous, if he is relaxed, if he is scared, happy, etc. The device must be placed near the character for 10 Combat Rounds. Then perform a Test with the device level. If the Test is successful, it is possible to have an indication on the emotional state of the target. A cerebral shield or any other enhancement of the target's Willpower inflicts a -1 penalty per point to the Test.

Personal Health Monitor

This device is a wristband that continually checks the health state of an individual. It can detect poisoning, a wound, a cardiac rhythm that is too fast, disease, etc. If any foreign agents enter the body of the individual, the device level acts as a *Medicine* Skill in order to identify the substance. This can prove pretty useful for a medical team in charge of an individual (+3 bonus to *Medicine*).

Portable Surgical Theater

These compact surgical operating rooms have all the equipment necessary for interventions. This model even comprises various automated assistants that bring a +3 bonus to the *Surgery* Test.

CYBERNETIC AND BIOLOGICAL IMPLANTS

SECONDHAND GEAR

As incredible as it may seem, there is a secondhand market for cybernetic equipment. Indeed, for this kind of equipment as for anything else, new gear is hard to find, or terribly expensive, which may make interested people get hold of secondhand gear and have it implanted (useless to say that it is better sometimes not to be aware of its origin...). So the usual rules of Availability and Integrity still apply.

MAINTENANCE AND BREAKDOWN TEST

If you are playing a campaign, you can consider that a cybernetic implant must be maintained in a specialized clinic once a year or it will be subject to wear and lose Integrity levels just as any other equipment.

Breakdown Tests are performed for implants only in two cases:

- **Following a Critical or Mortal Wound** on a body part that holds an implant.
- **In the case of an EMP attack**, for electronic implants. Note that these implants, like any electronics, can be coated with an EMP shielding (see **Electronics**, page 22).

RISK OF REJECTION

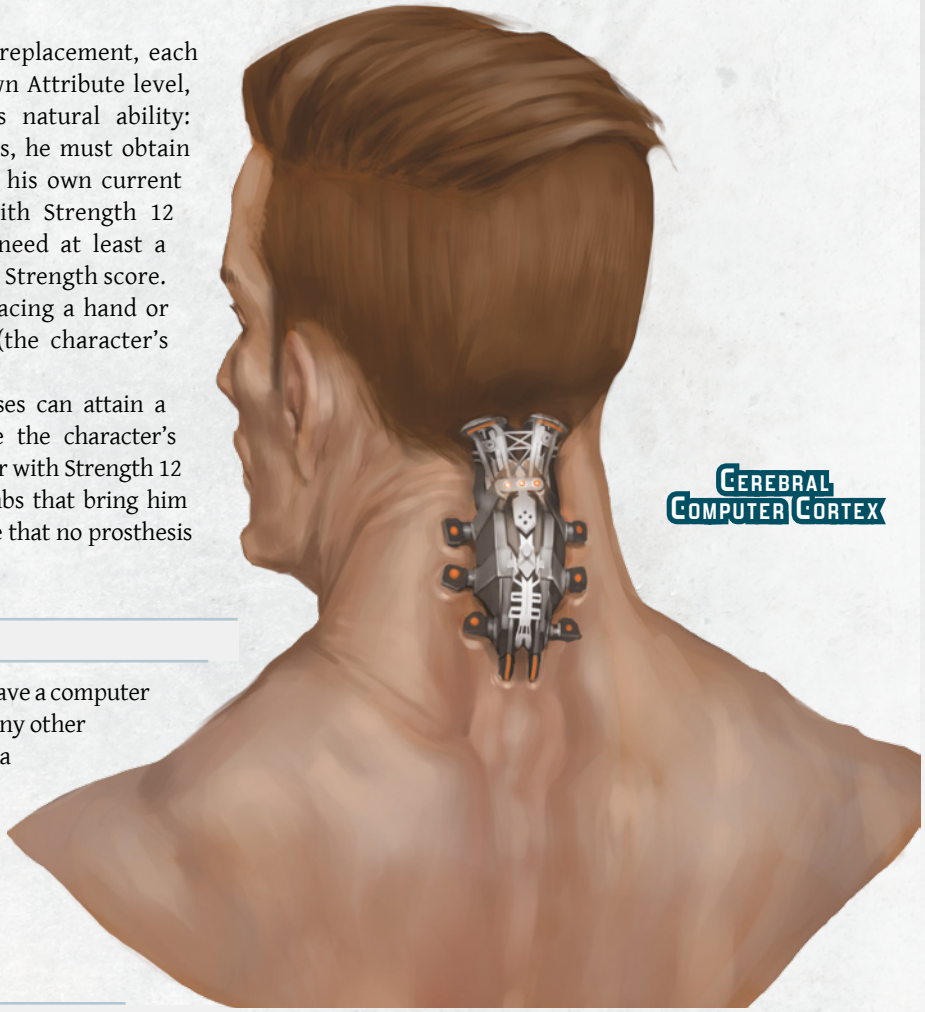
The implantation of cybernetic equipment does not pose any problem if it is done with new equipment that has been normally conditioned in optimal sanitary conditions (sterile packaging, etc.), and if the operation is performed in a specialized hospital that applies every necessary anti-rejection treatment. If the Gamemaster thinks that one of these conditions is not met (salvaged gear of dubious origin, operation without any precautions, etc.), then there is a risk of rejection. The Player must perform a Luck Test for his character (possibly with a penalty set by the GM, depending on the situation). In the case of a Failure, the graft is rejected and the subject develops an infection. The character suffers a Moderate Wound per day (then a Serious Wound when all the boxes are ticked, then a Critical Wound, and so on), until his infliction is taken care of in a hospital.

Artificial Replacement

Each body part or organ can be replaced by an artificial prosthesis that can bring a bonus to the character's

Attributes. Since it acts as a total replacement, each cybernetic implant possesses its own Attribute level, independent from the character's natural ability: if he wants to benefit from a bonus, he must obtain a prosthesis of a higher level than his own current ability level. So, if a character with Strength 12 has his arms replaced, he would need at least a prosthesis of level 13 to get a higher Strength score. It is worth noting that simply replacing a hand or a foot does not bring any bonus (the character's Strength is unchanged).

If you can pay the price, prostheses can attain a maximum level of 10 points above the character's natural level. For example, a character with Strength 12 can be endowed with cybernetic limbs that bring him to a maximum level of 22. Please note that no prosthesis can surpass level 25.



Cerebral Computer Cortex

This device allows an individual to have a computer in the head that can be connected to any other computer (this is the equivalent of a watch computer, see **Computer Hardware and Program**, page 18).

Note: this computer brain model made by Cortex company includes level 8 security program.

Hormonal Synthesis Gene Splicing

By splicing a gene specifically intended to synthesize a hormone, it is possible to increase the muscular capacity of an individual. Such a splice, in addition to being very difficult, can only be done in a clinic equipped with the most cutting-edge technology. It is possible to apply this treatment to an individual several times for a maximum bonus of +5. A character cannot surpass level 25.

Interface Implants

These implants allow a person to directly interface with a machine. There are two types: the neural implant (which links the nervous system to a device) and the neuronal implant (which links the brain to a machine). The implant level limits the level of the device to which the person can connect.

Mimetic Mask

This system is composed of micro-implants inserted beneath an individual's facial skin; it acts on the facial muscles to modify the character's features. To copy someone's face, a person can use a special external mask that has been imprinted with a very detailed, three-dimensional representation of the subject made by a professional (sculptor, 3D modeling specialist, etc.), for a price set by the GM (several thousand Sols). It is also possible to form the external mask directly on the face of the target (in this case, the copy will always be excellent, while a 3D reproduction can be more or less precise). The external mask then transmits the morphological imprint to the mimetic mask, which then modifies the user's features.

To evaluate the quality of the copy made by the mimetic mask, it is necessary to make a Test based on the object level, while noting the Success or Failure Modifier obtained. Any person who meets up with a character using a mimetic mask, who is therefore vulnerable to the discovery of the deception, may make an Intelligence or Perception Test (the lower of the two). The person must know the individual being imitated. If the mimetic mask has already obtained a Success Modifier, it acts as a penalty on this Test, just as a Failure Modifier offers a bonus.

Another technique uses a series of electronic microsensors, implanted in the morphological mask itself, that analyze the face being copied to capture its shape. The user must then attentively study his target while the sensors record the features to reproduce. When he thinks

CYBERNETIC AND BIOLOGICAL IMPLANTS						
MODEL	LEVEL/BONUS	COST	AVA (B. MKT)	WEIGHT	TL	MANUFACTURER
Cerebral Computer Cortex – *Cortex Ultra*	Generation V	250,000	-10 (-5)	-	V	Cortex
Communicator – *Lister Om*	-	10,000	20 (15)		III	Cortex
Enhancements - *Bear*	STR+1	84,000	-5 (5)	-	IV	Cortex
Enhancements - *Cheetah*	ADA+1	82,000	-5 (5)	-	IV	Cortex
Enhancements - *Eagle*	PER+1	88,000	-5 (5)	-	IV	Cortex
Enhancements - *Jellyfish*	PRE+1	49,000	-5 (5)	-	IV	Cortex
Enhancements - *Orca*	INT+1	136,000	-5 (5)	-	IV	Cortex
Enhancements - *Puma*	COO+1	64,000	-5 (5)	-	IV	Cortex
Enhancements - *Shark*	WIL+1	40,000	-5 (5)	-	IV	Cortex
External mask	-	12,000	-5 (-5)		IV	Umbra
Hormonal synthesis gene therapy	STR+1	850,000	-	-	III	Cortex
Mimetic mask	12	36,000	-5 (-5)	-	IV	Cortex
Neural A interface implants	10	9,000	10 (1)	-	IV	Cortex
Neuronal A interface implants	10	9,000	10 (1)	-	IV	Cortex
Proto-hand	-	28,000	-10 (-5)	-	V	Xen
Sonar - *SonCom*	7*	12,000	1 (-5)	-	IV	Cortex
Subdermal plates - *Crab*	1 to 5	See text	10 (15)	-	III	Cortex

**Analyzer level (see Electronic equipment, Analyzer on page 22).*

ARTIFICIAL REPLACEMENT:	ATTRIBUTE	COST	AVA (B. MKT)	WEIGHT	TL	MANUFACTURER
• Eye	Perception (sight)	1,000/ lvl.	5 (10)	-	III	Various
• Ears	Perception (hearing)	500/ lvl.	5 (10)	-	III	Various
• Arm	Strength[1]	700/ lvl.	5 (10)	-	III	Various
• Hand	-	4,000	5 (10)	-	III	Various
• Leg	Strength[2]	800/ lvl.	5 (10)	-	III	Various
• Foot	-	4,500	5 (10)	-	III	Various
• Heart	Constitution[3]	5,000/ lvl.	5 (10)	-	III	Various
• Lung	Breath	3,000/ lvl.	5 (10)	-	III	Various
• Kidney	Constitution[4]	1,200/ lvl.	5 (10)	-	III	Various

[1] Only for actions depending on the strength of the arms and torso (this also concerns the Melee Damage Modifier).
[2] Only for actions depending on the strength of the legs and hips: running, jumping, and kicking (in this case, this influences the Melee Damage Modifier), etc. It is necessary to replace both legs to benefit from this.
[3] Only for resistance to exertion and fatigue.
[4] Only for poison resistance (the corresponding Natural Resistance is modified as a result).

ORGANIC REPLACEMENT:	ATTRIBUTE	COST	AVA (B. MKT)	WEIGHT	TL	MANUFACTURER
• Eye	-	8,000	5 (10)	-	III	Various
• Ears	-	4,000	5 (10)	-	III	Various
• Arm	-	6,000	5 (10)	-	III	Various
• Hand	-	4,000	5 (10)	-	III	Various
• Leg	-	7,000	5 (10)	-	III	Various
• Foot	-	4,500	5 (10)	-	III	Various
• Heart	-	10,000	5 (10)	-	III	Various
• Lung	-	5,000	5 (10)	-	III	Various
• Kidney	-	2,000	5 (10)	-	III	Various

he has observed his target for a sufficient amount of time, the character can order the morphological modification. The system uses a functioning Test, as above, with a penalty that depends on the amount of time spent studying the target:

- **1 minute:** -10
- **10 minutes*:** -7
- **Up to 1 hour*:** -5
- **Extensive study*:** -3 (this presumes that the character spends several days studying his target).

* If the character uses photos, video, or fairly detailed digital reports, the penalty is reduced by 2 points.

A mimetic mask can hold its shape for 6 hours. In the event of a breakdown, the character is horrifically disfigured until the system is repaired. After repair, he loses 1 point of Presence, and his face retains several scars.

Organic Replacement

The limb or organ is replaced by an organic equivalent, obtained through cloning the individual's own cells. Organic replacements do not offer any Attribute bonuses, but rumor has it that the Amazonian genetics companies are developing particularly high-performance organic prostheses...

Note: organic replacements are not readily available in bulk on the black market; they can only be produced in a specialized clinic (official or otherwise).

The production of an organic replacement requires some time. The waiting time is indicated below. It is entirely possible to have organic prostheses made in advance, which will be stocked by the hospital of your choice. Drugs and up-to-date medical techniques allow for an extremely rapid rehabilitation, which takes no more than 1 to 4 weeks, depending on the circumstances.

- **Eye:** 4 months
- **Arm:** 6 months
- **Leg:** 7 months
- **Heart:** 1 month
- **Lung:** 2 weeks
- **Kidney:** 1 month
- **Ear:** 1 week
- **Hand:** 1 month
- **Foot:** 1 month

Physical and Mental Enhancements

Most Attributes can be enhanced through cybernetics. A breakdown cancels out the bonuses (and a Catastrophe on the Breakdown Test turns the bonus into penalties...). An individual can get several enhancements on an Attribute, for a maximum bonus of +5 for the physical Attributes (STR, COO, PER) or +3 for the mental and social Attributes (ADA, INT, WIL, PRE). In all cases, it is impossible to go over Level 25.

Note: Adaptation and Intelligence are enhanced through neuronal stimulants. Willpower and Presence are enhanced through the partial inhibition of some nervous and emotional areas.

Protoappendage

Protoappendages come from an Azurean technology discovered by the Amazonians. When an individual loses a hand, for example, it is possible to mount a kind of flabby blob on his stump. This blob will connect to the nerves, veins, muscles, and bones by itself to reconstitute the missing hand. Once a protoappendage is set in place, it is fully integrated into the patient's body. This marvel of biotechnology is the product of the culture of an organic building material, the secret of which the Amazonians guard jealously. Neither living nor inert, neither completely organic nor completely artificial, this material is a true revolution in splicing technology. Some suggest that it might come from a living creature (proto-organism), having undergone genetic alterations in a laboratory, and which would live symbiotically with its new carrier. No one has yet discovered how a protoappendage knows which limb to replace. Once it is put in place, the protoappendage is very difficult to detect. It is ever so slightly paler and softer than a normal limb.

Radio Communicator

These radio communicator implants are getting trendier, but they come with a 120-meters range and are more gimmicky than high-end devices. They are activated by simply pressing fingers on the throat. The user then vocally dials a number. The receiver is directly implanted in the internal ear (the device is, therefore, invisible).

Sonar

This implant is made of an active directional sonar, a microcomputer that processes the data and analyses the echo, and a data display mounted on the individual's retina. The sonar can be used underwater, but only works down to 200 meters (if the character finds himself in a vehicle or if he wears a helmet, he will not detect anything.). There is also a radar version of this system (the same person cannot be equipped with both systems).

Subdermal Plates

Subdermal plates act as an armor, and reduce the total physical Damage points that a character can take by a value equivalent to their level. Each level of subdermal plates costs 8,000 x (level x level) Sols (so, a level 3 subdermal plates costs 72,000 Sols). They usually cover all the body Locations, but it is possible to opt for a partial implantation: Body only (cost reduced by 60%), Head (cost reduced by 90%), one Leg (cost reduced by 80%) or one Arm (cost reduced by 90%).

WEAPONS AND PROTECTIONS

"In life, there's nothing quite like a gun to get your point across. And if the discussion gets tricky, work through it with some depleted uranium rounds."

— Elmer Volen, arms dealer

Reminder:

- **Dam.:** Physical damage inflicted by the weapon. In this section, the damage from individual weapons relies most of the time on the **Human Scale**, contrary to torpedoes or weapons capable of creating damage on the **Vehicle Scale** (see **Submarines and Vehicles**, page 107).
- **Shock:** Additional Shock Damage. Some weapons only cause Shock Damage (electric clubs, for example).
- **Pen. :** The number of armor or simple protection points that are ignored by an attack.
- **Range:** range of firearms, in meters (Short/Medium/Long/Extreme). The maximum range is also indicated between parentheses, beyond which a target is considered impossible to hit.
- **STR:** Minimum strength to handle the weapon.
- **Init.:** Penalty imposed on Initiative (Preparation), caused by the weight and/or the poor maneuverability of the weapon.
- **Reach:** Reach bonus of the weapon (melee weapons).
- **Firing Mode:** Firing mode (firearms), with "SS" for single shot, "SB" for short burst, "LB" for long burst.
- **Cost:** Approximate value of the object, in Sols.
- **Ammo. (Cost):** Magazine capacity (firearms), and cost of ammunition (per magazine).
- **AVA (B. Mkt):** Availability The value in parentheses indicates the availability of the object on the black market.
- **TL:** Technological level.

PENETRATION (PEN)

The amount of armor or protection points that is bypassed. If the penetration is greater than the armor or protection, then the extra points are lost (i.e. they do not add to the damage roll). If several damage scale are given or if you want an attack at a given scale to affect another scale, then the reference scale for the penetration value is V-. The penetration value works against a total exclusion field but not against a force field. A penetration value at scale H is divided by 6 at scale V- while a penetration value at scale V+ is multiplied by 2 at scale V-. RD is not affected by armor-piercing attacks and more generally by attacks that reduce the armor or protection value. As the penetration depends among many factors on the projectile speed, the longer the range the smaller the penetration value, see table below.

RANGE	PENETRATION
Up to short Range	Normal
Up to medium Range	-25%
Up to long Range	-50 %
Up to extreme Range	-75%

WEAPON INCREMENTAL PENETRATION

A weapon with an incremental penetration can raise its penetration, at the H scale, up to a maximum bonus equal to its PICR **(Penetration Increase per Combat Round)** x the maximum base damage of the weapon. For example, a blowtorch with a PCR of 1 and a maximum base damage of 20 (2D10) has a maximum penetration of 20 (1 x 20) and a cutter spreader has a maximum penetration of 60 (2 x 30).

WEAPON INCREMENTAL DAMAGE

A weapon with Incremental damages can raise its damages up to a maximum bonus equal to its base damages. For example, a cutter spreader, with base damages of 3D10 (H), can inflicts a maximum of 3D10 + 30 damage points. A weapon can increase its damages only if it can be kept in continuous contact with the target (generally on stationary targets).

INCREASING DAMAGE AND PENETRATION: PASSING FROM ONE SCALE TO ANOTHER

Sufficiently high damage can affect a target at a higher scale. If you need a rapid conversion, just remember that 10 points of damage at H scale is equivalent to 1 point of damage at V- scale, and that 2 points of damage at V- scale is equivalent to 1 point of damage at V+ scale. Likewise, 6 points of penetration at H scale is equivalent to 1 point of penetration at V- scale and that 2 points of penetration at V- scale is equivalent to 1 point of penetration at V+ scale.

MINIMUM STRENGTH (WEAPONS)

Some weapons require a minimum level of Strength to be handled properly, because of their weight (or the amount of recoil when it comes to firearms). This does not mean that a character who has a lower Strength score will not be able to use this kind of weapon, but that he will suffer penalties.

PENALTIES			
STR OF THE USER	INI.	ATTACK TEST	DAM.
STR of the weapon -1	-2	-1	Normal
STR of the weapon -2	-3	-2	-1
STR of the weapon -3	-4	-3	-2

Etc.

Example: *a weapon requires a STR of 14 to be handled with no penalty. The character using it only has a Strength level of 12, which is two points lower than the minimum. He will therefore attack with a penalty of 2 to his attack test. His initiative will suffer a penalty of 3 and damages will be reduced by 1.*

WEAPONS THAT GENERATE AN INITIATIVE PENALTY

Some weapons are just slower than others; for example, a rifle will need to be shouldered to be shot, or a heavy bladed weapon will need to be steadied before being able to strike. These weapons require a Preparation, which is usually translated into game terms as a decrease in the character's Initiative. This penalty can, however, be reduced or even cancelled out: for every 2 Strength points over the minimum required level, the penalty on the Initiative is reduced by 1 point. For example, a character with a Strength score of 15 who is using a weapon with a minimum Strength level of 13 and a penalty to his Initiative of -3 will have that penalty reduced to just -2 (with a Strength score of 19 the penalty would be cancelled out completely).

RANGE OF WEAPONS (CLARIFICATION)

The range of weapons is indicated as follows: 10/50/100/200(300). This corresponds to the following ranges.

RANGE OF WEAPONS

DISTANCE	RANGE	BONUS/PENALTY
From 0 to 9 m	Point blank	+5
From 10 to 49 m	Short range	0
From 50 to 99 m	Medium range	-5
From 100 to 199 m	Long range	-10
From 200 to 300 m	Extreme range	-15

A range of less than 10 meters (in this example) is Point blank, but you may use this optional rule as well:

When the weapon is used at a distance shorter then short range (less than 10 meters in this case), there are three possibilities:

- **Very short range:** a very short range is the short range reduced by half (rounded down to the nearest whole number). In the example above, a very short range varies between 5 and 9 meters. The shooting bonus is +5.
- **Point blank:** this is the distance range between a muzzle contact shot and very short range. In the example above, point blank range varies between 0 and 4 meters. The bonus is +10.
- **Contact shot:** the weapon muzzle is in contact with or is very close to the target. You may consider that the shooter will automatically get the maximum margin for his Attack test with a +10 bonus.

THE CONCEPT OF MASSIVE DAMAGE

Polaris RPG is a science fiction universe where there is no lack of combat and means to damage others. The rules for combat and physical wounds presented in the previous chapters apply specifically to situations that play out on the Human Scale. So it is possible to precisely determine the Damage caused by a medium-caliber firearm, even if the victim wears a bulletproof vest. What, then, would be the Damage caused by the same weapon against an armor-plated vehicle? The response would be "not much," or even "nothing at all." Against vehicles, a rocket, a torpedo, or an explosive charge will be much more efficient...

Conversely, what are the chances of survival for a character faced with a weapon designed to destroy a vehicle? Even with a bulletproof vest, no one survives being hit by a rocket capable of piercing several centimeters of molecular armor. No one. It is pointless to roll dice: just turn back to the **Character Creation** chapter. To avoid rolling several dozen D10s, let's just call it "**Massive Damage.**" Every character, creature, or vehicle suffering what would be considered Massive Damage is definitely destined for death or destruction. A generous GM can still allow Luck points, but logically, it is impossible to survive in the face of such a high level of Damage.

As you may have guessed, the notion of Massive Damage is tied to the different possible scales in the game: Human Scale, Vehicle Scale... The principle is simple: apart from some particular cases (which will always be specified, if need be), a weapon capable of inflicting Damage on a higher scale of creature or a vehicle will cause Massive Damage to anything on an inferior scale. For example, an anti-personnel mine will cause Massive Damage to a group of characters on foot, but will barely scratch the armor on a vehicle. In the same manner, an anti-vehicle mine (ground or undersea) might immobilize a land vehicle or a vessel and cause Massive Damage to characters who have the bad luck to be next to it when it explodes. In the weapons' lists in the **Gear** chapter, the Damage caused as a function of the game scale will always be indicated.

MELEE WEAPONS

Note: certain weapons require an energy reserve (or other power supply) to function, such as electric weapons. The column "Charge (Cost)" therefore indicates the maximum duration of the energy reserve, or the number of charges available before it runs out, as well as the cost of each new reserve.

Bat

Skill: armed combat

The bat is the most popular weapon among merchants, tavern keepers, and other service industry workers. The Dicta model is made of synthetic wood reinforced by highly resistant alloys.

Blowtorch

Skill: armed combat

Blowtorches (underwater or not), like cutting lasers, inflict slightly reduced base Damage in combat. However, on stationary targets or if the weapon can be maintained in continuous contact with the target, its Damage is increased every Combat Round by +1 points (2D10 the first Round, 2D10+1 the second Round, 2D10+2 the third Round, etc.) until it reaches a bonus of +20 Moreover, the blowtorch ignores 1 point of protection/armor (plus an extra1 point per Combat Round if the weapon can be maintained in continuous contact with the target). The blowtorch can ignore a maximum of 20 points of armor/protection at the H scale. This tool proves fairly effective against walls and doors of medium thickness. When this weapon reaches a damage bonus of +6, it can affect V- target.

DAMAGE H	DAMAGE V-
≥ 2D10+6	1D6-3
≥ 2D10+12	1D6-2
≥ 2D10+18	1D6-1

Cane

Skill: Armed combat

A classic combat cane, from 90 cm to 1 m in length.

Combat Claw

Skill: special weapons (melee) ; COO/COO

A combat claw is fastened over the hand and increases contact damage. This weapon ignores 3 points of protection/armor at the H scale.

Cutter Spreader

Skill: Heavy Weapons (melee)

A cutter spreader is a tool used to cut heavy steel plates with a laser. It can be used very effectively against an obstacle, whether it is a wall or a thick door. Like a blowtorch, its Damage is increased every Combat Round by +1 on stationary targets or if the weapon can be maintained in continuous contact with the target until it reaches a bonus of +30. Moreover, the cutter ignores 2 points of protection/armor (plus an extra 2 points per Combat Round if the weapon can be maintained in continuous contact with the target). The Cutter Spreader can ignore a maximum of 60 points of armor/protection at the H scale. These weapons can affect V- target.

DAMAGE H	DAMAGE V-
≥ 3D10	1D6-3
≥ 3D10+6	1D6-2
≥ 3D10+12	1D6-1
≥ 3D10+20	1D6
≥ 3D10+26	1D6+1

Dagger

Skill: armed combat

The favorite weapon of seadogs of all kinds, the Shark is a highly resistant and particularly effective combat dagger. The blade is not retractable.

Drilling Machine

Skill: Heavy Weapons (melee)

The Clyss portable drilling machine is one of the most common tools in the mines. Like a blowtorch, its Damage is increased every Combat Round by +1 on stationary targets or if the weapon can be maintained in continuous contact with the target until it reaches a bonus of +40. Moreover, the drilling machine ignores 3 points of protection/armor (plus an extra 3 points per Combat Round if the weapon can be maintained in continuous contact with the target). The Drilling Machine can ignore a maximum of 120 points of armor/protection at the H scale. These weapons can affect V- target.

DAMAGE H	DAMAGE V-
≥ 4D10+0	1D6-2
≥ 4D10+6	1D6-1
≥ 4D10+14	1D6 -
≥ 4D10+20	1D6+1
≥ 4D10+31	1D6+2
≥ 4D10+36	1D10

Drilling Torch

Skill: Heavy Weapons (melee)

The Hydra portable drilling torch is a strong power tool, much more imposing than the usual cutters. Like a blowtorch, its Damage is increased every Combat Round by +1 on stationary targets or if the weapon can be maintained in continuous contact with the target until it reaches a bonus of +50. Moreover, the drilling torch ignores 3 points of protection/armor (plus an extra 3 points per Combat Round if the weapon can be maintained in continuous contact with the target). The Drilling torch can ignore a maximum of 150 points of armor/protection at the H scale. This weapon affects V- and even V+ target as follows:

MELEE WEAPONS

MODEL	DAM.	SHOCK	PEN.	STR	INIT.	REACH	COST	CHARGE (COST)	AVA (B. MKT)	WEIGHT	TL
Barehanded	1D6	-		-	-	-	-	-	-	-	-
Axe	2D10+3	+1D6	1	9	-2	+1	500	-	10 (15)	1 kg	I
Dicta Bat - Dicta	1D10+1	+1D10		7	-2	+1	200	-	20 (20)	0,5 kg	I
Blowtorch	2D10 (+1/CR)	+2D6	1/CR	10	-	-	1,400	1 hour of gas (150)	15 (15)	1,2kg	I
Brass knuckles	1D6+2	-		-	-	-	100	-	20 (20)	0,3 kg	I
Shock BrasV-knuckles	1D6+3	+1D10+2					1,600	20 (200)	10 (15)	0,4 kg	II
Combat cane	1D10	+1D6		10	-	+1	150	-	20 (20)	0,5 kg	I
Combat claw	1D6+1	-	3	-	-	-	1,200	-	10 (15)	0,5 kg	I
Combat staff	1D10+5	+1D6		11	-	+2	600	-	20 (20)	1,5 kg	I
Cutter spreader - Scianor**	3D10 (+1/CR)	-	2/CR	15	-5	+1	4,000	1 hour (200)	10 (10)	28 kg	II
Dagger - Shark	1D10+2	-	1	-	-	-	200	-	15 (20)	0,6 kg	I
Drilling Machine - Clyss**	4D10 (+1/CR)	-	3/CR	15	-5	+1	9,000	1 hour (200)	20 (20)	29 kg	II
Drilling torch - Hydra**	5D10 (+1/CR)	-	3/CR	15	-7	+1	15,000	1 hour (1,500)	5 (5)	28 kg	III
Electrowhip	1D10+3	+1D10		-	-	+3	16,000	30 (1,000)	1 (5)	2,1 kg	II
Heavy axe (2HM)	3D10+2	+1D6	3	15	-3	+1	800	-	5 (10)	2,6 kg	I
Hole puncher	1D10+2	-	6	-	-	-	2,000		10 (15)	4 kg	II
Knife - Conger	1D10+1	-	1	5	-	-	120	-	20 (20)	0,3 kg	I
Lance	3D10	-	1	11	-	+3	300	-	1 (5)	1,5 kg	I
Magma glove	1D10+2	-		-	-	-	10,000	1 hour (900)	-5 (1)	1,8 kg	II
Molecular dagger - Pulsar	1D10+3	-		-	-	-	1,000	30 (600)	5 (10)	0,7 kg	III
Neural dagger - Brain	-	+3D10		-	-	-	3,000	20 (300)	5 (10)	0,7 kg	III
Ordainers' staff	1D10+5/ 2D10+5*	+1D6/+7*	0/18*	12	-	+2	80,000	40 (2,000)	-10 (-5)	0,9 kg	V
Power glove	1D10	+1D6		-	-	-	9,000	1 hour (900)	1 (5)	1,2 kg	II
Shock glove	1D6	+1D10+2		-	-	-	9,000	30 (900)	1 (5)	0,8 kg	II
Sledgehammer	2D10	+1D10		9	-3	+1	600	-	10 (15)	1 kg	I
Sword/saber - Capitan	2D10+2	-	1	10	-2	+2	600	-	15 (20)	1,2 kg	I
Thermal dagger	1D10+4 (+1/CR)	+1D6	1	-	-	-	4,000	1 hour (400)	5 (10)	0,8 kg	III
Thermal lance - Solar	3D10+4 (+1/CR)	+1D6	1	13	-	+3	4,000	1 hour (400)	5 (10)	2,8 kg	II
Truncheon	1D6+1	-		5	-	+1	250	-	20 (20)	0,3 kg	II
Truncheon - Mao	1D10	+2D10		8	-	+1	4,000	40 (400)	10 (15)	0,4 kg	II
Two-handed sword/saber	2D10+5	-	3	15	-2	+1	900	-	10 (15)	2,5 kg	I

** Normal Damage/Electrical Field Damage (uses 1 charge)*

*** In melee combat, it is necessary to use the Heavy weapons (melee) Skill. These weapons require the use of a tripod or a harness equipped with a hydraulic system that can support the majority of the weapon's weight. Without this device, the minimum Strength level required must be increased by 3 points, the Initiative penalty by 2 points, and the Skill level must be divided in half...*

DAMAGE H	DAMAGE V-	DAMAGE V+
≥ 5D10	1D6-1	-
≥ 5D10+8	1D6	-
≥ 5D10+14	1D6+1	-
≥ 5D10+25	1D6+2	-
≥ 5D10+30	1D10	-
≥ 5D10+36	1D10+1	
≥ 5D10+48	1D10+2	1D6

Electrowhip

Skill: special weapons (melee); COO/COO

This weapon takes the form of an extremely thin, powered cable. It can be used to either hit a target, causing ugly electrical burns, or to catch him (see **Whips and Chains**, in the **Combat** chapter, *CRB1* page 230). If a target is caught by the whip, he suffers Damage each Combat Round, as long as he has not set himself free. On electronic devices (or cybernetic implants), the attack also imposes a Breakdown Test. It is absolutely necessary to have the *Special weapons (Whip)* Skill to use this weapon; if not, every time the user fails, he wounds himself...

Hole Puncher

Skill: hand-to-hand combat

This weapon was specifically designed to pierce armor (simple protection only). It consists of a glove loaded with a short metal spike, lodged in a compartment atop the fist. When it hits a target, the spike is instantly shot forward like a powerful piston. The weapon causes normal Damage, but ignores up to 6 points of simple protection. The piston must be re-armed after each use.

Knife

Skill: Armed combat

The Conger is the most common model of knife. It is solid, well balanced, and as sharp as a razorblade. Its blade is retractable.



Neural Dagger

Magma Glove

Skill: Hand-to-hand combat

The magma glove has a surface of white-hot metal (it takes 3 Combat Rounds to heat up). Needless to say, an unprotected victim will feel the hit! Against an adversary with simple or no protection, the glove inflicts horrible burns. The glove's generator (1 kg) is often worn on a belt.

Molecular Dagger

Skill: Armed combat

This weapon consists of a small handle that produces a blade of dark energy. This very thin blade is more like an awl than a knife. The weapon can ignore simple protections (useless however against vehicles or exo-armor) and can only be stopped by force fields. It is fully functional underwater. A charge is used each time the dagger hits its target. It is impossible to use a molecular dagger as a throwing weapon. The energy beam disappears as soon as the user releases pressure on the dagger's handle. It inflicts Burn Damage.

Neural Dagger

Skill: Armed combat

The neural dagger is a blade of greenish energy that affects the nervous system. It ignores all simple protections (useless however against vehicles or exo-armor).

Ordainers' Combat Staff

Skill: Armed combat

These extremely rare weapons are the product of a very advanced technology, possibly even Genetician-made. These staves are made of a material that has the appearance of copper, but is as tough as plastitanium. They generate a very powerful electrical field that does not affect the user (it can be deactivated: the Damage is then similar to that of a normal combat staff). A spike can spring from each end of the staff for a special perforating attack, which bypasses 18 points of armor or protection. This special attack, extremely difficult to perform, uses one charge, and can only be made using the limiting Skill *Martial arts (Offense techniques)*, with a penalty of -7. Protection fields are not affected by this special attack. This weapon does not function underwater. On electronic devices (or cybernetic implants), the electric attack also generates a Breakdown Test (on powered exo-armor, 1D4 systems, determined at random, must roll a Breakdown Test). **Note:** this weapon has an Integrity of 3D6+5 (used) or 25 (new).

Power Glove

Skill: Hand-to-hand combat

The power glove increases the Damage done to a target. The glove's generator (1 kg) is often worn on a belt.

Shock Brass Knuckles

Skill: Hand-to-hand combat

Another weapon that is very popular in the undersea ports, the shock brass knuckles is capable of dropping the toughest tough guy. This knuckleduster also delivers a powerful electrical charge. The battery that powers it must be recharged after about 20 uses.

Shock Glove

Skill: Hand-to-hand combat

The shock glove, in addition to inflicting normal Damage for a melee or wrestling Attack, also inflicts Shock Damage on a victim who has simple protections or none at all. The glove's generator (1 kg) is often worn on a belt.

Shock Truncheon

Skill: armed combat

The famous Mao shock truncheon is used by security services all over the world. Small, easy to handle, and delivering an electric shock powerful enough to knock out a linebacker, this is the ideal weapon for keeping the peace.

Staff

Skill: armed combat

A classic combat staff, around 1.4 m, of synthetic material.

Sword/Saber

Skill: armed combat

There are numerous models of swords or sabers. It is one of the preferred weapons among sailors, especially pirates. All these models are particularly sharp and highly resistant. They are also, of course, stainless steel. The Capitan company is known to manufacture the very best sabers on the market.

Thermal Dagger

Skill: armed combat

The Thermo IV is a short, white-hot blade (it takes at least 3 Combat Rounds to heat up). It works perfectly well underwater, but the damage is reduced by half. Like a blowtorch, its Damage is increased every Combat Round by +1 on stationary targets or if the weapon can be maintained in continuous contact with the target until it reaches a bonus of +14. Moreover, the thermal dagger ignores 1 point of protection/armor.

When this weapon reaches a damage bonus of +9, it begins to affect a V- target as follows:

DAMAGE H	DAMAGE V-
≥ (1D10+4) +8	1D6-3
≥ (1D10+4) +14	1D6-2

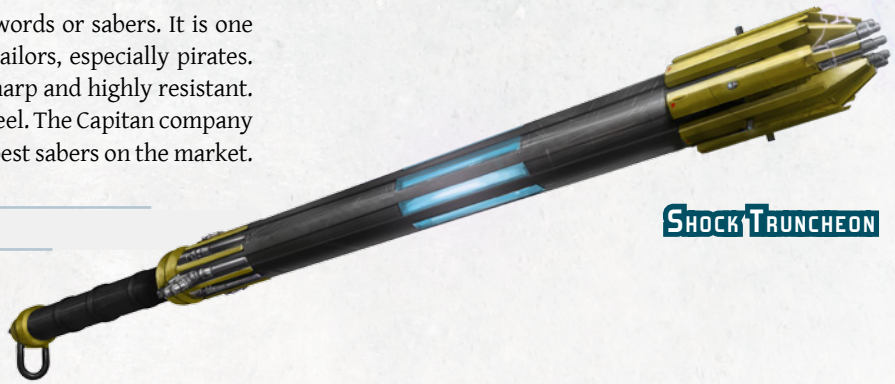
Thermal Lance

Skill: armed combat

A thermal lance has a metal shaft and ends in an almost indestructible spike that turns white-hot when activated (it takes 3 Combat Rounds to heat up). Like a blowtorch, its Damage is increased each Combat Round by +1 on stationary targets or if the weapon can be maintained in continuous contact with the target until it reaches a bonus of +34. Moreover, the thermal lance ignores 1 point of protection/armor. This weapon can be used underwater, but the battery discharges twice as fast.

This weapon affects a V- target as follows:

DAMAGE H	DAMAGE V-
≥ (3D10+4)	1D6-3
≥ (3D10+4) +2	1D6-2
≥ (3D10+4) +8	1D6-1
≥ (3D10+4) +16	1D6
≥ (3D10+4) +22	1D6+1
≥ (3D10+4) +33	1D6+2



Shock Truncheon



Thermal Lance

Truncheon

Skill: armed combat
A small retractable truncheon is particularly useful.

BOWS AND CROSSBOWS

Skill: Bows, spearguns and crossbows
The following weapons can be used underwater at shallow depth but their range is limited to 1 meter.

Bow

The Ibram Flexi bow consists of an alloy made of extremely flexible and highly resistant materials. It can be disassembled and is easily concealed.

Crossbow

The Leysur IV crossbow is equipped with an automatic loading system. Six bolts are placed in the body of the weapon. Each time the user fires, one of the projectiles slides immediately into firing position. This model was developed with particularly light alloys and it can be disassembled.

THROWING WEAPONS

Skill: Throwing Weapons
The following weapons cannot be used underwater

"Crazy Disk"

This weapon, which is totally illegal, is the result of failed experiments. Today, those who use it do so as a last resort, when there is no hope of getting out alive. This disk is similar to a drone disk, but its peculiarity is that it accelerates and, therefore, gathers power every time it strikes something. The Damage increases by 2 points with each rebound. Such a weapon, once activated and thrown, becomes totally uncontrollable. It bounces off obstacles at random, in completely unpredictable directions (refer to the dispersal pattern of a grenade). It only stops after having delivered an Attack causing at least 25 Damage points, most often coming to a stop embedded in its final target. Someone can try to stop the disk before that, but must succeed an Opposed Strength Test (and find a way not to get wounded in the process), against a level equal to the number of Damage points inflicted in the last attack by the disk. The weapon acts after each action attempted by the characters in a Combat Round, and automatically hits all targets within its trajectory (make Luck Tests if you are not sure). The disk uses a magnetic field to propel itself. As a result, it is totally ineffective in an area where there are no metallic structures. An EMP attack can completely disable this weapon.



Frag Disk

Drone Disk

These small disks are equipped with a device linked to a beacon worn by the user. When they are thrown, they return automatically after hitting their target. The user wears a special metal glove into which the beacon is incorporated. The disk always comes back toward the glove, even if it is not worn on the hand. Note that a character using the weapon with the glove on his belt, therefore, is exposing himself to some serious problems! A drone disk is razor-sharp and incredibly resistant.

Energy Disks

Similar to the crazy disk, this prototype certainly has more of a future. After it is thrown, the disk moves rapidly and accumulates energy on its path. The further it is thrown, the more damage it inflicts. Unlike the drone disk, this disk is not self-propelled: it is the distance at which the user throws it that matters. In addition to its base Damage, the weapon inflicts 2 points of Physical Damage and 1 additional Shock Damage for every 2 meters it travels. When it encounters an obstacle, it inflicts its Damage and stops immediately. The disk is destroyed by a Catastrophe.



BOWS AND CROSSBOWS											
MODEL	DAM.	PEN.	RANGE	STR	INIT.	FIRING MODE	COST	AMMO. (COST)	AVA (B. MKT)	WEIGHT	TL
Bow - Ibram Flexi	3D10	3	3/7/15/30 (50)	13	-3	SS	900	1 (20)	15 (20)	2,1 kg	II
Crossbow - Leysur IV	3D10+2	3	2/10/20/40 (60)	8	-3	SS	1,800	6 (100)	15 (20)	2,7 kg	II
THROWING WEAPONS											
Boomerang	1D6+1		2/5/10/20 (40)	-	-3	SS	350	-	10 (15)	0,2 kg	I
"Crazy disk"	1D6+2*		Special	-	-	SS	1,000	-	-10 (1)	0,1 kg	IV
Cutting disk (normal)	1D6+2	2	2/4/7/15 (30)	-	-3	SS	150	-	15 (20)	0,1 kg	I
Drone disk	2D10+3		2/4/7/15 (30)	-	-	SS	1,400	-	-5 (1)	0,1 kg	III
Energy disk	1D10**		2/4/8/16 (32)	-	-	SS	600	-	-5 (5)	0,1 kg	IV
Flechette	1D6+2		1/2/4/7 (15)	-	-3	SS	10	-	20 (20)	0,05 kg	I
Frag disk	1D6+2		2/4/7/15 (30)	-	-3	SS	600	-	-5 (5)	0,1 kg	III
Javelin	2D10+5	2	2/5/10/20 (40)	8	-3	SS	300	-	5 (10)	1 kg	I
Shuriken	1D6+1		1/2/5/10 (20)	-	-3	SS	50	-	10 (15)	0,04 kg	I
Throwing axe	2D10+3	1	1/2/4/7 (15)	10	-3	SS	500	-	15 (20)	1,2 kg	I
Throwing dagger	1D10+2	2	1/2/4/7 (15)	-	-3	SS	200	-	15 (20)	0,4 kg	I
Throwing knife	1D10+1	1	1/2/4/7 (15)	-	-3	SS	60	-	20 (20)	0,2 kg	I
Trident	3D10+3	3	2/4/7/15 (30)	13	-3	SS	900	-	-5 (1)	2,1 kg	I

** +2 at each rebound.*
*** see description*

Frag Disk

A frag disk is made to explode at a certain distance from the thrower. The user sets the distance and uses the weapon normally. When it has reached its target, the disk explodes into dozens of sharp blades that strike anyone within a 5-meter spherical range.

FIREARMS

The following weapons can be used underwater at shallow depth (around 100 meters) but their range is only 1 m for light/medium handguns and submachineguns, 1,5 m for heavy handguns and submachineguns, and 4 meters for assault rifles. Moreover, these weapons must make a breakdown test with a -2 penalty every time they are used underwater.

HANDGUNS AND SUBMACHINE GUNS

Skill: handguns

Handguns remain very commonly used by the inhabitants of the deep. Simple and easy to carry, they are truly the ideal weapons for settling the majority of situations. The standard categories are presented below, with the corresponding characteristics for the average capacity of weapons of each type. There are many models, each with their specific abilities: if the characters are looking for something in particular (a weapon with a larger magazine, a different firing mode, etc.), it is enough to slightly modify the object's price, as well as its Availability.



Medium and Heavy Pistol

Holdout Pistol

A less powerful but more easily hidden weapon. It is ideal for remaining discreet!

Light, Medium, and Heavy Pistol

It is only the caliber that changes with these semi-automatic weapons. Among the most famous ones, let's mention the models Mk 28 (medium pistol) and Mk 56 (heavy pistol), the Watchers' standard weapons, made by the Gladius Corporation.

Light submachine gun

This is just a medium-caliber pistol (but with a longer barrel, capable of firing in automatic mode.

Heavy Submachine Gun

A more imposing version of the submachine gun, equipped with a better firing speed (which has an impact on the Damage and Range) and most of all, a larger magazine.

Unscannable Pistol

A highly prized weapon among the intelligence services, these are made from materials that are undetectable by most security systems. Especially notable is the ANG 200 model—made by Gladius Corporation—used by the agents of Neptune, a compact weapon known for its discretion and small weight.

Rifles, Assault Rifles, and Light Machine Guns

Rifles (whether carbines or assault rifles) are shoulder-fired weapons: you have to shoulder them and aim in the best possible conditions. This makes these weapons relatively slow when compared with handguns or submachine guns (hence the Initiative Modifier). It is still possible to "shoot from the hip," thanks to a Hurried Action (see the chapter dedicated to combat, page 194 and *CRB1* page 211). In this case, the range must be divided by half.

Light machine guns also require a bipod on the ground to be used correctly (from a prone or crouching position); otherwise, they are uncontrollable. Without this, the minimum required level of Strength must be increased by 3 points, the Initiative penalty by 2 points, and the Skill level is divided in half...

Light Machine Gun

Skill: Heavy weapons (shooting)

Versatile weapons gifted with strong firepower, light machine guns are very bulky, but are still easy to transport and put to work. The FV 12 Replicant is the standard machine gun for the Watchers. The Kevler, known for its reliability, once equipped the Red League army, and continues to enrich certain suppliers on the black market.

Light and Heavy Assault Rifle

Skill: Shoulder-fired weapons/rifles

Only the firing power really differentiates these two categories (the heavy assault rifles also have a tendency to be a little unwieldy). Among the known models of light assault rifles, it is worth citing the FAV 34, made by Gladius, which the Watchers use; and the Breather, predecessor of the FAV 34, a very compact weapon that can be found these days on the black market.

Pump-Action Shotgun

Skill: Shoulder-fired weapons/rifles (or handgun in some cases)

Always popular, this weapon still has many good days ahead of it. It is the preferred tool of brigands of all kinds and it can be found under the coats of many inhabitants in rough neighborhoods. See **Special Weapons, Shotguns**, in the chapter dedicated to combat in *CRB1* page 231, for more information.

Rifle

Skill: Shoulder-fired weapons/rifles

Rifles are rarely used in the undersea world and are beginning to disappear. The Loknar is an old model, but remains particularly trendy.

Marksman Weapons

The following weapons cannot be used underwater.

Skill: Sharpshooting

Precision rifles require a support (bipod, wall, etc.) to be used. This is particularly important for anti-vehicular rifles, whose recoil eliminates the possibility of firing from a standing position. Without this, the Skill level is reduced by half, as well as the Range. Used without their firing scope, the range of these weapons is similar to that of regular rifles.



Heavy Assault Rifle

FIREARMS										
MODEL	DAM.	RANGE	STR	INIT.	FIRING MODE	COST	AMMO. (COST)	AVA (B. MKT)	WEIGHT	TL
HANDGUNS AND SUBMACHINE GUNS										
Holdout pistol (Prion)	2D10	1/3/6/12 (18)	-	-	SS	950	6 (16)	10 (15)	0,2 kg	II
Light pistol (Neuman)	2D10+3	2/10/20/40 (60)	10	-	SS	800	25 (136)	10 (15)	0,5 kg	II
Medium pistol (MK 28)	2D10+4	4/20/40/80 (120)	11	-	SS	1,100	17 (119)	10 (15)	1,5 kg	II
Heavy pistol (MK 56)	3D10+2	7/35/70/140 (210)	14	-	SS	2,200	8 (900)	10 (15)	2,2 kg	II
Light submachine gun (Paloma)	3D10+1	6/30/60/ 120 (180)	13	-	SS/SB/ LB	2,700	35 (500)	-10 (-5)	1,7 kg	III
Heavy submachine gun (Paloma II)	3D10+2	6/30/60/ 120 (180)	15	-	SB/LB	2,500	35 (120)	10 (15)	1,9 kg	II
Unscannable pistol (ANG 200)	2D10+1	3/15/30/ 60 (90)	10	-	SS	3,400	45 (135)	10 (15)	0,3 kg	II
RIFLES, ASSAULT RIFLES, AND LIGHT MACHINE GUNS										
Rifle (Loknar)	4D10+3	20/100/200/ 400 (600)	10	-3	SS	2,400	20 (230)	15 (20)	4 kg	II
Pump-action shotgun (Klauss)	4D10	2/7/14/ 28 (35)	13	-	CC	1,600	10 (120)	20 (20)	3,5 kg	II
Light assault rifle (FAV 34)	4D10	14/70/140/ 280 (420)	13	-3	SS/SB/ LB	3,600	30 (170)	8 (10)	3,6 kg	II
Heavy assault rifle (FAV 76)	4D10+3	20/100/200/ 400 (600)	13	-3	SS/SB/ LB	4,200	30 (450)	8 (10)	4,2 kg	II
Light machine gun* (FV 12)	4D10+3	40/200/400/ 800 (1,200)	14	-4	LB	5,600	100* (760)	1 (5)	11 kg	II
** Belt supply*										
MARKSMAN WEAPONS										
Nerid 650	4D10+3	40/150/300/ 600 (1,000)	13	-	SS	7,400	10 (600)	5 (10)	5,3 kg	II
Sniper NZC	4D10+3	50/200/400/ 800 (1,200)	13	-	SS	12,000	10 (900)	5 (10)	7 kg	II
Cougar	4D10+3	50/200/400/ 800 (1,200)	15	-	SS	19,000	10 (1,100)	1 (5)	6 kg	II
Sniper AV	4D10+3(H)/ 1D6-2(V-)*	70/300/600/ 1,200 (1,800)	15	-	SS	12,000	5 (1,200)	1 (5)	14 kg	II
** with Anti-Armor bullets*										

Cougar

The Cougar, a weapon used by elite shooters, doubles up the advantages of a memory weapon and self-propelled Vulcan projectiles, capable of registering the thermal signature of a target. Not only is the computer capable of identifying its targets but, moreover, if they are moving, the projectile follows them.



Cougar 125 Supercavitation Gun

The rifle is heavy enough for a marksman's weapon but its shots are relatively quiet. The target is recorded in the weapon's memory in 1 Combat Round, for a +2 firing bonus. It takes another Combat Round for the projectile to register the thermal signature for a +3 bonus, which stacks with the memory bonus. If the target moves outside the perimeter outlined by the weapon's memory, the shooter only benefits from the projectile bonus. If the target is no longer in sight but

his thermal signature has been registered, the shooter can still reach him, but the chances of success are the same as the projectile bonus (+3).

Nerid 650

The favorite sharpshooting rifle of assassins, the Nerid 650 is extremely discreet. It fits in a suitcase with all its accessories. It is a light weapon and hardly bulky, equipped with an electronic visor and an automatic fire calculator. The calculator gives the user a +3 bonus to his shot. The weapon is very quiet.

Sniper AV Heca

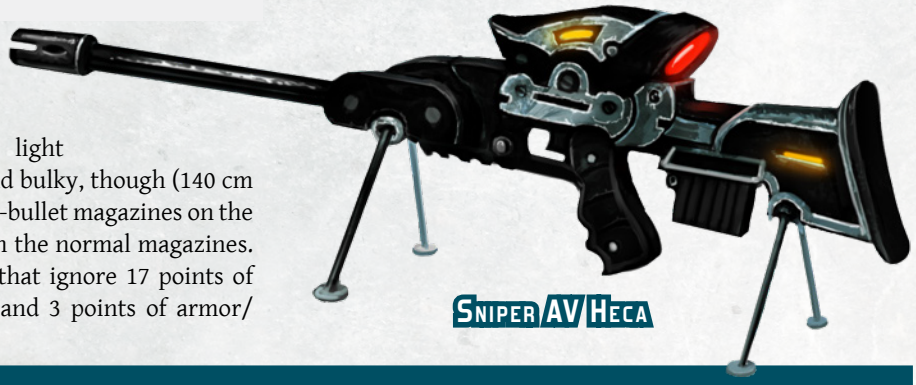
This anti-vehicular sharpshooting rifle is equipped with an excellent sighting scope with its own light amplifier. The weapon is heavy and bulky, though (140 cm long). It is possible to find special 7-bullet magazines on the market, which cost 50% more than the normal magazines. This weapon uses special bullets that ignore 17 points of armor/protection at the H scale and 3 points of armor/protection at the V- scale

Sniper NZC

The Sniper NZC sharpshooting rifle is equipped with a classic scope. It can be disassembled and may be stored in a suitcase with all its accessories.

HIGHER TL WEAPONS

Most of the time, the characters only have access to TL II weapons, the most common models in the undersea world. There exist weapons of a higher TL, available exclusively on the black market. These mainly consist of prototypes or improved equipment, developed by the military (TL III), or Azurean or Genetician relics (TL IV and V). These weapons



HEAVY WEAPONS										
MODEL	DAM.	RANGE	STR	INIT.	FIRING MODE	COST	AMMO. (COST)	AVA (B. MKT)	WEIGHT	TL
Autocanon Neo A	6D10 (H)/ 1D6-1 (V-)	60/300/600/ 1,200 (1,800)	14*	-	SS/SB/ LB	36,000	12 (1,800)	-5 (1)	42 kg	IV
Gatling machine gun micro-cyclone	5D10+1	6/30/60/ 120 (180)	14*	-1	LB	32,000	100 (1,300)	-5 (1)	45 kg	II
Heavy machine gun F67	5D10+1	27/135/270/ 540 (810)	14*	-	LB	16,000	80 (1,100) **	5 (10)	38 kg	II
** If the weapon is used without a tripod or a support the minimum STR is augmented by +7.* *** Supplied by belts or special racks.*										
Light MSWS	5D10+5 (H)/ 1D6-1 (V-)	3/15/30/ 60 (90 m)	15	-	SS***	17,000	4 (1,200)	-10 (-5)	12 kg	II
MSWS Sentry Gun	15D10+5(H)/ 1D10+3 (V-)/ 1D6+1 (V+)	3/17/35/ 70 (100 m)	-	-	SS***	57,000	Special (5,000)	-15 (-15)	186 kg	II
**** Even if several bullets are fired, the weapon is considered to be firing Single-Shots.*										
MODEL	TORPEDO MARK		STR	INIT.	FIRING MODE	COST		AVA (B. MKT)	WEIGHT	TL
TORPEDO LAUNCHERS										
Kelvin IV (individual)	1		13	-7	SS	2,000		10 (15)	2 kg	II
Ourso (individual)	2		13	-7	SS	3,000		10 (15)	18 kg	II
Spur (individual)	2		13	-7	SS	2,200		10 (15)	18 kg	II
PORTABLE ANTI-VEHICULAR MISSILE LAUNCHERS										
Stellar II	1 to 5		13	-7	SS	3,000		1 (5)	5 kg	II
Molle AV	6 to 10		-	-	SS	6,000		1 (5)	5 kg	II

are, of course, very rare (-2 and -3 Availability levels per TL above II), and very expensive (cost increases by 50% per TL above II). They also require special ammunition adapted for their TL, which has the advantage of taking up less space and allowing for the use of greater capacity magazines (see **Higher TL Ammunition**, page 49).

Higher TL weapons may perform slightly better than those of TL II. You may consider that for each TL above II, the weapon possesses one of the following special characteristics:

- **Improved Stability:** the weapon uses highly evolved recoil compensators; the range is increased by 20%.
- **Easy Handling:** the weapon is balanced, ergonomic, and easy to handle, offering a shooting bonus of +3.
- **Highest Quality:** the weapon's Integrity is 3D6+7 (25).
- **Compact Weapon:** the weapon is easy to transport and hide.
- **Light Weapon:** made from lightweight materials, the weapon is easier to use and transport. This is a particularly interesting option for heavy weapons like marksman rifles or light machine guns.
- **Undetectable:** the weapon is made with specialized materials that render it undetectable by security systems and X-rays.
- Etc. (any other ability at the GM's discretion).

Note: see also **Technological leaps and technological breakthroughs** inpage 209.

HEAVY WEAPONS

These weapons are devastating on the Human Scale. Set apart from heavy machine guns, these weapons often inflict Massive Damage on human beings. They are also extremely effective against exo-armor.

The following weapons cannot be used underwater.

Skill: Heavy weapons (Shooting)

HEAVY MACHINE GUNS AND ASSAULT CANNONS

All these weapons can only be used with a tripod (no harness possible), and most of the time require two users (one to fire, one to load). Their use requires a set-up time of 2 Combat Rounds before being able to fire.

Autocanon

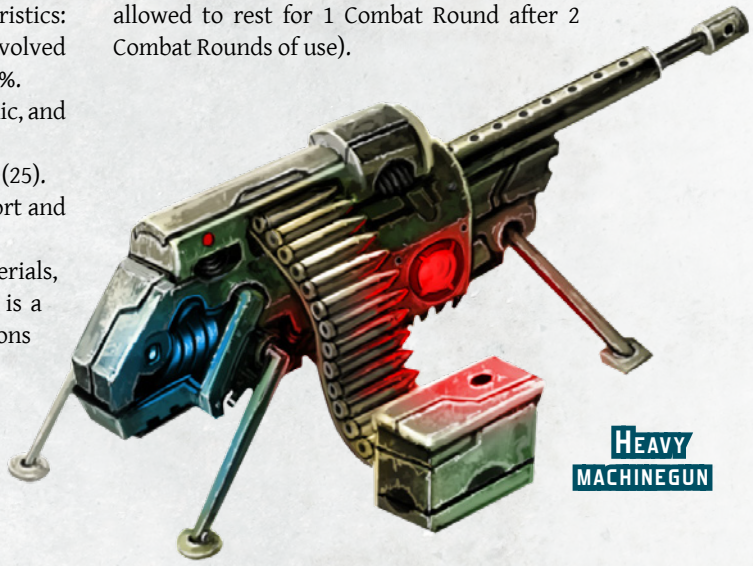
These weapons fire very heavy caliber projectiles, capable of penetrating the protective plating on exo-armor. This weapon ignore 39 points of armor/protection at the H scale and 6 points of armor/protection at the V- scale.

Gatling Machine Gun

Equipped with several barrels around a rotating axis, these weapons have a punishing rate of fire. Contrary to classic heavy machine guns, this type of weapon overheats less often (1 Round of rest for every 4 Rounds of use).

Heavy Machine Gun

This is the heavy version of the light machine gun, with a higher rate of fire than its predecessors. These weapons often have the tendency to overheat (they must be allowed to rest for 1 Combat Round after 2 Combat Rounds of use).



METAL STORM WEAPON SYSTEMS (MSWS)

MSWS are weapons that fire several bullets at once. With their rapid-succession impacts on the same spot, they put on an impressive performance. Heavy, bulky, and requiring several users, they are intended for the defense of a fixed position.

Portable MSWS

This is a massive rifle with four barrels. Fifteen caseless bullets are lined up in each barrel, alternating with the firing device. When the trigger is pulled, an electrical firing device sets off the launch of 15 bullets that slam, one after the other, into the target. Once the first volley is used, the user turns the barrel to prepare the second. Because of the weapon's recoil, it is necessary to wait 1 Round before being able to fire again. Once the four tubes are empty, the barrel piece is disengaged and another with four loaded barrels is put into place. The preparation for a portable MSWS requires 3 Combat Rounds. The damages of this weapon are doubled against obstacles. This weapon ignores 16 points of armor/protection at the H scale and 3 points of armor/protection at the V- scale.

Static MSWS

Much more formidable, this static weapon uses 36 tubes of 15 bullets that can all be made to fire at the same time. This

creates a veritable wall of bullets that pulverizes anything in its way. The attack affects a 2-meter wide by 2-meter high zone. Anything that finds itself in the straight line of fire is affected, unless the target is behind an obstacle that can withstand it. Once the shot is made, the "plate" of barrels is replaced by another plate that is ready to use (about 50 kg). The damages of this weapon are doubled against obstacles. This weapon ignores 16 points of armor/protection at the H scale, 3 points of armor/protection at the V- scale and 1 point of protection/armor at the V+ scale.

PORTABLE TORPEDO LAUNCHERS

Skill: Heavy weapons (Shooting)

This weapon can only be used underwater

Portable torpedo launchers can only use Mark 1 or Mark 2 torpedoes. ***Note:*** the Spur launcher fires wire-guided torpedoes, while the Ourso model fires direct torpedoes.

PORTABLE ANTI-VEHICULAR MISSILE LAUNCHERS

Skill: Heavy weapons (Shooting)

The following weapons cannot be used underwater.

Even if the majority of anti-vehicular missiles have their own launcher, there are modular launchers that can accept anti-vehicular missiles. These launchers are usable from the shoulder with Mark 1 to 5 missiles, and can be deployed with supports with Mark 6 to 10 missiles.

MOLLE AV

Uses wire-guided missiles up to 3,000 meters. It can shoot at night thanks to an infrared system built into the static structure.

STELLAR II

This launcher uses autonomous missiles. Once the target is engaged, the missile will only pursue that target only. The launcher comes with an integrated friend-or-foe identifier and an infrared sight.

SPECIAL AMMUNITION

The Damage and the cost of ammunition for the firearms presented above correspond to standard models and normal TL II bullets. The Gamemaster may allow the characters to procure special ammunition, as described below.

AMMUNITION FOR LIGHT WEAPONS

In general, this ammunition can be used with medium- to heavy-caliber handguns, submachine guns, simple rifles, and assault rifles, unless there are counter-indications.

ARMOR-PIERCING HARD CORE BULLETS (APHC)

This ammunition can only be used with light or heavy shoulder-fired weapons. This is a solid bullet, with a heavy core made of tungsten and a lighter outer casing. The latter's purpose is to penetrate hardened or bullet-resistant targets and light armored vehicles. Because of its stability and low deformation properties, this bullet deals less physical damages than a full metal jacket (FMJ) bullet. Cost x 2 (black market only).

ARMOR PIERCING HARD CORE (APHC)

TYPE	PENETRATION	DAMAGE
Shoulder weapons type I*	9 (H)/1 (V-)	3D10+4 (H)/ 1D6-3 (V-)
Shoulder weapons type II**	11 (H)/2 (V-)	3D10+5 (H)/ 1D6-3 (V-)
Heavy weapons***	15(H)/2(V-)	4D10+3 (H)/ 1D6-2 (V-)
MSWS	22(H)/4(V-)	11D10+1 (H)/ 1D10+3 (V-)

** Rifles, assault rifles and marksman weapons inflicting 4D10 points of damage*

*** Rifles, assault rifles, marksman weapons and machine guns inflicting 4D10+3 points of damage.*

**** Rifles, assault rifles, marksman weapons and machine guns inflicting 5D10+1 points of damage.*

SEMI-ARMOR-PIERCING BULLETS (SAP)

This bullet can be used with handguns, submachineguns, riffes and assault rifles. This is a solid bullet with a reinforced steel core. The latter's purpose is to penetrate light protection or armor. This bullet is a good compromise between a FMJ and an APHC bullet, inflicting reasonable damage while retaining a fairly decent penetration capacity. Cost: +50 % (black market only).

SEMI ARMOR-PIERCING BULLET (SAP)

TYPE	PENETRATION	DAMAGE
Light pistols	3 (H)	2D10+3 (H)
Medium pistols	4 (H)	2D10+5 (H)
Heavy pistols	4(H)/1(V-)	3D10 (H)/ 1D6-3 (V-)
Light submachine guns	4 (H)	2D10+5(H)
Heavy submachine guns	4(H)/1(V-)	3D10+1 (H)/ 1D6-3 (V-)
Light rifle and assault rifles	5 (H)/1 (V-)	4D10 (H)/ 1D6-2 (V-)
Heavy rifles and assault rifles	6 (H)/1 (V-)	4D10 +1 (H)/ 1D6-2 (V-)

EMP Bullets

An EMP bullet can be used with any kind of weapons, to the exception of mini and light handguns. This bullet inflicts half damage, but it releases an electromagnetic pulse on the target, which induces a Breakdown Test for any electronic equipment with a penalty of -1 per two D10 of the weapon's original base damage (i.e.-1 for 2D10, -2 for 4D10, etc.). Cost x2.

Hollow Point Bullets

A hollow point bullet is used only with medium and heavy handguns, submachineguns as well as with some hunting shotguns. On impact, the bullet head expands dramatically, thus greatly increasing its frontal area. This creates a greater wound channel (compared to a FMJ bullet) and as a direct consequence its damage is increased by 2 points + 1 point per D10 of the weapon's original base damage. Against a protection however, the bullet's bigger frontal area is a huge disadvantage, making it easier to stop. As a direct consequence, the damage is reduced by 1 point per D10 of the weapon's original damage. Round cost is usually increased by half.

HOLLOW POINT BULLET (HP)

TYPE	ORIGINAL BASE DAMAGE	HP DAMAGE (NO PROTECTION)	HP DAMAGE (IF PROTECTION)
Light pistols	2D10+3	3D10 (+3 damage)	32D10+1 (-2 damage)
Medium pistols	3D10	3D10+4 (+4 damage)	2D10+3 (-3 damage)
Heavy pistols	3D10+1	4D10 (+5 damage)	2D10+4 (-3 damage)
Light submachineguns	3D10+1	4D10 (+5 damage)	2D10+4 (-3 damage)
Heavy submachineguns	3D10+2	4D10+1 (+5 damage)	2D10+5 (-3 damage)
Hunting shotgun	4D10	5D10 (+6 damage)	3D10+2 (-4 damage)

Explosive Bullets

An explosive bullet can be used only with the following "heavy" weapons: heavy rifles, heavy assault rifles and machineguns. The bullet inflicts additional damage, equal to 1D10 + 2 points per 5D10 points of the weapon's original base damage (e.g. +1D10 for damage up to 4D10+5, +1D10+2 for damage between 5D10 and 9D10+5, etc.) See the rules for dealing with explosions against a protection or an armor (page 61). In addition, the bullet causes additional Shock Damage of +1D10. Cost x 4 (black market only).

Knockout Bullets

A knockout bullet is spherical and entirely made of rubber. It is used with some riot weapons (shotguns for example). The Physical Damage caused by these bullets is only 1D6+2. They do, however, inflict additional Shock Damage equal to +5D10 at point blank range, +4D10 at short range, +3D10 at medium range, +2D10 at Long range and +1D10 at extreme range. Cost x2.

AMMUNITION OF A HIGHER TL

As technology evolves, it will become possible for each weapon to fire ammunition of a smaller caliber that inflicts the same Damage with a larger magazine. For each Technology Level above II, magazines, belt or racks contain more ammunition according to the following table:

TL	AMMUNITION
TL III	+20 %
TL IV	+10 % (total +30 %)
TL V	+10 % (total +40 %)
TL VI (Azurean)	+5 % (total +45 %)
TL VI (Genetician)	+5 % (total +50 %)

In general, the cost of ammunition is 100% more for each TL (x2 for TL III, x3 for TL IV, etc.). The ammunition for TLs higher than II do, however, remain extremely rare, and their Availability decreases (-2 or -3 points for each higher TL). It is possible to adapt a TL II weapon so that it can fire ammunition of a higher TL (you could find a weapon of the same TL, but they too are extremely rare). The cost of adapting a weapon can be from 30 to 50% of the basic price of the weapon, depending on the desired TL.

UNDERWATER PROJECTILE WEAPONS

Note: All these weapons can be used underwater or out of the water.

Projectile weapons that are designed to operate underwater have a rather limited range. What's more, few weapons of this type are really efficient at extreme depths. Therefore, below -500 meters, the ranges mentioned in the tables below should be divided by two. At -1,000 meters and more, weapons of TL II become useless. Weapons of a higher TL can, however, function at greater depths (for each TL higher than II, add 200 meters to these values).

Flechette Weapons

Skill: Handguns (for the handguns) or shoulder-fired weapons/rifles (for the assault rifle)

Almost all these weapons fire long, super-penetrating bullets, which are about 10 to 20 cm long and resemble flechettes. The Light flechette handgun ignores 1 point or armor/protection at the H scale. The heavy flechette handgun ignores 2 points or armor/protection at the H scale and the Flechette assault rifle ignores 3 points or armor/protection at the H scale.

SPEARGUNS (OR HARPOON LAUNCHERS)

Spearbuns are classic weapons that you can pretty much find anywhere. They are usually legal in every port. The projectiles of a simple speargun (harpoons) are often connected to the launcher by a very fine rope.

Mini speagun Launcher

Skill: Bows, spearguns and crossbows

This speargun is the size of a large pistol, and it fires smaller harpoons, although this does not make it any less dangerous. The projectile ignores 1 point or armor/protection at the H scale.

Mini Repeater speargun

Skill: Bows, spearguns and crossbows

This weapon can reload automatically after firing a first shot, by re-arming the launcher. A new harpoon loaded in the body of the weapon then takes the place of the first projectile. The projectile ignores 1 point or armor/protection at the H scale.

Medium speargun

Skill: Bows, spearguns and crossbows

This is by far the most classic model of the spearguns. The projectile ignores 2 points or armor/protection at the H scale.

Repeater speargun

Skill: Bows, speargun and crossbows

The reloading version of the medium-sized weapon. The projectile ignores 2 points or armor/protection at the H scale.

Heavy speargun Launcher

Skill: Heavy weapons (shooting)

A heavier version of the regular speargun. The projectile ignores 3 points or armor/protection at the H scale.

Heavy Repeater speargun

Skill: Heavy weapons (shooting)

The reloading version of the heavy-sized weapon. The projectile ignores 3 points or armor/protection at the H scale.



Medium speargun

UNDERWATER PROJECTILE WEAPONS

MODEL	DAM.	PEN.	RANGE*	STR	INI.	SHOOTING MODE	PRICE	AMMO. (PRICE)	AVA (B. MKT)	WEIGHT	TL
Light flechette handgun Nomrad IP	2D10+2	1	1/2/4/ 7 (10)	-	-	SS	2,000	30 (140)	10 (15)	1,1 kg	II
Heavy flechette handgun Locard ExcelP	2D10+4	2	1/3/5/ 10 (15)	10	-	SS	6,000	20 (150)	10 (15)	1,1 kg	II
Flechette assault rifle Embol MK 4P	3D10+1	3	2/7/14/ 27 (40)	13	-3	SS/SB/ LB	8,000	30 (250)	10 (15)	2,1 kg	II
Mini speargun	2D10	1	1/2/4/ 7 (15)	-	-	SS	400	1 (15)	15 (20)	1,1 kg	II
Mini dual spearggun	2D10+2	1	1/2/4/ 7 (15)	-	-	SS	600	3 (45)	15 (20)	1,5 kg	II
Medium speargun	2D10+5	2	2/5/10/ 20 (30)	10	-	SS	500	1 (10)	15 (20)	2,1 kg	II
Repeater speargun	3D10+1	2	2/5/10/ 20 (30)	10	-	SS	900	2 (20)	15 (20)	3,1 kg	II
Heavy speargun	3D10+2	3	1/2/5/ 10 (20)	13	-	SS	2,500	1 (60)	15 (20)	6 kg	II
Heavy repeater speargun	3D10+3	3	1/2/5/ 10 (20)	13	-	SS	3,200	2 (120)	15 (20)	9 kg	II
Wrist launcher	3D10	-	1/2/5/ 10 (20)	-	-3	SS	3,500	12 (2,500)	-5 (1)	1 kg	III

** Through the air, all the range distances can be multiplied by 3.*

Hybrid Wrist Launcher

Skill: special weapons (shooting); COO/PER

This special weapon, made famous by the Hegemonian Techno-Hybrids, is worn on the wrist and cover part of the forearm. It launches micro projectiles, which look like little tiny missiles. They are designed to be used just as well in and out of water, over a short range.

SUPERCAVITATING UNDERWATER WEAPONS

Note: All these weapons can be used underwater or out of the water.

All these weapons use the new supercavitation technology: the projectile has a special nose which, combined with a high speed, allows to create a bubble of gas around surrounding it that considerably reduces the friction with the liquid environment. Apart from an increased range, these weapons can also fire at great depths, unlike weapons that use classic projectiles. At over -5,000 meters down, the ranges mentioned in the tables below should be divided by two. At -10,000 meters and more, weapons of TL III become useless. Weapons of a higher TL can, however, function at greater depths (for each TL higher than III, add 2,000 meters to these values).

Light and Heavy Handguns

Skill: Handguns

The Hellion Alpha model is the smallest of the supercavitating shooting systems that you can find on the market. The Cougar 125 is a more efficient shooting system, which uses larger-caliber ammunition. These weapons use highly penetrating bullets. The Hellion ignores up to 13 points of armor/protection at the H scale and 2 points of protection at the V-scale. The Cougar ignores up to 15 points of armor/protection at the H scale and 3 points of protection at the V- scale.

Assault Rifles

Skill: shoulder-fired weapons/rifles

The Bedlam II is a supercavitating assault rifle. These weapons use highly penetrating bullets. The Beldam model ignores up to 17 points of simple armor/protection at the H scale and 3 points of armor/protection at the V- scale.

Minicannon

Skill: Heavy weapons (shooting)

The Manta V is an autocannon that shoots supercavitating projectiles of a 20 mm caliber. The weapon ignores up to 39 points of armor/protection at the H scale and 6 points of armor/protection at the V- scale.



Minicannon

Gatling SC

Skill: Heavy weapons (shooting)

The first supercavitating Gatling gun. The weapon ignores up to 29 points of armor/protection at the H scale and 5 points of armor/protection at the V-scale.

Note: when shooting through the air, the mini cannons and the supercavitating Gatling guns are heavy weapons that require the use of a tripod or a

SUPERCAVITATING UNDERWATER WEAPONS

MODEL	DAM.	PEN.	RANGE	STR	INI.	SHOOTING MODE	PRICE	AMMO (PRICE)	AVA (B. MKT)	WEIGHT	TL
Light handgun hellion	3D10+1 (H)/ 1D6-3 (V-)	13 (H)/ 2 (V-)	2/10/20/ 40 (60)*	-	-	SS	900	30 (250)	5 (10)	1,1 kg	III
Heavy handgun Cougar	3D10+3 (H)/ 1D6-3 (V-)	15 (H)/ 3 (V-)	3/15/30/ 60 (90)*	10	-	SS	2,000	20 (800)	1 (5)	2,1 kg	III
Assault rifle Bedlam II	3D10+5 (H)/ 1D6-3 (V-)	17 (H)/ 3 (V-)	8/40/80/ 160 (240)*	13	-3	SS/SB/ LB	9,000	30 (1,200)	1 (5)	6 kg	III
Minicannon Manta V**	5D10+4 (H)/ 1D6-1 (V-)	39 (H)/ 6 (V-)	50/250/500/ 1,000 (1,500)*	15	-3	SS	38,000	12 (1,200)	-5 (1)	32 kg	III
Gatling SC**	4D10+3 (H)/ 1D6-2 (V-)	29 (H)/ 5 (V-)	7/35/70/ 140 (210)*	15	-3	LB	24,000	40 (2,5000)	-5 (1)	27 kg	III

** Through the air, all the range distances can be multiplied by 3.*

** * If the weapon is used without a tripod or a support the minimum STR is augmented by +7.*

harness with a hydraulic support system that can carry a large part of the weapon's weight.

STUN AND SONIC WEAPONS

Stun weapons, or shock weapons, can knock out a victim by producing a violent shockwave, or by acting directly on the nervous system. A suit of armor will usually provide a certain amount of protection from the first kind of weapon, but not from the second. Sonic weapons send out a powerful shockwave over the targeted zone, which triggers a physical effect on the victims' bodies, much like the shriek of the Burrowers.

Infrasound weapons are quite rare as they are extremely dangerous. They use sonic frequencies that are inaudible, but have severe consequences on a human organism or on inert matter.

All these weapons inflict the same Damage underwater or in the air (except for the assault sonar, which only works underwater and the neural disruptor, the shock rifles and pistols that cannot be used underwater). They operate on small batteries, a little bit larger than regular magazines.

Unless otherwise indicated, the shock damages of stun and sonic weapons are generally ineffective against a character in an exo-armor.

Assault Sonar

Skill: none, all targets are affected in the area of effect

An assault sonar is a specialized weapon that only works against living creatures, and only underwater. It generates an extremely powerful sonar echo. All living creatures that are inside the area of effect have to undergo a Shock Resistance Test with a penalty of -5.

Directional Assault Sonar

Skill: special weapons (shooting); COO/PER

This weapon is based on the same principle as the simple assault sonar, but it affects all creatures in a straight line from the sonar emitter, for its whole range.

Infrasound Cannon

Skill: special weapons (shooting); COO/PER

This experimental weapon, inspired by the terrifying attacks of the Burrowers, bombards a target with infrasound waves in order to attempt to find a resonance frequency. Therefore, it scans through the frequencies until it finds the one that will have an effect on the target. During each Combat Round in an ongoing attack, the Player has to roll 1D100 to see if he has found the correct frequency. During the first round, there is only 1 chance in 100 of finding the right one. For each following Round, the chances increase by 1 point (the main inconvenience of this weapon is the time that it takes to perform an action). As soon as the result of the roll is lower than or equal to the Success Probability, the weapon affects its target (once the correct frequency is found, if the attack ends, he will have to start all over again for the next attack). The weapon can be used on inorganic matter, inflicting damage depending on how solid it is (stone or concrete are very sensitive and will crack and crumble, but metal will resist much better, and some high-technology alloys may not even be affected at all). It also inflicts severe damage on organic targets. In this case, the target's protections are completely irrelevant. The effects on a living being can be very diverse; the frequency can affect bones, lungs, heart, etc. Roll 1D20:

- **1 Attack on internal organs:** the character suffers 4D10 Damage points (Body), and, if applicable, is at risk of a serious internal hemorrhage. This damage cannot be reduced by any form of protection.
- **2–3 Head pains:** unbearable headaches make it completely impossible for the character to concentrate on what he is doing. He will suffer a penalty on all his actions equivalent to the Attack's Success Modifier.
- **4–5 Disturbed senses:** the character is having trouble maintaining his balance; his senses of hearing and sight are seriously affected. He can only move at his minimum Speed and will have to carry out a Coordination Test with a penalty equal to the Success Modifier of the Attack. This penalty also applies to his Initiative and to all his Perception Tests.
- **6–7 Hallucinations:** the character is no longer able to tell the difference between the real world and his hallucinations. He suffers the effects of Disturbed Senses and, added to this, the GM can describe to him the contents of his hallucination.
- **8–10 Convulsive shaking:** the character shakes irrepressibly, and suffers a penalty to all his Tests equal to the Success Modifier of the Attack every time he has to manipulate an object.
- **11–13 Bursting flesh:** the target's flesh begins to crack in places, causing 3D10 Damage points (randomly located Wounds on the table of Ranged Attacks).
- **14 Fractures:** each Combat Round, the character will have to carry out a Luck Test, with a penalty equal to the Success Modifier of the Attack. If he fails the Test, one of his bones breaks (a Critical Wound located randomly, with no specific complications).
- **15–16 Vomiting:** the character can do nothing but throw up whatever is in his belly.
- **17 Cardiac arrest:** each Combat Round, the character will have to carry out a Luck Test. If he fails, his heart stops. He will die if he is not revived (a simple *First aid* Test).
- **18 Vibrating chest:** the character's ribcage begins to vibrate. He will have trouble breathing and will have to take a Shock Resistance Test with a penalty equal to the Attack's Success Modifier.

- **19–20. Attack to the nervous system:** the infrasound waves affect the victim's nerves and he is overcome by pain. He suffers a penalty to all his actions and will have to carry out a Shock Resistance Test. In both cases, the penalty is equal to the Success Modifier of the Attack.

Note: when attacking a Powered Exo-Armor, the infrasound cannons inflict 4D10 Damage points, located as usual (see the chapter on **Powered Exo-Armors** on page 74).

Neural Disruptor

Skill: Shoulder-Fired Weapons/Rifles

This new weapon was developed by the company Cortex, in a joint project with Gladius. It is an assault rifle that can shoot a sphere of energy, which will disturb the cerebral functions of the target. The victim who is hit by the sphere will suffer a penalty equal to the Attack's Success Modifier. The victim can try to resist the effect by carrying out a Willpower Test; if the victim succeeds, the penalty is reduced by a number of points equal to the Success Modifier obtained.

Shock Rifles and Pistols

Skill: Handgun (Pistols) ou Shoulder-Fired Weapons/Rifles (Rifles)

Mainly used by the security services and the guards on board vessels, the Stun model shock rifles are especially efficient at neutralizing a target. They are usually fairly compact small weapons. The shock pistol Stun II is a lighter version.

Shockwave Generator

Skill: Shoulder-Fired Weapons/Rifles

This weapon generates a series of short, powerful shockwaves, which attack the structure of objects and inflict Shock Damage on living beings. This attack is oblivious to armor, and can cause equipment to break down by shattering damaged or badly attached elements. The affected equipment must undergo a Breakdown Test with a penalty equal to the Attack's Success Modifier (if the Test fails, the equipment can lose Integrity points as the GM sees fit).

STUN AND SONIC WEAPONS

MODEL	DAM.	SHOCK	RANGE	STR	INI.	SHOOTING MODE	PRICE	AMMO (PRICE)	AVA (B. MKT)	WEIGHT	TL
Assault sonar	-	Special	AoE* 10 m	-	-	SS	7,000	60 (300)	10 (15)	2 kg	III
Directional assault sonar	-	Special	100	-	-	SS	5,600	60 (300)	10 (15)	2 kg	III
Infrasound cannon	Special	Special	10/50/100/ 200 (300)	-	-	LB**	19,000	40 Rds (500)	-5 (1)	3 kg	IV
Neural disruptor	-	-	7/20/30/ 50 (100)	-	-	SS	8,000	8 (800)	-10 (-5)	8 kg	III
Shock pistol	-	+3D10	3/7/15/ 30 (40)	-	-	SS	1,500	6 (120)	15 (20)	1 kg	II
Shock rifle	-	+4D10	5/10/20/ 40 (80)	-	-	SS	2,600	10 (160)	10 (15)	2 kg	II
Shockwave generator	1D10	+2D10	7/20/50/ 100 (150)	-		SS	16,000	60 (600)	1 (5)	3 kg	IV
Sonic assault rifle	1D10+3	+2D10	7/20/30/ 50 (100)	-	-	SS	3,000	10 (300)	5 (10)	2 kg	III
Sonic cannon	3D10	-	7/20/30/ 50 (100)	-	-	SS	8,000	40 (400)	1 (5)	5 kg	III
Sonic knockout rifle	-	+3D10+2	7/20/30/ 50 (100)	-	-	SS	3,000	20 (300)	5 (10)	5 kg	III
Sonic modulator	1D6+1	+1D6	AoE* 10 m	-	-	-	6,000	60 Rds (400)	5 (10)	2 kg	III

** Area of Effect.*

*** This is not so much a "burst," but more a continuous stream of use of the weapon during one or more Combat Rounds. This action is exclusive.*

Sonic Assault Rifle

Skill: Shoulder-Fired Weapons/Rifles

As opposed to the sonic knockout rifle, the sonic wave generated by this weapon is designed to cause Physical Damage. The side effects can be even more devastating when it comes to equipment. This kind of weapon is never used inside a vessel.

Sonic Cannon

Skill: Shoulder-Fired Weapons/Rifles

Also called a sonic attack disruptor, this is a weapon that uses "solidified" sound. It inflicts physical damage (the Protection value of any simple armor is divided by two).

Sonic Knockout Rifle

Skill: Shoulder-Fired Weapons/Rifles

Compared to an energy shock rifle, this very noisy weapon has the advantage of covering a wider area (roughly 5 meters across). On the other hand, it is impossible to aim at a specific target. The weapon lets off a sonic wave—similar to a supersonic "boom"—the power of which is released at the point targeted by the user. The main drawback of this kind of weapon is that it can damage devices or the structure of a vehicle in the area of effect. Some victims have also been known to die from internal bleeding caused by the power of the sonic wave (Luck Test: on a Catastrophe result, the Shock Damage is turned into Physical Damage).

Sonic Modulator

Skill: none, all targets are affected in the area of effect

This sonic weapon disturbs all the targets within its area of effect. If these targets are not isolated from the ambient noise, they will suffer a penalty for all their Tests (equal to the Success Modifier of the Attack) and they can also suffer Damage due to the bleeding caused by this device. The weapon also works underwater against any creatures unprotected by an exo-armor or a vehicle. This is a streaming weapon; in other words, once it is activated, it continues to emit in a constant stream until it is turned off again (using a remote control). The victims of a modulator suffer a new attack once per Combat Round, located in the Head or the Body (randomly picked), for as long as they are inside the area of effect.

Throwers

None of these weapons can be used underwater.

Canister Thrower

Skill: handguns

This pistols looks like hypodermic syringes, it is slightly bigger. It projects small canisters that can contain all sorts of different substances or gases. These canisters are usually extremely sturdy, but when they are fired, a substance injected into the gun barrel infiltrates them and makes them extremely fragile as they reach a distance of about 2 meters. After that, they will break on impact with any surface.

Disk Thrower

Skill: handguns

The characteristics listed in the table relate to normal disks. There are many other types of disks (see ***disks*** page 42).

Flamethrower

Skill: special weapons (shooting) (STR/COO)

This weapon projects a flaming liquid over an area. See **Special Weapons**, **Flamethrowers**, in the chapter dedicated to combat, CRB1 page 231, for more information.

Grenade launcher

Skill: special weapons (COO/PER)

The characteristics listed above relate to normal grenades. There are many other types of grenades (see ***grenades*** below).

THROWERS

MODEL	DAM.	RANGE	STR	INI.	SHOOTING MODE	PRICE	AMMO (PRICE)	AVA (B. MKT)	WEIGHT	TL
Canister thrower	-	1/2/5/10 (20)	-	-	SS	1,500	12 (variable)	10 (15)	1 kg	II
Disk thrower	1D6+2	5/10/20/40 (80)	10	-	SS	750	12 (2,000)	10 (15)	1kg	II
Flamethrower	2D10*	3/7/15/30 (40)	10	-	LB**	8,000	12 (240)	5 (10)	14 kg	IV
Gas vaporizer	-	1/2/5/10 (20)	10	-	SS	800	20 (variable)	10 (15)	1 kg	II
Grenade thrower	-	10/50/100/200 (300)	10	-	SS	6,000	1 (variable)	10 (15)	3 kg	II
Net thrower	-	3/7/15/30 (40)	10	-	SS	800	2 (200)	10 (15)	2 kg	II

** Over 1D3 locations.*

*** This is not so much a "burst," but a continuous stream of use of the weapon during one or more Combat Rounds. This action is exclusive.*

Gas Vaporizer

Skill: handgun

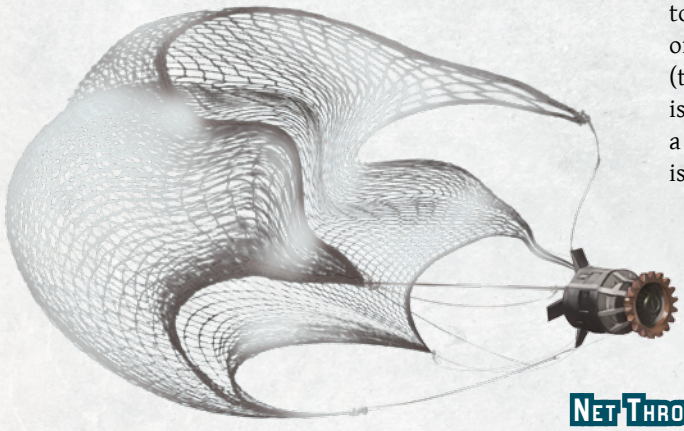
The vaporizer can be loaded with all sorts of gas.

Note: gases, canisters and grenades are all described on page 57-58 and disks page 42-43.

Net Thrower

Skill: special weapons (shooting) (COO/PER)

This weapon projects a large projectile that then releases a fine meshed net when it reaches its target. The net sticks to the victim who usually cannot do anything to escape it. Some special net thrower can be used underwater.



Net Thrower

WEAPON ACCESSORIES

ID Grip

An ID grip is a special device that prevents any unauthorized individual from using a particular weapon.

Movement Predictor

This device, when attached to a weapon and connected to a special visor or display, can predict the movements of a target. When a character is aiming at a moving target (the character needs to carry out an Aimed Shot), a Test is carried out with the device level. If the Test result is a Failure, the shot automatically fails. If the Test result is a Success, the Success Modifier reduces the penalty due to the target's movement (and only that penalty...), and can even



WEAPON ACCESSORIES						
MODEL	LVL./BONUS	PRICE	AVA (B. MKT)	WEIGHT	TL	MANUFACTURER
Autonomous reactive system - R.N.T. Jaguar 400	12	9,600	5 (10)	1.5 kg	II	Trinicom
ID grip	-	12,000	5 (5)	-	III	Trinicom
Movement predictor	15	22,000	-5 (5)	0.5 kg	IV	Premia Industries
Personal tactical analyzer - A.T.I. Alpha	8	48,000	-10 (-5)	5 kg	IV	OmniTech (Coral Rep.)
Silencer	-	1,000 x penalty modifier*	15 (20)	Variable	II	Trinicom
TARGETING AID SYSTEMS						
Onarck P visor	+2	6,000	1 (5)	0.3 kg	III	New Dynamic
Vanguard visor	+3	12,600	1 (5)	0.3 kg	III	New Dynamic
Laser sight	-	2,500	5 (15)	0.5 kg	II	Trinicom
Laser telemeter	-	1,500	10 (15)	0.3 kg	II	Trinicom
Palm implant	+1	5,000	1 (5)	-	III	New Dynamic
Scope	1 to 10	1,000 x (lvl x lvl)	15 (20)	0.1 kg/lvl.	II	Trinicom
TARGETING MEMORY						
Memo	15	30,000	5 (10)	1 kg	III	Trinicom
Data display block	-	900	5 (10)	0.5 kg	III	Trinicom

**Example: 3,000 Sols for a penalty of -3.*

cancel it out completely. The character does not, however, gain any further bonus, even if the Success Modifier is greater than the penalty. If an adversary is moving in a zigzag trajectory, or in an unpredictable fashion, the device's level is halved.

Personal Tactical Analyzer

A tactical analyzer is a device that analyzes the Defense and Offense techniques of an opponent, and allows the user to adapt to them. The device is made up of a visor and an extremely lightweight exoskeleton, which only guides the body movements without ever forcing them. In fact, the exoskeleton suggests a specific movement by stimulating certain muscles or nerves. Furthermore, this device needs to be connected to a special neural implant.

The analyzer has two modes of operation: offensive analysis or defensing analysis. The offensive analysis mode inflicts a penalty to the target's Attack Test. The defensive analysis mode gives the user a bonus in his Defense Test against the target attack. During his Declaration of Intent, the user can choose to activate only one mode at time (changing a mode counts as a free action).

Before an analyzer can be efficient, however, Some time is needed to analyze the situation. At the beginning of each Round, when the user is fighting his target—or observing his target fighting him – he must perform a System Test using the device level. Once this level has accumulated a total of 20 points of Success Margin, the device can begin to guide its user. From this point on, at the beginning of the Round, each new successful Test using the device level increases by 1 point the penalty to the target attack or the user defensive bonus, up to a maximum of 4 points. This device is only efficient against one target at a time. As soon as a combat ends, the character loses all the benefits of the analyzer.

Note: it is rumored that the Polar Alliance has also developed similar but far more evolved systems for its combat robots. These systems are said to be far more efficient and capable of analyzing several targets at a time.

Silencer

A silencer can only be added to firearms, such as handguns, simple rifles, assault rifles, and precision rifles (machine guns and heavy weapons cannot be equipped with a silencer). The device reduces the noise produced by a shot, imposing a penalty on the Perception test (hearing). The price depends on the penalty modifier. The penalty cannot be greater than 4. Each silencer is only adapted to one specific kind of weapon.

Targeting Memory

A weapon can be improved by adding an automatic target locking system for a number of prerecorded targets. If a target is detected, a System Test is carried out. If the Test result is a Failure, the system breaks down and the weapon does not recognize the target. If the weapon is equipped with a reactive system, it will open fire. When used by a person, this system can prevent firing errors. This is a function similar to Friend or Foe identification program, but it only applies to a single weapon that does not need to be connected to a computer. This system can be connected to a small data display block. The prerecorded targets appear on the small screen, underlined in green. All the target data, recorded in the computer, can be displayed on a simple request from the user. The Memo targeting memory model presented here can record up to 24 different targets.

TARGETING AID SYSTEMS

Laser Sight

This device provides a bonus of +2 for Shooting Tests. It does not work underwater, or in the presence of fog or thick smoke. Its theoretical range is about 50 meters, but its usable range is much shorter; after all, you need to be able to make out the infamous red dot created by the laser.

Laser Telemeter

This instrument allows the user to automatically calculate the distance between the device and the target, using an invisible telemetric laser beam.

Scope

A scope is designed to be fitted to a specific type of weapon (pistol, assault rifle, precision rifle, etc.). Each level gives the user a bonus of +1 for Shooting Tests, up to a maximum bonus of +10. To use the scope, you must be carrying out an Aimed Shot, by spending 1 Initiative Point per bonus point (for example, the use of a level-5 scope will cost 5 Initiative points). Be careful: the scope bonus and that of the Aimed Shot are not cumulative: only the higher of the two is used. Also, the higher the scope level, the more it will be specialized for longer range shots (for example, a character should not be able to use a scope of a level higher than 3 for a short-range shot, or over level 5 for a medium-range shot). A scope can also be equipped with a special detection system (see **Goggles, Binoculars, and Visors** on page 23).

ELECTRONIC TARGETING AID SYSTEMS

Some weapons can be equipped with systems that make them easier to handle. A character who uses this kind of system gain a bonus [to his Shoot roll] (these systems are not cumulative; if several are installed, the most efficient will be chosen).

Autonomous Reactive System

An autonomous reactive system can be used with a weapon set up on a tripod, for example. The mechanism is fixed onto the weapon (one system is required per weapon). Equipped with a small, specialized computer, an analyzer, a targeting computer, and a detector, it allows the weapon to act of its own accord (all the Tests use the detector's level). The character defines the conditions in which the weapon is activated. Bear in mind that an autonomous reactive system can also be fitted to things other than weapons.

Onarck P and Vanguard Targeting Visors

These shooting accessories are visors connected to the weapon, which show real-time data (analysis of the targets, status of ammo, etc.).

Palm Implant

This implant corrects the aim and the grip on the weapon, which slightly increases the precision of the shot.

Heavy Weapons Tripods and Harnesses

Some heavy weapons require a tripod or a powered harness. The harness only reduces by half a weapon weigh. The characters who are using a weapon that requires support can either use the stand built into the weapon, or they can lean on an obstacle (but in this case the GM can apply a penalty for the shot if she or he wants to). Without steadying the weapon, the Test Success Probability is halved. Note that because of progress in the technology, some weapons that used to need a harness or tripod may no longer need one, once they become light enough (see **Higher TL Weapons** on page 46).

- **Tripod:** 600 Sols.
- **Powered harness:** 3,000

GRENADES AND AREA EFFECT WEAPONS

GRENADES

For more information, see **Special Weapons**, **Grenades and Mines**, CRB1 page 231, in the **Combat** chapter.

All the grenades detailed below can also be equipped with one of the following options:

- **Impact grenade:** usually a grenade explodes a few seconds after being activated. An impact grenade only explodes when it hits something.
- **Drone grenade:** when a drone grenade is thrown, it stays in the air until it detects a target within a range of 20 meters around it. As soon as it has acquired a target, it flies straight towards it and explodes when close. The grenade can only remain airborne for 10 minutes. It moves at a speed of 40 meters per Combat Round. The drone grenade is a TL V device, and it costs 10 times as much as a regular grenade.

Concussion Grenade

This is an anti-personnel grenade, which is designed to take out its target by the sheer force of the explosion. Underwater, its range is doubled. The victims are subject to the same kind of disorientation as the one caused by explosives (in the

GRENADES & CANISTERS

MODEL	DAM.	SHOCK	PRICE	AVA (B. MKT)	TL
Concussion grenade	5D10	-	500	10 (20)	II
Energy grenade	6D10	-	950	10 (-5)	IV
Frag grenade	5D10	-	500	10 (20)	II
Gas grenade	Variable	Variable	330	10 (20)	II
Incendiary grenade	5D10+3	-	850	10 (20)	II
Knockout grenade	1D6	+3D10	300	10 (20)	II
Neural grenade	-		1,100	10 (-5)	III
Smoke grenade	-	-	220	10 (20)	II
Sonic grenade	4D10	+2D10	750	-5 (1)	III
Stun grenade	-	-	620	10 (20)	II
Acid canister	1D10/Round	-	180	5 (10)	II
Explosive canister	1D10	-	90	5 (10)	II
Gas canister	Variable	Variable	120	5 (10)	II
Napalm canister	2D10	-	80	5 (10)	II
Smoke canister	-	-	110	5 (10)	II

case of Failure on the Shock Resistance Test, the stun period duration is doubled).

Energy Grenade

This grenade releases a field of energy, limited to a diameter of 5 meters. Nothing else is affected outside this area.

Frag Grenade

This is an anti-personnel grenade that spreads shrapnel as it explodes.

Gas Grenade

This grenade is used to release a combat gas (see next page) that will fill an area of roughly 30 cubic meters. The gas can be blown away by drafts and breezes.

Incendiary Grenade

This incendiary grenade can be used underwater but the damages are reduced by a third. It will burn for 1 Combat Round at 2,000°C and fill a zone about 5 meters in diameter. It inflicts absolutely horrendous Fire Damage.

Knockout Grenade

This Grenade releases little rubber balls that can knock out targets up that stands no farther than 5 meters from the explosion point.

Neural Grenade

This grenade has an effect similar to that of the Neural disruptor (see page 53).

Smoke Grenade

This grenade releases a colored smoke that can fill a zone of roughly 30 cubic meters. The smoke is not toxic at all, and it can be blown away by the wind or by drafts in 15+1D10 Combat Rounds.

Sonic Grenade

A sonic grenade releases a very powerful shockwave. A simple armor Protection value is divided by two and an exo-armo Armor rating is reduced by a quarter (round results down; a value of 20 will, for example, become 15).

Stun Grenade

This grenade is designed to confuse an opponent. It produces a bright flash of light and a deafening sound affecting an area 20 meters in diameter. The flash completely blinds a non-protected opponent for 1 Combat Round, and the "bang" will mess with his sense of balance, as well as deafen him. The victim is considered to be *stunned* (similar to the effects of a Shock) for 1D6 Combat Rounds. This grenade has no effect if the target sees it coming, and closes his eyes and blocks his ears (to see if this happens, a Reaction Test can be carried out.

Canisters

Canisters are the ammunition used in canister throwers (see page 54).

Acid Canister

Releases a powerful acid that attacks living cells. The acid usually sold with these capsules inflicts 1D10 Damage points per Combat Round for 2D6 Rounds.

Explosive Canisters

These are mini grenades and they inflict 6 Base Damage points over an area spreading 2 meters from the canister. There is no blast effect with these small explosives.

Gas Canisters

These canisters can contain one of the gasses detailed below. The gas will affect an area of 10 cubic meters.

Napalm Canisters

Napalm canisters catch fire when they hit on or near a target, and cover a zone 3 meters in diameter. The Damage inflicted follows the rules of Fire-related Damage. Without additional fuel, the canister can burn for 10 Combat Rounds.

Smoke Canisters

The smoke from these canisters reduces the visibility in a zone roughly 10 meters in diameter. The effects disappear in 2D10 Rounds.

Gases

Combat gases are certainly the most fearsome weapons to ever have been invented. They can be released through sprays, grenades, shells, canisters, etc. The most dangerous ones are never used inside a station, as it is very difficult to decontaminate the affected areas. On the surface, the weather conditions make them rather dangerous to use. Not only does it require a huge quantity of gas to have any effect, but the gas also disperses extremely quickly. They are most frequently used in underground tunnels, to fight the Burrowers. However, the authorities use them very

sparingly, as once again, it is very difficult to clean out the contaminated areas. The gases spread instantly through the area where they were released and they stay there until they are blown away (by the wind, for example). A gas canister affects everything inside an area of 10 cubic meters; a grenade can fill an area of 30 cubic meters; and a small shell can fill an area of 1,000 cubic meters. Of course, this information is only a rough indication, as it depends on the concentration of the product and on the way in which it is used.

The toxic substances soak into everything they enter in contact, not only the places where they are released, but also the victims present there at the time. The victims will remain intoxicated by the gas, even if they manage to leave the contaminated area. No armor, even natural, can protect from gases, except for perfectly insulated and airtight protections. The Damage indicated below only applies to normal concentrations of gases.

Blister Gases

Blister gases burn the skin, the lungs, the eyes, etc. They inflict horrendous damage to the organism and create unbearable pain. The victim suffers 1D6 base Damage points per Combat Round, over 1D3 Locations, until he is sprayed with a special antidotal solution that can neutralize the effects of the gas. This Damage increases by 1 point per Round while the victim remains in the Area of Effect. If he survives, the inflicted Wounds are terrible and they are considered the equivalent of Wounds caused by fire. For each Critical Wound to the Head, a Luck Test is required: if the victim fails the Test, his eyes are destroyed. Similarly, each Critical Wound to the Body requires a Luck Test. If the result is a Failure, the victim's lungs are severely damaged and his Constitution is reduced by half until he receives proper care in a hospital. With a Mortal Wound to the head, the victim loose permanently the usage of one eye and the second one on a failure to his Luck roll. Furthermore, his Resistance is permanently reduced by 1 to 4 points, even after treatment in a hospital intensive care unit. Under the effect of the gas, all Success Probabilities are reduced by half, whether the victim is wounded or not. Furthermore, the character is almost completely blinded. A character in an NBC suit or a pressurized armor is immune to this type of gas. If he is only equipped with a gas mask, the Damage will affect his skin. His eyes and his lungs will not be affected.

Decomposing Gases

These fearsome gases decompose the flesh of all living creatures, who literally fall to pieces. Their death is just horrific. The gas inflicts 1D6 Damage points per Combat Round, +2 points per Round while the victim is still in the Area of Effect. The Damage is reduced by 1 point per Round once the victim has left the area. The Wounds are similar to those caused by fire.

Irritating Gases

These gases cause irritation to the eyes, the skin, etc. They are usually used to neutralize an opponent, and they apply a penalty of -3 for all actions. Each Round, the character must successfully pass a Constitution Test, with a penalty depending on the gas potency, or he will suffer an additional penalty to his actions (which is added to the previous one) equal to the Failure Modifier. If the character manages to leave the Area of Effect of the gas, these penalties are reduced by 1 point per Combat Round. With a gas mask, an NBC suit, or inside an airtight apparatus, the character is out of harm's way.

Knockout Gases

This kind of gas forces the victims to carry out a Shock Resistance Test each Combat Round, with a penalty depending on the gas potency. This penalty increases by 1 point for each round spent in the Area of Effect. With a gas mask, an NBC suit, or inside an airtight apparatus the character is out of harm's way. Holding one's breath will reduce the gas effects by half.

Neurotoxic Gases

These gases attack the nervous system and block the nerves' activity. More often than not, the victim will die of suffocation. Any victim of a neurotoxic gas must successfully pass a Constitution Test each Combat Round (with a penalty depending on the gas potency) or lose 1 Resistance Point, even if he has left the contaminated area. To avoid death, the victim must obtain a Success Margin of at least 15 for one of these Tests, or be injected with a dose of atropine (a well-known antidote to this kind of gas), AND successfully pass a Luck Test. Only a pressurized suit or an NBC suit can protect the character from this kind of gas.

Suffocating Gases

Suffocating gases burn the inside of the lungs. These gases don't cause any direct Damage. Each Round, the characters must carry out a Constitution Test, with a penalty depending on the gas potency. If the Test fails, the character loses 1 Constitution Point. For each lost point, he must successfully pass a Luck Test, or the loss is permanent. If a victim leaves the Area of Effect, the penalty decreases by 1 point for every 2 Combat Rounds. If the character's Constitution reaches to 0, he dies. With a gas mask, an NBC suit, or inside an airtight apparatus, the character is out of harm's way. Holding one's breath will reduce the gas effects by half. While the gas is in effect, all the character's Success Probabilities are reduced by half.

LAND MINES

Land mines can be triggered by applying pressure, by movement detection using an optical sensor, by sound,

magnetic or pressure detection, by walking through a laser beam or triggering a trip wire, by a change in atmospheric pressure, or by vibration. Some detection systems allow a mine to detect targets that are not touching the ground. Anti-personnel mines usually use detection by pressure or by triggering a tripwire or a laser beam. Anti-vehicle mines generally use a magnetic or pressure detection system. The most recent mines are equipped with a Friend or Foe system. You need to successfully pass an *Explosives* Test to be able to properly place and activate a mine.

Note: instead of triggering an explosion, a mine can also be wired to trigger an EMP effect or release a gas.

Mole Anti-vehicle Mine

This is a magnetic detection mine, which is triggered if a metallic vehicle passes within 5 meters of it. It deals Massive Damage on a Human Scale and 4D10 (V-) on vehicles.

Shrap Anti-personnel Mine

This is a jumping anti-personnel mine triggered by pressure. It jumps up onto the back of its target, releasing shrapnel that hit 1D2 Locations. The non-jumping version of this mine costs half as much and only hits one Leg.

RUMOR: THE FIELDS OF NANOMINES...

There exist rumors about such special mines, which are Azurean or Genetician weapons. This would be invisible and undetectable fields of microscopic mines. When an intruder crosses the boundaries of the field, he is attacked by thousands of these microscopic mines. The nanomines effects are varied:

- **Explosive nanomines:** a swarm of thousands of tiny explosive mines attack the intruder, who suffers 1D10+3 Damage points per Combat Round. These mines have no effect on a vehicle or perfectly insulated armor (including exo-armor).
- **Immobilizing nanomines:** the intruder receives electric shocks that directly affect his nervous system. Each Combat Round, he will suffer an Attack that inflicts 1D10 Shock Damage points. These mines have no effect on a target inside a vehicle or a perfectly insulated armor.
- **EMP nanomines:** each Combat Round, the mines release an EMP effect, which requires a Breakdown Test for all sensitive devices.
- **Alarm nanomines:** these mines are passive; they mark their target and send a signal to a much heavier protection unit.
- **Poison nanomines:** these nanomines can poison their target or transmit germs, drugs, etc.

A field of nanomines remains active in a given area for 10 attacks. It is rumored that there are many more types of nanomines, capable of freezing, incinerating, electrocuting, or lacerating their targets and probably even worse.
Note: the nanomines fields are vulnerable to EMP weapons, which can neutralize them for 1D10 Rounds.

EXPLOSIONS

The information that follows is only a series of general indications. The GM should not hesitate to adapt these technical values to the situation, and decide what the necessary charge would be in order to affect this or that object or to produce this or that effect.

BLAST LEVEL OF EXPLOSIVE CHARGE (EXPLOSIVE BLAST LEVEL : EBL)

The Blast of an explosive can be characterized by a level. This is a rough indication of an explosion Damages and area of effect.

- **1:** a charge of this size will inflict 3D10 Damage points on the Human Scale (in 1 Location). It is just powerful enough to destroy a smallish object, such as a bulletproof lock.
- **2:** 5D10 Damage points on the Human Scale (in 1D2 Locations).
- **3:** 7D10 Damage points on the Human Scale (in 1D3 Locations), 1D6 on the V- scale. A charge of this EBL is the equivalent to that of a grenade. This charge can also destroy a door or a thick bulkhead.
- **4:** 9D10 (H) / 1D6+1 (V-).
- **5:** A massive amount of Damage (11D10) on the Human Scale, 1D10+1 on the V-scale. A charge of this EBL can destroy a door or a reinforced bulkhead, and affect the structure of a light vessel.
- **6:** MD (12D10 (H)) / 1D10+1 (V-).
- **7:** MD(14D10 (H)) / 1D10+2 (V-) / 1D6 (V+)
- **8:** MD(16D10 (H)) / 1D10+3 (V-) / 1D6+1 (V+)
- **9:** MD(18D10 (H)) / 1D10+4 (V-) / 1D6+1 (V+)
- **10:** MD(20D10 (H)) / 2D10 (V-) / 1D10 (V+)
- **15:** 3D10 (V-) / 1D10+3 (V+)
- **20:** 4D10 (V-) / 2D10 (V+)
- **25:** 5D10 (V-) / 2D10+3 (V+)
- **30:** 6D10 (V-) / 3D10 (V+)
- **35:** 8D10 (V-) / 4D10 (V+)
- **40:** MD(10D10 (V-)) / 5D10 (V+)
- **45:** MD(12D10 (V-)) / 6D10 (V+)
- **50:** MD(14D10 (V-)) / 7D10 (V+)
- **55:** MD(16D10 (V-)) / 8D10 (V+)
- **60:** MD(18D10 (V-)) / 9D10 (V+)
- **65:** DM(20D10 (V-)) / DM(10D10 (V+))
- **115:** MD(20D10 (V+))
- **165:** MD(30D10 (V+))
- **215:** MD(40D10 (V+))

Note: on a Human Scale, simple protections offer their usual amount of protection. Security armor, which is totally

insulated, provides a better level of protection when faced with the specific Damage due to explosions (see below), or that which affects the eardrums or the lungs (see box below). Inside an exo-armor or a vehicle, the character is protected by his craft's shielding, but this could well be blasted apart by the explosion.

ARMOR PROTECTION

A target protected by a rigid protection or by an armor (with an Armor Rating) can better resist the blast damage. If the target armor rating is equal or superior to the listed value, damage is reduced by half. Damage from Demolition charges and explosives torpedoes (and other explosives weapons designed to explode when in contact with a structure) is never reduced.

EBL	ARMOR RATING
1-5	9 (H) / 1 (V-) / 1 (V+)
6-10	18 (H) / 2 (V-) / 2 (V+)
15	26 (H) / 3 (V-) /2 (V+)
20	35 (H) / 4 (V-) / 3 (V+)
25	44 (H) / 5 (V-) / 4 (V+)
30-35	53 (H) / 6 (V-) / 5 (V+)
40	61 (H) / 7 (V-) / 5 (V+)
45	70 (H) / 8 (V-) / 6 (V+)
50	79 (H) / 9 (V-) / 7 (V+)
55	88 (H) / 10 (V-) / 8 (V+)
60-65	96 (H) / 11 (V-) / 8 (V+)
115	175 (H) / 20 (V-) / 15 (V+)
165	245 (H) / 28 (V-) / 21 (V+)
215	315 (H) / 36 (V-) / 27 (V+)

Example : If the EBL is less than 6, then damage are halved if a vehicle has at least an Armor Rating of 1 V-.

AREAS OF EFFECT

Explosive charges (as well as torpedoes and underwater mines, which are, however, treated separately) create a terrifying shockwave, which blasts everything in its way inside a spherical Area of Effect (a character, even in his armor or inside a small vehicle, can very well be thrown several meters away). Over a short distance, the shockwave is powerful enough to cause Physical Damage, and even a longer range, it may inflict serious Stun Damage.

An explosive charge has a primary Area of Effect that spreads out over a diameter equal to half the charge EBL, in meters. Inside this area, the inflicted damages are as listed above. Beyond this primary area, the effects are as follows:

- **Area of effect of a diameter equal to the EBL (in meters):** Physical and Shock damages are divided by two.
- **Area of effect of a diameter equal to twice the EBL: physical damages are** divided by four and there is no Shock damage.

On the scale of vehicles, the Shock Damage only affects the Crew: the vehicle has indeed suffered a shockwave, but it has not damaged its structure, although it has been moved suddenly, which will shake up its occupants.

Some specific conditions can also have consequences on the effects of the explosion:

- **Underwater**, in an environment especially prone to the propagation of shockwaves, the range of the Area of Effect is doubled.
- **In an enclosed space**, the shockwave will have a tendency to bounce off the walls (if they are sturdy enough), therefore creating a devastating amount of energy. If the explosion takes place in a place with a diameter smaller than the EBL, the Damage is doubled.
- **Purposeful including additional peaces of shrapnels in an explosive device** (ball bearings or scraps of metal, screws, etc.), a system favored by some terrorists, doubles the range of the Area of Effect, but only for damages. This effect does not work underwater.

EXPLOSIVES

MODEL	LVL. / BONUS	PRICE	AVA (B. MKT)	WEIGHT	TL	MANUFACTURER
Explosive pack	-	5/gramme	1 (10)	-	II	Various
Demolition charge - *Ultra 10*	-	5/gramme	1 (5)	-	II	Various
Detonators : Acid	-	600	1 (10)	-	II	Various
Detonators : Thermal	-	500	-5 (5)	-	II	Various
Detonators : Chemical	-	800	1 (10)	-	II	Various
Detonators : Contact	-	100	-5 (5)	-	II	Various
Detonators : Light beam	-	600	-5 (5)	-	II	Various
Detonators : Clockwork	-	100	1 (10)	-	II	Various
Detonators : Light	-	900	-5 (5)	-	II	Various
Detonators : Wave	-	400	1 (10)	-	II	Various
Detonators : Vibration	-	500	-5 (5)	-	II	Various
Demolition kit	-	800	10 (15)	0,6 kg	II	Various

Although it is not possible to dodge the shockwave of an explosion, it is, however, possible to protect oneself from it by seeking shelter behind a solid enough barrier (a door, a wall, a vehicle, a rock, etc.). Depending on the situation and on the EBL, the Gamemaster can reduce the Damage caused by an explosion by 1 to 2D10.

DEPTH AND EXPLOSION

With increased depth, because of the pressure, an underwater explosion is more and more confined and its area of effect reduced. The damages and the area of effect of an underwater explosion is reduced by a percentage indicated in the following table. This rule applies to any explosion including nuclear explosions, anti-mater explosions and to the effect of all torpedoes (classic torpedoes but also Hades torpedoes and Plasma torpedoes that will be introduced in the upcoming technical guide).

DEPTH	DAMAGE & AREA OF EFFECT REDUCTION
≥ 1 km	-10 %
≥ 2 km	-20%
≥ 3 km	-30%
≥ 6 km	-40%
≥ 13 km	-50%

EXPLOSIVES

The character is usually required to successfully pass an *Explosives* Test in order to properly place a charge. The Difficulty level of the action will depend on how sophisticated the detonator is (this also applies to *Bomb Disposal* Tests). Most of the time (unless the situation is unusual), the Damage inflicted upon a vehicle will be focused on its Structure (see the section about submarines and vehicles, page 107), but all other Locations can also be affected. If the Test result is a Failure, the GM can decide that the explosion did not produce the desired effects, or that the detonator did not function properly. If the result is a Catastrophe... well, do you really want to know?

Note: the difficulty of an *Explosives* Test to properly place a charge depends on the detonator sophistication level of and not on the type of detonator. The more complex the detonator, the more difficult it is to set it up properly. The difficulty ranges from +1 to +4, but it can be higher. However, this complexity added to the Success Modifier of the person who sets the explosive is the Difficulty that the character who wishes to defuse the bomb will have to overcome.

DEMOLITION KIT

A demolition kit can just as well be used to plant a charge as it can be to defuse one.

DETONATORS

See the **Explosives** table below.

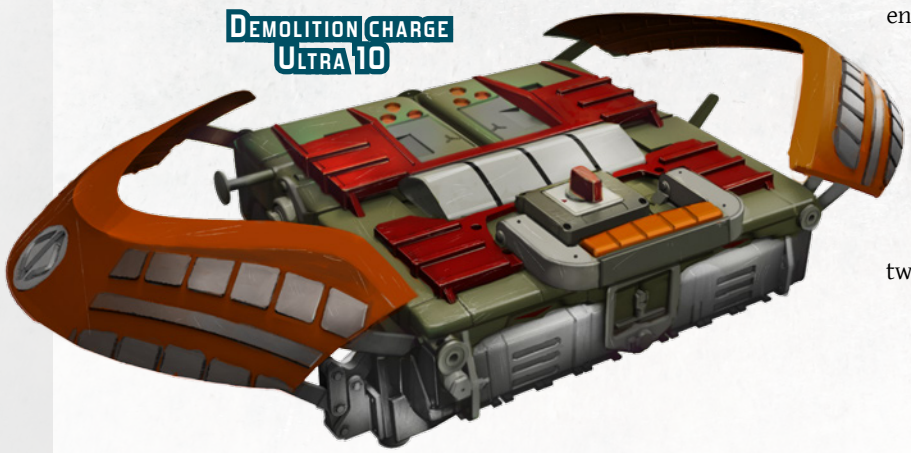
EXPLOSIVE PACK

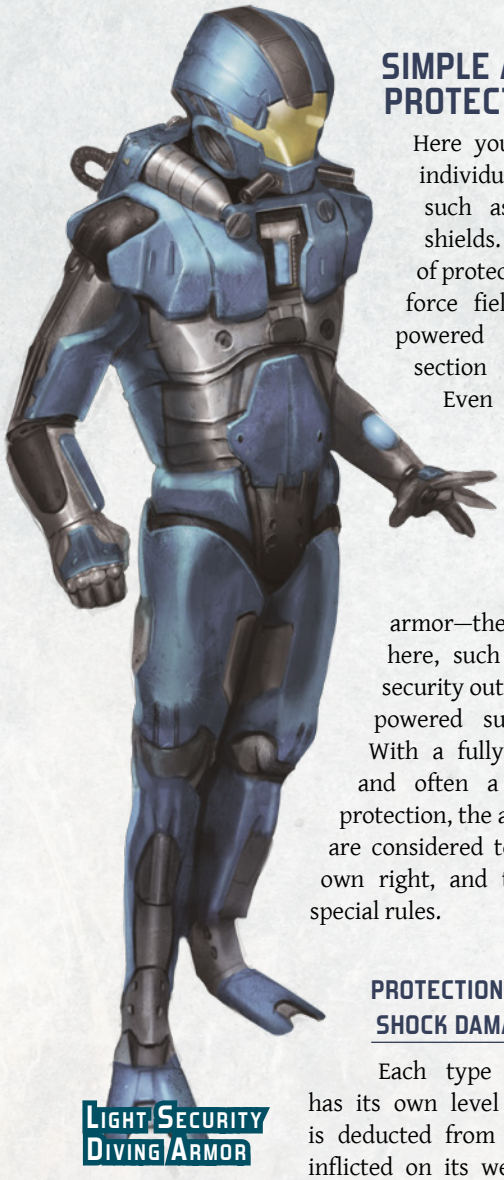
This is a standard pack of malleable explosives into which a detonator is plugged. In normal conditions of use, these charges are stable and harmless as long as they are not exposed to the reactive substance that will make them explode.

EBL	WEIGHT
EBL 3	50 g
EBL 4	130 g
EBL 5	300 g
EBL 6	450 g
EBL 7	850 g
EBL 8	1,7 kg
EBL 9	2,6 kg
EBL 10	3,9 kg

ULTRA 10 DEMOLITION CHARGES

The demolition charges come in the form of boxes that can be attached to any surface, either using magnets or suction. The charges are designed to aim their energy at the object to which they are affixed. The Damage they cause is increased by a number of points equal to the Success Modifier of the character who planted the device (*Explosives* Test), and the extent of the Area of Effect around the object is divided by two. The detonator is activated by a timer. A charge weights twice the weight of an explosive pack.





SIMPLE ARMOR AND PROTECTIONS

Here you will find details on individual protection gear, such as simple armor and shields. There are other types of protection, such as defensive force fields (see page 66) or powered exo-armors (see the section dedicated to them). Even though the term "armor" is often used without any further detail, you should make a distinction between simple armor—the kind that is described here, such as bulletproof vests, security outfits, etc.—and armored powered suits, the exo-armors. With a fully bulletproof exterior, and often a very high level of protection, the armored powered suits are considered to be vehicles in their own right, and they have their own special rules.

PROTECTION FROM PHYSICAL SHOCK DAMAGE

Each type of armor/protection has its own level of Protection, which is deducted from the Physical Damage inflicted on its wearer. Some weapons, however, have the ability to ignore some or all the armor (for example, armor-piercing ammunition). Some armor—rigid armor for example—can also protect the person wearing them from additional Shock Damage.

HINDRANCE AND PENALTIES DUE TO ARMOR

Armor, especially the heaviest kinds, tends to limit the users' movements and hinder their abilities while they are wearing them. This is translated into game terms as a penalty for actions that require the need to use one's physical agility (for example, when carrying out an *Acrobatics/Balance*, *Athletics,* or *Climbing* Test) as well as a penalty on movement (in this case the penalty should be applied to the ability that is used to calculate the character's speed, either the Agility Attribute or the *Athletics* Skill). The Gamemaster can also, if the situation calls for it, apply these penalties to Fatigue resistance Tests. Lastly, armor can sometimes require a minimum amount of Strength to be worn. If the character does not have the minimum Strength required, each point of the difference between this level and his Strength level contributes to increase the penalties detailed above.

Armor are classified into categories, from the lightest to the heaviest:

- **A:** thick clothing, tunics, or thick overalls. *Penalty*: -1.
- **B:** coats. *Penalty*: -2.
- **C:** reinforced outfits. *Penalty*: -3.
- **D:** combat armor. *Penalty*: -5.

The hindrance caused by armor also limits the possible combinations. You can, for example, combine protections of categories A and B, or B and C. You can also combine categories A and D (note that you can also wear a category A protection—but nothing thicker—inside a powered exo-armor). Technically, when you combine several types of protection, the Protection value of **the most efficient** piece of armor is used, and the Protection levels of any additional armor **must be halved** before being added to the total.

Last, but not least, some full-body armor also includes a full helmet, which can limit the user's perception abilities, either by distorting sounds and smells, but most of all, by sometimes limiting the range of vision (a rather careless character could be taken off guard by an attack coming from the side). The Gamemaster can then apply the penalties that she deems necessary (usually between -3 and -5).

SIMPLE ARMOR/PROTECTION

Each armor can protect a certain number of Locations (H: Head, B: Body, A: Arms, L: Legs). Remember that most armor can have weak points: if the Gamemaster is okay with it, an attacking character can aim for one of the weak spots to avoid (or reduce) the armor's Protection, with a penalty of -5 (light protections) to -10 (heavy protection, such as security armor). It is also perfectly possible to aim for a Location that is not covered by the armor at all.

The types of armor described here are either simple versions that usually protect the torso, or full versions that protect all the Locations that can be covered by this type of armor. It is always possible to buy incomplete versions (or specific pieces of armor), for a lower price, but some Locations will then be without protection.

Note: all the armor types detailed below have an Integrity level of 2D6+8 for a secondhand model bought on the legal market, or 20 for a brand-new model found on the black market.

Hydrating Armor

This type of armor is increasingly popular. As well as a light level of protection, they also provide regular hydration to their user. The user can go longer without drinking (an individual can survive for twice as long without water) and can better resist heat. Be aware, however, that this type of armor does not offer any further protection against

fire. They are, of course, very popular with Hybrids. The hydration system needs to be recharged every 48 hours (this costs 60 Sols). The hybrids (any type) suffer a penalty of only -1 to their test with this armor. Moreover, to see if they need to remove the armor, they must perform a Willpower Test every two hours with no penalty per hour spent within the armor.

Kevlar armor

This a full suit of Kevlar armor reinforced by armor plates and wire mesh.

Kevlar vest

This is the classic bulletproof vest of the police and security services, and it remains the most efficient of all the light protections, in terms of both safety and ease of use. The vest can be worn under light clothing as long as they are a little baggy. The protection is only 4 against a perforating weapon like dagger, arrows, armor-piercing bullets, etc.

"Last Chance" Pilot Armor

If the fighter of a pilot is destroyed, this armor, in plastitanium fiber, can release a last chance fluid that can keep the pilot

SIMPLE ARMOR & SHIELDS

MODEL	PROTECTION	SHOCK*	LOCATIONS	CATEGORY	STR	PRICE	AVA (B. MKT)	WEIGHT	TL
Thick clothing	3	-	Variable	A or B	-	-	-	2	-
Molecular clothing	3	-	Variable	-	-	2,000	5 (10)	1	III
Leather armor:	3	-		A or B	-		20 (20)		I
Vest			B			50		3	
Full (or coat)			B/A/L			150		7,5	
Molecular leather armor:	7	-		A or B	-		15 (20)		III
Vest			B			3,000		2	
Full (or coat)			B/A/L			9,000		5	
Padded armor:	5	7		D	-		20 (20)		II
• Vest			B			800		5,5	
• Full (or coat)			B/A/L			2,400		13	
Reinforced leather armor:	5	-		A or B	-		20 (20)		II
• Vest			B			150		5	
• Full (or coat)			B/A/L			450		12	
Ordainer's robe	10	2	B/A/L	-	-	28,000	-5 (1)	1,5	III
Kevlar armor (with helmet)	13	4	H/B/A/L	D	12	14,000	5 (10)	5,5 kg	II
Kevlar vest	9	2	C	C	10	6,000	10 (15)	2,5 kg	II
"Last chance" pilot armor	8	10	H/B/A/L	C	-	30,000	10 (15)	6	III
Plastitanium fiber armor:	16	5			10		1 (5)		III
• Vest			B	C**		6,600		2	
• Full (with helmet)			H/B/A/L	D		20,000		5,5	
Spider armor:	8	3		A or B	-		5 (10)		III
• Vest			B			2,500		1 kg	
• Full (or coat)			B/A/L			9,000		2,5 kg	
Alpha security armor	17	6	H/B/A/L	D	13	23,000	5 (10)	5	II
Beta security armor	20	8	H/B/A/L	D	15	27,000	1 (5)	6	II
Omega security armor	23	10	H/B/A/L	D	15	35,000	-5 (1)	7	III
Molecular field armor	1 to 15	3	H/B/A/L	-	-	10,000/lvl.	-5 (1)	1,5 kg	V
Hydrating armor	5	-	H/B/A/L	C	-	1,200	10 (15)	4,5 kg	II
Light Hybrid diving armor	10	-	H/B/A/L	C	-	10,000	5 (10)	6 kg	III
Light security diving armor	17	special	H/B/A/L	D	-	110,000	5 (10)	18 kg	IV
Shield									II
• Small	7				10	200	5 (10)	1 kg	
• Medium	7				13	700	5 (10)	4 kg	
• Large* **	3	-	-	-	15	300	10 (15)	2,5 kg	

** Protection from additional Shock Damage*

*** Inflicts an additional hindrance penalty of -1 (for a total of -4).*

**** For example, the anti-riot shields used by the security forces.*

alive in a semi-catatonic state for four days. The armor is equipped with a special underwater locator beacon.

Leather protection

A protective garment made of thick and sturdy leather.

Light Hybrid diving armor

Manufactured by Gladius, the Calyst armor is specially designed for Hybrids. These suits allow Hybrids to dive with a fair level of protection without being hindered in their movements. Very fine metal plates are attached to a garment made of extremely lightweight titanium chainmail, and cover the outside of the arms, the torso, the pelvis, the outside of the thighs and ankles and the weak spots around the head and throat. A good-quality outfit can fit in a small suitcase. The hybrids (any type) suffer a penalty of only -1 to their test with this armor. Moreover, to see if they need to remove the armor when they are outside water, they must perform a Willpower Test every hour with no penalty per hour spent within the armor. Hybrid can freely use the Hybrid Skill with this armor but with a penalty of -1 to their tests.

Light Security Diving Armor

It's a mail armor made of nano-titanium fiber, partially reinforced by armor plates made of Nano-composite, granting a Protection rating of 17. There are however some weaks spots, which are not protected by the armor plates (Protection rating 3). The visor is made of Alon, with a security flap made of the same material as the armor plates. Its Protection rating is 1, but15 with the security flap. The diving armor is equipped with a light exo-skeleton (Strengh 15), a special underwater locator beacon, a heating system and a complex system of cables, mini-engines and actuators. It's powered by a pressure-compensated super high density battery (walk Speed 4 knots) with an autonomy of 4 hours. Shock damage is divided by two (round down). This diving suit can be used with fluids at any depth, and up to 1,000 meters without fluid. An exo-armor based on this model has been produced by Gladius.

Molecular field armor

Manufactured by the Hegemonic firm NeoTech, the Darken armor is rare and expensive. A small computer worn at the belt allows the user to control an unimaginable number of molecules, each one equipped with molecular computers. By simple voice activation, the molecules regroup and form a black armor around the wearer, completely smooth and without any openings at all, even for the eyes. In spite of this, the wearer can see normally. The armor is perfectly fluid and doesn't hinder the wearer's movements at all. If the computer breaks down, the armor dissipates immediately.

Molecular garments

This name refers to a simple garment—jacket, pants, overalls, etc.—that has been reinforced by a molecular treatment. This type of outfit does not cause any additional hindrance to its wearer.

Molecular leather protection

These leather outfits are made using molecular technology, which can artificially reinforce the resistance of certain materials.

Ordainer's robe

These monastic robes are made of molecular fabric, reinforced by flexible polytitanium fibers. They do not hinder their wearer at all.

Padded protection

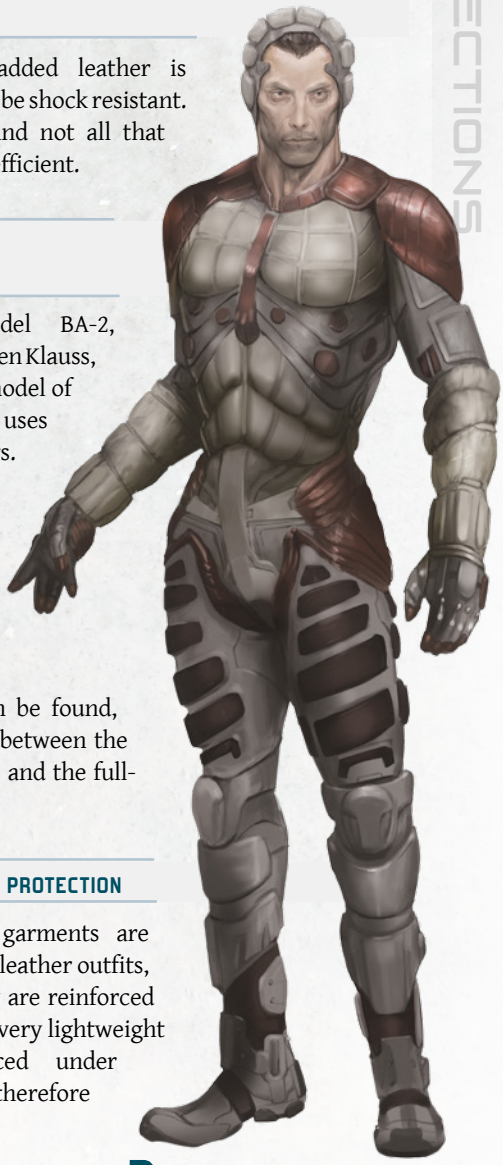
This outfit in padded leather is specially designed to be shock resistant. It is rather bulky and not all that discreet, but pretty efficient.

Plastitanium fiber protection

The recent model BA-2, manufactured by Galen Klauss, is a more resistant model of the Spider, and it uses plastitanium fibers. Although it is a little bulkier (note the additional penalty) and less discreet, it offers one of the best light protections that can be found, a good compromise between the classic Kevlar outfits and the full-body combat armor.

Reinforced leather protection

These protective garments are similar to the classic leather outfits, but in this case they are reinforced in strategic areas by very lightweight metal plates placed under the leather, and therefore invisible.



Padded protection

Security armor

These are full-body suits of armor that benefit from the most advanced technological innovations to make their structures lighter. The Omega model, the heaviest of them, however, does include a lightweight exoskeleton with mini-servos that make it easier to use (but do not provide any additional bonus). These armors can also be equipped with systems that can usually only be found on powered exo-armor. Totally insulated and airtight, these suits can be used in a hostile environment.

Spider protection

This common model, manufactured by Galen Klauss, is made of very resistant fibers blended with titanium fibers and synthetic spider webs. Light and discreet—the vest can easily be worn under light clothing—this protection is very popular with those who need a discreet method of protection (security services, bodyguards, diplomatic personnel, etc.).

SHIELDS

A shield allows the user to parry an attack during combat (see the rules for Combat). They provide a level of Protection from bullets, just like armor does. The shields are detailed below and have an Integrity score of 2D6+8 (20).

Small shield. This shield is made of hyper-steel VHS and has a 30 cm diameter. It allows to block melee or harpoon attacks, thus imposing a -1 penalty to the opponent's attacks.

Medium shield. This shield is made of hyper-steel VHS and has a 60 cm diameter. It allows to block melee or harpoon attacks, thus imposing a -2 penalty to the opponent's attacks.

Large riot shield. This shield is made of ALON and is 1,10 m high and 60 cm width. It allows to block melee or harpoon attacks, thus imposing a -4 penalty to the opponent's attacks.

PORTABLE FORCE FIELDS

Developed by the Azurean and Genetician technologies, defensive force fields and shields are extremely elaborate defensive systems that protect all a character Locations. There are plenty of units still available, but they are becoming increasingly difficult to repair and manufacture, as all their elements call upon a very advanced technology that is difficult to reproduce.

Note: this section only refers to the personal force fields that work on a Human Scale. There are, however, rumors that tell of force fields for a vessel-sized object...

SHAPE OF A FORCE FIELD

Force fields come in different shapes. For example, the personal force fields will usually have the shape of their user's body. Spherical force fields create a sphere of protection of about 2 meters in diameter around the character (considering that the center of the sphere is situated roughly around the character's waist). These two types of force field protect all the user Locations. At last, there are fields which shape is a shield (shield fields), or even a barrier that is independent of any wearer.

Note: the diameter of a force field can be increased, but its efficiency ***is reduced by 3 levels for an additional meter, by 8 for two additional meters and by 16 for 3 additional meters.***

HOW PROTECTIVE FORCE FIELDS WORK IN-GAME

A protective force field works like a simple protection. It will automatically stop a number of Damage points equal to its own level. However, bear in mind that for most devices, this is also true **for the attacks coming from inside the force field** (the user's attacks). Therefore, the force field must be deactivated in order to perform an attack in normal conditions. Force fields known as "fluctuating" fields can, however, provide a solution to prevent this situation (see below).

A force field generator can overload if it has to face a high level of Damage. If the generator receives a number of Damage points higher than twice its level, the device is subjected to a Breakdown Test (see **Integrity of the Gear**, page 9), with a penalty of -1 for every 5 Damage points higher than twice its level. A force field generator that breaks down will cease to function and will need to be repaired by a competent engineer. If the result of the Breakdown test is a Catastrophe, the force field implodes: the user (and everything else inside the force field) suffers 3D10 Damage points in 1D2 Locations. The force field device then needs to be repaired as explained above.

Note: a damaged protection force field follows the rule of Damage to simple armor (see **Simple armor and protections** on page 63).

FLUCTUATING FIELDS

Some force fields can also be *fluctuating*. Generally speaking, a protective force field has the same effect on all attacks, whether they come from the outside or the inside of the field. A fluctuating force field is a field that opens as soon as the person whom it is protecting attempts to use his weapons, in order to let their attack through (it's a bit like the synchronization gear used by fighter planes to shoot between the moving propeller blades). The weapons must be connected to the force field generator via a special interface in order for it to let the outgoing shots through. When the force field opens, the user does, however, become vulnerable, and some weapons equipped with a field analyzer (see below) can exploit this weak spot.

Note: a fluctuating field costs twice as much as a normal field. This price also covers the interface module that allows the user to connect his weapons.

SIZE AND AUTONOMY OF THE FIELD GENERATORS

Force fields use up tremendous amounts of energy. The Azurean and Genetician devices, however, remain relatively discreet, and use generators and energy sources the size of small boxes that are usually worn on the user's belt. In some cases, the original energy generators are damaged beyond repair, and they are replaced by batteries from a more recent technology, some of which can weigh several kilos. In this case, they are larger generators carried on the back (this will probably be the case if the device's Integrity score on purchase is lower than 15). The autonomy of the force field generators are as follows, depending on their Technology Level:

- **TL V:** 30 minutes.
- **TL VI:** 45 minutes.
- **TL VII:** 60 minutes.

Note: the force fields can be activated and deactivated at will; during combat, this action would be a Preparation and would cost 3 Initiative points.

Energy field (personal field)

Energy fields only work against energy attacks. They work like force fields, but they can be breached by any physical object. What's more, they can also interfere with electronic devices, whether they are on board vehicles or an automated device. These electronic devices then suffer an EMP attack that will force them to carry out a Breakdown Test with a penalty of -1 for every 5 levels of the energy field (EMP shielding provides its usual level of protection).

Force field (personal field)

A force field is not a permanently solid field. It is, in fact, a device that concentrates particles to a specific point in order to face any kind of attack. The more strength is put into the attack trying to pierce it, the more the field will contract. This type of force field can therefore very well be used underwater, as long as they are not programmed to react to water, or they would collapse under the pressure. When faced with this type of force field, projectiles will crash into the protective barrier, which will become visible for a few moments at the point of impact. If the attack is powerful enough, however, part of the damage can make it through the force field.

A force field works against all types of physical attacks, but not against chemical or bacteriological elements, heat (even if flames surround the field without entering it, the radiated heat will burn whatever is inside), radiation, etc. They are, however, efficient against energy-based weapons, shock weapons, and shockwaves, but in these cases, its efficiency is reduced by half.

Total exclusion field (spherical field)

A total exclusion force field is one that completely isolates its user from the outside. Unlike a traditional force field, it is solid all over its surface. It is always spherical in shape. It prevents the intrusion of absolutely any element, whether it is a bullet or a microbe. When such a force field is activated—and if it is permanent—it is recommended to have an air supply handy. This kind of field is never fluctuating. Underwater, this kind of field has to be able to resist the outside pressure. Therefore, it can hardly be used at depths greater than 10 times its level, in meters. Note that it is preferable to activate the force field before entering the water, as the liquid will not be removed from the protected area.

The amount of energy used up by a total exclusion force field is absolutely astronomical; these fields require very bulky special batteries. Under water, because of the constant attack of the outer pressure, it is rare for these fields to hold up for more than a few minutes. This type of force field is very rarely used by individuals as, since the field is solid, they are very hindering to movement (Speed is reduced by half). Furthermore, as they are very heavy, it is difficult to carry them. Total exclusion force field generators are most often used to protect an area or a fixed object.

MISCELLANEOUS DEFENSE FIELDS

Anti-explosion field (spherical field)

This field provides a protection from the effects of any kind of explosion or any shock wave.

Anti-perception field (personal field)

This extremely rare type of field allows the user to become almost invisible. This is a very powerful camouflage system that bends light waves around the shield and remains efficient even in movement. It cannot be combined with a camouflage coating. The field level acts as a penalty to Perception Tests (you should note, however, that in a wide open space with good lighting, the characters who could spot the camouflaged user can already have substantial bonuses).

Anti-radiation field (spherical field)

This field reduces the Damages from radiation by a number of points equal to its level.

Anti-shock field (personal field)

This field protects the user against shock weapons and sonic weapons.

Defense exclusion field (spherical field)

This device generates an electrical field that inflicts 1D6 base Shock Damage points, +1 per level of the field, to anyone who comes into contact with it.

Defense thermal field (spherical field)

This field can reduce the atmospheric heat level by a number of degrees Celsius equal to three times the field's level. Furthermore, the field acts as a normal protection field against all attacks based on heat or fire.

Field analyzer

This device allows the user to detect the moment when a fluctuating protection force field opens up, and therefore increases the chances of getting a shot through the opponent's defenses. The level of the device indicates the probability that an attack can penetrate the fluctuating field as a percentage (roll 1D100 for each attack). The system must, of course, be connected to a weapon that is triggered by a computer, as a human cannot react fast enough (the weapon can, however, be portable: the user can simply point it at his opponent and choose whether or not to let the computer do the shooting). Furthermore, this system cannot be applied to automated devices, such as torpedoes or missiles.

Offense exclusion field (spherical field)

This device generates an energy field that causes 1 Physical Damage point per level of the field to anyone who comes into contact with it.

Offense thermal field (spherical field)

This field acts exactly like the defense thermal fields, but against cold effects. Furthermore, it inflicts 1 Physical Damage point caused by fire per level to any individual who comes into contact with it.

Pacifying field (spherical field)

This device emits a field that directly affects the brains of those who are inside it. It calms the rhythm of their heartbeat, prevents the release of adrenaline, etc. Any character who wants to undertake an attacking action inside this field has to successfully carry out a Willpower Test for each Combat Round, against the field level. If he fails, he cannot carry out his attacking action. If he succeeds, he is free to act.

Note: the basic field diameter is 2 meters across, and it increases by 1 m per level.

Passive exclusion field (spherical field)

This field creates an area into which it is difficult to enter. A character who wants to enter the zone of protection needs to perform a Strength Test for each Combat Round against the field level, or he will be pushed out and away from it.

Shield fields

Shield fields are small fields that work in the same way as traditional shields; in other words, they are designed to parry an attack. A generator is fixed to the forearm and generates a circular shield. Against a ranged attack, the shield works exactly like a regular protection field, by using the shield rule (see the section on Combat). Against a melee attack, the shield applies a penalty to the opponent's Attack Test equal to -1 for every 3 levels of the field. A shield field can use one of the following technologies: force fields, energy fields, defense or offense exclusion fields, anti-shock fields. Its cost per level is equal to 25% of a normal field (the maximum level remains 25). The generator produces a field with the shape and characteristics of a medium-sized shield, but it can be given the shape of a large shield (its stats are however reduced by 50%).

The autonomy of the shield fields depends on their Technology Level:

- **TL V:** 20 minutes.
- **TL VI:** 30 minutes.
- **TL VII:** 40 minutes.

Visual disruption field (personal field)

This field scrambles the wearer image, whose body appears to constantly fluctuate and warp. This causes any opponent that may be targeting the user to be unable to aim at a specific Location. The attacker also suffers a penalty of -5 for his Attack Test.

PORTABLE FORCE FIELDS

MODEL	PRICE	AVA (B. MKT)	TL
Anti-explosion field	5,000/lvl.*	5 (10)	IV
Anti-perception field	18,000/lvl.*	-10 (-5)	V
Anti-radiation field	5,000/lvl.*	10 (15)	IV
Anti-shock field	5,000/lvl.*	1 (5)	IV
Defense exclusion field	10,000/lvl.*	1 (5)	V
Defense thermal field	5,000/lvl.*	5 (10)	IV
Energy field	35,000/lvl.*	1 (5)	IV
Total exclusion field	80,000/lvl.*	-5 (1)	V
Field analyzer	3,000/lvl.*	-5 (1)	IV
Force field	50,000/lvl.*	-5 (1)	V
Offense exclusion field	12,000/lvl.*	1 (5)	V
Offense thermal field	15,000/lvl.*	1 (5)	IV
Pacifying field	25,000/lvl.*	1 (5)	V
Passive exclusion field	20,000/lvl.*	1 (5)	V
Shield field	Special	5 (10)	V
Visual disruption field	15,000	1 (5)	IV

** Level 25 max.*

RUMOR:
ANTI-AQUATIC FIELD

There have been rumors of a marvel of Genetician technology, a field that pushes water aside, letting everything else through. This may be a kind of improvement on a neutral pressure generator. However, nobody has managed to find yet a generator of this kind. It is thought that such a type of field must need a colossal amount of energy in order to function.

DRONES

"The problem with these combat drones is that, first of all, they're pretty quick; secondly, they don't need to sleep; and thirdly, they're resistant to bribes. And, I mean, like, those robotic bastards are totally stealin' our jobs!"

—Lievin Desani, unemployed mercenary

Drones are vehicles that are connected to a "command center," a computer capable of ordering it to perform a number of preprogrammed tasks. As you might expect, underwater drones are very common in the *Polaris RPG* Universe. Transport drones are especially popular with diving exo-armors to allow their pilots to increase the amount of equipment they can bring with them. There are also drones that can work out of the water, and even drones that can go from one environment to the other.

Note: the machines detailed here are medium-sized models. The GM may, if she so wishes, bring models with other characteristics into play in her scenarios, or even other types of drones. The world of the *Polaris RPG* also features other types of autonomous machines: the Azurean or Genetician robots, the androids from the Polar Alliance, etc. These will be detailed in future supplements.

MANAGING DRONES

Controlling Drones

Drones can be autonomous or piloted remotely. Autonomous drones are piloted by their command center; their internal programs act as their "Skills" when you need to work out their Success Probabilities for a peculiar action. Note that autonomous drones are not able to "wing it": they can only accomplish the actions for which they were designed for. In most cases, the drones can also be directly piloted by a remote operator who can take control of them via the command center interface. **The character uses his *Remote piloting* Skill, as a limiting Skill to some of the drone's program levels.** If they do not receive any specific orders, the drones remain in position around their operator or inside the perimeter that was assigned to them by the central computer.

Note: to hack into a drone's system, you will need to gain access of its control center.

Energy Source

Drones can be powered by several different types of energy supplies:

- **Battery:** most small drones are powered with onboard batteries that provide them with a certain amount of autonomy before they need charging again.
- **Umbilical cable:** an umbilical cable connected to an external generator provides the energy the machine requires, thus offering an unlimited autonomy (as long as the generator is working).
- **Wireless energy transfer:** by using energy transducers and relay terminals, drones can be powered remotely by an external generator without using an umbilical cable.
- **Engine:** drones that are used at the surface can also use diesel engines, turbofans and even nuclear reactors to power their various components.

Movement Types

The machines can use any type of propulsion system: wheels or tracks, mechanical legs, impeller or propeller systems, reactors, etc. Flying drones are often equipped with a magnetic flotation system that allows them to hover inside installations as long as there is a metal structure around. Some of them also use vertical turbines. As for the Azurean and Genetician drones, they use a gravity control system.

Drone Integrity

As is the case with other electronic devices, drones have a level of Integrity and can undergo Breakdown Tests. They are subject to all the rules that govern losses of Integrity, repairs, etc. They are, for example, vulnerable to attacks by electromagnetic pulses (EMP) although a lot of them are equipped with EMP Shielding (see **Electronic Equipment** on page 88).

DRONES

MODEL	LEVEL	PRICE	AVA (B. MKT)	WEIGHT	TL	MANUFACTURER
Drone command center – *Cerebra A23*	6	6,000	5 (10)	2 kg	III	Trinicom
Micro-drone /nano-drone command center – *CCU X12*	-	6,000	-5 (1)	1 kg	IV	Trinicom

Drone Architecture

Drones (like exo-armors and vehicles) have an Architecture characteristic that have an impact on their Integrity and, for underwater vehicles, on the maximum depths they can reach. Moreover, if you use the optional/Advanced rule on the Damage/Wound threshold, Architecture determines these thresholds (see **Advanced Rules** page 207).

Armor

Some drones have an Armor rating level, which acts exactly like armor protection: this number is subtracted from the Physical Damage inflicted to the device.

COMMON DRONES

Drone command center

This piece of equipment controls the autonomous drones, or allows a human operator to pilot them remotely. Each level allows the user to control one drone.

DRONES AND INITIATIVE

Autonomous drones acting in combat do not have any Initiative, as they react immediately depending on the actions of the individuals identified as enemies. Therefore, a combat drone equipped with a motion detector will automatically attack whenever a character carries out an action inside its detection perimeter (the machine does, however, need to "acquire" its target by carrying out a Test based on the level of the detection program). The characters who are piloting a drone remotely act with their usual level of Initiative.

Combat drone

This drone is available in both land and underwater versions. It is controlled by a command center, but is equipped with its own targeting computer. In combat, this type of drone is considered to be a small target (-3 for targeting) and has only one Location, with a number of Wound Scale checkboxes equal to the Body section.

- **Scale:** H (SIZ 7)
- **Price:** 36,400 Sols (without weapons or programs)
- **Weight:** 30 kg
- **Dimensions:** 0.5 m long, 0,3 m diameter
- **Armor rating:** 15
- **Architecture:** Heavy
- **Damage resistance:** -10
- **Integrity modifier:** +11
- **EMP shielding:** 3
- **Propulsion:** Ducted Mini-Thruster (underwater version), 6 wheels (land version)
- **Energy source:** High energy density battery
- **Autonomy:** 9 hours
- **Operating depth:** -9,000 m
- **Availability (B. mkt):** -5 (1)
- **TL:** IV
- **Programs:** Visual detection, Infrared 15, Shooting 15, Dodge 10 (used to avoid being directly hit or to dive for cover).
- **Special equipment:** Optical sensors with infrared, active and passive Sonar (500 m) or Radar (1 km), light flechette launcher (Damage 2D10+4, Ammo 70) or heavy machine gun (Damage 3D10+2, Ammo 100).
- **Speed:** 9 knots for the underwater version, 33 kph for the land version (the wheels are powered by perpetual magnet electric motors).

Detector drone

Detector drones can be equipped with various different devices depending on their mission. They can be used to detect life forms, metals, hidden weapons, chemical elements, etc. They are often designed to be able to move around in any environment.

- **Scale:** H (SIZ 7)
- **Price:** 39,000 Sols without any equipment
- **Weight:** 42 kg
- **Dimensions:** 1 m long, 0,25 m diameter
- **Armor rating:** 10
- **Architecture:** normal
- **Damage resistance:** -7
- **Integrity modifier:** +8
- **EMP shielding:** 6
- **Propulsion:** Shrouded propeller/Ducted Mini-Thruster (DMT)
- **Energy source:** Genetician Energy pack
- **Autonomy:** 13 hours (each takeoff or landing uses up 6 minutes of autonomy).
- **Max. altitude:** a few dozen meters
- **Operating depth:** -8,000 m
- **Availability (B. mkt):** 5 (10)
- **TL:** IV
- **Programs:** A range of detection and analysis programs (level 15), depending on the mission.
- **Special equipment:** Solar cells (2 hours of sunlight can charge 1 hour of battery life, but only when the device is in standby mode), 10.3 kg of various detection and analyzers, depending on the mission.
- **Speed:** 6 knots

Medical drone

The Magiar 45 is probably one of the best medical drones in existence. It is used in almost all the hospitals that can afford it. The floating versions move around on a magnetic field; the others move on four mechanical legs.

- **Scale:** H (SIZ 8)

- **Price:** 9,100 Sols without any equipment
- **Weight:** 40 kg
- **Dimensions:** 87 cm high (including 20 cm legs)
- **Armor rating:** 3
- **Architecture:** normal
- **Damage resistance:** +3
- **Integrity modifier:** -2
- **EMP shielding:** 3
- **Propulsion:** legs x 4 or magnetic propulsion
- **Energy source:** High energy density battery
- **Autonomy:** 24 hours
- **Availability (B. mkt):** 1 (5)
- **TL:** IV
- **Programs:** Medical analysis 15, First Aid 15, Surgery 15.
- **Special equipment:** 7 kg of TL IV devices (all required medical and surgical equipment)
- **Speed:** 3 knots (6 kph)



Medical drone

Pack drone

This drone (which cannot be used underwater) is shaped like a wide platform equipped with a magnetic field that allows it to carry some fairly heavy loads. It is even equipped with a small mechanical arm to pick up its load. This model can carry up to 1 ton of goods.

- **Scale:** H (SIZ 19)
- **Price:** 214,500 Sols
- **Weight:** 360 kg
- **Dimensions:** 3.25 m long, 1.6 m wide, 20 cm high
- **Armor rating:** 7
- **Architecture:** Heavy
- **Damage resistance:** -6
- **Integrity modifier:** +1
- **EMP shielding:** 1
- **Propulsion:** Magnetic
- **Energy source:** Genetician Energy pack
- **Autonomy:** 20 hours and 24 minutes
- **Availability (B. mkt):** 10 (10)
- **TL:** IV
- **Special equipment:** Mechanical arm (400 kg max.)
- **Speed:** 11 kph



Pack drone

Propulsion drone

This drone is a propulsion unit that can be strapped to the back of a diver (turbine) or on someone wearing surface armor (jet). It will detach itself on a simple command and will hover patiently while waiting for new instructions. The model listed below is a classic underwater model.

- **Scale:** H (SIZ 10)
- **Price:** 42,000 sols
- **Weight:** 100 kg
- **Dimensions:** 93 cm long, 40 cm diameter
- **Armor rating:** 9
- **Architecture:** normal
- **Damage resistance:** -3
- **Integrity modifier:** +10
- **EMP shielding:** 6
- **Propulsion:** Ducted thruster
- **Energy source:** High energy density battery
- **Autonomy:** 2 hours and 46 minutes at 6 knots, or twice as long at 4.5 knots.
- **Operating depth:** -5,400 m
- **Availability (B. mkt):** 5 (10)
- **TL:** III
- **Speed:** 6 knots

Saber drone

These little spheres move around thanks to a magnetic field. As soon as they detect a target, two blades spring out from their body and they charge straight at it. In combat, this drone is considered to be a very small target (-5 for targeting) and has only one Location, with a number of Wound Scale checkboxes equal to an Arm section.

- **Scale:** H (SIZ 3)
- **Price:** 6,000 Sols without any equipment
- **Weight:** 4 kg
- **Dimensions:** 20 cm (sphere)
- **Armor rating:** 7
- **Architecture:** normal
- **Damage resistance:** -4
- **Integrity modifier:** +8
- **EMP shielding:** 10
- **Propulsion:** magnetic levitation



Spotlight drone

- **Energy source:** Super high energy density battery
- **Autonomy:** 4 hours
- **Availability (B. mkt):** -5 (1)
- **TL:** IV
- **Programs:** Visual detection 15, Infrared 15, Attack 15, Dodge 15 (used to avoid physical contact).
- **Special equipment:** Optical sensors with infrared, retractable blades (Damage 2D10+3, possibility to increase to 3D10+3 if the victim is too resistant; the blades are heated until they are white hot and the sphere attacks with increased speed, but in this case, its autonomy is reduced by 15 minutes per attack because of the additional energy required).
- **Speed:** 17 knots (31.5 kph)

Sonar drone

These drones can use either active or passive sonars, and they spend their time trying to detect underwater signals. They are very useful for divers who do not want to keep their eyes on their detectors or for a vehicle hiding by using the drone as a decoy. As soon as a contact is made, the drone automatically communicates the information and the results of its analysis.

- **Scale:** H (SIZ 5)
- **Price:** 6,860 Sols
- **Weight:** 12 kg
- **Dimensions:** 33 cm long, 25 cm diameter
- **Armor rating:** 7
- **Architecture:** normal
- **Damage resistance:** -1
- **Integrity modifier:** +3
- **EMP shielding:** 2
- **Propulsion:** Ducted Mini-Thruster (DMT)
- **Energy source:** Genetician Energy pack
- **Autonomy:** 6 hours and 12 minutes
- **Operating depth:** -7,000 m
- **Availability (B. mkt):** 5 (10)
- **TL:** III
- **Programs:** Sonar analysis 15
- **Special equipment:** active/passive sonar, communicator
- **Speed:** 11 knots

Spotlight drone

Equipped with powerful spotlights, these drones are often used by exploration teams.

- **Scale:** H (SIZ 8)
- **Price:** 25,000 Sols
- **Weight:** 45 kg
- **Dimensions:** 1 m long, 25 cm diameter
- **Armor rating:** 3
- **Architecture:** ultra-light
- **Damage resistance:** +4
- **Integrity modifier:** -3
- **EMP shielding:** 6
- **Propulsion:** Ducted Mini-Thruster (DMT)
- **Energy source:** high energy density battery or Super high energy density battery (military version)
- **Autonomy:** 8 hours (VHC) or 16 hours (SHC)
- **Operating depth:** -4,000 m
- **Availability (B. mkt):** 5 (10)
- **TL:** III
- **Programs:** -
- **Special equipment:** spotlights
- **Speed:** 9 knots

Surveillance drone

These drones are directly connected to the surveillance computers or the control rooms of the security services in the area where they operate. These are small black spheres that float in the air by using a magnetic levitation field or a small turbine. Although these drones are autonomous, an operator can take control of them if necessary.



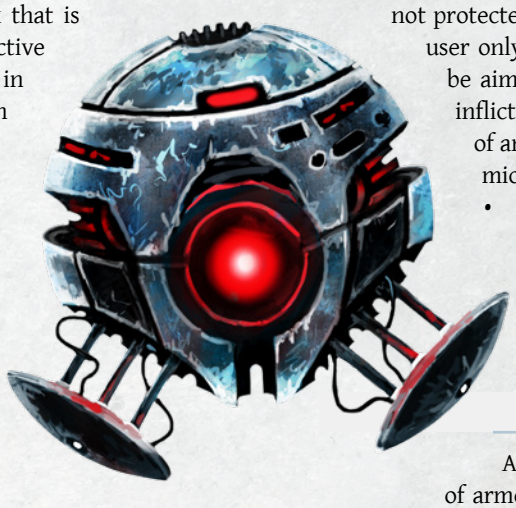
Surveillance drone

- **Scale:** H (SIZ 6)
- **Price:** 20,800 Sols without any equipment
- **Weight:** 24 kg
- **Dimensions:** 36 cm (sphere)
- **Armor rating:** 3
- **Architecture:** normal
- **Damage resistance:** -6
- **Integrity modifier:** +8
- **EMP shielding:** 10
- **Propulsion:** Shrouded propeller
- **Energy source:** Genetician Energy pack
- **Autonomy:** 13 hours (each takeoff or landing uses up 3 minutes of autonomy).
- **Availability (B. mkt):** -10 (1)
- **TL:** IV
- **Programs:** Detection of auditory or visual anomalies 15 (can let the command center know of screams, acts of violence, or if a wanted individual has been identified).

- **Special equipment:** Movement detector, directional video camera, and microphone (range of 100 m, the images and sound are directly analyzed by the control center), loud speaker.
- **Speed:** 18 knots (33 kph)

Translator drone

This small sphere of just 10 cm in diameter is often used by diplomats. The drone floats around above the shoulder of its user and simultaneously translates all known forms of language. The drone is controlled by an interface placed in a small box that is worn on the belt. It is not reactive and must therefore be activated in order to translate. Depending on its Technology Level, it hovers in the air either by using a micro-turbine, a magnetic field, or even a gravity control system.



Translator drone

- **Scale:** H
- **Price:** 600 Sols (without any equipment)
- **Weight:** 1 kg
- **Dimensions:** 12 cm (sphere)
- **Armor rating:** 1
- **Architecture:** ultra-light
- **Damage resistance:** +4
- **Integrity modifier:** +2
- **EMP Shielding:** 1
- **Propulsion:** hovering micro-turbine (for this version)
- **Energy source:** Super high energy density battery or Genetician Energy pack
- **Autonomy:** 4 hours and 14 min (SHC) or 6 hours and 48 min (GEP)
- **Availability (B. mkt):** 1 (5)
- **TL:** IV
- **Programs:** Multi-language 15 (the GM can, however, apply a bonus to the most common languages and a penalty to rarer or more ancient languages).

Micro-drones and nano-drones

Micro-drones and nano-drones are tiny little drones, the size of a pinhead for the first type and too small to be seen by the naked eye for the second type (when a lot of them are in one place, all you can see is a vague silvery cloud). Generally speaking, swarms of micro- or nano-drones are only affected by EMP attacks or by weapons that affect a whole area.

Nano-drone/micro-drone control center unit

Each command center can only control one type of micro- or nano-drone. These centers are often equipped with a reactive program so that they can act automatically. They come in the shape of small boxes that are usually worn on the belt.

Explosive micro-drones

Explosive micro-drones will swarm towards a target and release a blast of energy in a more or less targeted way, depending on the user's choice. When targeting a solid target or one equipped with an insulated protection, the explosive micro-drones can be concentrated in a single point, and will then cause 5D10 (H) Damage points. Against a target that is not protected by an insulated protection, or that the user only wants to wound, the micro-drones can be aimed at 2 random Locations and will then inflict 2D10 (H) Damage points, ignoring half of any armor protection. After the attack, the micro-drones are destroyed.

- **Price:** 20,000 Sols/charge.
- **Availability (B. mkt):** -5 (1)
- **TL:** V
- **Programs:** -
- **Movement:** 20 m/Round.

Patching nano-drones

As soon as a breach in the integrity of a suit of armor is detected, the patching nano-drones rush to the breach to seal it. In this case, they replace the missing material to patch up the holes and become inert. These nano-drones can only be used a certain number of times (usually five).

- **Price:** 18,000 Sols
- **Availability (B. mkt):** -5 (1)
- **TL:** V
- **Programs:** -
- **Movement:** -

The price of charging these nano-drones is indicated for as exo-alpha exo-suit. Each charge allows the user to patch up one breach and restore one lost Integrity point. A single suit of armor can only be equipped with a maximum of five patching nano-drones charges.

Surgical nano-drones

Surgical nano-drones are, most often, contained in tiny tubes that are affixed to the command center. When a wound occurs, they swarm out and head straight to the wound to treat it. They clean the wound, cauterize it, stop any bleeding, etc.

- **Price:** 48,000 Sols
- **Availability (B. mkt):** -5 (1)
- **TL:** IV
- **Programs:** First Aid 15, Surgery 10.
- **Movement:** -

CHAPTER 4.2

POWERED EXO-ARMORS

"Sometimes, I think that those Hybrid mutants have all the luck. The real ones, though; not those horrible Hegemonian Techno-Hybrids. I mean, just imagine being able to go underwater without having to use an armor! But we're all cramped inside those things, and we need a whole bunch of electronic stuff that's always breaking down at the worst possible moment. And hey, when they want to satisfy a call of nature, they can just let it all go with the flow, unseen, and unknown. Yesterday, my sanitary system broke down. You really don't wanna know how bad it stank. . ."

—Lars Amrak, deep sea miner



HANDLING EXO-ARMORS

In this section, the term "armor" (or "exo-armor") refers exclusively to the mechanized *exo-armors*, the heavy humanoid-shaped machines that are bulletproofed and insulated and whose movements are provided by an exoskeleton. Don't get them mixed up with the more common kind of "armor," like bulletproof vests or safety gear, as described in the **Gear** section, page 8. Technically, powered exo-armors are comparable to vehicles; therefore they share several rules in common with underwater submersibles and more conventional vehicles, described on page 107. Exo-armors are also called exo-suits.

ABOUT POWERED EXO-ARMOR

TYPES OF EXO-ARMOR

There are several types of armor, depending on the environment in which they are supposed to move around:

Underwater Exo-Armor: This underwater-only armor is rather common. It comes in all sizes and shapes, though hydrodynamic forms are the most common. The deeper you go underwater, the heavier its hull is. Thus the heavier models can go deeper than the lighter ones, simply because they can carry more. However, the heavier models are more difficult to bring aboard, and are therefore frequently stored in a special compartment that opens directly into the water. The pilot enters it through a hatch that seals before opening the panel that leads to the exterior. Cranes can also be used to drop the armor into the water or pull it out again; this is frequently done with the more massive suits of armor. Please also note that an underwater armors' joints are

not well adapted to work in the air, making them a poor fit for this environment.

External (or surface) Exo-Armor: there are fewer types of surface armor, in comparison to to underwater ones. Soldiers moving around underground or on the devastated wastelands typically use Surface armors. Surface armors are usually smaller and less bulky than underwater or hybrid armors, and they tend to have a sleeker look. Although it really does no "like" water, this armor is insulated and watertight, and capable of venturing in very shallow waters (up to depths of10 m). Maneuvering underwater is out of the question for them.

Amphibious Exo-armor: This is a surface armor, but with better underwater capabilities. However, its internal structure is not as strong as a true underwater exo-suit, allowing only diving to a depth of -500 m.

Hybrid Exo-armor: Contrary to popular belief, the vast majority of armor suits are not hybrids, even if the station inhabitants often have to travel both in water and on land. There are two reasons for this: first, having to carry both surface and underwater gears means you have to make some choices, and you always end up missing the one critical piece of equipment you could not bring with you. Furthermore, and even more importantly, hybrid armors are a nightmare when it comes to achieving neutral buoyancy: water gear suddenly weighs more when pulled out of the water, while surface gear suddenly weighs less when dropped into the water. In addition, surface gear needs to be encased into pressurized or compensated containers, thus making them bulkier and heavier. As a direct consequence, bigger ballasts are needed, which reduces the quantity of gear this kind of armor can carry. As a consequence, they do not go as deep as underwater exo-armors. When it comes to hybrid suits, the light or medium weight suits of armor are preferred. Because its internal structure is not as strong as a true underwater armor, a hybrid exo-armor cannot go beyond -16,000 m (the vast majority do not go that deep).

Atmospheric Exo-armor: only the lightest armor can be used in air.

Space Exo-armor: this armor is quite rare and generally very lightweight, since space combat is relatively rare. Good, old spacesuits still get plenty of use.

Industrial Exo-armor: these massive exo-armor suits are generally built for a very specific environment and use.

Using on the Surface an underwater armor designed to operate at -15,000 meters, just to get the benefit of a better protection, is definitively a bad idea, because your carrying capacity will suffer a lot. It is much more efficient to put armor plates on top of a thin hull. Thus, armors are designed to operate at just their intended depth of operation. In fact, the vast majority of them do not go beyond -4,000 meters. Those that go below -10,000 meters and that are mobile are extremely rare and costly. Most of the time, the characters will have access to armor that allows them to descend at depths no greater than 6,000 meters.

Note: armor designed for a specific environment is difficult to use in another. The operator can only move at Slow Speed and cannot perform major physical actions (jumping, dodging, etc.). This is even more true for an underwater exo-suit in which sealing is frequently achieved by using the ocean pressure. Thus when it is put in a one atmosphere environment, the armor is not correctly sealed and the Surface dangerous air and pathogens can find tiny passages to enter and contaminate its occupant...

CATEGORIES OF EXO-ARMOR

Armors can also be classified according to their size. There are nine categories of armor: exo-alpha, exo-0 to exo-6, and exo-omega, the heaviest model.

Light Exo-Armor (exo-alpha and exo-0): this armor is often made of separate pieces that the wearer must put on one after the other. They can be put on in 10 Combat Rounds and taken off in 5 Rounds. An emergency system also allows it to be taken off in a single Round, but in that case, the armor suffers a loss of 1D10 Integrity points. Its light frame is ideal for atmospheric, Surface, or hybrid exo-armor.

- **Exo-alpha (medium size: around 1.80 m):** this is the lightest armor, generally constructed with a hull of minimal thickness.
- **Exo-0 (around 1.85 m):** this is very thin armor, offering little interior space. It's molded very close to the body and looks more like a rigid diving suit than powered exo-armor. The lightest suits can even be worn without an exoskeleton and use a limited energy supply.

Medium Exo-Armor (exo-1 to exo-3): made of a single piece, this is the most common type of armor. The armor front or back part opens up to allow for access or for the wearer to get out in 3 Combat Rounds. If this access is blocked, a security system allows the wearer to dismantle the armor; in this case, the suit suffers a loss of 1D10 Integrity points.

- **Exo-1 (around 2.25 m):** this armor is often used as surface model, because it remains relatively light while offering a good protection and a good carrying capacity. In this type, the pilot does not occupy all the internal space as in the lighter categories: the hands and feet of the armor are automated.
- **Exo-2 (around 2.50 m) and exo-3 (around 2.80 m):** these kinds of armor, which are more massive compared to the lighter types of exo-armor, appear in more rounded and bulbous forms. From this category onward, the hands, forearms, ankles, and feet of the armor are often automated (except in a Surface exo-2, which is comparable to an underwater exo-1). Starting with the Exo-3 category, an armor is no longer considered a classic exo-armor, but rather a V- vehicle. In combat, it's necessary to use weapons capable of affecting Small Vehicles to have a hope of stopping these machines.

Heavy Exo-Armor (exo-4, around 3.30 m): this impressive type of armor is, in general, only used underwater. It can sometimes be a hybrid exo-armor, but it consumes so much energy that this is relatively rare.

Massive Exo-Armor (exo-5 to exo-omega): these enormous types of armor are built primarily for use in underwater environments. Unlike the previous categories, they possess a real pilot's cockpit, accessed through a hatch, and situated on the top, on the bottom, in front of or behind the engine, depending on the model.

- **Exo-5 (around 3.90 m) and exo-6 (around 4.50 m):** from this category onward, the armor is closer to that of an industrial machine than a diving armor. The pilot is confined in the torso of the armor, the arms and legs of which are entirely automated.
- **Exo-omega (around 4.65 m or more):** this intimidating type of armor is heavy, very slow, and is mainly used on building sites or as firing platforms.

SIZE OF THE PILOT

In most cases, **medium or heavy suits of exo-armor** can be adjusted to accept most medium-sized humans. If a character has an unusual size, he will doubtless have to find armor that's adapted to his measurements (and it will certainly be rarer and/or more expensive, depending on the GM's judgment). **Light exo-armor**, on the other hand, cannot be adjusted and is limited to a certain size. However, it's fairly easy to find machines of various sizes, which doesn't change much when it comes to the scarcity of equipment. If there's any doubt (ready-made armor, vendor with limited stock, etc.), the character who wants to use the armor can be forced to make a Luck Test (with a larger or smaller Modifier depending on the situation), to know whether the gear is available in his size. Here too, though, if the character's size is unusual, he'll have to get custom-made armor. **When it comes to massive exo-armor**, it's generally large enough to accommodate any human size.

Armors are typically build for a person that weight about 80 kg. If your weight is below this limit, you are a lucky man as you will be able to carry more gears. If your weight is above this limit, then you will have to decide which equipment is not essential and that can be discarded! Please also note that this weight problem mainly affect underwater suits, because they need to maintain neutral buoyancy as much as possible to avoid playing too much with the ballast system.

EXO-ARMOR COMPONENTS

Unlike the rules concerning characters, the handling of armor does not use physical Locations (the "Head," the "Body," the "Arm"...), but a more generalized system. Damage often has effects on the armor different functions or on particular types of equipment. In these rules, armor is considered to have the following elements:

- **The Structure** represents the resistance and general state of the hull, armoring, and internal frame of the armor. Along with the propulsive system (see below), this is the element most directly exposed to Damage.
- **The Exoskeleton**, with which the majority of armor suits are equipped, allows the pilot to maneuver the armor, to move, and travel, thanks to artificial muscles or motors and a whole battery of cables controlled by electronic circuits.
- **The Propulsive System**, which comprises an engine (required by the armor's various systems) and some form of propulsion (screw, exo-fins, tracks, etc). When the source of propulsion is the leg, then the propulsive system has only an engine, the legs belonging to the exoskeleton.
- **The Auxiliary Systems** make up the armor's equipment: life support, computers, sensors, various electronic systems, etc.
- **The Weaponry** is made up of all the active and passive attack and defense systems of the armor.

ASSISTED ARMOR

Armor in the exo-alpha and exo-0 (and some rare exo-1) categories may be light enough to be worn without the assistance of an exoskeleton. In this case, they're not *powered exo-armor*, but *simple protection gear*, comparable to security armor (see **Simple Armor and Protections**, in the **Gear** chapter, page 63). In case of a rules question, they can be treated as such.

This armor can otherwise be equipped with a very light assisting exoskeleton (this is generally called assisted or semi-powered exo-armor), which only helps the user to support the armor weight. The heaviest security armor is often equipped with this kind of technology. Originally created to help soldiers who spent their days moving between an underwater environment and the Surface, these exoskeletons gradually became more and more common. The lightest ones can be completely integrated into supple fabric, thanks to their very fine structure. In all these instances, the *Armor maneuvering* Skill is not used.

EXO-ARMOR ATTRIBUTES

Types of armor are defined by a certain number of Attributes, which allow users to measure their capacity and potential.

CLASSIFICATION AND DAMAGE RESISTANCE

Just like characters, exo-armors also possess a Damage Resistance, which interacts with the total Damage points suffered. This Modifier depends on the armor's category:

EXO-ARMOR	SIZE	DAMAGE SCALE	DAMAGE RESISTANCE	WEIGHT*
Exo-alpha	12	H	-1	200 kg
Exo-0	19	H	-5	1,000 kg
Exo-1	22	H	-6	1,800 kg
Exo-2	24	H	-7	2,400 kg
Exo-3	1	V-	+6	3,500 kg
Exo-4	1	V-	+6	5,700 kg
Exo-5	2	V-	+6	9,600 kg
Exo-6	2	V-	+6	14,500 kg
Exo-omega	3	V-	+4	16,000 kg

** Weight (displacement) of underwater exo-armors. For Surface exo-armors, you need to multiply this weight by 0.8.*

ARMOR RATING

The Armor Rating (AMR) stands for the protection the armor provides. Its value is subtracted from the Damage taken. The only difference with a normal protection is that an armor rating comes with a Damage Resistance level that cannot be reduced.

Note: the vast majority of powered exo-armor suits and vehicles use an Armor Rating—even civilian crafts that don't have actual armor plating. Basically, remember that the majority of vehicles in the *Polaris RPG* universe are designed to resist underwater pressure or terrible conditions on the Surface. In some ways, an Armor Rating also represents the strength of the internal structure and the outer shell of the device.

SPEED

Speed (SP) represents how fast the armor can move. Note that different types of armor can have several modes of movement that correspond to the propulsion systems that they are equipped with, and therefore several Speed Attributes (this is especially true for hybrid armors). The Speed of the majority of armors is given under the header: Speed/SP (Move Points) Speed is expressed in knots (for underwater movement) or in km/h (outside water); SP is the translation in game term of the vehicle speed and in parentheses its Move Points. If an M is given for the SP Attribute, this indicates a minimal speed equal to 1 or 2 meters per turn (0.3 knots or 0.5 kph).

Certain light armors equipped with supporting exoskeletons don't have a specific speed, but they add a bonus to the Attribute/piloting ability instead when working out its speed. This should be indicated as follows: COO/Athletics + X. In this case, refer to the **Movements** section of the **Combat** chapter in CRB1 on page 219 (underwater movement of these armors is found by the Techno-Hybrid column).

EXO-STRENGTH AND DAMAGE MODIFIERS

The Exo-Strength (EXS) simply represents the physical power that an exoskeleton can exert, and is comparable to a character's Strength Attribute (but totally independent of it: the pilot only guides the armor's limbs). Obviously, an exoskeleton's strength is much higher than a human Strength.

This Attribute is also used to calculate the Damage bonus in melee combat. On a Human Scale, the formula used is the same as that for characters, but only up to level 100. Above 100, the armor automatically inflicts Massive Damage on the Human Scale. Starting from level 50, the armor is also capable of inflicting Damage on the Small Vehicle Scale.

EXO-STRENGTH AND DAMAGE MODIFIERS

EXS	DAMAGE MODIFIER (V-)
50-54	-6
55-59	-4
60-64	-2
65-69	-1
70–74	+0
75–79	+1
80-84	+2
85-89	+3
90-94	+4
95-99	+5
100+	+1 every 5 levels

INITIATIVE MODIFIER

It's fairly difficult for a character piloting powered exo-armor to be as responsive as a character that is totally free in his movements. To reflect that, **each armor has an Initiative modifier (most of the time negative) that affects the character's Initiative at the beginning of a Combat Round.** The modifier is directly linked to the machine's size and/or the degree of technology: a later-generation light armor will always be much easier to maneuver than old, heavy, mining armor.

Note: if the armor is employed in a setting that's different from the one for which it was designed (example: an underwater exo-armor used on the Surface), the Initiative penalty is doubled.

EXO TYPE				
CATEGORY	UNDERWATER	HYBRID	SURFACE	AMPHIBIOUS
Exo-A	0 / 0	0 / 0	-- / +1	-1 / +1
Exo-0	-1 / -2	-1 / -2	-- / 0	-2 / 0
Exo-1	-2 / -4	-2 / -3	-- / -1	-3 / -1
Exo-2	-3 / -6	-3 / -5	-- / -2	-4 / -2
Exo-3	-4 / -8	-4 / -6	-- / -3	-5 / -3
Exo-4	-5 / -10	-5 / -8	-- / -4	-6 / -4
Exo-5	-6 / -12	-6 / -9	-- / -5	-7 / -5
Exo-6	-7 / -14	-7 / -11	-- / -6	-8 / -6
Exo-0	-8 / -16	-8 / -12	-- / -7	-9 / -7

First number is the initiative modifier underwater; second number is the initiative modifier at the Surface.

These modifiers are for a technological level of III. For an armor of different TL, you need to add (TL-3) to these modifiers. Thus a TL IV armor would get a bonus of +1 while a TL II suit would get a penalty of -1.

Please note it is always possible to increase or decrease these modifiers from one to two categories, if the armor is particularly massive or on the other hand particularly light.

ARMORED COMBAT AND ACTIONS

Since it occurs on the Human Scale, the sequence of events in a powered exo-armor combat doesn't really differ all that much from a normal combat. There are, of course, some subtle differences, listed here.

ACTIONS

First, keep in mind that before Actions are resolved, the Skill level for *Armor Maneuvering* (with the appropriate specialty) seriously limits the Combat Skill level, as well as any other Skill used to accomplish a physical action. A character in powered exo-armor can therefore only make a single Attack per Round (if you use the rule **Performing Multiple Attacks per Round** in CRB1 on page 218).

Melee combat is generally only possible if the pilot is capable of seeing his adversary. For a combat at a normal distance, the pilot can settle for the information transmitted by his armor's sensors, but the penalty on distance shooting is doubled (it doesn't change if he can directly see his target). Finally, for an undersea combat that is being fought "blind," for example, at a great distance or using torpedoes, the pilot must follow the rules for **Underwater Combat**, as laid out on page 129.

MOVEMENT

There are different ways of moving in an armor.

Walking, something for which most armors are equipped. Certain underwater armors—especially the heavier ones—cannot move except by walking on the sea floor.

Swimming underwater, thanks to a system of powered flippers. *Exo-fins* are the most state-of-the-art equipment: each fin has two long "fins" (which are usually retractable) situated on either side of the base, driven in an alternating swinging movement by a small electrical motor with a long-lasting magnet. Exo-fins usually only allow for a moderate speed of movement, because of their considerable force of inertia that forbids any rapid acceleration. *Exotails* are one of the more powerful systems (but also more bulky) that imitate, as the name suggests, the appearance of the tailfin swimming movement observed in marine animals, allowing an underwater movement that's both very smooth and rapid (it's possible to accelerate, slow down, or turn very quickly, in any direction). Finally, the *manta membrane* (usually retractable) reproduces rather elegantly the "wings" of the manta ray, allowing the user to truly glide through the water. Less maneuverable than an exotail, and only available on the exo-alpha, exo-0, or exo-1, it allows the user to achieve truly high speeds. Note that a test pilot using one of these pieces of equipment generates an acoustic signature that is very similar to that of some marine animals, and can therefore pass himself off as one of them on the condition that he knows how to move in the correct fashion and uses a relatively light armor (exo-1 at most).

Using a propulsion system, in which case, the movement speed depends on the system's capacity. The less sophisticated propulsion systems don't necessarily allow for more rapid movement than an armor using natural movement, but the more powerful systems can achieve much more significant speeds, even rivaling those of certain submarines. The downside of all propulsion systems is that they have a very recognizable acoustic signature. **So, the Speed of these propulsion systems must be evaluated on the same scale as for vessels** (see **Handling Submarines and Vehicles** on page 107, for more information about these scales).

You can assume that combat is only usually possible at normal movement speed (natural movement). In combat on a Human Scale, an armor pilot who uses a dorsal propulsion system may find himself very quickly (in one or two Rounds) beyond the reach of most of his adversaries' weapons. A chase may ensue, but, except on unusual terrain, the faster fighter will always win against the slower one. If an armor pilot nevertheless attempts a combat action while he is moving at full speed, the GM is free to impose a fairly significant penalty on him as a result of the situation.

CONTACT DAMAGE

Because of their weight, the heaviest armors are capable of inflicting serious contact Damage in combat:

EXO-ARMOR	BONUS
• Exo-alpha	+1
• Exo-0	+1D6
• Exo-1	+1D10
• Exo-2	+1D10+1
• Exo-3	+1D10+3
• Exo-4	+2D10+1
• Exo-5	+3D10
• Exo-6	+4D10
• Exo-omega	+4D10+2

Make sure you do not forget to take into account the Damage Modifier given by the exoskeleton Strength.

Note: armors endowed with an Exo-Strength level of 50 and higher can damage Small Vehicles. On this scale, however, the base Melee Damage is only 1D6.

BULK

The more imposing the armor is, the more it will have difficulty maneuvering in tricky zones, like station corridors or an underwater cave. When armor is used in a space where this becomes a problem, Tests for *Maneuvering Armor* will receive a penalty (from -3 to -5, generally speaking). It all depends, of course, on the size of the armor, its location, and the armor's movement Speed. In the case of a failed Test, the armor crashes into an obstacle, gets caught on something, gets stuck, etc.

DAMAGE MANAGEMENT

DAMAGE THRESHOLDS

Exo-armor possesses Damage thresholds on the same principle as Wound thresholds for characters. Each time the sum of Damage points received passes one of the thresholds, the armor suffers the corresponding Damage.

THRESHOLD	SEVERITY
5	Light Damage
10	Moderate Damage
15	Serious Damage
20	Critical Damage
25	Catastrophic Damage
30	Destruction

Note: don't forget that the Armor Rating value must be subtracted from the Damage received.

Note 2: You will find in the Advanced rules optional tresholds for exo-armors that depend of their Architecture.

DAMAGE SCALE

The armor possesses a Vehicle Damage Scale on the same principal as Wound scales for characters.

DAMAGES	VEHICLE DAMAGE	INCIDENT MODIFIER*	PERMANENT LOSS OF ITG (STRUCTURE)
Light (5)	☐☐☐☐	-	-
Moderate (10)	☐☐☐☐	+2	-
Serious (15)	☐☐☐	+4	-
Critical (20)	☐☐	+6	1
Catastrophic (25)	☐☐	+8	1
Destruction (30)	Destruction	-	2

** See Incidents on page 110*

This scale allows the Player to know how much Damage an armor can withstand for each degree of severity of Damage. The way the Vehicle Damage Scale works is similar to the way the Wound scale works for characters: you check the box that matches the severity of Damage, and when a line is full for the Vehicle Damage of that severity, you check a box on the next level and erase all the checked boxes in the previous line.

More than just weakening the structure of the armor, **the Damage received can also lead to an *Incident***, a more or less serious side effect that affects the various elements of the armor (hull, exoskeleton, power generator, systems, weapons...). See **Incidents** below for more details.

Finally, if you use the Integrity rules, **Catastrophic or greater Damage can lead to the permanent loss of the armor's Structural Integrity.** As a result of this kind of Damage, armor will deteriorate over time. Each time it surpasses a Catastrophic or Destruction Damage threshold, a suit of armor suffers the loss of Integrity indicated. Be aware that this loss goes into effect as soon as one of the thresholds is passed, and not with each Vehicle Damage received (for example: an armor that suffers its first catastrophic Vehicle Damage permanently loses a point of Integrity, but it doesn't lose any more if it suffers another Vehicle Damage Point of the same severity. On the other hand, if it results in Destruction, it loses another point). Also note that only the Structure is affected by these permanent losses.

INCIDENTS

Each time exo-armor receives Vehicle Damage points as a result of Damage; there is a chance of an Incident. Roll 1D10, and add the Modifier indicated on the Vehicle Damage Scale to the result. If the final result is 7 or more, the armor suffers a consequential Incident (as indicated later). You can find it on the table below, by rolling 1D10:

1D10	LOCATION
1–2	Structure
3–4	Exoskeleton*
5	Generator
6–7	Auxiliary Systems
8–9	Weaponry
10	Pilot

** Unless the armor doesn't have an Exoskeleton In this case, the Incident affects the Structure.*

Then refer to the description of Incidents, further on, to learn its consequences. Note that the GM can also assign a location herself if the result is logically related to the situation.

DESTRUCTION AND "LAST CHANCE"

In the event of "Destruction" (30 Damage points or more), the armor's structure has received irreparable damage that results in a rupture of part of the hull. If the machine is equipped with a "Last Chance" system, such as "Cryogenic" or "Drug Injection" (see **Armor Equipment,** page 84), the device activates. If it consists of a "Guillotine," make a roll on the regular Hit Location table for characters (ranged combat), to determine which part of the armor is affected. If it consists of an Arm or a Leg, the device activates...

If the armor isn't equipped with this system and is in a hostile environment (underwater, on the Surface, in space), the pilot is completely unprotected. Especially if underwater or in the void of space, this results in the implosion of the armor and the instantaneous death of the pilot. In the open air, the pilot automatically suffers 1D10 Damage points, as well as all the points suffered by the armor beyond 30 (so, if the armor suffers 35 points of Damage, the pilot himself suffers 1D10+5 points of Damage after the destruction of the machine).

Note: if you are using the Integrity rules, you can consider the Integrity of the Structure as 0 after its destruction. Furthermore, for every 3 points of Damage beyond 30 (33, 36, 39...), the Structure loses an additional point on the negative levels (this makes repairs more difficult). Finally, for every 5 points of Damage beyond 30 (35, 40), you can perform an Incident roll for one of the elements of the endangered armor, with a +8 Modifier (except Structure and Pilot); don't take into account the effect of the Incident, but apply the indicated loss of Integrity.

AIMING AT A SPECIFIC SPOT

It is possible to aim at a specific spot on armor. In any case, it's the GM who decides on the penalty to apply to the Attack Test, depending on the size of the area being targeted and the weapon being used (from -5 to -10, usually). For example, it may consist of **a visible system or a weapon** (the targeted equipment loses Integrity points and will be subject to a Breakdown Test as a result of the Damage inflicted), or even a **point of natural weakness** (a visor that's unprotected by a blast shield, especially). The description of certain devices may specify that certain parts are more vulnerable than others.

EMP ATTACK

Attacks by electromagnetic pulses are very dangerous to suits of exo-armor, as well as to any integrated electronic devices. Each attack typically affects one (or in some cases, several) of the following elements, determined at random: Exoskeleton, Generator, Auxiliary systems (in this case, 1D6+3 systems are affected), Weaponry (except for weapons that don't make use of electronic components). The affected elements are subject to a Breakdown Test (see the chapter on **Gear**, page 8) with a fairly significant Modifier related to the force of the attack.

LUCK

It's possible to spend Luck points to reduce the Damage suffered by your armor. **The rules don't change:** from Serious Damage upward, a Player can spend 1 or 2 Luck points to reduce the Damage level by one or two degrees. See the section on **Luck**, in the chapter **Tests & Actions**, page 200, for more information.

INCIDENT EFFECTS AND INTEGRITY LOSS

STRUCTURE

Incidents on the Structure represent the loss of the hermetic seal, which causes leaks that must be plugged right away.

7–10: **Micro-cracks, hermetic seal of the armor is threatened.** The pilot has 10 Combat Rounds to plug it; if not, after that time is up, the armor automatically suffers 1 Light Vehicle Damage per Round*, on this Location.

11–13: **Crack, armor has a leak.** The pilot has 5 Combat Rounds to plug it; if not, after that time is up, the armor automatically suffers 1 Medium Vehicle Damage per Round*, on this Location. The Structure temporarily loses 1 point of Integrity.

14–16: Critical crack. The pilot has 2 Combat Rounds to plug it; if not, after that time is up, the armor automatically suffers 1 Serious Vehicle Damage per Round*, on this Location. The Structure temporarily loses 2 Integrity points.

17–18: Breach, the armor takes on water/air/vacuum and depressurizes rapidly. The pilot has 1 Combat Round to plug it; if not, after that time is up, the armor automatically suffers 1 Critical Vehicle Damage per Round*, on this Location. The Structure temporarily loses 3 Integrity points.

** These additional Vehicle Damages do not cause an additional Incident roll.*

LOSS OF INTEGRITY IN A STRUCTURE

With the successive losses of Integrity, the armor weakens and the protection it offers decreases. All this translates into a progressive decrease of the machine's armor rating.

- **Integrity 11+:** nothing to report.
- **Integrity 6 to 10: Armor Rating** decreased by a third (round down).
- **Integrity 1 to 5: Armor Rating** level decreased by half.
- **Integrity 0 or less:** the armor no longer offers any protection and has even become so fragile that just using it would be taking a risk.

Note: as long as the Integrity hasn't fallen to 0, a powered armor always protects its pilot against a hostile environment (it remains airtight), unless a Vehicle Damage point indicates something else.

EXOSKELETON

Incidents that affect the Exoskeleton will make it more difficult to pilot, and will also cause penalties for piloting Tests.

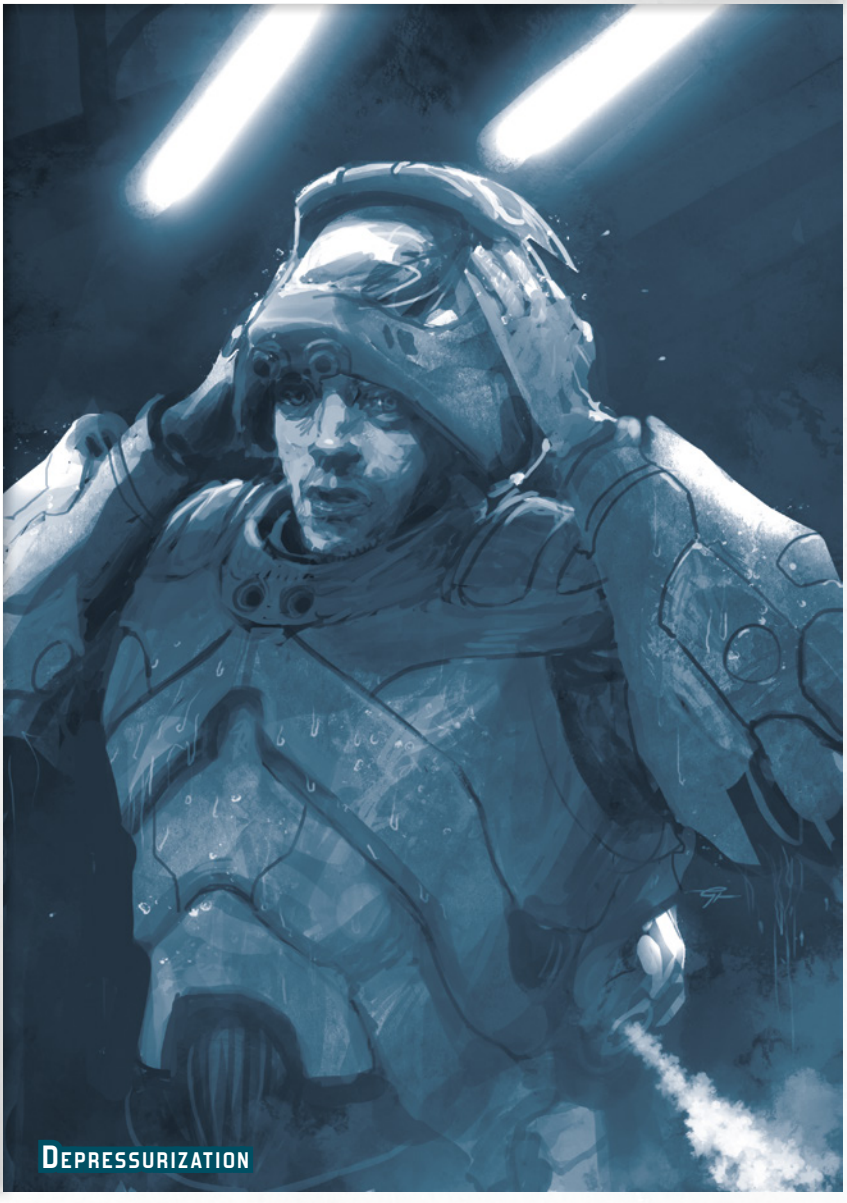
7–10: Localized jamming. One of the suit's limbs (selected at random with 1D4, for example) becomes jammed at the end of the Round. The precise effects are determined by the GM, depending on the situation. The Exoskeleton temporarily loses 1 point of Integrity.

11–13: Aggravated localized jamming. One of the suit's limbs (determined at random) becomes jammed for 1D6+1 Rounds. The Exoskeleton temporarily loses 2 Integrity points.

14–16: Massive jamming. The entire armor suit is paralyzed for 2 Rounds. The Exoskeleton temporarily loses 3 Integrity points.

17–18: Aggravated massive jamming. The entire armor suit is paralyzed for 1D6+2 Rounds. The Exoskeleton temporarily loses 5 Integrity points, and its Maximum Integrity is lowered by 1 point.

Note: if the Exoskeleton suffers multiple Incidents that affect the functioning of the armor for a certain number of Rounds, only take into account the longest of the durations



DEPRESSURIZATION

INTEGRITY LOSSES FOR THE EXOSKELETON

With the successive losses of Integrity, the armor becomes more and more difficult to pilot, which translates into a general penalty on *Armor maneuvering* Tests. **These penalties are cumulative with the penalties related to the Incidents above.** Therefore, there is a reduction of its power and its natural capacity for movement:

- **Integrity 11+:** nothing to report.
- **Integrity 6 to 10:** a -3 penalty on *Armor maneuvering** Tests; Exo-Strength and Speed (natural movement only) reduced by a third (round down).
- **Integrity 1 to 5:** a -5 penalty on *Armor maneuvering** Tests; Exo-Strength and Speed are reduced by half.
- **Integrity 0 and lower:** the Exoskeleton is destroyed; the armor is impossible to maneuver (the pilot may still use the systems that don't depend on the Exoskeleton).

** This penalty must also be taken into account when the level of this Ability limits that of another.*

GENERATOR

Incidents that affect the generator represent sudden losses of energy, which can affect the general functioning of the armor.

7–10: **Micro-blackouts.** The pilot suffers a -3 penalty for all actions related to the suit's systems until the end of the Round. The Generator temporarily loses 1 Integrity point.

11–13: **Aggravated micro-blackouts.** The pilot suffers a -3 penalty on all actions related to the armor's systems for 1D6+1 Rounds. The Generator temporarily loses 2 Integrity points.

14–16: **Temporary stoppage.** The armor no longer has an energy supply (and is thus unusable) for 2 Rounds. The Generator temporarily loses 3 Integrity points.

17–18: **Aggravated temporary stoppage.** The armor no longer has an energy supply (and is thus unusable) for 1D6+2 Rounds. The Generator temporarily loses 5 Integrity points, and the Maximum Integrity loses 1 point.

Note: if the Generator suffers multiple Incidents affecting the armor's functioning for a certain number of Rounds, only take into account the longest of the durations.

LOSSES OF INTEGRITY IN THE GENERATOR

With the successive losses of Integrity, the armor becomes less and less energy-efficient. This translates into a progressive degrading of its capacities, and poor power supply to its systems:

- **Integrity 11+:** nothing to report.
- **Integrity 6 to 10:** once the Integrity level falls to level 10, 1D6 (+1 for each level below 10). Auxiliary systems are automatically cut off from the electrical current and become unusable until they are repaired (except for life support systems). All the Breakdown Tests that affect the auxiliary systems suffer a -3 penalty. If the armor is equipped with a dorsal propulsion system, its Speed is reduced by a third (round down)
- **Integrity 1 to 5:** once the Integrity level falls to level 5, and for each level lost after that, two Auxiliary systems are cut off from the electrical current (including the life support systems). All the Breakdown Tests carried out on the auxiliary systems that are cut off from the electrical current suffer a -5 penalty. If the armor is equipped with a dorsal propulsion system, its Speed is reduced by half. Finally, the armor's Exo-Strength is also reduced by half.
- **Integrity 0 and lower:** the generator is out of service, and the armor is no longer supplied with power. The pilot can no longer use any of the systems (note that the armor is no longer heated or cooled...).

AUXILIARY SYSTEMS

7–10: **1 System is affected** (determined at random), and loses 3 Integrity points. Roll 1D20: if the result is higher than the system's Integrity level, it breaks down (to handle it like a normal Breakdown, see **Integrity of the Gear**, in the chapter **Gear**, page 9).

11–13: **3 Systems are affected** (determined at random), and lose 5 Integrity points. Its Maximum Integrity drops by 1 point. Roll 1D20: all the systems for which the Integrity level is lower than the result break down (to handle it like a normal Breakdown, see **Integrity of the Gear**, in the chapter **Equipment**).

14–16: **1D6+1 Systems are affected** (determined at random), and lose 7 Integrity points. Its Maximum Integrity drops by 1 point. Roll 1D20: all the systems for which the Integrity level is lower than the result break down (to handle it like a normal Breakdown, see **Integrity of the Gear**, in the chapter **Equipment**).

17–18: **1D6+3 Systems are affected** (determined at random), and lose 10 Integrity points. Its Maximum Integrity drops by 2 points. Roll 1D20: all the systems for which the Integrity level is lower than the result break down (to handle it like a normal Breakdown, see **Integrity of the Gear**, in the chapter **Equipment**).

Note: if you don't use the Integrity rules, the affected equipment stops working after 1D6+2 Rounds.

DETERMINING A SYSTEM OR A WEAPON AT RANDOM

It's often necessary to determine one or several auxiliary systems or weapons to be affected at random. The armor's stat sheet includes a small tool to facilitate this: each piece of equipment is identified by a number that corresponds to a type of die to roll (depending on the number of systems/weapons that the armor is equipped with). So, for ten different systems, you would roll 1D10. If the result of the die roll indicates an empty location, it's all right to roll again until you obtain a number that corresponds with a system. And if there are more than 20 systems (1D20), it's all right to roll another kind of die until you get something within the appropriate value needed.

WEAPONRY

Incidents only affect one isolated system of attack or defense at a time, determined as usual at random.

7–10: **the affected weapon or weapons system loses 3 Integrity points.** Roll 1D20: if the result is above the Integrity level of the system, it breaks down (to handle it like a normal Breakdown, see **Integrity of the Gear**, in the chapter **Equipment**).

11–13: **the affected weapon or weapons system loses 5 Integrity points.** Its Maximum Integrity drops by 1 point. Roll 1D20: if the result is above the Integrity level, it breaks down (to handle it like a normal Breakdown, see **Integrity of the Gear**, in the chapter **Equipment**).

14–16: **the affected weapon or weapons system loses 7 Integrity points.** Its Maximum Integrity drops by 2 points. Roll 1D20: if the result is above the Integrity level, it breaks down (to handle it like a normal Breakdown, see **Integrity of the Gear**, in the chapter **Equipment**).

17–18: **the affected weapon or weapons system loses 10 Integrity points.** Its Maximum Integrity drops by 2 points. Roll 1D20: if the result is above the Integrity level, it breaks down (to handle it like a normal Breakdown, see **Integrity of the Gear**, in the chapter **Equipment**).

Note: if you don't use the Integrity rules, the affected equipment will stop functioning after 1D6+2 Rounds.

PILOT

The pilot is usually protected, as long as his armor isn't destroyed. However, he is not covered against certain repercussions that result from Damage suffered by the machine: violent shocks, distortion of the armor, metallic shrapnel that breach the hull, or which arise from the elements of the armor itself, etc.

7–10: the pilot suffers 2D10 points of Shock Damage.

11–13: the pilot suffers 1D10 points of Physical Damage.

14–16: the pilot suffers 2D10 points of Physical Damage.

17–18: the pilot suffers 3D10 points of Physical Damage.

Note: the basic category A protection, carried inside of the powered exo-armor (see **Protection and Simple Armor**, in the section **Equipment**, page 63), can reduce Damage (physical only).

REPAIRS

To completely repair a suit of exo-armor, it's necessary to perform two types of operations: first, repair the Damage the vehicle has suffered; second, repair the Damage suffered by the various parts of the armor, and which have been translated into temporary losses of Integrity. The repair cost depends of the exo-armor base repair cost (see table below), the armor type and the damage level (see next table).

EXO-ARMOR	BASE COST*
Exo Alpha	1,000
Exo-0	3,000
Exo-1	4,000
Exo-2	5,000
Exo-3	7,000
Exo-4	9,000
Exo-5	13,000
Exo-6	17,000
Exo-0	19,000
**Surface exo-armor: cost -15 %.*	

REPAIRING VEHICLE DAMAGE

DAMAGE	TIME REQUIRED	DIFF.	COST
Light	1 day	+5	Base cost x1
Medium	3 days	+3	Base cost x2
Serious	5 days	+0	Base cost x 3
Critical	1 week	-3	Base cost x 6
Catastrophic	2 weeks	-5	Base cost x 10
Destruction	3 weeks	-7	Base cost x 15*
** or repairs may be impossible, depending on the case.*			

Repairing Vehicle Damage on an exo-armor requires a *Mechanics (Exo-armor)* Test. The table indicates the Difficulty Modifier that applies to the Test, the required working time, as well as an idea of the cost of the spare parts, depending on the severity of the Damage. Note that these Difficulty

levels apply for proper repair conditions: a well-equipped workshop, tools, and readily available replacement parts. If the technician is required to repair armor without proper equipment, the penalties can be increased by 3 to 5 points, depending on the situation. Without equipment, it's not usually possible to repair a suit of armor. On the other hand, the GM can reduce the penalties if the technician is working in a workshop equipped with high-tech equipment.

Vehicle Damage is treated threshold by threshold (in no particular order), no matter how many checked boxes there are on each line. However, each Damage box checked beyond the first imposes an additional cumulative penalty of -2 on the required Tests. If the Test result is a Success, the Vehicle Damage points on the line are repaired (you may erase all the Damage squares). A Failure means nothing is repaired (the technician wastes time), and a Catastrophe adds one box of Damage...

Note: if the Integrity of the Structure has fallen to 0 or less, the armor remains completely unusable. You need to restore this Integrity to bring it up at least to level 1 (see below).

Note 2: see Repairing Submarines and Vehicles page 113 for drones and any other vehicle.

REPAIRING ELEMENTS OF THE EXO-ARMOR

If some of the armor's elements suffered the losses of Integrity, it will be necessary to repair them too, one by one. Here are the relevant Abilities:

- **Structure, Exoskeleton, Generator:** *Mechanics (Exo-armors).*
- **Auxiliary systems:** *Electronics.*
- **Weaponry:** *Armory.*

The procedure is the same for the repair of common equipment (see the chapter **Equipment**, section **Repairing Your Gear**, page 10). After a Success on a Skill Test, the Success Modifier indicates the number of Integrity points regained. In the event of a Catastrophe, the repairs fail and the object permanently loses 1 point of Integrity.

EXO-ARMOR EQUIPMENT

"Let's see... What can I suggest to improve your armor? If you want to venture into rather dangerous areas, there's an obvious choice: a tactical display, a mine detector, and maybe one of those new motion detectors, the Ripley VS8 *model... Oh, and you'll need to remember to replace your emergency anti-depressurization system. I'd suggest a good old guillotine system: you may lose an arm or a leg, but at least you'll still be alive to pay the bill..."*

— A flogger who really cares about the good health of his clients (and of his business)

The parts listed here represent a fair selection of the gear you can find in the *Polaris RPG* universe. However, this doesn't mean, that the most modern parts are widely available; in fact, it's quite the contrary. The indicated price corresponds to used parts on the legal market (Integrity = 2D6+6). As usual, it's possible to turn to the black market to obtain new parts (Integrity = 20), but they will cost twice as much. See the chapter **Equipment**, section **Acquiring and Managing Your Gear** page 8 for more information.

In this section, you will find complete schematics of exo-armors, fitted with their standard equipment. The equipment in these lists can sometimes be used to replace defective or worn-out systems, or even to improve the armor's capacity. **Note that the GM is completely free to put limits on the installation of new parts on armor**, especially the lightest ones, to avoid overdoing things. Furthermore, certain systems cannot be logically installed on certain armors, or have a limited number of times it can be installed on certain armors.

CONTROL SYSTEMS

Control Interface

The control interface allows the pilot to use the different systems in his armor. There are several types of controls; it's possible to mount several different controls on the same machine as emergency systems, but never two identical systems at the same time.

Cockpit: from the exo-5 category upward, a cockpit is required. The cockpit can be basic or equipped with more up-to-date controls.

Manual controls: the pilot activates his armor's different systems by means of a manual control panel, whether it is external (located on the forearm), or internal, in the armor where at least the hand is robotic (the manual controls are situated in the arm).

Neural interface for telepathic control: this is the most state-of-the-art neural interface. It can also serve as an anti-theft security system, since the computer to which the interface is connected only responds to the brain waves of the registered pilot.

Neural jack: the pilot must have a neural plug directly implanted in the skull (and must have undergone an operation for that). The neural control cable is connected by this plug.

Neural net: the armor is controlled by neural impulses, registered by the electrodes situated in a kind of skullcap that fits on the pilot's head.

Voice control or optical visor: the pilot controls the armor's systems thanks to voice commands or an optical system, installed in the helmet.

INITIATIVE MODIFIERS

These various control systems impose an Initiative modifier on the pilot as a function of their workability.

- **Manual controls:** -5
- **Neural interface:** +2 (this bonus may reduce the Initiative penalty for the armor, but it's still **impossible** to go any higher than the normal Initiative of the character).
- **Neural jack:** +0
- **Neural net:** -2
- **Optical visor:** -3
- **Voice control:** -4

These modifications only relate to the usage of a device activated by a control system. In all other cases (especially for physical actions that don't require commands: walk, run, pick up an object...), the character determines his Initiative in the usual way.

Note: a basic cockpit is equipped with manual controls. It is also possible to replace these with any other kind of system.

Exo-armor assistance and control system

This essential system is connected to the armor's computer. It is the central nervous system of the armor that controls all the vital parameters of an exoskeleton. If this central nervous system breaks down, all the equipment is nothing but dead weight, a coffin for the pilot. Among other things, it controls the armor's insulation, the exoskeleton's functioning, the armor's integrity, the motor's energy efficiency, etc. All the assistance and control systems have a natural EMP Shielding of 5 points.

Diagnostic Device

This specialized computer only deals with the surveillance of the other systems on board. It allows the pilot to test all the machine's systems. A small voice will list all the systems, one after another, and tell him what condition they are in. A data display on the visor allows for the same result, but with a detailed technical schematic in the corner of the visor (price: +50%). A holographic display is certainly the nicest-looking system (price: +100%). Almost all types of armor are equipped with this kind of device.

Jump Shock Absorbers

Mainly intended for atmospheric armors and armors that can perform large jumps, the shock absorbers are very important. Without shock absorbers, the armor will suffer an attack on its legs as if it fell.

Pressure Control

This system allows the armor's internal pressure to be adjusted and to monitor the strength of the structure. If this system breaks down, the entire structure of the armor is threatened (the machine suffers 1 Small Vehicle Damage point for every 10 Combat Rounds), and so is the life of the pilot, who may suffer difficulties due to the poor balancing of internal pressure (1D10 points of Physical Damage for every 10 Rounds, located in the Head or the Body). This system can also detect a structural weakness in the armor or any other problem related to pressure (thanks to this system, the pilot knows precisely what Damage his armor has suffered). This system is optional for surface vehicles and armors.

Stabilizers (Exo-1 and Higher Only)

The stabilizers help a pilot to control his machine. It's made up of little devices that allow the armor to maintain its balance. This system is particularly recommended for armors that need to execute jumps, and are required for those that can fly. Armor that doesn't have stabilizers will suffer the following penalties on *Armor maneuvering* Tests under the following circumstances:

- **Maneuver on land:** -3 in the event of loss of balance (imbalance, fall, uneven surface, recoil, etc.).
- **Undersea maneuver:** -3 in the event of loss of balance (if the armor is trapped in an eddy, for example).
- **Jump:** -5 (to recover after a jump).
- **Flight:** -10 in the event of loss of balance (moreover, without stabilizers, the pilot must succeed at a *Armor maneuver* Test each Round—with the Modifier—to avoid a crash).

Advanced stabilizer: this stabilizer offers a +3 bonus on all *Armor maneuvering* Tests, in the event of a loss of balance. Moreover, for armors that move on land, this system offers a +5 bonus to recover after a fall.

CONTROL SYSTEMS

SYSTEM	COST	AVA (B. MKT)	TL
Advanced stabilizer	8,000	20 (20)	III
Assistance and control system on SACEA exo-armors	3,000	20 (20)	III
Control interface - Neural interface for telepathic control	29,000	1 (5)	V
Control interface - Manual controls	1,000	20 (20)	II
Control interface - Neural jack	14,000	5 (5)	IV
Control interface - Cockpit*	4,000	20 (20)	III
Control interface - Optical visor	4,900	10 (15)	IV

CONTROL SYSTEMS			
SYSTEM	COST	AVA (B. MKT)	TL
Control interface - Neural net	9,000	5 (10)	IV
Control interface - Voice command	4,300	10 (15)	III
Diagnostic device	2,000	20 (20)	III
Jump shock absorbers	1,000 x category of exo.**	20 (20)	III
Pressure control	1,000	20 (20)	III
Stabilizer	4,000	20 (20)	III

** Exo-5 and more only.*
*** 1,000 for an exo-alpha, 0, and 1; 2,000 for an exo-2; 3,000 for an exo-3, etc.*

LIFE SUPPORT

Feeding System

Pilots sent on long missions need food. They can use a waste recycling system or a less... psychologically straining feeding system. Pilots can thus gulp down nutritive and hydrated pastes through a small tube positioned near their mouth. Each device level enables an individual to sustain for 12 hours without being deprived of food and water.

Insulation Device

If the armor isn't designed to go underwater, it can make do with an insulation device that protects its pilot from a possible hostile environment. If you want the armor to be amphibious, it will cost twice the price. In this case, the armor can easily go down to a depth of -10 meters.

Respiratory System

It's obvious that a pilot needs to be able to breathe. The table below indicates the basic elements accessible to pilots. Without a respiratory system, the character is at risk of asphyxiation.

Emergency reserve: this is a device that recycles the air.

Air filter: this device is intended for armors on the Surface or in hostile environments. It allows for the normal breathing of the air outside, after filtering and purification. Such a device does not protect against pathogenic elements; the external exo-armors are also equipped with oxygen reserves to be able to be completely insulated.

Oxygen extractor: this is a sort of artificial gill that allows a diver to breathe almost normally. It must be coupled with an oxygen supply, but it doubles its duration.

Respiratory membrane: this next-generation oxygen extractor can directly extract the oxygen from water without limitation. However, it does use up a lot of energy, and is only available starting with the exo-1 category.

Sanitary System

Removing your exo-armor to satisfy an urgent need is never easy—especially at 8,000 meters deep—and thus sanitary systems allow pilots to not worry about those minor difficulties.

Sanitary filtration system: the system level determines how many *days* can go by before the user needs to change the filter.

Waste-recycling system: this more modern system recycles the waste and transforms it into food and drink. The system level determines how many *days* can go by before the user needs to change the filtering device.

Temperature Regulator

Pilots equipped with a temperature regulator will not freeze to death (or die of heat) in their vehicles. This system is optional to all surface vehicles and exo-armors, but it can come in handy in extreme environments. Temperature regulators often come in the form of a web of flexible wires spread throughout the whole internal surface of the exo-armor or vehicle.

LIFE SUPPORT				
SYSTEM	CAPACITY	COST	AVA (B. MKT)	TL
Breathing system - Oxygen extractor	-	4,000	5 (10)	II
Breathing system - Auxiliary oxygen supply	2 hours	25	10 (15)	II
Breathing system - Breathing membrane	-	16,000	-5 (1)	III
Breathing system - Air filter	12 hours	120	20 (20)	II
Breathing system - Oxygen supply	24 hours	700	20 (20)	II
Breathing system - Oxygenated fluid	16 hours	300	10 (15)	III
Feeding system	-	500/lvl.	20 (20)	II
Isolation system	-	1,000	15 (20)	II
Recycling filter	-	50	15 (20)	II
Sanitary filtration system	-	50/lvl.	20 (20)	II
Spare filter	-	25	20 (20)	II
Temperature regulator	-	3,000	20 (20)	II
Waste recycling system	-	500/lvl.	10 (15)	III

EMERGENCY SYSTEMS

Auto-patch

This automatic patching system is a special coating applied within the exo-armor. In case of a crack, this special paste made of highly resistant nano-elements solidifies automatically. Keep in mind that exo-armor fixed like this will not hold for more than an hour or two without re-cracking—and even less if the exo-armor is used at a great depth. Furthermore, the patched area becomes a weak spot where the Armor Rating is divided by half.

Ejection System

This device—only useful to the biggest surface exo-armors—destroys the head of the armor and ejects its pilot, equipped with a parachute, dozens of meters into the air. This kind of device can only be installed on models starting from exo-2 onwards.

"Last Chance" Systems

"Last Chance" systems give pilots one last chance to survive when their exo-armors are pierced, although a risk still exists. There are three different types:

The guillotine system is positioned at the level of the exo-armor limbs. The guillotine blades are fitted within the exo-armor and close down like a jaw. In case of breach in such areas, the system cuts the damaged section by amputating the pilot's limb... The rest of the exo-armor is then secure. The pilot suffers a "Limb destroyed" type Wound, but it is also considered stabilized. This system can also be activated manually.

The cryogenic system injects a refrigerant inside the exo-armor in order to instantly cryogenically freeze the pilot. The pilot is considered inactive until retrieved and revived. However, the pilot must roll a Constitution Test with a -2 penalty, plus an additional -2 penalty per hour spent cryogenically frozen. In the case of Failure, the pilot dies...

The drug injection system saturates a person's body with a mix of different products that fill his hollow organs in order to withstand depressurization. The pilot immediately loses consciousness. He must be treated in a hospital to revive. Once purged of this fluid, the pilot must roll a Constitution Test with a -3 penalty, plus an additional -1 penalty per hour spent with the fluid in his body. In the case of a Success, the Success Modifier decreases the penalty. When the penalty drops to 0—after one or several Tests—the character wakes up. In the case of a Failure, the pilot loses 1 point in one of these Attributes, to be determined randomly: Strength, Constitution, Coordination, Adaptation, Intelligence, or Willpower (this lost point can be regained through training). If one of these Attributes ever drops to 2 or below, the character dies.



Fighting in the Deep

Medical Assistance System

This device can inject drugs, antiseptics, analgesics, anti-poisons, or other substances. This system can only be used a limited number of times (5 per level). The pilot can choose the product with which to be injected. Some can be inoculated automatically—e.g. a reviving drug in case of unconsciousness—whereas others have to receive validation from the operator. Also equipped with a defibrillator, this device is usually fitted within the exo-

armor at the level of the pilot's heart for direct adrenaline and atropine injections. The system is connected to the helmet screen and displays all the details pertaining to the pilot's health, such as heart rate, blood pressure, body temperature, etc.

Patching Disk

These flexible disks can be applied onto small cracks. The patched area becomes a weak spot where the Armor Rating is divided by a half (if this weak spot is specifically targeted, the pilot needs to roll a Luck test or lose the disk). Although not actually a system as such, these disks are often carried within a small special compartment fixed to the exo-armor. These disks are designed to hold at high depths.

Self-repair System

This system makes it easier to get a broken-down machine up and working again. This device is made of a central system wired to side modules; it is installed onto each auxiliary system or weapon. **Exo-armors also need to be equipped with a diagnostic system.** When a system equipped with an additional module breaks down, one Test per Combat Round can be rolled for the self-repair system using its level: in the case of a Success, the device or weapon can function normally again (but it does not recover any Integrity points). For example, a weapon can be unjammed, or a broken sonar can be brought back into service. However, this fixing device is incapable of repairing systems that have been destroyed. The cost of a self-repair system depends on the Technology Level of the system it will be attached to. A lot of these systems have been produced by the Geneticians and the Azureans and it is possible to find some with a high TL.

Its Availability also depends on its Technology Level.

TL	AVA (B. MKT)
I	10 (15)
II	10 (15)
III	5 (10)
IV	-5 (1)
V	-10 (-5)
VI	-15 (-10)

EMERGENCY SYSTEMS

SYSTEM	COST	AVA (B. MKT)	TL
Auto-patch	4,000	5 (10)	IV
Ejection system	7,000	10 (15)	III
"Last-chance" systems - Cryogenic system	2,500	5 (10)	IV
"Last-chance" systems - Drug injection system	1,000	10 (15)	III
"Last-chance" systems - Guillotine system	500	15 (20)	III
Medical assistance system	1,500/lvl.	10 (15)	III
Patching disk	50/1,000 m	15 (20)	IV
Self-Repair System - Central	2,500 x lvl. x TL	According to TL (see description)	-
Self-Repair System - Side Module	500 x lvl. x TL *	According to TL (see description)	-

** One module per system/exo-armor is needed (although equipping each system in the exo-armor is not necessary).*

ELECTRONIC AND COMPUTER SYSTEMS

Any current electronic and computer systems described in the Gear chapter can be fitted within exo-armor (computers, soundscans, radars, analyzers...). These systems can be equipped with electronic and/or EMP shielding. Only devices pertaining to exo-armors are presented here.

Analyzers

Analyzers gather information about any soundscan contact. They are embedded within soundscans, which means they do not take up any extra space. However, they need to be considered as completely separate systems. The same soundscan can have several analyzers. Unlike portable analyzers, those designed for exo-armors can study several targets at the same time. The device level reacts like a Skill: if the *Soundscan Analysis* Test is successful, the Success Margin indicates how precise the information gathered is (size, weight, movement, speed, etc.)

Unlike automatic analyzers, those fitted in exo-armors and small submarines do not always operate automatically. The analysis involves the operator's knowledge and senses, particularly his hearing; therefore, this device can be used in two different ways. Either automatically with its normal level or with an operator who will use *Soundscan Analysis* Skill with a bonus equal to half the device level. This bonus can in no way be higher than the character's Skill level. The price of this system is usually 600 Sols multiplied by the Program Cost Multiplier (see page 20).

Note: there are also equivalent models for radar echo analysis.

Computers

Most exo-armors are equipped with a computer in order to manage its various systems. A system that is not managed by computer needs to be activated manually. If a computer

cannot manage all the systems at the same time, it will disable the least important ones. With the exception of strictly mechanical devices, each system needs to contain a program. Any system can be coupled with a reactive program managed by the computer: a device will be triggered at any conditions specified by the user. For example, upon detecting the presence of poisoned air, the program will activate the isolation system of the exo-armor. With a reactive system, a weapon or a defense system can also activate without human intervention by using the program level as a shooting Skill—the conditions for weapon activation will have to be set beforehand though. Similarly, a weapon can be blocked with an identification friend-or-foe signal to avoid any accidental shots. Simple systems, like pressure control, are managed by level 1 specialized routines. Computers and programs are described in the **Gear** chapter, page 18.

Exo-armor Communication Systems

Underwater radio communications are a huge problem. The devices fitted on exo-armors possess a rather limited range that reduces with depth. The deeper one dives, the more deteriorated and incomprehensible the signal. Furthermore, it can be detected, albeit not understood, on four times its emission range. Exo-armor pilots often prefer the old-fashioned techniques of sign language or a communication cable.

External communication systems are a moderate source of trouble. Exo-armors can be fitted with bulky devices, the range of which can reach 1 km per level. On the Surface though, they suffer from the effects of atmospheric disturbances, which dramatically reduce the range and quality of the signal.

ComLink: this is a simple communication system connecting two exo-armors together and made of a 10-meter long retractable cable. Several cables can be connected together; however, the signal starts to deteriorate when a cable length of 50 meters is exceeded.

ComDive 200: this is a more powerful version of the traditional ComDive 100. Although bulkier, it is still adapted to exo-armors. It has a range of 500 meters.

Lenid: this is one of the most powerful underwater communication systems. It has a range of 1,500 meters.

Communication Laser: this laser can encode a communication within its beam. Therefore, by aiming this device at a specific target, a character can send a completely secure transmission and it will remain imperceptible to anybody else. The range of such a system is around 800 meters. This device does not work in an underwater environment.

Speakers: Being heard outside your exo-armor can always be quite useful, especially when turning the volume up at full blast to impress everybody nearby.

ELECTRONIC AND COMPUTER SYSTEMS

SYSTEM	COST	LEVEL	TARGETS	AVA (B. MKT)	TL
Analyzers - Abyss	33,900	12	5	15 (20)	III
Analyzers - Delta Azur	35,400	12	7	15 (20)	III
Analyzers - Sea-Star	31,200	12	3	20 (20)	III
Exo-armor communication systems - ComLink	500	-	-	20 (20)	II
Exo-armor communication systems -Lenid	4,000	-	-	15 (20)	III
Exo-armor communication systems - ComDive 200	2,000	-	-	15 (20)	III
Exo-armor communication systems - Communication laser	4,000	-	-	5 (10)	III
Exo-armor communication systems - External	1,000/lvl.	-	-	15 (20)	II
Exo-armor communication systems - Speaker	100	-	-	20 (20)	II
Hearing sensor	6,000	-	-	1 (5)	III
Lock-on detector	500	-	-	15 (20)	II
Mine detector	400/ lvl.**	-	-	10 (15)	III
Motion detector	2,000/lvl.**	-	-	10 (15)	III
Navigation system	500/lvl.*	-	-	20 (20)	III
Smell sensor	300*	-	-	15 (20)	II
Tactical display	500	-	-	10 (15)	III
Tactile sensor	2,000	-	-	5 (10)	III
Targeting Computer - Nemrod	2,500	12	5	15 (20)	III
Visual sensor	400*	-	-	10 (15)	III

** Only for the base device The cost is to be multiplied by the number of additional options that are installed.*
*** Maximum level: 15.*

Lock-on Detector

This detector can be very convenient to find out if you are being targeted by a torpedo or a missile.

Mine Detector

This mine detector has a range of 1 kilometer. In order to detect a mine, a Test based on the device level must be rolled each Round. The electronic shielding of the mine and any possible concealment Modifiers inflict penalties. A mine detector is an active soundscan: its use can be detected.

Motion Detector

In a specific area, this device—which only works in the open air—can detect the fluctuations that indicate the presence of a body in motion. A Test based on the device level can be rolled each Round; you may either roll a Test for each potential target or a single global Test. A particularly small target may inflict a penalty, and a very big target a bonus. The base range for this device is 10 meters, but the user can "sacrifice" some points from detector level: each point thus spent gives an additional 10 meters in range (e.g. lowering the device level by 2 points can extend its range by 20 meters).

Navigation Systems

Most exo-armors are equipped with this system, which displays on the helmet screen or on the navigation screen all useful data, such as external temperature, presence of obstacles, slope inclination, distance of a target (via laser rangefinder), etc. Furthermore, this device can calculate a route autonomously, using its level as a *Navigation* Skill.

Sensors

Exo-armor sensors are devices enabling the exo-armor to "perceive" the external environment via "artificial senses." The sensors that replace a sense possess a Perception "Attribute" of 10, which can therefore limit the pilot's Perception. This level can be increased by one point for each additional 10% of their price.

Tactile Sensors: a pilot within an exo-armor can feel what he touches. He can therefore take advantage of this system to analyze what he is touching and receive relevant information (texture, temperature, etc.). However, this information remains simple and vague.

Tactile Analyzers: these are tactile analysis devices fitted within the pilot's gloves that recreate the sense of touch. The sensors placed on the gloves analyze the material they are in contact with and transmit the information to a soft layer within the glove that will mimic what was touched. This device is also equipped with a full analyzer that transmits the same information to the tactile sensors.

Hearing Sensors: these sensors replace the pilot's hearing. The default system only allows the pilot to hear outside the exo-armor normally. The sensors can also be equipped to detect normal frequencies, ultrasound, infrasound, low frequencies, and very low frequencies. This device can be disabled.

Visual Sensors: these sensors fitted in the helmet of exo-armor enhance the pilot's sight. They can be equipped to detect ultraviolet, infrared, and electromagnetic waves. They can also zoom in, and are equipped with a light amplifier and a laser rangefinder.

Targeting Computer

This device provides a targeting solution for a given opponent. It is embedded into a sonar but it needs to be considered as a completely separate system. A computer can calculate up to three targeting solutions at the same time. The Nemrod works both on surface targets and underwater targets.

Tactical Display

Tactical display systems enable visualization of the environment and identify the position of any detected vehicles, exo-armors, or devices. The pilot, therefore, has no need to constantly watch his surroundings. All the data is displayed on his helmet screen.

STEALTH SYSTEMS

Acoustic Signal Modifier

In order to deceive passive enemy soundscans, this device simulates a sound that is different from the one emitted by the vehicle or exo-armor. The acoustic signature needs to be pretty close to the one of the equipped machine. For instance, a light exo-armor can pass for a drone, a diver, or heavier exo-armor. It is even possible to mimic a marine mammal of a similar size. The device level determines the probability of deceiving an enemy (if their soundscans are equipped with an electronic shielding, each shielding level reduces the signal Modifier level by the same number of points).

Anti-echo Coatings (anechoic tiles) grade I

These coatings absorb the sound waves of active sonars and reduce the noise produced by an exo-armor. Therefore, any active and passive detection of an exo-armor equipped with such a coating suffers a penalty. This penalty is equal to -4 for TL III tiles.

Camouflage Coating

The camouflage coating on unmoving exo-armor doubles the Perception penalties to detect it (and are only increased by a half if the exo-armor is moving).

Echo Jammer

An echo jammer is a kind of sound dampener against the active soundscans of submarines, exo-armors, torpedoes, etc.

Echo Modifier

This system works like acoustic signal modifiers, but on the active soundscans of submarines, exo-armors, torpedoes, etc. instead.

Sound Attenuator

A sound attenuator rapidly dampens and disperses the noise of a vehicle moving underwater. The system level inflicts a penalty to the passive detection Test of an enemy vehicle (if equipped with electronic shielding, each level of shielding reduces the level of the attenuator by the same number of points.)

SYSTEM	COST	AVA (B. MKT)	TL
Acoustic signal modifier	2,000/lvl.**	5 (10)	III
Anti-echo coating	5,000/lvl.***	5 (10)	III
Camouflage coating	4,000****	5 (10)	III
Echo jammer	3,000/lvl.*	5 (10)	III
Echo modifier	5,000/lvl.*	5 (10)	IV
Sound attenuator	2,000/lvl.*	5 (10)	III

** Maximum level: 7*
*** Maximum level: 15*
**** Maximum level: 4 Above the exo-3 category, price +50%.*
***** Above the exo-3 category, price +50%.*

WEAPONRY

Most weapons listed in the Gear chapter have a similar model that can be mounted on powered armor. The lighter ones may not be capable of piercing exo-armor, but can still be used on more vulnerable targets. Heavy weapons—machineguns, assault cannons, torpedo launchers—are easily supported by exo-armor, even though the GM still needs to prevent any excess and use her common sense. Although an exo-omega can be fitted with several assault cannons or a heavy machine gun with a high rate of fire, this will certainly not be the case with an exo-0 that can only support more traditional weaponry...

Note: torpedoes, flares, and similar weapons are described in the **Underwater Combat** section, page 129.

CRUSHING DAMAGE

Some weapons used by robots as well as exo-armors can inflict crushing damage. Once the target is grabbed, this weapon inflicts crushing damage each Combat Round. The principle is similar to a creature's constriction attack, but this damage are not modified by the attack's Failure or Success margin, because they are entirely controlled by the weapon's operator. Thus damage is automatic, however an Attack Test is still required in order to determine if the machine breaks down (in case of a critical failure).

Most of the time, the crushing damage is not explicitly written down, but it is considered incremental. This means it will increase each Combat Round by a certain amount. This amount depends solely on the machine's Strength and its Damage Modifier. Damage always starts at the H Scale, but can affect other larger Scales if it increases significantly.

It takes 10 points of H scale damage to inflict 1 point of V- damage and 20 points of H scale damage to inflict 1 point of V+ damage.

If the Damage Modifier is negative, it is ignored; the machine simply adds no modifier to the damage it inflicts.

Usually, each Combat Round (CR), crushing damage increases (at the H Scale) by a number of points equal to 10% of the machine's Strength (rounded down, therefore a Strength of 10 or more is required for this kind of attack to work). Thus a Strength 20 machine increases its crushing damage by 2 (H) points per CR. However, in the vast majority of cases, this damage increase can be modulated, simply because the weapon is controlled by an operator who can act on the weapon's "jaw" pressure.

Thus, instead of inflicting 2 (H) point per CR, the operator may decide to inflict only 1 (H) point per CR.

Crushing damage does not increase infinitely. Here are the maximum number of points that can be inflicted (remember, a negative Damage Modifier is always ignored):

Maximum damage at H Scale: Strength + Damage Modifier for scale H

Maximum damage at V- Scale: Strength/2 + Damage Modifier for scale V-

Maximum damage at V+ Scale: Strength/20 + Damage Modifier for scale V+

If a victim trapped by a crushing device hasn't any chance to free themselves because they are not strong enough, they can always make a Luck test, but must spent a Luck Point to do so.

MELEE WEAPONS FOR EXO-ARMORS

Due to their significant weight, these weapons are only meant for exo-armors. Some are industrial tools that can also have a more... martial use. Although more difficult to handle, they will work wonderfully well on slow or unmoving targets.

Electroclaw

Skill: Armed combat limited by any armor maneuvering skill

The electroclaw is a module replacing the hand and forearm of an exo-armor that can be used as a club or to grab and electrocute prey. When used as a club, the electroclaw deals the base Melee Damage of the exo-armor (see **Combat and Actions in Exo-armor**, page 79), plus 3 points and the exoskeleton's Damage Modifier. When used to grab and hold prey, the electroclaw works as pincers (see Pincers but with a damage increment of 1 to 5 each round) with Strength 25 (some models may even have a higher Strength). The user can activate an electrical system that deals 1D10 Electrical Damage per Combat Round, +1D10 additional Shock Damage and an EMP attack equal to -5 (H)/-1 (V-).

Hydrodrill

Skill: Heavy weapons (shooting) limited by any armor maneuvering skill

By projecting a jet of water at a pressure of 4,000 bars, the hydrodrill can cut through the most resistant of rocks. Its working distance being really short and requiring a stable position to operate, the hydrodrill is useless in combat. However, it can deal some significant Damage on an unmoving target. Its Damage is increased every Combat Round by +3 on stationary targets, or if the weapon can be maintained in continuous contact with the target, until it reaches a bonus of +30. Moreover, the hydrodrill ignores 3 points of protection/armor (plus an extra 3 points per Combat Round if the weapon can be maintained in continuous contact with the target). The Cutter Spreader can ignore a maximum of 90 points of armor/protection at the H scale. This weapon can affect V- target and ignore 1 point of armor/protection at the V- scale for every 6 points of penetration at the H scale.

DAMAGE H	DAMAGE V-
≥ 3D10	1D6-3
≥ 3D10+6	1D6-2
≥ 3D10+12	1D6-1
≥ 3D10+20	1D6
≥ 3D10+26	1D6+1

Jackhammer

Skill: Heavy weapons (melee) limited by any armor maneuvering skill

This common tool deals Damage that increase Round after Round, up to a +40 bonus. These instruments often replace a limb on the exo-armor. This weapon can affect V- target with the required damage bonus and ignore 1 point of armor/protection at the V- scale for every 6 points of penetration at the H scale.

WEAPONRY

MODEL	DAMAGE	SHOCK	PEN	RANGE	INI.	RATE OF FIRE (ROF)	COST	AMMO. (COST)	AVA (B. MKT)	WEIGHT	TL
Electroclaw	Special	Special		-	-	-	14,000	-	1 (5)	12 kg	II
Hydrodrill	3D10 (+3/CR)	-	3/CR	-	-	-	11,000	-	10 (10)	80 kg	II
Industrial drill	6D10 (+1/CR)	-	3/CR	-	-5	-	6,000	-	15 (15)	28 kg	II
Industrial saw	6D10 (+1/CR)	-	2/CR	-	-3	-	7,000	-	15 (15)	35 kg	II
Jackhammer	4D10 (+1/CR)	-	2/CR	-	-7	-	2,500	-	15 (15)	27 kg	II
Mechanical excavator	Special	-		-	-7	-	7,000	-	10 (10)	150 kg	II
Pincer/Claw	Special	-		-	-3	-	special	-	15 (15)	special	II
Anti-vehicular speargun	5D10 (H)/ 1D6-1 (V-)	-	12	1.4/7/14/ 28 (42)*	-3	SS	4,000	1 (500)	10 (15)	18 kg	II
Dual anti-vehicular spearguns	5D10 (H)/ 1D6-1 (V-)	-	12	1.4/7/14/ 28 (42)*	-3	SS	6,000	1 (500)	10 (15)	20 kg	II
Multishot anti-vehicular speargun	4D10+3 (H)/ 1D6-2 (V-)	-	6	1.4/7/14/ 28 (42)*	-3	SS	3,000	1 (800)	10 (15)	24 kg	II
Neutron cannon	6D10+4 (H)/ 1D6 (V-)	-		8/40/80/ 160 (240)	-3**	SS/SB	101,600	40 (1,080)	-5 (1)	180 kg	IV

** In the open air, all ranges can be tripled*
*** The weapon needs to charge up a little before shooting.*

DAMAGE H	DAMAGE V-
≥ 4D10+0	1D6-2
≥ 4D10+6	1D6-1
≥ 4D10+14	1D6 -
≥ 4D10+20	1D6+1
≥ 4D10+31	1D6+2
≥ 4D10+36	1D10

Industrial drill and Industrial Saw

Skill: Heavy weapons (melee) limited by any armor maneuvering skill

These very common tools deal Damage that increase Round after Round, up to a +60 bonus. These instruments often replace a limb on the exo-armor.

These weapons can affect V- target. It deals 1D6 damage and ignore 1 point of armor/protection at the V- scale for every 6 points of penetration at the H scale. They can also affects V+ target with the required damage bonus and ignore 1 point of armor/protection at the V+ scale for every 2 points of penetration at the V- scale

DAMAGE H	DAMAGE V-	DAMAGE V+
≥ 6D10+8	1D6+1	-
≥ 6D10+19	1D6+2	-
≥ 6D10+24	1D10	-
≥ 6D10+30	1D10+1	-
≥ 6D10+42	1D10+2	1D6
≥ 6D10+54	1D10+3	1D6+1

Mechanical Excavator

Skill: Heavy weapons (melee) limited by any armor maneuvering skill

Mainly used in mines, the excavator replaces one full limb of an exo-armor. This is not actually a weapon, but it can be used (with some difficulties) as a club that deals the base Melee Damage of the exo-armor (see **Combat and Actions in Exo-armor**, page 79), plus 3 points and the exoskeleton's Damage Modifier.

Pincer/Claw

Skill: Armed combat limited by any armor maneuvering skill

Pincers are very common instruments that often replace a limb on the exo-armor. They have their own Strength Attribute. A Strength 3 pincer is a precision tool used to grab small objects, whereas a Strength 40 pincer is a huge device capable of crushing rocks. Pincers can first be used to grab and hold a target without dealing any Damage. A *Melee Combat* Test must then be rolled (see **Wrestling** in the **Combat** chapter). Each round, the target can try to get free: a successful Strength Test is required, with a Modifier equal to the difference between their Strength levels—this is applied as a bonus if the victim is stronger, or else it is a penalty. Pincers can be used to crush a target: Damage will then be incremental and will increase each Round by a number of points ranging between 1 and 15, to be determined by the user (who chooses the pressure exerted by the pincer) and up to a maximum bonus equal to the Strength level of the instrument plus its damage modifier. Finally, pincers can be used as clubs to hit an opponent. In this case, the blow deals the base Melee Damage of the exo-armor (see **Combat and actions in exo-armor**, page 79), plus 3 points and the exoskeleton Damage Modifier. The weight of these equipments is equal to (Strengh x Strengh)/100 en kg and their cost is equal to their weight x 100.

Classic melee weapons

Skill: same as the normal weapons limited by any armor maneuvering skill

An exo-armor can be equipped with classic weapons: clubs, blades, and axes, gauntlets and combat claws, spears, perforators, and so on. These are however no longer standard versions, but more massive ones. These weapons inflict more severe damages, equivalent to the Base Damages of the weapon in its classic version, plus the Melee bonus (depending on the exo-armor category). As usual, the Exo-Strength bonus must be taken into account as well.

Melee bonus: Exo Alpha (+1)/Exo 0 (+1D6)/Exo 1 (+1D10)/ Exo 2 (+1D10+1)/Exo 3 (+1D10+3)/Exo 4 (+2D10+1)/Exo 5 (+3D10)/Exo 6 (+4D10)/Exo Omega (+4D10+2)

The weight and price of the weapons must be multiplied by the values indicated in brackets.

Exo-armor type (Weight and Price): Exo Alpha (x 10)/Exo 0 (x 30)/Exo 1 (x 40)/Exo 2 (x 50)/Exo 3(x 60)/Exo 4 (x 80)/Exo 5 (x 120)/Exo 6 (x 150)/Exo Omega (x 170)

The penetration and of the weapons must be multiplied by the values indicated in brackets.

Exo-armor type (penetration): Exo Alpha (x 3)/Exo 0 (x 5)/Exo 1 (x 6)/Exo 2 (x 7)/Exo 3(x 8)/Exo 4 (x 9)/Exo 5 (x 11)/Exo 6 (x 12)/Exo Omega (x 13)

RANGED WEAPONS FOR EXO-ARMOR

Any ranged weapon operated by an exo-armor is generally used with the appropriate skill for this weapon (an assault rifle will use the Shoulder-fired weapons/rifles), but is limited by any Armor Maneuvering skill. This is the case when this weapon is used with the hands of the exo-armor, or if this weapon is fixed on the forearm of the exo-armor. In all others cases (for example, if a weapon is fixed on the shoulder), you must use the skill Onboard weapons/artillery, limited by the skill normally used with this weapon.

Anti-vehicular speargun

Skill: Heavy weapons (shooting) limited by any armor maneuvering skill

These spearguns are extremely heavy and bulky devices that are used to damage exo-armors (or huge marine creatures).

Dual anti-vehicular spearguns: The Gar model from Gladius Industries launches two anti-vehicular spearguns at the same time. It provides—at the shooter's discretion—either a +3 *Shooting* Test bonus, or a +1D10 Damage bonus (at Point-Blank or Short Range only).

Multishot anti-vehicular spearguns: this speargun shoots out eight special harpoons that are smaller than regular anti-vehicular harpoons. This system is usually installed around one of the exo-armor forearms. Its main advantage is to provide a +5 *Shooting* Test bonus at Short Range, and at Short and Medium Range.

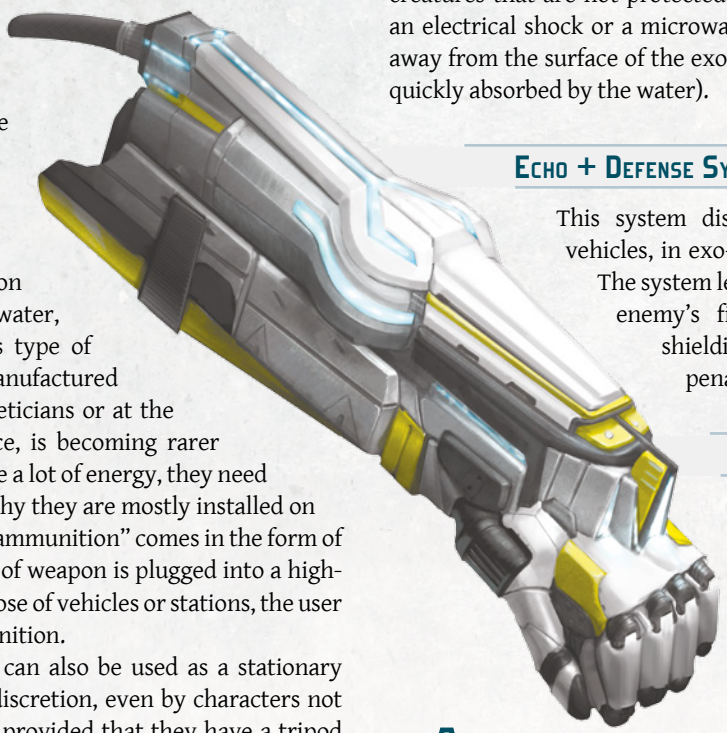
Reminder: projectile weapons designed to work underwater have a rather limited range. Moreover, few weapons of this type can remain efficient at great depth. Therefore, beyond 500 meters deep, the ranges mentioned in the table below must be reduced by half. At -1,000 meters or more, TL II weapons become useless. However, higher TL models can work at greater depths (for each TL above II, add 200 m to its values).

Neutron Cannon

Skill: Heavy weapons (shooting) limited by any armor maneuvering skill.

Neutron cannons are quite widespread underwater. These weapons cause the same amount of Damage and have the same range on the surface and underwater, whatever the depth. This type of energy weapon, mainly manufactured by the Empire of the Geneticians or at the time of the Azure Alliance, is becoming rarer and rarer. As they consume a lot of energy, they need bulky generators, hence why they are mostly installed on powered exo-armors. Its "ammunition" comes in the form of energy packs—if this kind of weapon is plugged into a high-capacity generator, like those of vehicles or stations, the user will have unlimited ammunition.

Note: a neutron cannon can also be used as a stationary cannon and, at the GM's discretion, even by characters not equipped with exo-armor provided that they have a tripod to mount it on, in addition to one or two additional people to carry the generator and the energy packs.



Armor Neutron Cannon

DEFENSE SYSTEMS

Note: defense systems belong to the **Weaponry** category when used to detect an incident caused by some Vehicle Damage.

Anti-infrasound Coating

Infrasound weapons, be they technological or natural (burrowers), are really lethal and you are better off being protected against them. This protection (which only works for a perfectly insulated exo-armor) inflicts a penalty of one point per level to any infrasound attacks.

Anti-torpedo EMP Field (Spherical Field)

The EMP field affects all the electronic devices that go through it. They are dealt an EMP attack that forces a Breakdown Test with a penalty equal to the field level (minus any electronic shielding on the machine). This type of field is particularly useful against torpedoes; if they fail the Test, they will detonate.

Note: exo-armors can also be equipped with all the types of fields and force shields that are listed in the **Gear** chapter.

Defensive Generators

Defensive generators defend against the melee attacks of creatures that are not protected by any armor, generating an electrical shock or a microwave field a few centimeters away from the surface of the exo-armor (the energy is then quickly absorbed by the water).

Echo + Defense System

This system disrupts the computers on vehicles, in exo-armors, and in torpedoes. The system level inflicts a penalty to the enemy's firing solution (electronic shielding can reduce this penalty).

Torpedo Control

These devices have been specifically designed to take control of an enemy's automatic torpedo. The system level indicates the probability to control an enemy torpedo (if the latter is equipped with electronic shielding, each level of shielding reduces the probability).

As torpedoes have a rather limited autonomy, it is usually impossible to send them back at the enemy. However, its course can be changed, its self-destruct system activated, or even redirected toward another enemy nearby.

DEFENSE SYSTEMS

SYSTEM	DAMAGE	COST	AVA (B. MKT)	TL
Anti-torpedo EMP field	-	25,000/lvl.*	1 (5)	IV
Torpedo control	-	5,000/lvl.*	1 (5)	IV
Electrical field generator	2D10+3**	2,000	10 (15)	III
Microwave field generator	3D10+3**	3,500	210 (15)	III
Anti-infrasound coating	-	5,000/lvl.*	5 (10)	IV
Defense system - Echo +	-	3,000/lvl.*	5 (10)	IV

** Maximum level: 5.*
*** Natural armors (shells...) do not count.*

VARIOUS SYSTEMS

Here are various systems that are specific to exo-armors. Please bear in mind that many of the tools described in the **General Equipment** and **Survival** sections in the **Gear** chapter can be installed on exo-armor.

Alert System

This system automatically wakes up a pilot who has fallen asleep, produces a warning sound when a vehicle or exo-armor enters the detection area of a sonar, etc.

Anti-radiation Coating

The exo-armor is covered with a coating that works as an anti-radiation field, thus reducing the intensity of radiation.

Antitheft

Antitheft locking: the system level inflicts a penalty to any attempt at neutralizing the exo-armor security system (some very specific equipment is required to breach this security). There are several identification systems: palm scan, eye scan, key, code, and voice. Each of these is considered as a complete system (with its own level), but it is absolutely possible to install all five identification devices on the same exo-armor.

Neural identification: this device located within the helmet analyzes the user's brain waves. To date, this system has proved to be impossible to breach; therefore, it has no values.

Autopilot

This system allows the pilot to not have to bother with the piloting of a vehicle or exo-armor, and focus on other tasks. Each autopilot level represents 1 level in Exo-*armor Maneuvering*. This device can be equipped with a reactive system in case the pilot becomes unconscious. This system will then decide on the course of action for the vehicle or exo-armor.

Power Cable

Also nicknamed "umbilicals," power cables are very common as they allow an individual to do without a given power source by plugging into a station or a vehicle generator—or even into the generator of another exo-armor (the capabilities of the second exo-armor will be slightly lower).

Security Flap

This armored flap protects the visor of a pilot's helmet. Without it, the visor becomes a weak spot where the Armor Rating is reduced by half. If the flap is lowered, the pilot will only be able to rely on the instruments and sensors of his exo-armor to move and perceive his environment.

STEALTH SYSTEMS

SYSTEM	COST	AVA (B. MKT)	TL
Antitheft - locking	300/lvl.*	15 (15)	III
Antitheft - Neural identification	75,000	1 (5)	IV
Autopilot	3,000/lvl.**	10 (15)	III
Power cable	500/10 m	20 (20)	II
Anti-radiation coating	500/lvl.***	10 (10)	III
Security flap	100 x AMR exo-armor	10 (10)	III
Alert system	100	20 (20)	II

** Maximum level: 10.*
*** Maximum level: 15.*
**** Maximum level: 25.*

EXO-ARMORS

"This is my exo-armor. There are many like it, but this one is mine."

— A mercenary, really proud of his recent acquisition.

The exo-armors listed below are standard models fitted with their usual equipment. They can be modified or completed at will. The cost shown represents the average price at which the exo-armor can be found at the different markets of the underwater world. Although the various components of exo-armor are important to calculate its base price, the retail price will almost always be lower than the total cost of the components, as most acquired exo-armors

did not come directly from the factory but are sold on the secondhand market. This price also takes into account the availability of the exo-armor and the fact that some were funded by the S.M.S.O. or by richer nations to help smaller communities.

Exo-armors hardly ever belong to one individual. More often than not, they belong to organizations, communities, companies, or armed forces. However, they can very often be found for rent (in big communities) or made freely available to those who need them (in poorer communities).

Underwater exo-armors are designed to maneuver at a certain depth. They all have three depth stages in meters:

The Operating Depth (OD) is the maximum depth at which an exo-armor can dive without risk.

The Maximum Depth (MD) is the maximum depth that an exo-armor can reach by taking some risks. The MD is equal to 1.2 times the OD (although this value may depend on its architecture).

The Crushing Depth (CD) is always equal to 1.5 times the operating depth. This is the depth at which an exo-armor is always crushed. It will serve as food for the fish. When exo-armor maneuvers from its operating depth to its maximum depth, a D20 needs to be rolled every 30 minutes, and each time its depth changes within this limit (every 100 meters), as well as each time a sudden maneuver is attempted. If the result is higher than the Integrity level of the exo-armor's Structure, it suffers from Light Damage (a possible incident will be randomly located on the Structure or the Auxiliary Systems). Any Damage creates a one-point penalty per level of seriousness on this roll (from -1 for Light Damage to -5 for Catastrophic Damage).

Example: exo-armor with an operating depth of -1,000 meters has a maximum depth of -1,200 meters and a crushing depth of -1,500 meters. If it dives down to -1,100 meters, a Test is rolled. If it remains at –1,100 meters, a new Test will be rolled 30 minutes later. If the exo-armor dives down again to 1,200 meters, a new Test is rolled. If it goes back up to 1,100 meters, a new Test is rolled, and if it goes up to its operating depth, a final Test is rolled.

When exo-armor maneuvers from its maximum depth to its crushing depth, as explained above, a D20 needs to be rolled every 10 minutes, and each time its depth changes within this limit (every 10 meters), as well as each time a sudden maneuver is attempted. However, in case of failure, the exo-armor loses 1 Integrity point (plus any possible damage and additional integrity loss). WHEN it reaches its crushing depth, an exo-armor automatically implodes.

Stabilization: in case of Critical Success on an Integrity test, no other Tests need to be rolled for the exo-armor provided it keeps its current depth and does not move.

Exo-armors with an operating depth of more than 6,000 meters are not common. Those capable of reaching 10,000 meters are rare. Lastly, only a few experimental exo-armors can maneuver beyond 18,000 meters of operating depth, which only have a very limited interest.

Some exo-armors can have values that do not match the basic rules when it comes to diving depths or to Damage Resistance. This is due to the fact that their Architecture is taken into account.

Integrity modifier : this is the modifier to the Integrity Tests of the exo-armor (a bonus if the value is positive and a penalty if the value is negative).

Architecture : exo-armors (like drones and vehicles) have an Architecture that modifies the depth it can reach. Moreover, if you use the optional/Advanced rule on the Damage/Wound threshold, the architecture determines these thresholds (see page 207).

EXO-ARMOR INTEGRITY

Most exo-armors are secondhand machines, some of which have been in service for years, and are usually equipped with recycled systems. These exo-armors have thus suffered some definitive loss of Integrity. In order to handle this in a simple way, you can consider that an exo-armor bought at a normal price (or ordinary exo-armor rented or borrowed from a community or a group) has a maximum Integrity level of 17 on average. **Each element of the exo-armor has this level. However, a Player, if he so wishes, can transfer some points from one element to another within the following groups of elements:**

- **Structure, Exoskeleton, and Generator**
- **Auxiliary Systems**
- **Weaponry**

This means that you can transfer 2 Integrity points from the Generator (which drops to 15) to the Structure (which rises to 19). It also means you cannot take any points from Auxiliary Systems to redistribute to anything besides another Auxiliary System. The maximum Integrity level is 20.

The average Integrity level may vary depending on the situation. For instance, in a particularly poor community, the characters may only be able to rent or borrow machines with an average level of 15. Conversely, a "benefactor" may well grant a character access to better quality equipment on some conditions... It is also possible to purchase an exo-armor with an average Integrity level lower or higher than 17. The price may vary according to the following rules:

- **For each 10% removed from the price**, the average Integrity drops by one point. The highest possible discount is usually 50% (beyond that exo-armors cannot be sold—except by a crook—as they have become too unsafe).

- **For each additional 20% of the price,** the Integrity increases by one point (maximum: 20). Keep in mind that beside the black market, there are very few solutions to find such levels of Integrity.

LIGHT EXO-ARMORS

Light Security Diving Exo-armor (Underwater)

This is a popular exo-armor among the Watchers and other security forces.

Category: exo-alpha (H)
Manufacturer: Gladius
Cost: 252,000 Sols
Availability (Black market): 5 (10)
Estimated TL: IV
Depth:
- **Operating:** 1,000
- **Maximum:** 1,100
- **Crushing:** 1,500

Autonomy: 7 hours (Pressure-compensated high energy density batteries)
Attributes:
- **Damage Resistance:** -6 (nano-titanium shell)
- **Armor Rating:** 23 (visor : 1/21 with security flap)
- **Architecture:** Light
- **Integrity modifier:** +5
- **Exo-Strength:** 15
- **Damage Modifier:** +2
- **Speed/SPD (Move Points):** 4 /1(1) (Walking/ swimming)
- **Initiative Penalty:** underwater: +1 ; on land: +1

Auxiliary Systems
- Assistance and monitoring system, Optical visor Eagle, Voice control, Manual control panel (forearm), Helmet with micro-cameras TN IV, holographic tactical display TN III (+2), Pressure control (TN IV), Temperature regulator Polar TN IV, Breathing system (7-hour oxygen supply), Sanitary system (7 hours), Feeding system (7 hours), ComLink, Computer TL III, Gen. III, Directional active soundscan, Passive soundscan, lvl. 2, Soundscan analyzer lvl. 12,

Weaponry:
- Electrical field generator
- Medium speargun, 10 charges (arm)
- Retractable dagger (fist/exo 0 dagger: 1D10+3 (H))

A-Series Exo-armor (Underwater)

This cheap and easy-to-build exo-armor is becoming more common in small- and middle-sized communities. At shallow depths, it has started to replace more modern exo-armors that have become rare. This exo-armor is round and bulbous-shaped.

Category: exo-0 (H)
Manufacturer: Indus Conglomerate (Kingdom of the Indus)
Cost: 279,000 Sols
Availability (Black market): 10 (15)
Estimated TL: II
Depth:
- **Operating:** 2,000
- **Maximum:** 2,400
- **Crushing:** 3,000

Autonomy: 12 hours (Pressure-compensated high energy density battery)
Attributes:
- **Damage Resistance:** -3 (aluminum alloy shell)
- **Armor Rating:** 14 (visor : 7/no security flap)
- **Architecture:** normal
- **Integrity modifier:** -2
- **Exo-Strength:** 51
- **Damage Modifier:** +20 (H)/-6 (V-)
- **Speed/SPD (Move Points):** 0.5 knots/<1(1) (Walking) or 2kph/1(1) (Walking)
- **Initiative Penalty:** underwater: -2 ; on land: -3

Auxiliary Systems:
- Assistance and monitoring system, Breathing system (24-hour oxygen supply), ComLink, Computer TL III, Gen. II, Directional active soundscan, Manual control panel (forearm), Navigation system lvl. 10, Passive soundscan, Pressure control, Sanitary system lvl. 2, Soundscan analyzer lvl. 12, Temperature regulator

Weaponry:
- Electrical field generator
- Medium speargun, 10 charges (arm)
- Retractable dagger (fist/exo 0 dagger: 1D10+1D6+2 (H))

Explora Exo-armor (Hybrid)

This light exo-armor is used by communities located at very shallow depths.

Category: exo-alpha/assisted armor (H)
Manufacturer: Explora Industries (Tyr)
Cost: 88,000 Sols
Availability (Black market): 10 (15)
Estimated TL: III
Depth:
- **Operating:** 4,000
- **Maximum:** 4,800
- **Crushing:** 6,000

Autonomy: 10 hours (Pressure-compensated high energy density batteries)
Attributes:
- **Damage Resistance:** -6 (plastitanium shell)
- **Armor Rating:** 9 (visor : 5/ with security flap : 10)
- **Architecture:** NA
- **Integrity modifier:** +5
- **Exo-Strength:** Pilot's Strength +5
- **Damage Modifier:** varys

- **Speed/SPD (Move Points):** COO/Athletics +5 (exo-fins/surface-walking)
- **Initiative Penalty:** underwater: +0 ; on land: +0

Auxiliary Systems:

- Anti-radiation coating lvl. 10, Assistance and monitoring system, Breathing system (24-hour oxygen supply), ComLink ,Computer TL III, Gen. III, Directional active soundscan, Environment analyzer, Lenid communicator, Light generator — Will-O-Wisp, Lock-on detector, Navigation system lvl. 10, Passive soundscan, Pressure control, Radar, Radar analyzer, Sanitary system lvl. 1, Soundscan analyzer, Tactical display, Temperature regulator, Voice command control interface

Weaponry:

- Electrical field generator
- Medium speargun, 10 charges (arm)
- Retractable dagger (fist/ exo alpha dagger: 1D10+3 (H))

This armor can be equipped with a special module attached on the shoulders that provides the wearer with two extra mechanized arms.

Nymph 1-A Exo-armor (Underwater)

The Nymph 1-A is certainly the most widespread submarine exo-armor in the oceans. Its price is affordable and its capabilities are clearly enough for a major part of the population.

Category: exo-0 (H)
Manufacturer: Gladius
Cost: 652,000 Sols
Availability (Black market): 10 (15)
Estimated TL: III
Depth:

- **Operating:** 8,000
- **Maximum:** 9,600
- **Crushing:** 12,000

Autonomy: 13 hours (Pressure-compensated high energy density batteries)
Attributes:

- **Damage Resistance:** -5 (plastitanium shell)
- **Armor Rating:** 22 (visor* 12/no security flap)
- **Architecture:** normal
- **Integrity modifier:** +0
- **Exo-Strength:** 51
- **Damage Modifier:** +20 (H)/-6 (V-)
- **Speed/SPD (Move Points):** 4 knots/1(1) (ducted mini-thruster) or 3 knots/1(1) (Exo-fins) or 11kph/2(1) (surface)
- **Initiative Penalty:** underwater: -1 ; on land: -2

**the helmet is an almost full-face model. Use the hull values if the adversary does not target one of the two small portholes (test at -7).*



Auxiliary Systems:

- Antitheft locking lvl. 5 (1 system to choose), Assistance and monitoring system (emergency), Assistance and monitoring system (main), Breathing system (24-hour oxygen supply), ComLink, Computer TL II, Gen. II (emergency), Computer TL III, Gen. V (main), Directional active soundscan, Lenid communicator, Light generator — Will-O-Wisp, Manual control panel (forearm), Passive soundscan, Pressure control, Soundscan analyzer lvl. 12, Temperature regulator

Weaponry:

- Electrical field generator
- Heavy speargun, 10 charges (arm)
- Retractable dagger (fist/exo 0 dagger: 1D10+1D6+2 (H))

Typhoon Exo-armor (Hybrid)

The Typhoon exo-armor is very common for underwater use, designed for reconnaissance and exploration. It is not meant to resist violent combats, even though its pilot is still provided with good protection. Its rather low weight enables it to leave the water environment very easily.

Category: exo-alpha (H)
Manufacturer: Melian OP (Red League)
Cost: 782,000 Sols
Availability (Black market): 5 (10)
Estimated TL: III

Depth:
- **Operating:** 7,000
- **Maximum:** 8,400
- **Crushing:** 10,500

Autonomy: 100 years (micro-fusion reactor or radioisotope thermoelectric generator)

Attributes:
- **Damage Resistance:** -4 (hyper-composite shell)
- **Armor Rating:** 13 (visor : 6/ with security flap : 13)
- **Architecture:** normal
- **Integrity modifier:** +3
- **Exo-Strength:** 30
- **Damage Modifier:** +10 (H)
- **Speed/SPD (Move Points):** 3 knots/1(1) (Exo-fins) or 3 knots/1(1) (dorsal ducted mini-thruster) or 16kph/3(1) (surface)
- **Initiative Penalty:** underwater: +0 ; on land: +0

Auxiliary Systems:
- Antitheft locking lvl. 7 (1 system to choose), Assistance and monitoring system, Breathing system (48-hour oxygen supply), Comdive 200 communicator, ComLink, Diagnostics system, External communicator lvl. 1, Feeding system lvl. 2, Manual control panel (emergency, forearm), Navigation system lvl. 10 Directional active soundscan, Optical visor control interface (main), Passive soundscan, Pressure control, Radar, Radar analyzer lvl. 12, Sanitary system lvl. 2, Soundscan analyzer 12, Tactical display, Temperature regulator, Self-repair system: self-repair unit lvl. 12, Side modules for 5 systems

Weaponry:
- Medium speargun, 10 charges (arm)
- Microwave field generator
- Retractable dagger (fist/exo alpha dagger: 1D10+3 (H))
- Thermal dagger (fist/exo alpha thermal dagger: 1D10+5 (H))

MEDIUM EXO-ARMORS

Condor Exo-armor (External)

This high-quality exo-armor is fitted with some excellent equipment and significant weaponry. This exo-armor is very popular among the Watchers.

Category: exo-1 (H)
Manufacturer: Gladius
Cost: 1 300,000 Sols
Availability (Black market): 1 (5)
Estimated TL: III
Autonomy: 100 years (Azurean micro-fusion reactor in pressure vessel)

Attributes:
- **Damage Resistance:** -9 (plastitanium shell)
- **Armor Rating:** 35 (visor : 35*/no security flap)
- **Architecture:** normale
- **Integrity modifier:** +3
- **Exo-Strength:** 48
- **Damage Modifier:** +19 (H)
- **Speed/SP (Move Points):** 1 knot/<1(1) (walking) or 10kph/2(1) (walking)
- **Initiative Penalty:** on land: -1

**the helmet is an almost full-face model. Use the hull values if the adversary does not target one of the two small portholes (test at -7).*

Auxiliary Systems:

Amphibious isolation system, Assistance and monitoring system, Computer TL IV, Gen. III, Diagnostic system, Environment analyzer, Hearing sensors lvl. 12 (+2 options to choose), Manual control panel (emergency, forearm), Medical Assistance System lvl. 5, Motion detector lvl. 13, Neural identification antitheft locking, Radar, Radar analyzer, Repair system: Self-repair system unit lvl.12, side Modules for 10 systems, Reserve oxygen supply (24 hours), Speakers, Tactical display, Visual sensors lvl. 15 (+2 options to choose), Voice command control interface (main)

Note: all these systems have an EMP Shielding at lvl. 3

Weaponry:
- Flamethrower, 12 shots (shoulder pivot)
- Heavy machinegun, 30 long bursts (shoulder pivot)
- Molecular dagger (fist/exo 1 molecular dagger: 2D10+3 (H))
- Neural dagger
- Sonic knockout rifle

Cougar Exo-armor (External)

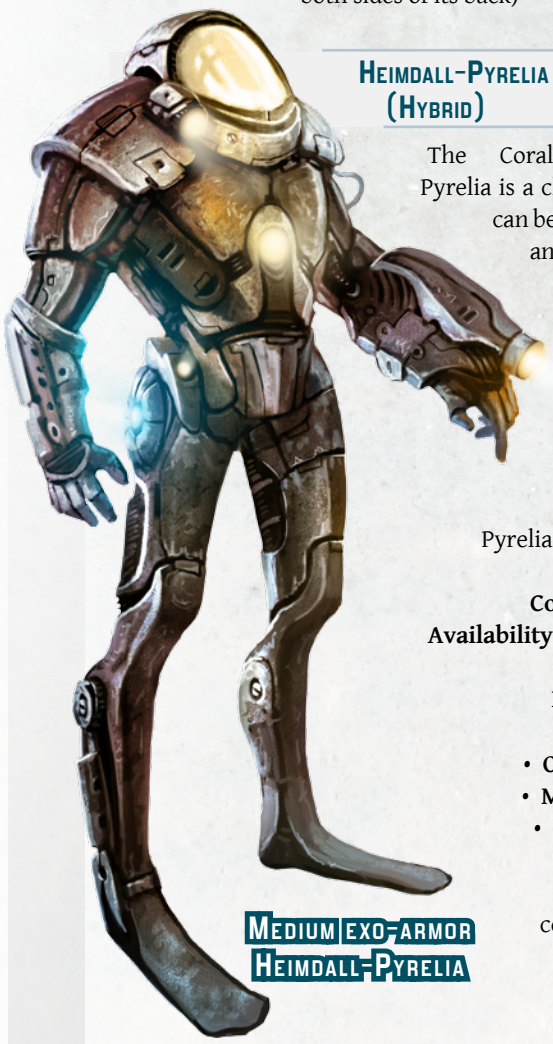
This exo-armor used to be utilized in combat as it was equipped with a powerful protection field that compensated for its low resistance. Nowadays, it is mainly used by scouts and explorers.

Category: exo-2 (H)
Manufacturer: Melian OP (Red League)
Cost: 941,000 Sols (1,700,00 with RTG)
Availability (Black market): 5 (10)
Estimated TL: III
Autonomy: Azurean micro-fusion reactor in pressure vessel (95 years) or radioisotope thermoelectric generator TL III

Attributes:
- **Damage Resistance:** -10 (plastitanium shell)
- **Armor Rating:** 10 (visor : 4/ with security flap : 8)
- **Architecture:** normal
- **Integrity modifier:** +3
- **Exo-Strength:** 43
- **Damage Modifier:** +16 (H)
- **Speed/SP (Move Points):** 0.5 knots/<1(1) (walking)/11kph/2(1) (walking) or dorsal reactor for hundred-meter leaps
- **Initiative Penalty:** on land: -2

Auxiliary Systems:
Air filter, x4 (48 hours), Amphibious isolation system, Anti-radiation coating lvl. 13, Assistance and monitoring system, ComLink, Computer TL II, Gen. III, Environnement analyzer, External communicator lvl. 5, Feeding system lvl. 4, Gyros, Jump shock absorbers, Lock-on indicator, Manual control panel (emergency, forearm), Nimrod targeting system, Radar, Radar analyzer, Reserve oxygen supply (24 hours), Sanitary system lvl. 2, Temperature regulator, Voice command control interface (main)

Weaponry:
- Assault cannon, 10 shots (shoulder)
- Heavy reactive machinegun on pivot, 20 long bursts (shoulder)
- Thermal dagger (fist/Exo-2 thermal dagger : 2D10+5 (H))
- Two size-2 missile laucher tubes (each on both sides of its back)



Medium exo-armor Heimdall-Pyrelia

Heimdall-Pyrelia Exo-armor (Hybrid)

The Coralian exo-armor Pyrelia is a classic model that can be found just about anywhere under the oceans.

Category: exo-2 (H)
Manufacturer: Pyrelia Industries (Coral Republic)
Cost: 1,820,000 Sols
Availability (Black market): 5 (10)
Estimated TL: III
Depth:
- **Operating:** 10,000
- **Maximum:** 12,000
- **Crushing:** 15,000
- **Autonomy:** 3 hours (pressure-compensated high energy density batteries)
- **Attributes:**
- **Damage Resistance:** -10 (plastitanium shell)
- **Armor Rating:** 29 (visor: 13/ with security flap : 22)
- **Architecture:** normal
- **Integrity modifier:** +3
- **Exo-Strength:** 68
- **Damage Modifier:** +29 (H)/-1 (V-)
- **Speed/SP (Move Points):** 9 knots/2(1) (ducted mini-thruster) or 3 knots/1(1) (exo-fins) or 26kph/9(2) (surface)
- **Initiative Penalty:** underwater: -3; on land: -5

Auxiliary Systems:
Antitheft locking lvl. 7 (1 system to choose), Assistance and monitoring system, Assistance and monitoring system (emergency), Breathing system (24-hour oxygen supply), ComLink, Computer TL II, Gen. I (emergency), Computer TL IV, Gen. II, Directional active soundscan, Distress beacon, Lenid communicator, Light generator — Will-O-Wisp, Lock-on detector, Magnetic grappling hook, Manual control panel (emergency, forearm), Medical assistance system lvl. 4, Passive soundscan, Pressure control, Soundscan analyzer, Tactical display, Telepathic command control interface (main), Temperature regulator, Tri-Magma cloaking sound attenuator lvl. 3, Voice command control interface (emergency)

Weaponry:
- Heavy speargun, 10 charges (arm)
- Net thrower, 2 shots
- Retractable molecular dagger (fist/exo-2 molecular dagger : 2D10+4 (H))

Mentor Exo-armor (Underwater)

A common model manufactured by Hegemonian Meklar Industries, this versatile exo-armor is used by many civilians.

Category: exo-2 (H)
Manufacturer: Meklar Industries (The Hegemony)
Cost: 5,810,000 Sols
Availability (Black market): 5 (10)
Estimated TL: III
Depth:
- **Operating:** 12,000
- **Maximum:** 14,400
- **Crushing:** 18,000

Autonomy: several years (Pressure-compensated radioisotope thermoelectric generator)
Attributes:
- **Damage Resistance:** -9 (plastitanium shell)
- **Armor Rating:** 32 (visor : 17/no security flap)
- **Architecture:** normal
- **Integrity modifier:** +2
- **Exo-Strength:** 68
- **Damage Modifier:** +29(H)/-1 (V-)
- **Speed/SP (Move Points):** 6 knots/2(1) (ducted mini-thruster) or 3 knots/1(1) (exo-fins) or 6kph/1(1) (walking)
- **Initiative Penalty:** underwater: -3; on land: -6

Auxiliary Systems:



Assistance and monitoring system, Assistance and monitoring system (emergency), Breathing system (24-hour oxygen supply), ComLink, Computer TL III, Gen. IV, Directional active soundscan, Feeding system lvl. 2, Lenid Communicator, Manual control panel (emergency, forearm), Passive soundscan, Pressure control, Sanitary system lvl. 2, Soundscan analyzer, Temperature regulator, Voice command control interface (main), Antitheft locking lvl. 7 (1 system to choose), Distress beacon, Light generator — Will-O-wisp

Weaponry:

- **Defense electric generator**
- **Heavy speargun, 10 charges (arm)**
- **Neutron cannon (shoulder)**
- **Retractable molecular dagger (fist/exo-2 molecular dagger:** 2D10+4 (H))

Attributes:

- **Damage Resistance:** -14 (plastitanium shell)
- **Armor Rating:** 34 (visor : 19/ with security flap : 28)
- **Architecture:** normal
- **Integrity modifier:** +7
- **Exo-Strength:** 71
- **Damage Modifier:** +30(H)/+0(V-)
- **Speed/SP (Move Points):** 7 knots/2(1) (ducted mini-thruster) or 3 knots/1(1) (exo-fins) or 14kph/3(2) (surface)
- **Initiative Penalty:** underwater: -2 on land: -4

Auxiliary Systems:

Anti-torpedo EMP field lvl. 3, Assistance and monitoring system, Autopilot level 12 (reactive, returns to base if the pilot loses consciousness), Breathing system (72-hour oxygen supply), ComLink, Computer TL III, Gen. IV, Directional active soundscan, Distress beacon, Feeding system lvl. 2, Lenid communicator, Light generator — Will-O-Wisp, Lock-on detector, Navigation system lvl. 13, Neural identification antitheft locking, Passive soundscan, Pressure control, Sanitary system lvl. 1, Soundscan analyzer, Tactical display, Targeting system, Telepathic command control interface (main), Temperature regulator, Voice command control interface (emergency)

Weaponry:

- 2 Type-2 torpedo launchers, 1 mark-2 torpedo each.
- Heavy speargun, 10 charges (arm)
- Multiple AV speargun, 3 charges (arm)
- Neutron cannon (shoulder)
- Retractable thermal dagger (fist/exo-2 thermal dagger: 2D10+5 (H))

Note: all these systems have an EMP Shielding at lvl. 3

MEDIUM EXO-ARMOR MENTOR

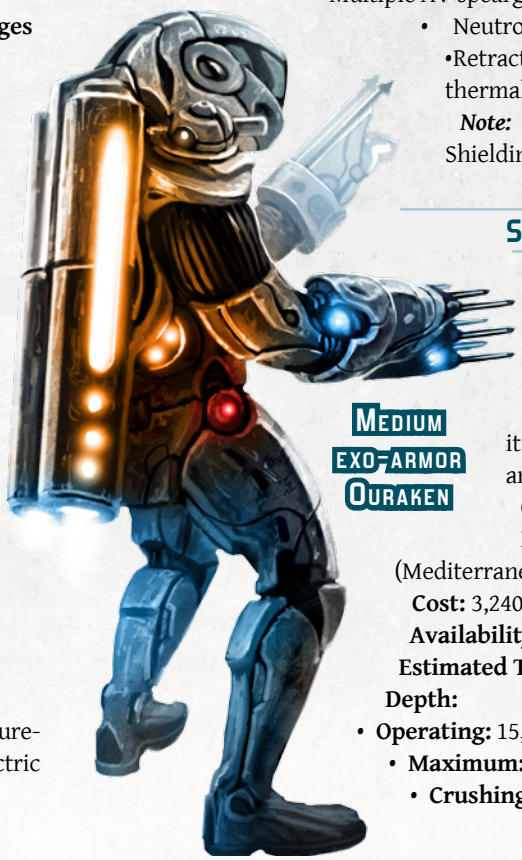
OURAKEN EXO-ARMOR (HYBRIDE)

This is possibly one of the best exo-armors in its category. Needless to say, it is rare and expensive...

Category: exo-2 (H)
Manufacturer: Gladius
Cost: 13,400,000 Sols
Availability (Black market): 1 (5)
Estimated TL: III-IV
Depth:

- **Operating:** 12,080
- **Maximum:** 14,500
- **Crushing:** 18,120

Autonomy: several years (pressure-compensated radioisotope thermoelectric generator)



MEDIUM EXO-ARMOR OURAKEN

SYLPH 56 EXO-ARMOR (HYBRID)

This brand-new exo-armor manufactured by Millennium Industries benefits from a very recent material-processing technology. Its cost is high but it is equipped with good base armor and a lot of systems.

Category: exo-1 (H)
Manufacturer: Millennium (Mediterranean Union)
Cost: 3,240,000 Sols
Availability (Black market): 1 (5)
Estimated TL: III
Depth:

- **Operating:** 15,000
- **Maximum:** 18,000
- **Crushing:** 22,500



Autonomy: Azurean micro-fusion reactor in pressure vessel (100 years)

Attributes:

- **Damage Resistance:** -9 (nano-composite shell)
- **Armor Rating:** 35(visor : 23/no security flap)
- **Architecture:** normal
- **Integrity modifier:** +3
- **Exo-Strength:** 62
- **Damage Modifier:** +26(H)/-2 (V-)
- **Speed/SPD (Move Points):** 10 knots/3(1) (ducted mini-thruster) or 3 knots/1(1) (Exo-fins) or 35kph/6(2) (surface)
- **Initiative Penalty:** underwater: -2 ; on land: -3

**the helmet is an almost full-face model. Use the hull values if the adversary does not target one of the two small portholes (test at -7).*

Auxiliary Systems:

Assistance and monitoring system, Breathing system (24-hour oxygen supply), Camera, ComLink, Computer TL IV, Gen. II, Directional active soundscan, Lenid communicator, Light generator — Will-O-Wisp, Manual control panel (emergency, forearm), Navigation system lvl. 13, Optical visor control interface (main), Passive soundscan, Pressure control, Sanitary system lvl. 2, Soundscan analyzer, Temperature regulator

Weaponry:

- Electrical field generator
- Heavy speargun, 10 charges (arm)
- Retractable dagger (fist/exo-1 dagger : 2D10+2 (H))

MEDIUM EXO-ARMOR SYLPH 56

VANGUARD EXO-ARMOR (HYBRID)

This is one of the last exo-armors to have been masV-manufactured and dates back to the Azure Alliance and the Empire of the Geneticians. It still remains quite widespread in the oceans, which explains its rather low cost. Its micro-fusion reactor can no longer be replaced, as nobody knows how to build such masterpieces anymore. Should it break down, it will have to be replaced by a much heavier device, which will have an impact on the performance of the exo-armor (Speed reduced by a third).

Category: exo-1 (H)
Manufacturer: Azure Alliance
Cost: 12,000,000 Sols
Availability (Black market): 10 (15)
Estimated TL: III-IV
Depth:

- **Operating:** 4,000
- **Maximum:** 4,800
- **Crushing:** 6,000

Autonomy: 150 years (Azurean micro-fusion reactor in pressure vessel)

Attributes:

- **Damage Resistance:** -9 (plastitanium shell)
- **Armor Rating:** 14 (visor : 9/ with security flap : 14)
- **Architecture: normal**
- **Integrity modifier: +3**
- **Exo-Strength:** 62
- **Damage Modifier:** +26 (H)/-2 (V-)
- **Speed/SPD (Move Points):** 4 knots/1(1) (Exo-fins) or 20 knots/7(2) (ducted mini-thruster) or 150kph/27(6) (surface)
- **Initiative Penalty:** underwater: -1; on land: -2

Auxiliary Systems:

Antitheft locking lvl. 7 (2 systems to choose), Assistance and monitoring system, Breathing system (24-hour oxygen supply), Comdive 200 communicator, ComLink, Computer TL IV, Gen. III, Diagnostics system, Directional active soundscan, Feeding system lvl. 2, Manual control panel (emergency, forearm), Navigation system lvl. 13, Optical visor control interface (main), Passive soundscan, Pressure control, Sanitary system lvl. 2, Soundscan analyzer, Temperature regulator

Weaponry:



MEDIUM EXO-ARMOR VANGUARD

- Electrical field generator
- Heavy speargun, 10 charges (arm)
- Heavy underwater flechette handgun (hand)
- Heavy underwater flechette handgun (hand)
- Retractable dagger (fist/exo-1 dagger : 2D10+2 (H))

Vauban Exo-armor (External)

This exo-armor is the Surface equivalent of the Vanguard exo-armor. This model was masV-manufactured during the era of the Geneticians and is still in use among the inhabitants of the deep today.

Category: exo-1 (H)
Manufacturer: Empire of the Geneticians
Cost: 1,080,000 Sols
Availability (Black market): 10 (15)
Estimated TL: IV
Autonomy: 30 years (Genetician micro-fusion reactor in pressure vessel)
Attributes:

- **Damage Resistance:** -9 (nano-steel VHS shell)
- **Armor Rating:** 14 (visor : 9/ with security flap : 14)
- **Architecture: normal**
- **Integrity modifier: +3**
- **Exo-Strength:** 41
- **Damage Modifier:** +15 (H)
- **Speed/SP (Move Points):** 0.5 knots/<1(1) (walking) or 220kph/36(8) (walking)
- **Initiative Penalty:** on land: -2

Auxiliary Systems:

Amphibious isolation system, Anti-radiation coating lvl. 15, Antitheft locking lvl. 7 (2 systems to choose), Assistance and monitoring system, Breathing system (24-hour oxygen reserve), ComLink, Computer TL IV, Gen. III, Diagnostic system, Environment analyzer, External communicator lvl. 3, Feeding system lvl. 2, Lock-on indicator, Manual control panel (emergency, forearm), Navigation system lvl. 13, Optical visor control interface (main), Pressure control, Radar, Radar analyzer, Sanitary system lvl. 2, Temperature regulator

Weaponry:

- Defensive electrical field generator
- Heavy pistol (hand)
- Retractable dagger (fist/exo-1 dagger : 2D10+2 (H))

HEAVY EXO-ARMORS

Moloch Exo-armor (Underwater)

The Moloch exo-armor is a very heavy suit fitted with several attachment points in order to fasten various drones. The two torpedo launchers are aligned on its back.

Category: exo-4 (V-)
Manufacturer: Odin Industries
Cost: 10,500,000 Sols
Availability (Black market): -5 (1)
Estimated TL: III–IV
Depth:

- **Operating:** 19,000
- **Maximum:** 22,800
- **Crushing:** 28,500

Autonomy: several years (pressure-compensated radioisotope thermoelectric generator)
Attributes:

- **Damage Resistance:** +1 (nanocomposite shell)
- **Armor Rating:** 6 (visor : 3/ with security flap: 4)
- **Architecture: normal**
- **Integrity modifier: +5**
- **Exo-Strength:** 91
- **Damage Modifier:** +40(H)/+4 (V-)
- **Speed/SP (Move Points):** 0.3 knots/M(1/2) (walking) or 3 knots/1(1) (ducted mini-thruster) or 0.5kph/M(1/2) (walking)
- **Initiative Penalty:** underwater: -4; on land: -9

Auxiliary Systems:

Active and passive soundscan jammers lvl. 3, Assistance and monitoring system, Assistance and monitoring



system (emergency), Breathing system (72-hour oxygen supply), ComLink, Computer TL III, Gen. II (emergency), Computer TL IV, Gen. III, Countermeasure launcher, 6 countermeasures lvl. 3, Diagnostics system, Directional active soundscan, Distress beacon, Drone control center, Feeding system lvl. 2, Gyro, "Last chance" system (drug injection), Lenid communicator, Light generator — Will-O-Wisp, Lock-on detector, Manual control interface (emergency, arm), Medical assistance system lvl. 5, Memo targeting memory, Navigation system lvl. 13, Passive soundscan, Pressure control, Repair system: Self-repair system unit lvl. 12, side modules per 10 systems, Sanitary system lvl. 1, Sound attenuator lvl. 4, Soundscan analyzer, Tactical display, Targeting system, Temperature regulator, Voice command control interface

Weaponry:

- Multiple AV speargun, 3 charges (arm)
- Neutron cannon (shoulder)
- Retractable molecular dagger (fist/exo-4 molecular dagger : 3D10+4 (H))
- Type 2 torpedo launcher, 2 mark 2 torpedoes

Odin Exo-armor (Underwater)

This is a standard exploration exo-armor. It is equipped with a drone control center—when inactive the drones can fasten to special attachment points located on the exo-armor's back.

Category: exo-3 (V-)

Manufacturer: Odin Industries

Cost: 22,800,000 Sols

Availability (Black market): 1 (5)

Estimated TL: III

Depth:

- **Operating:** 18,000
- **Maximum:** 21,600
- **Crushing:** 27,000

Autonomy: several years (pressure-compensated radioisotope thermoelectric generator)

Attributes:

- **Damage Resistance:** +3 (hyperterranium shell)
- **Armor Rating:** 4 (V-) (visor : 2 (V-)/ with security flap: 3 (V-))
- **Architecture: normal**
- **Integrity modifier: +3**
- **Exo-Strength:** 77
- **Damage Modifier:** +33(H)/+1(V-)
- **Speed/SP (Move Points):** 0.3 knots/M(1/2) (walking) or 5 knots/1(1) (ducted mini-thruster) or 5kph/1(1) (walking)
- **Initiative Penalty:** underwater: -4; on land: -8

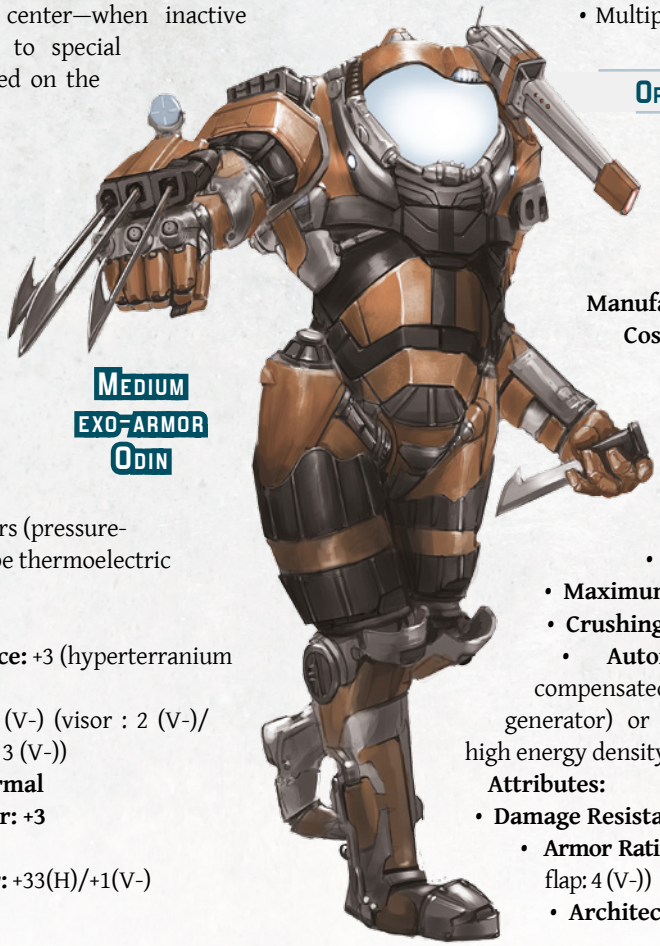
Note: Out of the water this armor is maneuvered with difficulty if no extra energy source is added and if it does not release its weights.

Auxiliary Systems:

Anti-torpedo EMP field lvl. 3, Assistance and monitoring system, Assistance and monitoring system (emergency), Breathing system (72-hour oxygen supply), ComLink, Computer TL II, Gen. I (emergency), Computer TL IV, Gen. II, Directional active soundscan, Distress beacon, Drone control center, Lenid communicator, Light generator — Will-O-Wisp, Lock-on detector, Manual control interface (emergency, arm), Medical assistance system lvl. 4, Optical command control interface (main), Passive soundscan, Pressure control, Soundscan analyzer, Targeting system, Temperature regulator, Tactical display

Weaponry:

- Defensive microwave field generator
- Neutron cannon (shoulder)
- Retractable molecular dagger (fist/exo-3 molecular dagger : 2D10+6 (H))
- Multiple AV speargun, 3 charges (arm)



Orka Exo-armor (Underwater)

Generally, this suit is used for exploration missions at -20,000 meters. This exo-armor is pretty reliable and very resistant.

Category: exo-4 (V-)

Manufacturer: Odin Industries

Cost: 30 million Sols (26 million without radioisotope thermoelectric generator)

Availability (Black market): -5 (1)

Estimated TL: III

Depth:

- **Operating:** 20,000
- **Maximum:** 28,000
- **Crushing:** 30,000

Autonomy: several years (pressure-compensated radioisotope thermoelectric generator) or 13 hours (pressure-compensated high energy density batteries)

Attributes:

- **Damage Resistance:** -2 (hyperterranium shell)
- **Armor Rating:** 7(V-) (visor: 2 (V-)/ with security flap: 4 (V-))
- **Architecture: ultra-heavy**



Heavy exo-armor Orka

Passive soundscan, Pressure control, Soundscan analyzer, Targeting system, Temperature regulator, Autopilot level 12 (reactive, returns to base if the pilot loses consciousness), Breathing system (72-hour oxygen supply), Camera, Diagnostics system, Feeding system lvl. 2, Light generator — Will-O-Wisp, Navigation system lvl. 13, Repair system: Self-repair system unit lvl. 12, side modules per 5 systems, Sanitary system lvl. 1, Tactical display

Weaponry:

- Electrical field generator
- Heavy underwater flechette handgun (hand)
- Multiple AV speargun, 5 charges (arm)
- Retractable thermal dagger (fist/exo-4 thermal dagger : 3D10+6 (H))

- **Integrity modifier: +8**
- **Exo-Strength:** 91
- **Damage Modifier:** +40(H)/+4 (V-)
- **Speed/SP (Move Points):** 0.3 knots/M(1/2) (walking) or 2kph/<1(1) (walking) 3
- **Initiative Penalty:** underwater: -5; on land: -10

Auxiliary Systems:

Assistance and monitoring system, Assistance and monitoring system (emergency), ComLink, Computer TL IV, Gen. IV, Directional active soundscan, Gyro, Lenid communicator, Manual control interface (emergency, arm), Optical command control interface,

Vulcan Drilling Exo-armor (Underwater)

This high-depth drilling exo-armor is one of the most commonly used in the working-class communities. The plasma torch is embedded in the middle of its exo-armor's claw. The pilot can thus close his claw on an obstacle and ignite his torch on it. The emergency manual control panel is located on its left wrist. Should there be a problem, the pilot can eject the mechanical claw and then use the manual control panel. By default, this exo-armor is only equipped with walking as its propulsion system.

Category: exo-3 (V-)

Manufacturer: Odin Industries

Cost: 2,450,000 Sols

Availability (Black market): 5 (10)

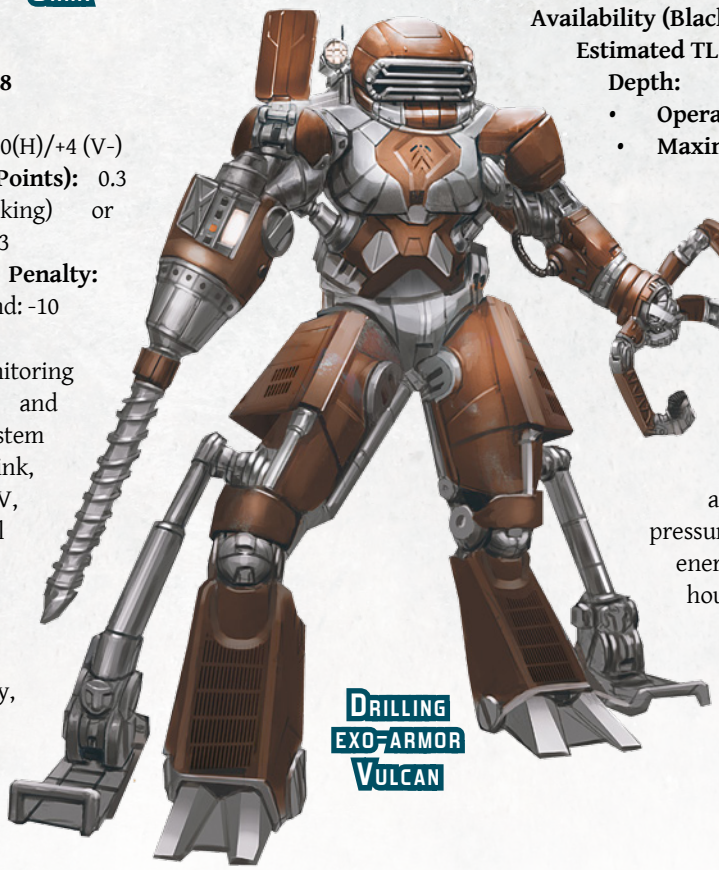
Estimated TL: III

Depth:

- **Operating:** 12,000
- **Maximum:** 16,800
- **Crushing:** 18,000

Autonomy: several years (pressure-compensated radioisotope thermoelectric generator). Some recycled models are equipped with pressure-compensated high energy density batteries (24 hour autonomy), others use a simple power cable plugged to a generator.

Attributes:



Drilling exo-armor Vulcan

- **Damage Resistance:** -2 (hypertitanium shell)
- **Armor Rating:** 6 (V-) (visor : 1 (V-)/ no security flap)
- **Architecture: ultra-heavy**
- **Integrity modifier: +8**
- **Exo-Strength:** 77
- **Damage Modifier:** +33(H)/+1 (V-)
- **Speed/SP (Move Points):** 1 knots /M(1) (walking); on land: - (most Vulcan exo-armors are unable to maneuver in the open air).
- **Initiative Penalty:** underwater: -5; on land: -10

Auxiliary Systems:

Alert system, Assistance and monitoring system, Assistance and monitoring system (emergency), Autopilot lvl. 10 (if the exo-armor is connected to a communication beacon, it can be given a return-to-base order in case the pilot loses consciousness), Breathing system (72-hour oxygen supply), Camera, ComLink, Computer TL III, Gen. III, Diagnostics system, Directional active soundscan, Distress beacon, Feeding system lvl. 1, Gyro, Lenid communicator, Light generator — Will-O-Wisp, Manual control interface (emergency, arm), Navigation system lvl. 12, Optical command control interface (main), Passive soundscan, Pressure control, Repair system: Self-repair system unit lvl. 12, side modules per 10 systems, Sanitary system lvl. 1, Soundscan analyzer, Temperature regulator

Weaponry:

These systems are tools that can be used as weapons if need be...

- Hydra plasma drilling torch
- Mechanical claw, Strength 80 (left hand and forearm)
- Mechanical excavator (right hand and forearm)



CHAPTER 4.3

SUBMARINES & VEHICLES

"Okay... Explosion... Perfect, I can hear their hull cracking! Our torpedo hit! Wait, wait... They're setting off again... Well, I suppose we'll have to launch another torpedo at them, then. No need to hurry, though; there's something odd with their acoustic signature: I think their propulsion has been seriously damaged."

— Val Querios, soudscan specialist



HANDLING SUBMARINES AND VEHICLES

As stated in previous chapters, there are many common points between the rules for exo-armors and those for submarines and vehicles, apart from a few details. Only the scale of the game actually changes.

VEHICLE ATTRIBUTES

SIZE AND DAMAGE MODIFIER

The Size (SIZ) represents the volume/size of a submarine or a vehicle and is graded on a scale of 25:

SIZ	LIGHT VEHICLE	HEAVY VEHICLE
1–2	Massive armor from exo-3 to exo-6	-
3–5	Fighters, exo-omega armor, small transports	Heavy frigates
6–10	Patrollers, medium transports	Cruisers
11–15	Corvettes, heavy patrollers	Submarine battleships
16–20	Escort vessels	Bombers
21–25	Heavy escort vessels, light frigates	Bases
Beyond...	-	Nonstandard submarine (AtlantiV-scale)

This table mostly shows military submarines, but also applies to any other type of vessels with a similar Size. In addition to enabling vehicles to be compared, Size also permits Players to determine their Damage resistance (like Strength and Constitution for human beings), which can increase or reduce any inflicted Damage.

SIZ	DAMAGE RESISTANCE
1–2	+6
3–4	+4
5–6	+2
7–8	+1
9–10	+0
11–12	-1
13–14	-2
15–16	-3
17–18	-4
19–20	-5
21–22	-6
23–24	-7
25–26	-8
Etc.	-1 every 4 levels

ARMOR RATING

Armor Rating (AMR) represents the protection on a vehicle, of course. Its value is subtracted from the inflicted Damage.

MANEUVERABILITY

Maneuverability (MAN) represents how difficult or easy it can be for a pilot or a crew to maneuver a vehicle during a movement, or to use its various systems during any actions. This Attribute is definitely based on the size of the machine: the heaviest transports or those not designed for fast maneuvers, such as a cargo vessel, will always be more difficult to maneuver than lighter ones. Their function also matters: military submarines—designed for underwater combat—often have a slight advantage over civilian submarines of a comparable size (the fastest vehicles, and easiest to maneuver, are underwater fighters, obviously). The Maneuverability of a vehicle is graded on a scale of 20.

1–3 Large vehicle with a high Size (SIZ 13 or more).
4–5 Large vehicle with a medium Size (SIZ 7 to 12).
6–7 Large vehicle with a low Size (SIZ 5 or 6).
8–10 Small vehicle with a high Size (SIZ 15 or more).
11–13 Small vehicle with a medium Size (SIZ 11 to 14).
14–15 Small vehicle with a low Size (SIZ 6 to 10).
16–20 Fighters (SIZ 5 or less).
21+ Very small and agiles vehicles or vehicles using some unknown technology (Genetician or other).

WHAT SCALE ARE WE ON?

There is no comparison between a pub fight, where characters settle an old argument with their fists (or automatic guns...), and a naval combat where submarines launch torpedoes at each other and where humans are completely insignificant. To help handling in all this, it is often important to know at which scale particular protagonists can be put, depending on the size and possibilities granted by their Attributes. To simplify, we will keep the following scales:

- **Human Scale (H):** this is the scale for human beings and many creatures. *Powered exo-armor* pilots and creatures of quite a significant size—such as sharks and orcas—also belong to this scale category, even though their physical capacities often allow them to easily overpower a regular human being.
- **Small Vehicle Scale (V-):** this is the scale for most vehicles of small or medium size—from roughly underwater fighters to small transports. Some pretty huge creatures can also belong to this scale category.
- **Large Vehicle Scale (V+):** this is the scale for vehicles of high tonnage, such as frigates, cruisers, etc. Small-sized stations can also belong to this scale category.

As you can see, despite the use of "vehicles" as a generic term, the scales do not only apply to submarines but can refer to many other elements of the game setting: massive armors, gigantic underwater monsters, etc. Scaling also allows Damage inflicted by certain weapons to be handled more easily. Some weapons meant to work at a certain higher scale can inflict Massive Damage (i.e. causing automatic death or destruction) at a lower scale. Some weapons can work on several scales at the same time; in this case, the corresponding Damage values are always indicated.

This Attribute is important for naval combats: **at the beginning of a Naval Combat Round, the Initiative of a submarine directly depends on its Maneuverability.**

SPEED AND MOVE POINTS

Speed (SP) represents how fast a vehicle can move. It is linked to its movement capacity, called "Move Points" (MP). The movements of a vehicle, engaged in underwater combat or in a chase, can thus be handled easily and efficiently. **Each vehicle has a number of Move Points equal to 1, plus an additional +1 for every 5 Speed points**, as shown in the table below:

SP	MOVE POINTS
1–4	1
5–9	2
10–14	3
15–19	4
20–24	5
Etc.	+1 every 5 points

SPEED OF TORPEDOES

Torpedoes are sneaky devices that can reach some incredibly high speeds compared to vessels, which they are actually meant to chase. The most common torpedoes have an average Speed of 20 or 25, and it is not unusual to find torpedoes going at a Speed beyond 25. And those are only regular torpedoes, as there is also a generation of even faster torpedoes, supercavitation torpedoes, which can reach formidable Speeds (30 or more...).

HANDLING DAMAGE

DAMAGE THRESHOLDS AND VEHICLE DAMAGE SCALES

Vehicles have the same Damage thresholds as exo-armors, and also use the same Vehicle Damage Scales. Their Vehicle Damage boxes and Incident Modifiers are completely identical.

Note: as usual, the Armor value needs to be subtracted from any inflicted Damage.

DAMAGE THRESHOLDS	VEHICLE DAMAGE	INCIDENT MODIFIER
Light (5)	☐☐☐☐	-
Moderate (10)	☐☐☐☐	+2
Serious (15)	☐☐☐	+4
Critical (20)	☐☐	+6
Catastrophic (25)	☐☐	+8
Destruction (30)	Destruction	-

ON INTEGRITY

Unlike common gear and exo-armors, submarines and vehicles do not use—for the moment—any Integrity rules for simplicity's sake. However, if any Integrity Test is required (a Breakdown Test, for instance), the GM can determine the Integrity level for the element in question using the following scale: 20 (or more) for brand-new equipment, 17 for common equipment (default level for most vehicles), 15 (or less) for equipment in acceptable or bad condition.

DESTRUCTION AND ISOLATING COMPARTMENTS

In the case of "Destruction" (30 Damage points or more), irreversible damage has been dealt to the submarine's structure, causing a part of the hull to rupture. However, this in no way means that the submarine has been blown to pieces; with the exception of smaller ones, such as fighters, most submarines consist of "compartments" that can be hermetically isolated with watertight walls (bulkheads). Like "Last Chance" systems, these watertight walls close up as soon as the internal pressure monitoring system detects any depressurization.

In the case of "Destruction," one of the compartments is destroyed (which can either be randomly determined or chosen by the GM according to the situation). Logically, if the watertight walls work correctly, the rest of the submarine, will not be affected; however, a fighter will be completely destroyed as it only has one compartment. A multi-compartment submarine will still be considered incapacitated for the amount of time it takes the crew to assess the damage (1D6+3 Naval Combat Rounds). After that, a compartment-damaged submarine will still hardly be capable of going back to combat. **Indeed, for each (non-vital) compartment that has been destroyed, a light submarine suffers a -5 penalty to its *Piloting* Tests, and a heavy submarine suffers a -2 penalty.** Of course, any equipment located in the compartment that was hit can no longer be used (which means that if the cockpit or the engine room is destroyed, the submarine will just be a floating deadweight, at least until repaired).

If a vehicle is in a hostile environment (underwater, at the Surface, in space), the crew members in that compartment are no longer protected. They will immediately die if this occurs underwater or in the void (except for those wearing a diving armor or a space suit). *In the open air*, each character automatically suffers 3D10 Damage points, plus any inflicted Damage on the vehicle beyond 30 (therefore, if the vehicle is dealt 35 Damage points, the affected characters then suffer 3D10+5 Damage points after its destruction).

Note: watertight walls are not meant to withstand huge pressure changes. A submarine that has had one or more of its compartments destroyed has to move above its optimum depth lest its watertight walls break one after the other as they depressurize other compartments.

ABANDON-SHIP ORDER

At any time, the submarine captain can issue an abandon-ship order. The crew members will then either put on their diving armor or rush to the rescue pods. If this order is given under the threat of a pending catastrophe (for instance a submarine taking on water from all quarters), the GM should then try to describe a dramatic countdown. Abandoning a submarine in distress could even become a scene in itself, up to the point of turning into a full-fledged scenario: think of all those disaster films about sinking liners...

INCIDENT LOCATION

Incidents caused by Vehicle Damage are also very similar to the rules for exo-armor. Incidents are located on the following elements:

- **The Structure** represents the resistance and the general condition of the vehicle's hull, armor, and internal frame.
- **The Cockpit (or Bridge for heavier vehicles)** contains the vehicle's command center as well as its navigation instruments.
- **The Engine Room** contains the vehicle's engine and generator.
- **The Propulsion/Steering/Ballast System** enables the vehicle to be maneuvered and stabilized.
- **The Weaponry** consists of passive-active attack and defense systems. Big vehicles are also equipped with a torpedo/missile room.
- **The Auxiliary Systems** consist of all the equipment on board the vehicle: computers and electronic systems (navigation and detection instruments, analyzers, targeting systems), life support (oxygen, heating, internal pressurization, feeding), etc.
- Lastly, **the crew** can also be directly hit by an Incident.

INCIDENTS

Each time Vehicle Damage is caused on a vehicle, there is a risk of an Incident. Roll 1D10 and add the Modifier on your Vehicle Damage Scale to the result. If the total result is 7 or more, then the vehicle does suffer an Incident. Roll 1D10 on the table here to locate it:

1D10	LOCATION
1–3	Structure
4	Cockpit/Bridge
5–6	Engine room
7	Propulsion/Steering/Ballasts
8	Weaponry
9	Auxiliary systems
10	Crew

Then refer to the description of the corresponding Incident to know the consequences. Please keep in mind that the GM may also decide on the location herself if she considers her choice to be logical in regard to the situation.

EMP ATTACKS

Electromagnetic pulse attacks can also hit vehicles. An EMP Attack can be dealt on the following locations (to be randomly selected, as usual), with the following effects:

- **Cockpit, Engine room, Propulsion, Weaponry:** roll an Integrity Test with a level fixed by the GM (17 by default. See the **On Integrity** paragraph, page 109). In the case of a Failure, the area hit will automatically suffer an Incident corresponding to a result of 10 plus the Failure Modifier.
- **Auxiliary systems:** 3 systems are randomly hit and an Integrity Test needs to be rolled (still according to the rules in the **On Integrity** paragraph, page 109). In the case of a Failure, they will automatically suffer an Incident corresponding to a result of 10 plus the failure Modifier.

Keep in mind that these Integrity Tests suffer a Modifier that can vary depending on the intensity of the attack.

TARGETING A SPECIFIC LOCATION

You can also target a specific area on the vehicle, such as the torpedo tubes, the propulsion system, a known weak spot (more particularly, a cockpit not protected by an armored flap), etc. In any case, the GM will decide on the penalty to the Attack Test, depending on the size of the targeted area and on the weapon used (usually ranging from -5 to -10). In this case, any resulting Incidents will be located in this area and if destruction occurs, this compartment will be automatically hit.
Keep in mind that a destroyed compartment represents a weak spot where the internal structure of a vehicle is now laid bare. If an enemy manages to hit this specific area (which may prove difficult, especially if the target maneuvers to protect this particular spot), the vehicle's Armor is reduced by a half.

LUCK

Like exo-armors, Luck points may be spent to reduce the Damage inflicted on a vehicle. The rules remain the same: from Serious Damage downwards, 1 or 2 Luck points may be spent to decrease the Damage level by one or two degrees. **Warning: EVERY Player Character on the vehicle has to spent the points** (except if one of them is not able to spend any Luck points). If no character on board can spend any points, then the Damage cannot be decreased. See the **Luck** section in the **Tests & Actions** chapter in CRB1, page 209, for more details.

INCIDENT EFFECTS

Most incidents can be fixed by the technician(s) aboard the vehicle who will perform the necessary repairs. However, fighter pilots can only rely on themselves (you can consider that they need to roll the same Tests using the automatic repair systems on their vehicle), although most of the time they will be able to get back to their station, their base, or the submarine they belong to, where the mechanics will repair it, perhaps in order for the pilots to go back to combat afterward.

STRUCTURE

Incidents on the Structure represent a loss of watertight integrity, causing some leaks that need to be quickly stopped.

7–10: Micro-cracks, the submarine's water tightness (or the vehicle's air tightness) is compromised. The crew only has 10 Naval Combat Rounds left to block them (with a *Mechanics* Test, no penalty), or else the submarine will automatically suffer a Light Vehicle Damage by the Naval Combat Round after*. For a vehicle at the surface, there are no consequences.

11–13: Crack, there is a leak on the submarine. The crew only has 5 Naval Combat Rounds left to block it (with a *Mechanics* Test), or else the submarine will automatically suffer a Moderate Vehicle Damage by the Naval Combat Round after*. For a vehicle at the surface, the crew will be exposed to the effects of the surface.

14–16: Critical crack, located on one of the submarine's compartments (to be randomly determined, or at the GM's discretion). The crew only has 3 Naval Combat Rounds left to block it (with a *Mechanics* Test), or else the submarine will automatically suffer a Serious Vehicle Damage by the Naval Combat Round after*. Even after stopping it, this crack will now be considered as a weak spot; if the opponent manages to hit this area, the Armor will be reduced by 25%. For a vehicle at the surface, the crew will be exposed to the effects of the surface.

17–18: Breach, located on one of the submarine's compartments (to be randomly determined, or at the GM's discretion). The compartment hit is taking on water and depressurizes very rapidly. The crew only has 2 Naval Combat Rounds left to block it (with a *Mechanics* Test), or else the submarine will automatically suffer a Critical Vehicle Damage by the Naval Combat Round after*. A Destruction will cause the watertight walls to seal off the compartment that has been hit, and also its destruction (this area is now a weak spot; see the **Targeting a Specific Location** paragraph, page 229). For a vehicle at the surface, the crew will be exposed to the effects of the surface.

** This additional Vehicle Damage does not lead to any further Incident rolls.*

COCKPIT/BRIDGE

Incidents happening in this area cause a temporary neutralization of the command center systems of the vehicle: piloting commands no longer respond and all the navigation and detection instruments are not available. Causes can be varied: short circuit in onboard instruments, smoke invading the area or a fire that starts, power supply cut, etc. It's up to the GM to determine the exact nature of the problem. Usually it can be solved without any particular Test; its only true effect is the paralyzing of command for a certain amount of time.

7–10: The cockpit/bridge of the vehicle is neutralized for 1 Naval Combat Round.

11–13: The cockpit/bridge of the vehicle is neutralized for 2 Naval Combat Rounds.

14–16: The cockpit/bridge of the vehicle is neutralized for 3 Naval Combat Rounds.

17–18: The cockpit/bridge of the vehicle is neutralized for 4 Naval Combat Rounds.

Note: if the vehicle suffers several incidents of this kind, only take into account the longest duration; they are not cumulative.

ENGINE ROOM

Incidents happening in the engine room affect the engine power, which has repercussions on the Speed of the vehicle.

7–10: The vehicle's Speed level is reduced by 25% until it can be repaired (*Mechanics* Test, with no penalty, once every Naval Combat Round).

11–13: The vehicle's Speed level is reduced by 50% until it can be repaired (*Mechanics* Test, with a -3 penalty, every 1D6 Naval Combat Rounds*).

14–16: The vehicle's Speed level is reduced by 75% until it can be repaired (*Mechanics* Test, with a -5 penalty, every 1D6 x 10 minutes*).

17–18: The vehicle can no longer move (it can still shift its depth by emptying or filling its ballasts) until it can be repaired (*Mechanics* Test, with a -7 penalty, every 1D6 hours*).

** In the case where the result is a Catastrophe, repairs are impossible for as long as the vessel doesn't have access to a station with a specialized workshop.*

Note: if the vehicle suffers several incidents of this kind, only take into account the longest duration.

PROPULSION/STEERING/BALLASTS

Incidents that affect these systems make maneuvering more difficult, and cause penalties to *Piloting* Tests.

7–10: The vehicle's *Piloting* Tests suffer a -3 penalty until it can be repaired (*Mechanics* Test, with no penalty, every Naval Combat Rounds*).

11–13: The vehicle's *Piloting* Tests suffer a -5 penalty until it can be repaired (*Mechanics* Test, with a -3 penalty, every 1D6 Naval Combat Rounds*).

14–16: The vehicle's *Piloting* Tests suffer a -7 penalty until it can be repaired (*Mechanics* Test, with a -5 penalty, every 1D6 x 10 minutes*).

17–18: The vehicle's *Piloting* Tests suffer a -7 penalty until it can be repaired (*Mechanics* Test, with a -7 penalty, every 1D6 hours*).

** In the case where the result is a Catastrophe, repairs are impossible for as long as the vehicle doesn't have access to a station with a specialized workshop.*

Note: if the vehicle suffers several incidents of this kind, only take into account the longest duration.

WEAPONRY

Each individual incident occurs in one and only one attack or defense system, determined at random.

7–10: The affected weapons system is frozen until it can be repaired (*Mechanics* or *Onboard weapons/ Artillery* Test, with no penalty, once every Naval Combat Round*).

11–13: The affected weapons system is frozen until it can be repaired (*Mechanics* or *Onboard weapons/ Artillery* Test, with a -3 penalty, once every 1D6 Naval Combat Rounds*).

14–16: The affected weapons system is frozen until it can be repaired (*Mechanics* or *Onboard weapons/ Artillery* Test, with a -5 penalty, once every 1D6 x 10 minutes*). If the affected system is a torpedo tube, a torpedo is stuck inside and there's a risk of explosion. A character can try to neutralize the torpedo each Naval Combat Round by carrying out a successful *Onboard weapons/ Artillery* Test, with no penalty. Roll 1D20 at the start of each Round: on a 1, the system explodes (if the result of the *Onboard weapons/Artillery* Test is a Catastrophe, the chances of an explosion increase by one point).

17–18: The weapons system hit is frozen until it can be repaired (*Mechanics* or *Onboard weapons/Artillery* Test, with a -7 penalty, every 1D6 hours*). If the system hit is a torpedo tube, a torpedo is stuck inside and there's a risk of explosion. A character can try to neutralize the torpedo each Naval Combat Round by carrying out a successful *Onboard weapons/Artillery* Test, with no penalty. Roll 1D20 at the start of each Round: on a 1 or 2, the system explodes (if the result of the *Onboard weapons/Artillery* Test is a Catastrophe, the chances of an explosion increase by one point).

** If the result of the Test is a Catastrophe, repairs are impossible for as long as the vehicle doesn't have access to a station with a specialized workshop.*

AUXILIARY SYSTEMS

If an incident occurs, determine which system or systems is randomly hit (it could just as well be a piece of standard equipment as it could be a specific one).

7–10: 1 system is neutralized until it can be repaired (*Electronics* Test, with no penalty, once every Naval Combat Round*).

11–13: 3 systems are neutralized until they can be repaired (*Electronics* Test, with a -3 penalty, once every 1D6 Naval Combat Rounds*).

14–16: 1D6 + 1 systems are neutralized until they can be repaired (*Electronics* Test, with a -5 penalty, once every 1D6 x 10 minutes*).

17–18: 1D6 + 3 systems are neutralized until they can be repaired (*Electronics* Test, with a -7 penalty, once every 1D6 hours*).

** If the result of the Test is a Catastrophe, repairs are impossible for as long as the vehicle doesn't have access to a station with a specialized workshop.*

CREW

The crew can be directly affected following Damages suffered by the vehicle: violent shocks, fires or internal explosions, toxic fumes, etc. Player Characters and all the important Non-Player Characters of the vehicle (and most importantly those in key operational positions) are treated on an individual basis, whereas plain crew members (on big vessels only) are treated as a group.

7–10: Important PCs/NPCs each suffer 2D10 points of Shock Damage. The crew suffers minor losses in one of the following groups, chosen by the Tactical Coordinator: submariners (piloting), weapons officers (use of weaponry systems), or mechanics (repairs), which adds a -3 penalty to the connected Tests.

11–13: Important PCs/NPCs each suffer 1D10 points of Physical Damage. The crew suffers minor losses in two of the following groups, chosen by the Tactical Coordinator: submariners (piloting), weapons officers (use of weaponry systems), or mechanics (repairs), which adds a -3 penalty to the connected Tests.

14–16: Important PCs/NPCs each suffer 2D10 points of Physical Damage. The crew suffers serious losses in one of the following groups, chosen by the Tactical Coordinator: submariners (piloting), weapons officers (use of weaponry systems), or mechanics (repairs), which brings a -5 penalty to the connected Tests. Moreover, the vehicle is paralyzed by a mounting panic reaction: at the start of each Naval Combat Round, the Tactical Coordinator can attempt to rectify this by performing a *Leadership* Test, with no penalty. On a Success, everything goes back to normal (if the result of the Test is a Catastrophe, then complete chaos ensues for the next 1D6 Naval Combat Rounds...).

17–18: Important PCs/NPCs each suffer 3D10 points of Physical Damage. The crew suffers serious losses in two of the following groups, chosen by the Tactical Coordinator: submariners (piloting), weapons officers (use of weaponry systems), or mechanics (repairs), which adds a -5 penalty to the connected Tests. Moreover, the vehicle is paralyzed by a mounting panic reaction: at the start of each Naval Combat Round, the Tactical Coordinator can attempt to rectify this by performing a *Leadership* Test, with a -3 penalty. On a Success, everything goes back to normal (if the result of the Test is a Catastrophe, then complete chaos ensues for 1D6 + 3 Naval Combat Rounds...).

REPAIRING VESSELS AND VEHICLES

Repairing damages to the vessel or vehicle requires a *Mechanics* Test, with the appropriate specialty. The following table shows the Difficulty Modifier that must be applied to the Test, the necessary working time (which depends on the Size of the vehicle), as well as an estimation of the cost of spare parts, depending on the seriousness of the Damage. **Note that these Difficulties correspond to decent repair conditions:** an equipped workshop with tools and available spare parts. Most of the time, repairs will be done by a team of technicians, sometimes under the authority of one or more engineers. Without adequate equipment or with incomplete teams, penalties may be increased by 3 to 5 points, depending on the situation. On the other hand, the GM may reduce the penalties if the technical teams are working in a workshop equipped with high-technology equipment. Note that some vessel damages will require putting the vessel in a dry dock, in a station or a city with a shipyard large enough to hold it.

The cost depends on the vehicle category:

H*	BASE COST	V-*	BASE COST	V+*	BASE COST
1	5	1	4,000	5	1,200,000
2	20	2	8,000	6	1,700,000
3	50	3	11,000	7	2,400,000
4	80	4	20,000	8	3,200,000
5	130	5	32,000	9	4,100,000
6	190	6	53,000	10	5,100,000
7	250	7	74,000	11	6,200,000
8	330	8	98,000	12	7,500,000
9	420	9	130,000	13	8,800,000
10	520	10	160,000	14	10,300,000
11	630	11	190,000	15	11,900,000
12	810	12	230,000	16	13,600,000
13	1,000	13	270,000	17	15,400,000
14	1,200	14	320,000	18	17,300,000
15	1,500	15	370,000	19	19,300,000
16	1,800	16	420,000	20	21,500,000
17	2,000	17	470,000	21	23,700,000
18	2,400	18	530,000	22	26,100,000
19	2,800	19	590,000	23	28,600,000
20	3,100	20	660,000	24	31,200,000
21	3,500	21	730,000	25	33,900,000
22	4,000	22	800,000	26	36,700,000
23	4,400	23	880,000	27	39,600,000
24	4,800	24	960,000	28	42,700,000
25	5,300	25	1,040,000	29	45,800,000

**(SIZ)*

DAMAGES	REQUIRED TIME*	DIFF.	DRY DOCK?	COST
Light	(SIZ) days	+5	No	Base cost x1
Moderate	(SIZ) days	+3	No	Base cost x2
Serious	(SIZ x2) days	+0	No	Base cost x 3
Critical	(SIZ x2) days	-3	Yes	Base cost x 6
Catastrophic	(SIZ x3) days	-5	Yes	Base cost x 10
Destruction	(SIZ x3) days	-7	Yes	Base cost x 15*

** or the repair is impossible, depending on the situation.*

Vehicle Damage is handled threshold by threshold (in no particular order), no matter the number of boxes ticked on each line. However, each Damage box ticked past the first one applies an extra stackable -2 penalty to the Test to perform. If the Test result is a Success, the Vehicle Damages on the treated line are repaired (all the Damage boxes can be emptied). If the result is a Failure, the repairs do not fix anything (the technician just wastes time), and if the result is a Catastrophe, this adds a Damage box...

Note: use this table for all vehicles, submarines and drones

NAVIGATION AND NATURAL PHENOMENA

PLOTTING A COURSE

A vehicle that travels over long distances must plot its course, using the onboard instruments. The Skill that must be used is Navigation and the accuracy of the course will depend on the method used:

In mobile vehicles, the presence of an **inertial measurement unit** will make it possible to locate your position from a starting point, but since the accuracy can be off by 1 nautical mile for each hour traveled, it will only be useful for short distances. In addition, that won't prove very useful if the coordinates of the starting point are unknown.

A more accurate solution is to use a **satellite positioning system**. However, it's necessary to be on the Surface, or to deploy it above the waterline. By using this method, the accuracy is to just a few meters, sometimes even less because the system will be affected by the atmospheric disturbances. It's also possible to determine the position through astronomical observations if an open view to the stars is possible, which means an observation on the Surface or in periscopic submersion and—most of all—good visibility (observation at night and without any clouds).

When all this has failed, there remains the possibility to make **soundscan sweeps** in order to determine the depth and the surrounding relief, so that this information might be compared with data recorded in the onboard computer or on a map. Nevertheless, on top of the fact that this method is far from stealthy, it also has the disadvantage of being a bit unreliable when it comes to the great underwater plains or in places when the relief has been altered by natural phenomena.

Last, but not least, it's always possible to **calculate your position on your own**, based on the information available (course, speed, strength of the currents, spent time, etc.).

Note that most vehicles come with an automated navigation system, which has a *Navigation* "Skill" equal to its level. However, this kind of device can't improvise, and if faced with hardships during the journey, it probably won't be able to provide any miracle solutions.

The *Navigation* Test Difficulty depends on the length of the journey, on whether the vehicle is following a route that's known or not, as well as if there are dangers that must be avoided (pirates or enemies, reliefs, natural phenomena...). If the Test result is a Failure, the vehicle is lost and must spend time getting back onto its course (use the Failure Modifier: this can amount to several hours for a one-day trip, or several days for a longer journey). Note that a lost vehicle must find a way to determine its position, and the more lost you are, the more it's difficult to do... This could be a good starting point for a scenario! If the Test result is a Catastrophe, the vehicle comes across the wrong kind of people...

MARINE CURRENTS

Marine currents can affect any vessel or underwater vehicle, whatever its size or mass. The speed of a current never exceeds a few knots; however, it's not its speed that matters, but the mass of water it moves. A medium-intensity current will indeed move several million cubic meters of water per second. Usually the bigger the volume of a vessel, the more it will be affected by a current, and the more massive a vessel, the more its inertia will allow it to delay the effects of a current. Indeed, Small Vehicles are awarded a respite of 1 Naval Combat Round for every 5 Size points before they are affected by the current. Large Vehicles can double this duration.

A submarine can voluntarily get into a current or end up there inadvertently, either because it didn't detect it, or because of a navigation error. The vessel may then decide to move with a current: this will allow it to increase its Speed by a few points, at the discretion of the GM and depending on the strength of the current. On the other hand, it can decide to go against the current, whether by sailing back up, or by reversing its engines. Its Speed is then reduced by a few points, depending on the strength of the current (pushing the engine to the limits can help gain some Speed back, at the risk of suffering a breakdown). It can also try to go through the current, and will then veer off its initial course.

In all cases, *Piloting* Tests are necessary in order to maintain the stability of the submarine. The Difficulty depends on the intensity of the current, as well as on the intentions of the pilot: no penalty if the submarine goes with the current, a moderate penalty if the vessel tries to sail back up the current, a high penalty if the vessel tries to go through the current. The frequency of Tests depends on the intensity of the current. It is also necessary to perform a Test in order to get in or out of the current without any problems, by adopting the most yielding trajectory possible to avoid any possible complications.

If the Test result is a Failure, the submarine starts to list (the lightest submarines may even be shaken in every direction) and is at risk of breaking up: depending on the intensity of the phenomenon the GM may inflict 1 to 5D10 Damage points to the vehicle (the Armor rating provide their usual level of protection), or the vessel must pass an integrity test with a penalty equal to the intensity of the current or lose a number of integrity points equal to its failure modifier. A new *Piloting* Test must be successfully performed in order to get control of the vehicle back.

HEAT FLOWS

Heat flows are not detectable as such. If their location is unknown, it's only when you're inside the flow that you can detect their existence. Every defensive field is completely neutralized there. A vessel penetrating a heat flow area will first have to face the intensity of its currents, which may be considerable (treat them as if they were marine currents). Heat flows also disrupt onboard devices and impose a penalty to the *Active* or *Passive soundscan detection* Tests, when you're looking to spot something inside or on the other side of a flow.

Every time you enter a flow, there's a risk of suffering a secondary phenomenon. Roll 1D100:

01–10: the intensity of the current is reduced for 1D100 minutes.

11–80: nothing to report.

81–90: the intensity of the current increases for 1D10 minutes.

91–98: *Magneto-thermic storm:* For 1D10 Naval Combat Rounds, heat lightning and electromagnetic discharges form inside the flow. 1D6 electronic systems must perform a Breakdown Test, with a -5 penalty. Moreover, the vessel is struck by a lightning bolt of energy every Round, inflicting 1 to 3D10 Damage points, depending on the intensity of the phenomenon (the Armor rating provides their usual level of protection).

99–100: *Vortex:* An intense storm starts swirling at an amazing speed inside the flow. The vessel suffers 3 to 5D10 Damage points depending on the intensity of the phenomenon (the Armor rating provides their usual level of protection) and the vessel must pass an integrity test with a penalty equal to the intensity of the phenomenon or lose a number of integrity points equal to its failure modifier. All the crew members suffer 2D10 Physical Damage points and 2D10 additional Shock Damage points. The distinctive feature of this phenomenon is that it "squishes" distances: vehicles that are sucked into in a vortex are therefore thrown out again 1D100 x 10 kilometers from their initial location.

CORAL

In terms of game play, in an area under the influence of the coral, the vessels it considers to be enemies suffer a -3 to -10 penalty (depending on the power of the coral field) for all their *Piloting* and *Soundscan detection* Tests. If the coral is attacked, it can generate an energy field that will penetrate every type of protection and directly affect all living beings, inflicting 3 to 5D10 Damage points, depending on the intensity of the coral field. Note that the coral only reacts to intrusions or massive attacks: a lone diver faces very little risk of having it react, whatever he does.

INFLUENCE OF THE SURFACE

Storms that ravage the dry lands only have an effect on depths of up to roughly 100 meters. A diver, a creature, or a Small Vehicle caught in a surface storm when he is less than 100 meters down is taking some serious risks. The water is usually in violent turmoil, and this requires regular *Maneuvering (armors)* or *Piloting* Tests. This kind of storm can inflict 1 to 5D10 Damage points. The GM must also roll 1D100 at the start of each Combat Round: on a 01 result, either a vortex or an underwater whirlpool will form (see below).

UNDERWATER WHIRLPOOLS AND VORTICES

When a vehicle gets sucked into the midst of one of these phenomena, it is tossed about in every direction. Depending on the power of the phenomenon, it may suffer 1 to 5D10 Damage points (the Armor Rating provide their usual level of protection) and the vessel must pass an integrity test with a penalty equal to the intensity of the phenomenon or lose a number of integrity points equal to its failure modifier. The intensity of the phenomenon will gradually increase as the vessel gets closer to its center. All the crew members suffer 1 to 2D10 Physical Damage points and 1 to 2D10 additional Shock Damage points. What's more, the vehicle will veer off its course due to the phenomenon. This may not cause additional problems if the whirlpool is horizontal, but if it is a vertical one—or when there is a vortex—the vehicle may find itself in depths it cannot withstand.

During each Naval Combat Round, the vehicle's pilot may perform a *Piloting* Test, with a penalty that depends on the intensity of the phenomenon. If the Test result is a Success, the vehicle will stabilize right in the middle of the whirlpool or the vortex. All the pilot has to do in that case is waiting for things to calm down.

A whirlpool stretches for 1D100 x 10 meters, forms in 1 Naval Combat Round, and vanishes in 1D10 Rounds. A vortex stretches for 1D100 x 100 meters, forms in 1D10 Rounds, and vanishes after 1D100 Rounds. It is wise to make the most of the time it takes to form to get as far away as possible. Otherwise, the submarine will be sucked into the phenomenon. It will then have to decide between either fighting or trying a desperate maneuver in the hope of being thrown out of the phenomenon. If it fights against the current in the hope of the phenomenon dissipating, for example, deal with it as if it were a marine current. A catapult maneuver consists of using the attraction force to increase the vehicle's Speed and so be thrown out of the whirlwind. In this case, the pilot will have to perform a successful *Piloting* Test with a -5 penalty. If the Test result is a Failure, the vehicle dives head-on into the middle of the storm. If the pilot is successful, the vehicle is thrown outside the dangerous perimeter.

COMMUNICATION TUNNELS

With a depth ranging from a few hundred meters to 1,900 meters, the density difference between water masses can create tunnels that carry low-frequency waves. These tunnels act like veritable sound highways. In these tunnels, the range of any device is increased and the sound deformation is minimal. To find one of these tunnels, you have to perform a *Navigation* Test, limited by *Knowledge of an environment (Oceans)*. The Success Modifier acts like a bonus to all *Passive soundscan detection* Tests.

BACKGROUND NOISE

Even if most vessels prefer to stay silent underwater, some can't or don't care (building vessels, for instance). Moreover, some underwater phenomena emit interferences that can alter a vehicle's listening activities. So there is an ambient noise in water, and this becomes a hindrance to passive sonar detections, depending on the region. This background

noise is translated in the game as a penalty ranging from -1 to -10 that must be applied to all Detection Tests performed in passive mode.

MODIFIERS OF DETECTION ROLLS

Due to multiple complex phenomena, known (pressure, salinity, temperature, etc.) or unknown, the passive and active detection of devices can be altered in strange ways. For each passive or active detection Test, there's a 1% chance per 1,000 meters depth to come across a strange signal, for example:

- **Ghost signals:** the vehicle receives an unknown signal that doesn't say much. There's nothing at the location where the contact is supposed to be.
- **Deviated signals:** the vehicle's readings about the contact are skewed. A contact can be spotted at several kilometers from its real position or be completely different from what the sonar picked up.
- **Altered signals:** partial or multiple echoes are received for the same target.
- **Temporal echoes:** soundscans get signals that come from the past or the future...

SUBMARINES AND COMMON VEHICLES

"Under the oceans you can come across pretty much any and every type of submarines. Most of them aren't even worthy of being called wrecks. But every now and then you come across a real gem that belongs to some lucky punk who doesn't even know how to use it right."

— Mac Calers, mechanic

In the *Polaris RPG*, there are all kinds of vessels, ranging from the patched-up wreck your uncle gave you to the majestic submarines of the most powerful companies. Their shape depends a lot on their Technological Level and their propulsion system. As a general rule, the less a technology is advanced, the more rounded the vessel's shape will be. In this chapter, you will find models of common vehicles or characteristics of a category of vehicles.

Note: only **Small Vehicles** (V-) are introduced in this Core Rulebook, because this is the kind of transports that characters will most often have to deal with. **Large Vehicles** (V+) will be tackled in an upcoming supplement. Some vehicles have values that do not match the basic rules when it comes to diving depths or to Damage Resistance. This is due to the fact that their architecture is taken into account.

Integrity modifier: this is the modifier to the Integrity Tests of the vehicle (a bonus if the value is positive and a penalty if the value is negative).

Architecture: vehicles (like drones and exo-armors) have an Architecture that modifies the depth it can reach. Moreover, if you use the optional/Advanced rule on the Damage/Wound thresholds, the architecture determines these thresholds (see advanced rules page 207).

SMALL MERCHANT VESSELS

Caravel

The Caravel is frequently used in small communities by merchants going to a commercial harbor. The hull of this 35-ton submarine is made of hypercomposite carbon fibers and epoxy, its framework made of PlasTirAl, and its glass surfaces are made of tempered hyperglass.

Category: Small Vehicle (V-)
Manufacturer: Red League Transport
List price: 6,530,000 Sols
Availability (Black market): 5 (10)
Estimated TL: III
Length: 6.90 m
Diameter: 2.75 m
Weight: 35 tons
Crew: 2
Passengers: 4
Freight: 1.3 to 3 tons (in 1.6 to 3.8 cubic meters)
Depth:

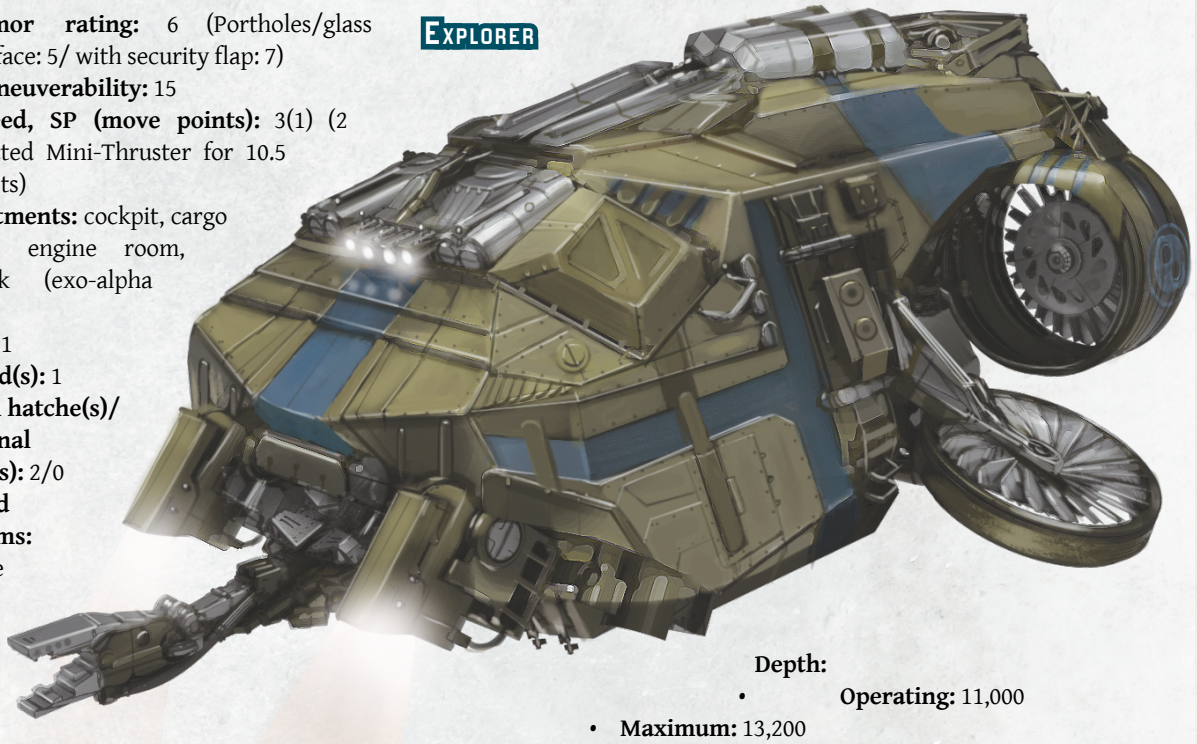
- **Operating:** 8,500
- **Maximum:** 10,200
- **Crushing:** 12,800

Autonomy: 2 days/[504 nautical miles]; Rechargeable closed cycle thermal engine TL III
Attributes:

- **Size (SIZ):** 3
- **Architecture:** normal
- **Integrity modifier:** +3
- **Damage Resistance:** +1



Caravel



- **Armor rating:** 6 (Portholes/glass surface: 5/ with security flap: 7)
- **Maneuverability:** 15
- **Speed, SP (move points):** 3(1) (2 Ducted Mini-Thruster for 10.5 knots)

Compartments: cockpit, cargo holds, engine room, airlock (exo-alpha max)
Deck(s): 1
Bulkhead(s): 1
External hatche(s)/ external door(s): 2/0
Standard systems: Active soundscan, Alert, Analyzer, Assistance and control system, Autopilot, Camera, Diagnostics system, Distress beacon, Docking spot for drones, Light generator, Lock-on detector, Navigation system, Onboard computer, Oxygen supply for 10 days, Passive soundscan, Pressure monitoring system, Radio communicator, Sanitary system, Stabilizer, Temperature regulator.
Weaponry:

- Defensive electric discharge generator (Damage 4D10+3 on a Human Scale)

EXPLORER

The Explorer is a small popular vehicle, which is common around the underwater harbors. It is also often used as a taxi-vehicle. This vehicle is equipped with swiveling Ducted Mini-Thruster in order to make docking maneuvering easier and manage the balance. The hull of this 26-ton submarine is made of hypersteel, its framework made of PlasTirAl, and its glass surfaces are made of tempered hyperglass.

Category: Small Vehicle (V-)
Manufacturer: Industries of the Union
List price: 4,260,000 Sols
Availability (Black market): 5 (10)
Estimated TL: III
Length: 5.40 m
Diameter: 2.70 m
Weight: 26 tons
Crew: 1
Passengers: 2
Freight: 1.4 to 2.7 tons (in 1.7 to 3.3 cubic meters)
Depth:

- **Operating:** 11,000
- **Maximum:** 13,200
- **Crushing:** 16,500

Autonomy: 1 day and half/ [414 nautical miles]; Rechargeable anaerobic fuel cell TL III
Attributes:

- **Size (SIZ):**3
- **Damage Resistance:** +1
- **Architecture: normal**
- **Integrity modifier:** +3
- **Armor rating:** 6 (Portholes/glass surface: 6/ security flap: no)
- **Maneuverability:** 15 (21 if all swiveling thrusters are correctly functioning)
- **Speed, SP (move points):** 4(1) (4 Ducted Mini-Thruster for 11.5 knots, 3 Ducted Mini-Thruster for 8.5 knots) or 2(1) (2 Ducted Mini-Thruster for 7 knots, 1 Ducted Mini-Thruster for 5 knots)

Compartments: cockpit, cargo holds, engine room
Deck(s): 1
Bulkhead(s): 0
External hatche(s)/external door(s): 2/1
Standard systems: Active soundscan, Alert, Analyzer, Assistance and control system, Autopilot, Diagnostics system, Distress beacon, Docking spot for drones, Light generator, Mechanical arm, Navigation system, Onboard computer, Oxygen supply for 2 days, Passive soundscan, Pressure monitoring system, Radio communicator, Sanitary system, Stabilizer, Temperature regulator.
Weaponry:

- Defensive electric discharge generator (Damage 4D10+3 on a Human Scale

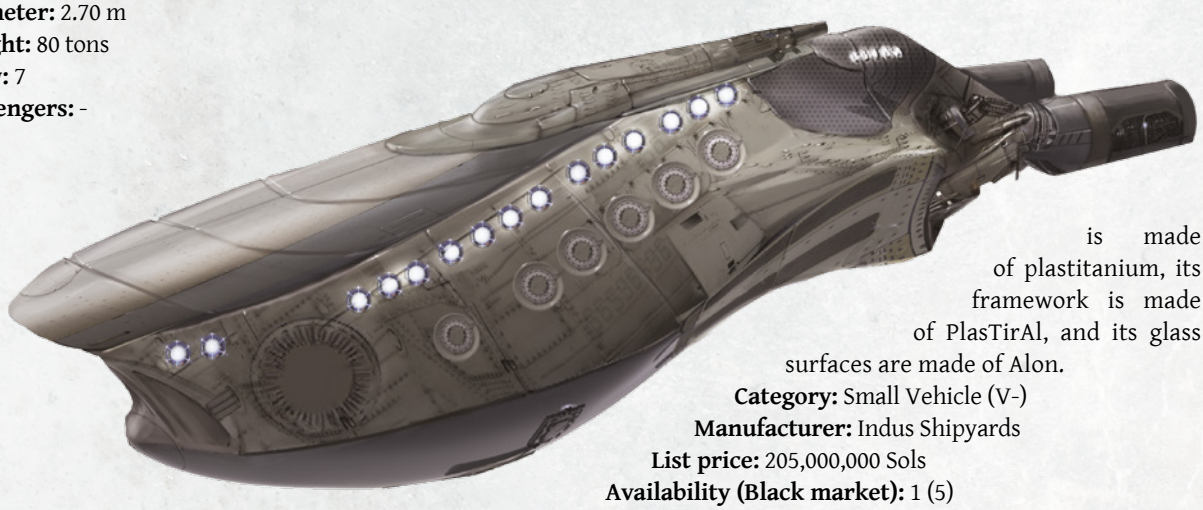
Global

If we're to believe the advertisement, it is THE ideal submarine when going on an adventure. Its airlock is big enough to hold exo-2 category exo-armors. The hull of this 80-ton vehicle is made of hypersteel, its framework made of Fivaltine, and its glass surfaces are in hyper Alon.

Category: Small Vehicle (V-)
Manufacturer: Global Industries (The Hegemony)
List price: 11,900,000 Sols
Availability (Black market): 5(10)
Estimated TL: IV
Length: 20 m
Diameter: 2.70 m
Weight: 80 tons
Crew: 7
Passengers: -
Freight: 8 tons in 10 cubic meters
Depth:
- **Operating:** 10,000
- **Maximum:** 12,000
- **Crushing:** 15,000

Autonomy: 10 days/ [2,760 nautical miles] (Rechargeable closed cycle thermal engine TL IV)
Attributes:
- **Size (SIZ):**5
- **Damage Resistance:** -3
- **Architecture:** normal
- **Integrity modifier:** +5
- **Armor rating:** 6 (Portholes/glass surface: 4/ security flap: no)
- **Maneuverability:** 16
- **Speed, SP (move points):** 4(1) (2 ducted thrusters for 11.5 knots)

Compartments: cockpit, cargo holds, engine room, airlock (max exo-alpha)
Deck(s): 1
Bulkhead(s): 3
External hatche(s)/external door(s): 4/2
Standard systems: Active soundscan, Alert, Analyzer, Assistance and control system, Autopilot, Diagnostics system, Distress beacon, Docking spot for drones, Light generator, Navigation system, Onboard computer, Oxygen supply for 15 days, Passive soundscan, Pressure monitoring system, Radio communicator, Sanitary system, Stabilizer, Temperature regulator.
Weaponry: -



Neolith

Neolith

This is a heavy carrier that was designed to give the priority to speed over freight capacity. A few great nations are using a version of the Neolith (the Neolith N) that includes a nuclear reactor, which allows it to go even faster and gives it huge autonomy. The hull of this 480-ton vehicle is made of plastitanium, its framework is made of PlasTirAl, and its glass surfaces are made of Alon.

Category: Small Vehicle (V-)
Manufacturer: Indus Shipyards
List price: 205,000,000 Sols
Availability (Black market): 1 (5)
Estimated TL: III
Length: 45 m
Diameter: 4 m
Weight: 480 tons
Crew: 11
Passengers: 24 (unless it carries equipment)
Freight: 41 to 65 tons (in 52 to 82 cubic meters)
Depth:
- **Operating:** 9,000
- **Maximum:** 9,900
- **Crushing:** 13,500

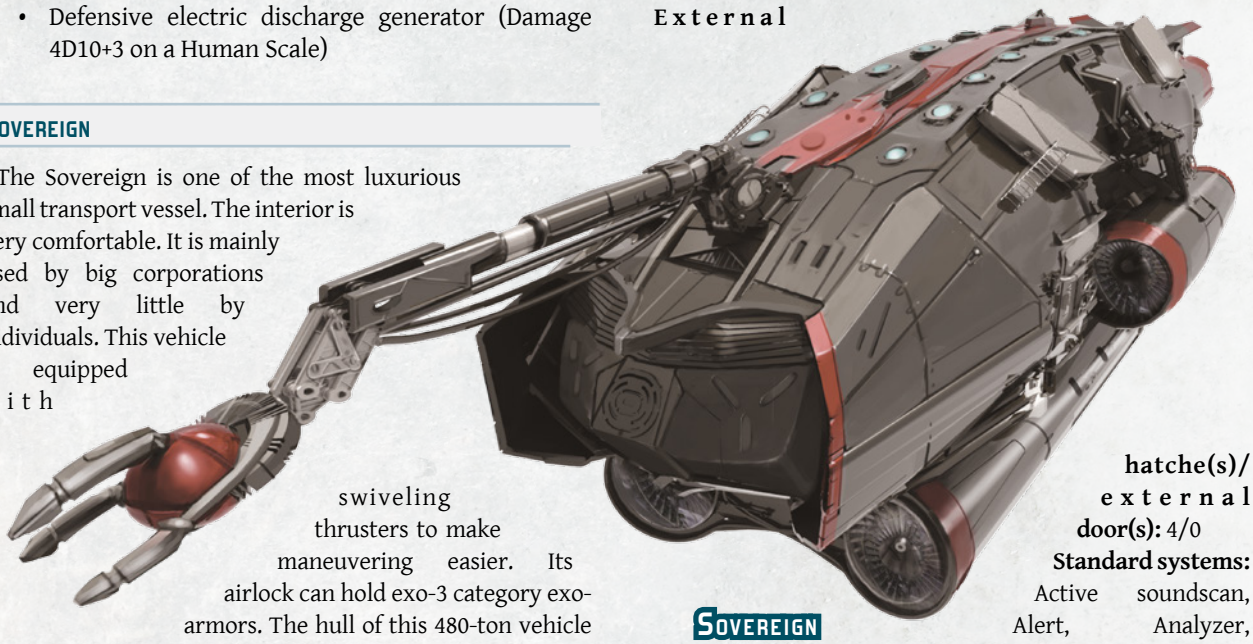
Autonomy: 4 days/ [2,928 nautical miles]; Rechargeable closed cycle thermal engine TL III
Attributes:
- **Size (SIZ):**8
- **Damage Resistance:** +1
- **Architecture:** light
- **Integrity modifier:** 0
- **Armor rating:** 5 (Portholes/glass surface: 4/ security flap: 6)
- **Maneuverability:** 15
- **Speed, SP (move points):** 12 (3) (2 ducted thruster for 30.5 knots), 9 (2) (1 ducted thruster for 24 knots)

Compartments: cockpit, superior deck, passengers or cargo holds, engine room
Deck(s): 2
Bulkhead(s): 5

External hatche(s)/external door(s): 12/2
Standard systems: Active soundscan, Alert, Analyzer, Assistance and control system, Autopilot, Camera, Diagnostics system, Distress beacon, Docking spot for drone, Light generator, Lock-on detector, Mechanical arm, Navigation system, Onboard computer, Oxygen supply for 14 days, Passive soundscan, Pressure monitoring system, Radio communicator, Sanitary system, Stabilizer, Temperature regulator.
Weaponry:
- Defensive electric discharge generator (Damage 4D10+3 on a Human Scale)

Sovereign

The Sovereign is one of the most luxurious small transport vessel. The interior is very comfortable. It is mainly used by big corporations and very little by individuals. This vehicle is equipped with swiveling thrusters to make maneuvering easier. Its airlock can hold exo-3 category exo-armors. The hull of this 480-ton vehicle is made of nanosteel, its framework made of Fivaltine, and its glass surfaces are made of hyperAlon.



Sovereign

Category: Small Vehicle (V-)
Manufacturer: Nova
List price: 23,600,000 Sols
Availability (Black market): 5 (10)
Estimated TL: III
Length: 9.90 m
Diameter: 3.30 m
Weight: 75 tons
Crew: 2
Passengers: 16
Freight: 11 to 15 tons (in 14 to 19 cubic meters)
Depth:
- **Operating:** 10,000
- **Maximum:** 12,000
- **Crushing:** 15,000

Autonomy: 7 days/ [1,344 nautical miles]; Rechargeable closed cycle thermal engine TL III
Attributes:
- **Size (SIZ):**4
- **Damage Resistance:** +1
- **Architecture:** normal
- **Integrity modifier:** +3
- **Armor rating:** 6 (Portholes/glass surface: 5/ security flap: 7)
- **Maneuverability:** 15 (16 if all thrusters are correctly functioning)
- **Speed, SP (move points):** 3 (1) (6 ducted mini-thruster for 8 knots)

Compartments: cockpit, passenger compartments, cargo holds, engine room, airlock (Exo-0 max)
Deck(s): 2
Bulkhead(s): 1
External hatche(s)/external door(s): 4/0
Standard systems: Active soundscan, Alert, Analyzer, Assistance and control system, Autopilot, Camera, Central and satellite repair stations, Diagnostics system, Distress beacon, Docking spot for drone, Light generator, Lock-on detector, Mechanical arm, Navigation system, Onboard computer, Oxygen supply for 14 days, Passive soundscan, Pressure monitoring system, Radio communicator, Sanitary system, Stabilizer, Temperature regulator.
Weaponry:
- Defensive microwave field generator (Damage 5D10+3 on a Human Scale)

Triam

This is one of the most common transport vessel below the seas. Even if its fusion engine is more and more often replaced by less powerful generators, it's still very reliable. This vehicle being extremely common, so it's easy to find some for significantly reduced sums of money, especially if the vehicle is no longer equipped with a fusion engine. The hull of this 40-ton vehicle is made of hypersteel, its framework made of PlasTirAl, and its glass surfaces are made of Alon.

Category: Small Vehicle (V-)

Manufacturer: Triam Industries
List price: 4,700,000 Sols
Availability (Black market): 5 (10)
Estimated TL: III
Length: 13 m
Diameter: 2.70 m
Weight:40 tons
Crew: 5
Passengers: -
Freight: 12 to 14 t (in 15 to 18 cubic meters)
Depth:

- **Operating:** 6,000
- **Maximum:** 6,000
- **Crushing:** 9,000

Autonomy: 1 day/ [288 nautical miles]; Rechargeable anaerobic fuel cell TL III
Attributes:

- **Size (SIZ):**4
- **Damage Resistance:** +4
- **Architecture:** light
- **Integrity modifier:** 0
- **Armor rating:** 3 (Portholes/glass surface: 2/ security flap: 4)
- **Maneuverability:** 15
- **Speed, SP (move points):** 4(1) (ducted thruster for 12 knots)

Compartments: cockpit, cargo holds, engine room
Deck(s): 1
Bulkhead(s): 1
External hatche(s)/external door(s): 2/1
Standard systems: Active soundscan, Alert, Analyzer, Assistance and control system, Autopilot, Diagnostics system, Distress beacon, Light generator, Navigation system, Onboard computer, Oxygen supply for 7 days, Passive soundscan, Pressure monitoring system, Radio communicator, Sanitary system, Stabilizer, Temperature regulator.
Weaponry: -

Vestal

The Vestal is a huge success for the Polyphemus firm; it's an average transport submarine frequently used by exploration teams. The hull of this 52-ton vessel is made of hypercomposite, its framework made of PlasTirAl, and its glass surfaces are made of tempered hyperglass.

Category: Small Vehicle (V-)
Manufacturer: Polyphemus
List price: 17,500,000 Sols
Availability (Black market): 1 (5)
Estimated TL: III
Length: 9.60 m
Diameter: 2.75 m
Weight: 52 tons
Crew: 2
Passengers: 8
Freight: 7.3 to 9.9 tons (in 9.2 to 12 cubic meters)
Depth:

- **Operating:** 10,000
- **Maximum:** 12,000
- **Crushing:** 15,000

Autonomy: 5 days/ [1,200 nautical miles]; Rechargeable closed cycle thermal engine TL III
Attributes:

- **Size (SIZ):**4
- **Damage Resistance:** +1
- **Architecture:** normal
- **Integrity modifier:** +3
- **Armor rating:** 5 (Portholes/glass surface: 7/ security flap: 9)
- **Maneuverability:** 16
- **Speed, SP (move points):** 3(1) (2 ducted thrusters for 10 knots)

Compartments: cockpit, cargo holds, engine room
Deck(s): 1
Bulkhead(s): 2
External hatche(s)/external door(s): 6/2



VESTAL

Standard systems: Active soundscan, Alert, Analyzer, Assistance and control system, Autopilot, Camera, Diagnostics system, Distress beacon, Docking spot for drones, Light generator, Lock-on detector, Mechanical arm, Navigation system, Onboard computer, Oxygen supply for 10 days, Passive soundscan, Pressure monitoring system, Radio communicator, Sanitary system, Stabilizer, Temperature regulator.

Weaponry:

- Defensive electric discharge generator (Damage 4D10+3 on a Human Scale)

Witney

This small vessel is often used to explore shipwrecks or flooded sites. Its main function is to give the exploration team a notion of the dangers that can be hidden at a particular site. The hull of this 15-ton vehicle is made of hypercomposite, its framework made of PlasTirAl, and its glass surfaces are made of tempered hyperglass.

Category: Small Vehicle (V-)
Manufacturer: Poseidon
List price: 2,000,000 Sols
Availability (Black market): 1 (5)
Estimated TL: III
Length: 4.50 m
Diameter: 2.25 m
Weight: 15 tons
Crew: 1
Passengers: 2
Freight: 0.2 to 0.9 tons (in 0.2 to 1.2 cubic meters)
Depth:

- **Operating:** 8,000
- **Maximum:** 8,800
- **Crushing:** 12,000

Autonomy: 2 days/ [528 nautical miles]; Rechargeable anaerobic fuel cell TL III
Attributes:

- **Size (SIZ):**2
- **Damage Resistance:** +6
- **Architecture:** Light
- **Integrity modifier:** 0
- **Armor rating:** 4 (Portholes/glass surface: 5/ security flap: no)
- **Maneuverability:** 19
- **Speed, SP (move points):** 4(1) (ducted thruster for 11 knots)

Compartments: cockpit, cargo holds
Deck(s): 1
Bulkhead(s): 0
External hatche(s)/external door(s): 2/2
Standard systems: Active soundscan, Alert, Analyzer, Assistance and control system, Autopilot, Camera, Diagnostics system, Distress beacon, Light generator, Navigation system, Onboard computer, Oxygen supply for 7 days, Passive soundscan, Pressure monitoring system, Radio communicator, Sanitary system, Stabilizer, Temperature regulator.
Weaponry: -



VARIOUS LIGHT CIVILIAN VEHICLES

Drakar I Scooter

Submarine scooters are especially practical vehicles when you're travelling over short distances. They are very much in use around the underwater harbors and in hydroculture fields. The pilot is usually in a horizontal position, in order to offer as little resistance as possible to the water. This vehicle, weighing one ton, has been designed in plastitanium along with a framework made of PlasTirAl.

Note: this kind of vehicle must be considered more like a piece of equipment than like a real vessel...

Category: Human (H)
Manufacturer: Drakar Inc.
List price: 398,000 Sols
Availability (Black market): 15 (20)
Estimated TL: III
Length: 1.90 m



Diameter: 0.90 m
Weight: 1 ton
Crew: 1
Passengers: -
Freight: 0.4 ton less the pilot's weight (in 0.5 m3)
Depth:
- **Operating:** 14,000
- **Maximum:** 14,000
- **Crushing:** 21,000

Autonomy: 2 days/ [288 nautical miles]; Rechargeable anaerobic fuel cell TL III
Attributes:
- **Size (SIZ):**19
- **Damage Resistance:** -2
- **Architecture:** ultra-light
- **Integrity modifier:** -3
- **Armor rating:** 19
- **Maneuverability:** 19
- **Speed, SP (move points):** 2 (1) (ducted mini-thruster for 6 knots)

Compartments: -
Standard systems: Active soundscan, Analyzer, Assistance and control system, Light generator, Manual control panel, Onboard computer, Passive soundscan, Stabilizer.
Weaponry: -

Std Dynamic Underwater Jeep

This small jeep is common on the bottom of the sea. It is used by many communities for short-distance journeys or to explore areas that are close to installations. This 10-ton vehicle is made of steel with a framework in TiCal. Glass surfaces are made of Alon.

Category: Small Vehicle (V-)
Manufacturer: Std Dynamic
List price: 800,000 Sols
Availability (Black market): 15 (20)
Estimated TL: III
Length: 6 m
Diameter: 2 m
Weight: 10 tons
Crew: 1
Passengers: 3
Freight: 500 kg
Depth:
- **Operating:** 8,000
- **Maximum:** 9,600
- **Crushing:** 12,000

Autonomy: 12 hours (Rechargeable anaerobic fuel Cell TL III)
Attributes:
- **Size (SIZ):**2
- **Damage Resistance:** +6
- **Architecture:** normal
- **Integrity modifier:** 0
- **Armor rating:** 6 (Portholes/glass surface: 3/ security flap: 4)
- **Maneuverability:** 7
- **Speed, SP (move points):** 3(1) (wheels for 10 knots)

Compartments: cockpit
External hatche(s)/external door(s): 1/0
Standard systems: Active soundscan, Alert, Analyzer, Assistance and control system, Autopilot, Diagnostics system, Distress beacon, Light generator, Navigation system, Onboard computer, Oxygen supply for 1 day, Passive soundscan, Pressure monitoring system, Radio communicator, Sanitary system, Stabilizer, Temperature regulator.
Weaponry: -

Titan Seabed Rover

Designed to transport equipment on the bottom of the sea, this vehicle looks like a big truck mounted on four tracks. This vehicle is made of hypersteel with a framework in PlasTirAl and glass surfaces in Alon.

Category: Small Vehicle (V-)
Manufacturer: Drakar Inc.
List price: 72,000,000 Sols
Availability (Black market): 10 (15)
Estimated TL: III
Length: 16.80 m
Width: 3.30 to 5.60 m
Height: 3.70 to 6 m (Ground clearance: roughly 50 cm)
Weight: 250 tons
Crew: 3
Passengers: 8
Freight: 144 tons in 180 cubic meters
Depth:
- **Operating:** 6,000
- **Maximum:** 7,200



Seabed Rover
Titan

- **Crushing:** 9,000

Autonomy: several years, but 7 days for the crew/ [840 nautical miles]; Radioisotopic thermoelectric generator

Attributes:

- **Size (SIZ):**6
- **Damage Resistance:** +1
- **Architecture:** normal
- **Integrity modifier:** +3
- **Armor rating:** 5 (Portholes/glass surface: 3/ security flap: 5)
- **Maneuverability:** 5
- **Speed, SP (move points):** 2(1) (tracks for 5 knots)

Compartments: cockpit, cargo holds

External hatche(s)/external door(s): 1/4

Standard systems: Active soundscan, Alert, Analyzer, Assistance and control system, Autopilot, Diagnostics system, Distress beacon, Docking spot for drones, Light generator, Navigation system, Onboard computer, Oxygen supply for 4 days, Passive soundscan, Pressure monitoring system, Radio communicator, Sanitary system, Stabilizer, Temperature regulator.

Weaponry:

- Defensive electrical discharge generator (Damage 4D10+3 on a Human Scale)

LIGHT MILITARY VESSELS

Submarines listed in this section are Class models, with a Technological Level of III. The exact characteristics of the vessels can vary depending on the models, but also depending on their country of origin or the faction that uses them (naval forces of the great nations, vessels from the smaller communities, mercenaries, pirates...).

Corvette-Class

Corvettes are vessels that can weigh from 800 to 2,000 tons. Their length can reach 50 meters. They are usually fast recon submarines.

Category: Small Vehicle (V-)
List price: 172,944,300 Sols
Availability (Black market): -5 (1)
Length: 55 m
Diameter: 5.50 m
Weight: 1,023 tons
Crew: 21
Passengers: 10 marine commandos or 20 soldiers
Freight: 115-150 tons in 143-180 cubic meters
Depth:

- **Operating:** 12,000
- **Maximum:** 14,400
- **Crushing:** 18,000

Autonomy: 20 years but 30 days for the crew; Thorium-based fission reactor TL III

Attributes:

- **Size (SIZ):**10
- **Damage Resistance:** -3
- **Architecture:** normal
- **Integrity modifier:** +3
- **Armor rating:** 10
- **Maneuverability:** 13
- **Speed, SP (move points):** 9 (2) (ducted thruster for 28 knots)

Compartments: 4/deck (bridge, cargo holds, engine room, etc.)

Deck(s): 2

Bulkhead(s): 3

External hatche(s)/external door(s): 4/0

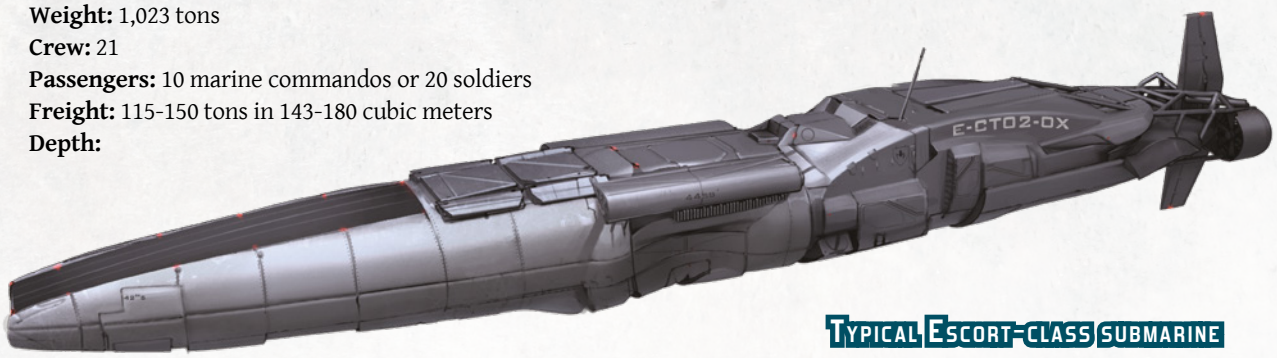
Standard systems: Active soundscan, Alert, Analyzer, Assistance and control system, Autopilot, Camera, Diagnostics system, Distress beacon, Light generator, Lock-on detector, Navigation system, Onboard computer, Oxygen supply for 7 days, Passive soundscan, Pressure monitoring system, Radio communicator, Sanitary system, Stabilizer, Targeting system, Temperature regulator.

Weaponry:

- **Bow Weapon Bay:** 1 type 6 torpedo tube (22 torpedoes mark 6)
- Defensive electric discharge generator (Damage 4D10+3 on a Human Scale)
- Countermeasure launcher (15 countermeasures lvl. 3)
- 4 batteries of 2 heavy A.M. Beam (useful range: short; Damage: 8D10+1 (H) / 1D6 +1 (V-); damages x1,5; to hit: +1)

Escort-Class

Escorts are classic submarines that can weigh from 2,000 to 8,000 tons. They can be as long as 80 meters. They are usually fast and lightly armed submarines that come with a lot of detection and analysis electronic systems. Their crew includes a few dozen men and the vessels can hold a dozen marine commandos or about 40 soldiers.



Typical Escort-class submarine

Category: Small Vehicle (V-)
List price: 663,916,200 Sols
Availability (Black market): -5 (1)
Length: 75 m
Diameter: 10 m
Weight: 4,202 tons
Crew: 41
Passengers: 5 marine commandos or 20 soldiers
Freight: 699-841 tons in 874-1,051 cubic meters
Depth:
- **Operating:** 12,000
- **Maximum:** 14,400
- **Crushing:** 18,000

Autonomy: 20 years but 30 years for the crew, Thorium-based fission reactor TL III
Attributes:
- **Size (SIZ):**16
- **Damage Resistance:** -6
- **Architecture:** normal
- **Integrity modifier:** +3
- **Armor rating:** 15
- **Maneuverability:** 10
- **Speed, SP (move points):** 9(2) (ducted thruster for 28 knots)

Compartments: 3/deck (bridge, passengers, cargo holds, engine room, etc.)
Deck(s): 4
Bulkhead(s): 2
External hatche(s)/external door(s): 3/0
Standard systems: Active soundscan, Alert, Analyzer, Assistance and control system, Autopilot, Camera, Diagnostics system, Distress beacon, Light generator, Lock-on detector, Navigation system, Onboard computer, Oxygen supply for 7 days, Passive soundscan, Pressure monitoring system, Radio communicator, Sanitary system, Stabilizer, Targeting system, Temperature regulator.
Weaponry:
- **Bow Weapon Bay:** 1 type 6 torpedo tube (79 torpedoes mark 6)
- Defensive microwave field generator (Damage 5D10+3 on a Human Scale)
- Countermeasure launcher (15 countermeasures lvl. 3)
- 2 batteries of 2 heavy A.M. Beam (useful range: short; Damage: 8D10+1 (H) / 1D6 +1 (V-), damages x1,5; to hit: +1)

Light frigate-Class

Frigates are fairly fast attack submarines that give the priority to weapons over armor rating. These are the closest to what we would call submarines, the way we see them today. A frigate weighs between 8,000 and 20,000 tons. Its length can range between 80 and 180 meters. The crew is made up of a hundred crew members. A frigate can usually hold 2 combat fighters as part of its bow weapon bay, about 20 marine commandos or 100 soldiers.

Category: Small Vehicle (V-)
List price: 6,150,300,800 Sols
Availability (Black market): -15 (-10)
Length: 119 m
Diameter: 12.50 m
Weight: 11,272 tons
Crew: 114
Passengers: 20 marine commandos or 100 soldiers
Freight : 1,614-2,043 tons in 2,017-2,554cubic meters
Depth:
- **Operating:** 14,000
- **Maximum:** 16,800
- **Crushing:** 21,000

Autonomy: 35 years but 30 days for the crew, Thorium-based fission reactor TL III
Attributes:
- **Size (SIZ):**22
- **Damage Resistance:** -9
- **Architecture:** normal
- **Integrity modifier:** +3
- **Armor rating:** 20
- **Maneuverability:** 8
- **Speed, SP (move points):** 14 (3) (ducted thruster for 41 knots)

Compartments: 4/deck (bridge, passengers' compartments, cargo holds, engine room, etc.)
Deck(s): 5
Bulkhead(s): 3
External hatche(s)/external door(s): 4/0
Standard systems: Active soundscan, Alert, Analyzer, Assistance and control system, Autopilot, Camera, Diagnostics system, Distress beacon, Light generator, Lock-on detector, Navigation system, Onboard computer, Oxygen supply for 7 days, Passive soundscan, Pressure monitoring system, Radio communicator, Sanitary system, Stabilizer, Targeting system, Temperature regulator.
Weaponry:
- **Bow Weapon Bay:** type 6 torpedo tube (84 torpedoes mark 6), 2 light 20-ton fighters
- Defensive microwave field generator (Damage 5D10+3 on a Human Scale)
- Countermeasure launcher (30 countermeasures lvl. 3)
- 6 batteries of 6 heavy A.M. Beam (useful range: short; Damage: 8D10+1 (H) / 1D6 +1 (V-), damage x2; to hit: +3)

Patroller-Class

Patrollers are light and fast submarines that are primarily designed for surveillance and combat against weakly-armed targets. They often are armed civilian vessels and many small communities must make do with this kind of vehicles to ensure their safety.

Category: Small Vehicle (V-)
List price: 160,240,500 Sols
Availability (Black market): -10 (-15)
Length: 61 m



CIVILIAN FIGHTER FULGUR

UNDERWATER FIGHTER VESSELS

Diameter: 3.50 m
Weight: 514 tons
Crew: 16
Passengers: 2 marine commandos or 5 soldiers
Freight : 31-52 tons in 38-65 cubic meters
Depth:

- **Operating:** 10,000
- **Maximum:** 11,000
- **Crushing:** 12,000

Autonomy: 4 days and 12 hours/ [1,728 nautical miles]; Rechargeable closed cycle thermal engine TL III
Attributes:

- **Size (SIZ):**8
- **Damage Resistance:** -4
- **Architecture:** normal
- **Integrity modifier:** +5
- **Armor rating:** 7
- **Maneuverability:** 14
- **Speed, SP (move points):** 5(2) (ducted thruster for 16 knots)

Compartments: 8/deck (bridge, cargo holds, engine room, etc.)
Deck(s): 2
Bulkhead(s): 7
External hatche(s)/external door(s): 8/0
Standard systems: Active soundscan, Alert, Analyzer, Assistance and control system, Autopilot, Camera, Diagnostics system, Distress beacon, Light generator, Lock-on detector, Navigation system, Onboard computer, Oxygen supply for 3 days, Passive soundscan, Pressure monitoring system, Radio communicator, Sanitary system, Stabilizer, Targeting system, Temperature regulator.
Weaponry:

- **Bow Weapon Bay:** 1 type 5 torpedo tube (13 torpedoes mark 5)
- Defensive electric discharge generator (Damage 4D10+3 on a Human Scale)
- Countermeasure launcher (10 countermeasures lvl. 3)
- 2 batteries of 4 heavy A.M. Beam (useful range: short; Damage: 8D10+1 (H) / 1D6 +1 (V-), damage x2; to hit: +2)

FULGUR CIVILIAN FIGHTER

Until recently, the Fulgur corporation was quite content with building engines for underwater vessels. Its new combat fighter shows it has other tricks up its sleeve. Fast and powerfully armed, the Fulgur is an excellent defense vehicle for the danger areas. The Fulgur is also fast and can carry as much weaponry as its military counterparts. On the other hand, it uses materials that are a little less efficient, as well as high energy density batteries (in lieu of a thermoelectric generator), so its price remains reasonable. Its framework is also less sturdy. The hull of this 40-ton fighter is made of hypercomposite, its framework is made of PlasTirAl, and portholes are made of Alon. What's more, its armor is made of composite materials.

Category: Small Vehicle (V-)
Manufacturer: Fulgur
List price: 2,884,100 Sols
Availability (Black market): 1 (5)
Estimated TL: III
Length: 14.90 m
Diameter: 2.20 m
Width: 2.55 m (4.65 m with its wings unfolded)
Height: 2.80 m
Weight: 40 tons
Crew: 1
Passengers: -
Depth:

- **Operating:** 15,000
- **Maximum:** 19,500
- **Crushing:** 22,500

Autonomy: 5 hours (112 nautical miles) (pressure-compensated high energy density batteries). An emergency power generator can provide energy for life support for 1 day and 1 hour only.
Attributes:

- **Size (SIZ):**4
- **Damage Resistance:** -2
- **Architecture:** heavy
- **Integrity modifier:** +6
- **Armor rating:** 9 (cockpit: 5/with security flap: 7)

- **Maneuverability:** 16
- **Speed, SP (move points):** 8(2) (pump-jet for 23.5 knots)/ Can throttle up to 94 knots for a few seconds

Standard systems: Active soundscan, Analyzer, Assistance and control system, Diagnostics system, Distress beacon, Light generator, Lock-on detector, Navigation system, Onboard computer, Oxygen supply for 4 days, Passive soundscan, Pressure monitoring system, Radio communicator, Sanitary system, Stabilizer, Tactical display, Targeting Computer, Temperature regulator.

Weaponry:

- Lightweight Goliath A.M. Beam (charges: 8, useful range: short; Damage: 6D10+3 (H) / 1D6 (V-))
- Moloss Multiple A.V. spargun (charges: 3)
- Hecate speargun x 2 (Charges: 6/6)
- 1 type 4 torpedo launcher (6 torpedoes mark 4)
- 1 type 3 torpedo launcher (5 torpedoes mark 3)
- 20 Caloway Lures

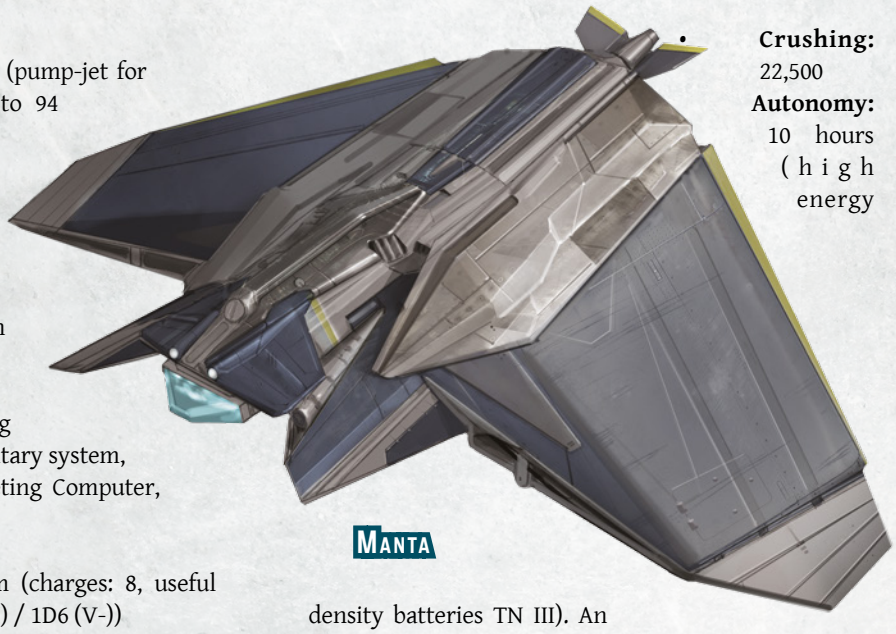
Manta

This fast and very affordable vessel can carry a large amount of weaponry (10 torpedoes). It is, however, rather poorly protected for a vessel of this size. The pilots mainly depend on the speed capacity of the vessel to get them back to their home base before the enemy can intercept them. This type of vessel is still very popular in smaller communities, in the Red League, and with pirates. It is very rare to find them in a brand-new condition. The special feature of this very flat fighter vessel is its ability to dig down into the sand of the seabed and lie there in wait for its targets. This vessel of 60 tons has a hull made of hypersteel, a structure made of PlasTirAl, and windows made of Alon. Furthermore, it also has a reinforced armor plating of composite materials.

Category: Small Vehicle (V-)
Manufacturer: U.O.C.
List price: 3,207,600 Sols
Availability (Black market): 5 (10)
Estimated TL: III
Length: 7 m
Width: 13 m
Height: 2.25 m
Weight: 60 tons
Crew: 1
Passengers: -
Depth:

- **Operating:** 15,000
- **Maximum:** 21,000
- **Crushing:** 22,500

Autonomy: 10 hours (high energy density batteries TN III). An emergency power generator can only provide energy to the life-support systems for 4 days.



Manta

Attributes:

- **Size (SIZ):**4
- **Damage Resistance:** -5
- **Architecture:** ultra-heavy
- **Integrity modifier:** +9
- **Armor Rating:** 9 (cockpit: 5/with security flap: 6)
- **Maneuverability:** 17
- **Speed, SP (move points):** 4(1) (pump-jet for 11 knots)/Can accelerate to 44 knots for a few seconds

Standard systems: Active soundscan, Analyzer, Assistance and monitoring system, Calculator, Communicator, Diagnostics system, Distress beacon, Echo jammer, Light generator, Lock-on detector, Navigation system, Onboard computer, Oxygen supplies for 4 days , Passive soundscan, Pressure monitoring system, Sanitary system, Vehicle-burying system, Sound attenuator, Stabilizer, Tactical display, Temperature regulator.

Weaponry:

- Type 5 Gladius torpedo launcher (4 torpedoes mark 5)
- Type 4 Gladius torpedo launcher (6 torpedoes mark 4)
- 14 Caloway Lures

Remora

This old fighter vessel produced in the Red League is often used in the world beneath the waves. This 20-ton vehicle has a hull made of Plastitanium, a structure made of PlasTirAl, and windows made of Alon. It also has additional armor plating made of Hypercomposites.

Category: Small Vehicle (V-)
Manufacturer: Free Star
List price: 8,863,200 Sols
Availability (Black market): 5 (10)

Estimated TL: III
Length: 11.40 m
Diameter: 1.80 m
Width: 2.05 m (3.80 m with wings open)
Height: 2.40 m
Weight: 20 tons
Crew: 1
Passengers: -
Depth:
- **Operating:** 15,000
- **Maximum:** 21,000
- **Crushing:** 22,500

Autonomy: 7 hours/ [130 nautical miles]/Pressure-compensated super high energy density battery TL III
Attributes:
- **Size (SIZ):**3
- **Damage Resistance:** -5
- **Architecture:** ultra-heavy
- **Integrity modifier:** +4
- **Armor Rating:** 12 (cockpit: 5/with security flap: 9)
- **Maneuverability:** 20
- **Speed, SP (move points):** 6 (2) (4 pump-jet for 18.5 knots)/Can accelerate to 74 knots for a few seconds.

Standard systems: Active soundscan, Alert, Analyzer, Assistance and monitoring system, Autopilot, Communicator, Diagnostics system, Distress beacon, Hull-mounted cutter-spreader, Light generator, Lock-on detector, Navigation system, Onboard computer, Oxygen supplies for 4 days, Passive soundscan, Pressure monitoring system, Sanitary system, Stabilizer, Tactical display, Temperature regulator.
Weaponry:
- Type 3 Gladius torpedo launcher (6 torpedoes mark 3)
- Type 2 Gladius torpedo launcher (8 torpedoes mark 2)

Sidewinder

This is one of the most popular fighters among the Watchers. This 50-ton vehicle has a hull made of Plastitanium, a structure made of PlasTirAl, and windows made of Alon. It also has additional armor plating made of Nanocomposites.

Category: Small Vehicle (V-)
Manufacturer: Gladius
List price: 15,195,100 Sols
Availability (Black market): -5 (1)
Estimated TL: III
Length: 16.70 m
Diameter: 2.30 m
Width: 2.65 m (4.85 m with wings unfolded)
Height: 2.90 m
Weight: 50 tons
Crew: 1
Passengers: -
Depth:
- **Operating:** 15,000
- **Maximum:** 21,000
- **Crushing:** 22,500

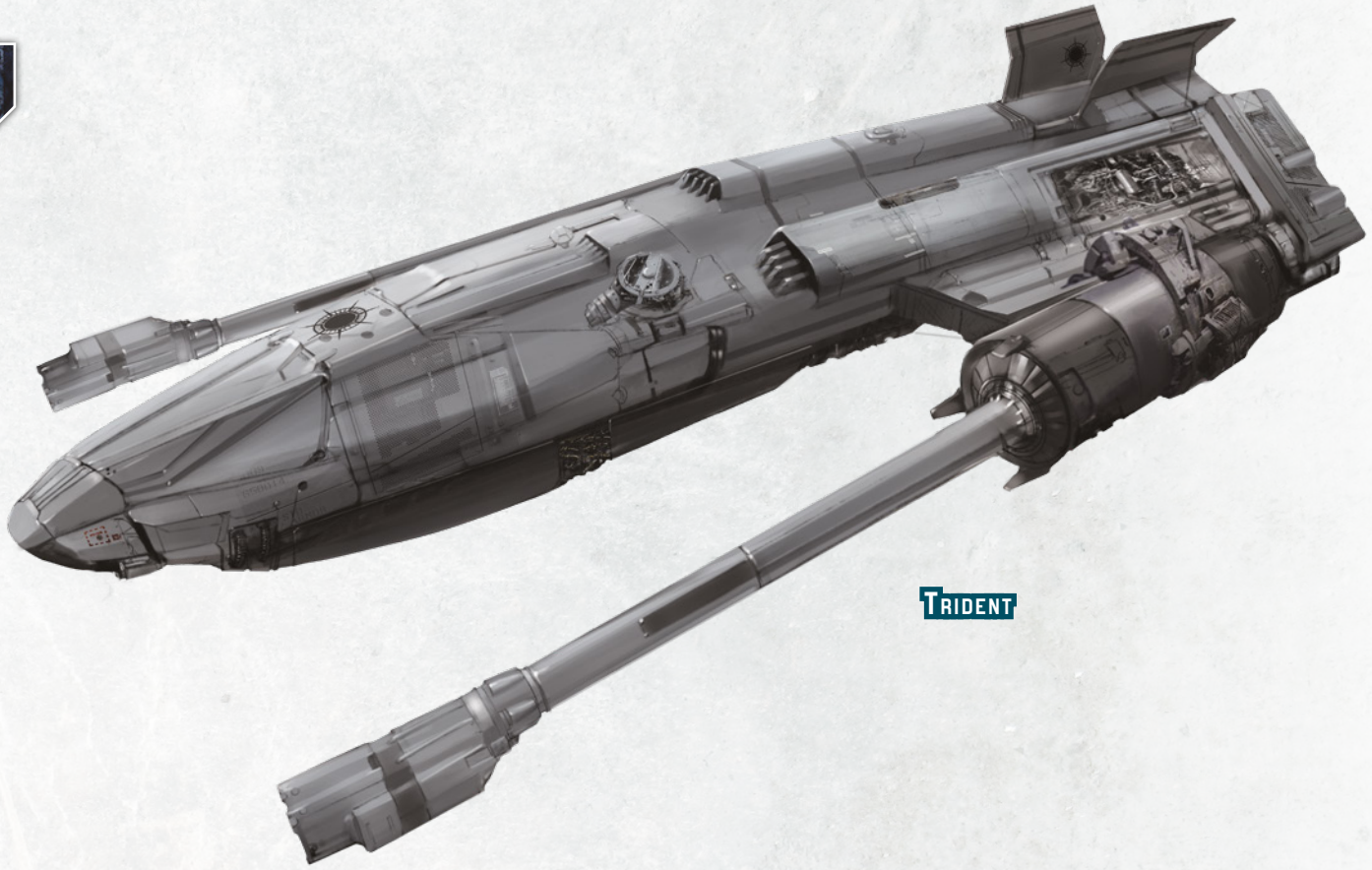
Autonomy: 5 hours/ [107 nautical miles]/Pressure-compensated super high energy density battery TL III
Attributes:
- **Size (SIZ):**4
- **Damage Resistance:** -5
- **Architecture:** ultra-heavy
- **Integrity modifier:** +5
- **Armor Rating:** 12 (cockpit: 5/with security flap: 9)
- **Maneuverability:** 17
- **Speed, SP (move points):** 7(2) (pump-jet for 22.5 knots)/ Can accelerate to 90 knots for a few seconds

Standard systems: Active soundscan, Alert, Analyzer, Assistance and monitoring system, Autopilot, Communicator, Diagnostics system, Distress beacon, Light generator, Lock-on detector, Navigation system, Neural interface, Onboard computer, Oxygen supplies for 4 days, Passive soundscan, Pressure monitoring system, Sanitary system, Stabilizer, Tactical display, Temperature regulator, Voice command.
Weaponry:
- Lightweight Hades cannon (useful range: short; Damage: 1D10+4 (V-) / 1D6+1 (V+))
- Type 5 Gladius torpedo launcher (3 torpedoes mark 5)
- Type 4 Gladius torpedo launcher (3 torpedoes mark 4)
- Type 3 Gladius torpedo launcher (3 torpedoes mark 3)

Trident

This is the distinctive fighter vessel of the Black Sun, but it is also used by a wide range of groups and organizations. The Trident is an 80-ton fighter vessel, extremely well protected and equipped with powerful weapons. On the other hand, because of the poor hydrodynamics due to its shape, its speed is not that high. The Trident is made up of three "cylinders" connected together by a very sturdy, armor-plated structure. It is constructed of an outer shell made of Hyperterranium, a framework made of structural nano-titanium, and windows made of hyper-Alon. Furthermore, its armor plating is reinforced by nanocomposite fluid.

Category: Small Vehicle (V-)
Manufacturer: Tri-industry
List price: 268,003,600 Sols
Availability (Black market): -5 (1)
Estimated TL: IV
Length: 14.90 m
Diameter: 2.20 m
Width: 10.15 m (12.25 m with wings open)
Height: 2.80 m
Weight: 80 tons
Crew: 1
Passengers: -
Depth:
- **Operating:** 20,000



- **Maximum:** 28,000
- **Crushing:** 30,000

Autonomy: 10 years (Thorium-based micro-fission reactor in pressure vessel)

Attributes:

- **Size (SIZ):**5
- **Damage Resistance:** -12
- **Architecture:** ultra-heavy
- **Integrity modifier:** +6
- **Armor Rating:** 17 (cockpit: 7/with security flap: 17)
- **Maneuverability:** 15
- **Speed, SP (move points):** 5(2) (pump-jet for 16 knots)/Can accelerate to 64 knots for a few seconds

Standard systems: Active soundscan, Alert, Analyzer, Assistance and monitoring system, Autopilot, Communicator, Diagnostics system, Distress beacon, Echo jammer, Echo modifier, Light generator, Lock-on detector, Navigation system, Onboard computer, Oxygen supplies for 4 days, Passive soundscan, Pressure monitoring system, Sanitary system, Sound attenuator, Stabilizer, Tactical display, Temperature regulator.

Weaponry:

- **Central cylinder:** 1 Heavy Hades cannon (rounds: 30; useful range: short; Damage: 3D10+2 (V-) / 1D10+4 (V+))
- **Outer cylinders (per cylinder):** type 4 torpedo launcher (3 torpedoes mark 4), type 3 torpedo launcher (4 torpedoes mark 3), 10 level-3 lures
- **Under the wings:** 2 × Lightweight A.M. beam (rounds: 2 × 160; useful range: short; damage: 6D10+3 (H) / 1D6 (V-))
- 2 lightweight neutron cannons (rounds: 2 × 160; useful range: short; damage: 6D10+4 (H) / 1D6 (V-))

CHAPTER 4.4

UNDERWATER COMBAT

"The bad news is that those damned analyzers can't even tell the difference between a toothed whale and a Hegemonic cruiser! The good news is that there's a trench just below our submarine and it's wide enough for us to hide in for a while until all this blows over. Ok, prepare to dive: 150 meters... Prepare the lures just in case, and load a torpedo. Yes, just one! It's not like we'd have the time to fire another one before we get the hell out of that conger hole. Cut off all the systems and switch to passive soundscan... All hands: COMPLETE SILENCE UNTIL FURTHER ORDERS..."

—Vos Ryal, smuggler captain, after he discovered an unidentified soundscan echo



RULES OF UNDERWATER COMBAT

These marine combat rules were designed to encourage a fluid style of game play, without bothering too much with details. Indeed, the rules put the emphasis on the atmosphere of these underwater battles—slow and deadly confrontations that take place in the total darkness of a silent, mysterious, and hostile environment. Last, but not least, in the cases where a group of Player Characters have a vessel of their own, these rules encourage teamwork by calling on the talents of each character in order to resolve the confrontation. The rules of naval combat are in many ways quite similar to the rules for individual combat, so you should come across a number of concepts that you are already familiar with.

The Gamemaster should, once again, find a suitable balance between the rules and the atmosphere of the game. Some of the rules can, of course, be ignored if they do not help to support the atmosphere of the adventure or one of the sequences of a scenario. The GM's aim should above all be to make these combats—remember that the PCs are fighting blind in the dark—as stressful and as stifling as possible. The rules are only there to give them a precise play-out of the underwater operations taking place, and therefore should not take center stage, especially if the Players are not all that interested in advanced tactics. Reading these rules will allow everyone to know the specifics of underwater combat, but they then extrapolate from there to improvise and concentrate more on the atmosphere, if necessary.

Lastly, remember that *Polaris RPG* is a role-playing game, and not a wargame designed to simulate large naval battles. This naval combat system is adapted to the scale of the characters in play. It will be easy to use with a small group of characters on board a submarine facing a reasonable threat. Obviously, in a case where a scene involves something like 50 vessels and roughly the same number of sea monsters, it will be urgent to forget the rules or at least to focus the attention in on one small group in particular.

ORGANIZATION OF UNDERWATER COMBAT

ROLES OF THE CREW MEMBERS

A roleplaying game is a matter of teamwork, just like maneuvering and piloting a submarine. Therefore, it made sense to connect these two notions, by making sure that as many Player Characters as possible take part in the operations of a battle. In an average-sized submarine (a small transporter, for example), one role can be assigned to each of the characters. In a larger vessel, the roles are handed out among the commanding officers on board, who each have a number of crewmen under their orders to carry out the actions. Only fighter vessels are not really included in this rule, as the pilot is often on his own; in this case, he has to take on all the roles at once. However, this necessary multi-tasking is compensated by the fact that fighter vessels are much faster and easier to maneuver than heavier vessels. These are the roles available to characters:

- **The Tactical Coordinator** is in charge of centralizing all the information, defining the tactics to put into place, and giving the orders required to make that happen. This role is often given to the captain of the vessel, to the person with the highest rank, or to the most competent character. Useful Skills: *Leadership, Tactics (Naval combat)*.
- **The Soundscan Operator** is in charge of the vessel's scanners and sensors. His task is a double one: he must detect the submarines and possible threats, but he also has to analyze the signals in order to get the most information as possible about the vessels (or creatures) in proximity to the submarine Useful Skill: *Soundscan analysis*.
- **The Pilot** is, as his name suggests, in charge of steering the submarine on its course. Useful skill: *Piloting* (with the appropriate specialty).
- **The Weapons Officer** looks after the submarine's weaponry, in particular, the torpedoes. In the case of an attack, he is in charge of calculating each shot based on the information provided by the Soundscan Operator or the orders given by the Tactical Coordinator. Useful Skill: *Onboard weapons/Artillery*.

On larger vessels, some of these roles are carried out by whole teams of crew members, under the orders of a commanding officer. In this case, you would refer to "Chief Soundscan Officer," "Chief Piloting Officer," "Chief Weapons Officer," and so on. The useful Skills remain the same, although their level is in this case limited by the commanding officer's *Leadership* Skill.

With the exception of fighter vessels that can be manned by a single person, all vehicles will require these four roles to be filled in order to be run properly. One character can take on more than one of these roles at a time, but if he does, the level of his Skills will have to be divided by two if he takes on two roles, by three if he takes on three roles, and so on.

Be aware that if the vehicle suffers damage or if the crew is injured, the mechanic or technician and the vehicle's doctor will also have a part to play...

REMEMBER TO SHARE THE ROLES!

Whatever the theme of the campaign may be, the PCs will certainly have access to a vehicle of their own at some point (even if they have to steal it or take out a very heavy loan to get it), if only for the sake of having a little more freedom of movement. Therefore, we remind you once again: **remember to spread out the roles and the required Skills between the Player Characters**, firstly because it is an efficient method of building a solid and harmoniously balanced team, and secondly because it is never pleasant for a Player to be stuck on the time-out bench while all his friends are having fun.

NAVAL COMBAT ROUNDS

Unlike the usual Combat Rounds used to manage combat on a Human Scale, it is not useful here to cut up naval combat into intervals of just a few seconds. In this case, the distances, the scale, the speed of movement, and the reaction times are not the same at all. **Therefore, estimate that a Combat Round in naval combat lasts roughly one to two minutes.** This is the time required for a vessel to carry out most of its maneuvers. As usual, this timeframe is fairly "elastic," as a strictly rigorous management of time is rarely required.

The Naval Combat Rounds are also divided into "Action Phases," the total number of which is equal to the highest Initiative among those of all the vessels engaged in the combat. Each vehicle can act in turn during the Action Phase that matches its Initiative.

Steps of a Naval Combat Round

Each of the phases of a Naval Combat Round is usually linked to a specific role among the crew members of the vessel:

1. Detection (automatic action for the soundscan, or the task of the Soundscan Operator if detection is "by ear"): during this crucial first step, the onboard computer analyzes the signals transmitted by the vessel's sensors in order to detect any possible soundscan contacts. See **Detection** on page 131 and **Analysis** on page 141.
2. Surprise (if necessary): if the Soundscan Operator is alerted by a suspicious signal when the vessel is unprepared to engage in battle, the Tactical Coordinator must take a *Leadership* Test in order to get his crew ready for combat. See **Initiative and Actions** on page 136.
3. Base Initiative: the Base Initiative of each vehicle needs to be calculated at this point. The Base Initiative is quite simply equal to the vehicle's Maneuverability level. See **Initiative and Actions** on page 136.

4. Tactical orders (task for the Tactical Coordinator): the Tactical Coordinator onboard each vessel must give his tactical orders for this Naval Combat Round, this is represented by a *Tactics (Naval combat)* Test. The result of the Test can modify the vessel's Initiative or have an effect on the Tests of the other crew members. See **Tactical Orders** on page 138.
   - **Active/Passive Soundscans:** the vessel can switch from one mode to the other (free Action).
   - **Improving the vessel's Initiative:** the Tactical Coordinator can use all or part of his Success Modifier to improve the vessel's Initiative (maximum bonus: +5).
   - **Multiple Actions:** the Tactical Coordinator can use the points of his Success Modifier to reduce the penalties caused by the use of multiple Actions.
   - **Enhance the Efficiency of an Action:** the Tactical Coordinator can add a bonus for the resolution of a single Action.
5. Resolving Actions: this is usually a Movement (task for the Pilot) and/or an Analysis (task for the Soundscan Operator), and/or an Attack, especially a torpedo launch (task for the Weapons Officer). All the vessel's Actions are resolved one after the other, in an order chosen by the Tactical Coordinator, and each vessel acts in the descending order of the vessels' Initiatives. See **Movements** on page 139, **Analysis** on page 141, and **Attack** on page 142.
   - **Matched Initiative:** if several vehicles can act during the same Action Phase, the priority goes to the one under the orders of the Tactical Coordinator with the highest level of *Tactics (Naval combat)*. The Actions of the fastest vessel must be completely resolved before its next opponent begins. If both of the Skill levels are identical, you can consider that both vehicles act at the same time.

All these phases are explained in further detail in the following sections.

DETECTION

Detection, analysis, and the calculation of a torpedo shot are three major parts of the world of the *Polaris RPG*. Detection and analysis are crucial because nothing is more mysterious than an unidentified sonar contact, and shot calculation because, in the dark ocean depths, it takes a while to fire a single shot...

ACTIVE AND PASSIVE SOUNDSCAN

Underwater detection is the job of the "soundscans"—sonars that are connected to a range of sensors and scanners, and all of this is connected to powerful computers to facilitate the analysis and calculation operations for resolving a shot. A soundscan can be active or passive.

An active soundscan is a detection system based on the reflection of sound waves through the water. The device emits ultrasound waves (the famous sonar "ping" sound) and receives the waves reflected back from obstacles. An active soundscan is able to analyze a target and work out its size, position, speed, direction, and so on. Its detection and analysis capabilities are high; however, the use of it makes the submarine easier for others to detect, as anyone can detect the sound waves it sends out. Therefore, active sonar is mainly used in safe territory, places where being detected is not risky and no combat is taking place.

A passive soundscan does not emit any waves; it simply allows you to listen to the sounds of the sea by analyzing the sounds it receives. The detection and analysis capabilities of this device are quite low: it will only allow you to calculate the position of a contact and obtain some vague information about it after analysis. It is also harder to make a shot calculation using passive sonar, as you will need to perform listening phases at different depths and in different positions (usually three) to be able to identify the contact's course by triangulation. On the plus side, this device is completely silent, which can be useful when the vehicle needs to be discreet, for example in enemy territory.

Switching from active mode to passive mode, or vice versa, is a free Action that can be used at the beginning of the Tactical Orders phase, when ordered by the Tactical Coordinator. However, the vessel can only change its listening mode during the Tactical Orders phase of the next Round. **The Tactical Coordinator can also issue an order for complete silence.** In order to reduce the vessel's sound signal and therefore improve its stealth, the engines are stopped, and the crew members do their best to make as little noise as possible. This order means that any movement operations or torpedo firing is impossible. It is, however, always possible to use the passive soundscan (in fact, it is the only way to be fully efficient in this kind of situation, as the device is not disturbed by sounds from inside the vessel) and to analyze a contact or make a shot calculation based on the results of it. If, for one reason or another, an uncontrollable element inside the vessel does make a fairly loud noise (a person screams or begins to run along a walkway, an object falls on the ground, etc.), then this sound could possibly be detected by the enemy's soundscans. The GM is free to fix the difficulty of the detecting action depending on the situation (the louder and more easily identifiable the sound is—a metallic noise, a scream—and/or the more repetitive it is, the easier it will be to detect).

LEVELS AND CAPACITY OF SOUNDSCANS

The soundscans fitted on board vessels have a far longer range than the portable devices or those mounted on suits

of armor. **Therefore, you can consider that the active and passive soundscan devices on a vessel can be used at any combat distance** (see **Movement** on page 139).

What's more, unlike the individual devices, soundscans on board vessels are treated as standard equipment, **and therefore have a base level of 15.** The GM can, of course, freely tweaks this level up or down, handing out bonuses or penalties to characters that are using high-tech devices, or on the contrary poorly maintained material.

A FEW EXAMPLES OF SOUNDSCAN TYPES

Just for the atmosphere (this has no impact on game play, unless the GM should decide otherwise), here are a few examples of soundscan types:

Hull-mounted soundscans: A hull-mounted soundscan is made up of a spherical sonar at the front of the vessel and other sonars spread out across the front third of the vessel's hull. They are blind in an area of 60° to the aft of the vessel, even when the engines are powered down. Furthermore, they can no longer detect anything at all if the vessel is moving at more than 50 kph.

Pursuit soundscans: These active soundscans are very efficient and remain efficient even at high speed, but they have a short range. They are mainly used by underwater fighters when they need to have a very precise and fast map when they are moving very quickly. All the information is sent in real time directly to the pilot's helmet visor or to his cockpit screen.

Towed soundscans: These are also known as towed linear antennae, or even simply "noodles." These soundscan devices are dragged along on the end of a 300-meter long cable (it takes 20 minutes to deploy this device completely). These soundscans have the significant advantage of not having a blind spot. The maximum speed of the vessel, however, can't exceed a level 10 (if this speed is exceeded, then there is a one in two chance of losing the sonar during each Naval Combat Round). Furthermore, if the towing vessel changes its trajectory, the soundscan is out of order for 5 minutes (5 Rounds).

Depth soundscans: This type of soundscan device can only be deployed from an immobile vessel. It works like a towed soundscan device, but it can be deployed in just one Naval Combat Round. If the vessel moves, the cable will break.

Floating soundscans: These soundscan devices are identical to the depth soundscans, except that they float above the vessel rather than hanging beneath it.

Abyssal soundscans: The deeper down you dive, the less effective the usual soundscan devices become, due to the pressure and other mysterious disturbances. The abyssal soundscans are high-tech devices that have been designed specifically to function in deeper waters.

Infrasonic soundscans: These soundscan devices use Very Low Frequency waves (under 3,000 Hz) and they can have a range of over 100 nautical miles. However, they are rarely used, and then only in case of emergency. Indeed, they have a serious defect: they cause a violent reaction among the marine mammals who, if they are within range of this sonar, will charge straight at it in order to neutralize it. After all, nobody wants to get charged by a leviathan whale...

Azurean and Genetician soundscans: These soundscan devices used a very advanced form of technology, which most importantly allowed them to avoid the many problems caused by the water, the pressure, and the temperature. The Geneticians even used a system of underwater detection that was completely different from the regular soundscans. Unfortunately, not much is known about these subjects.

DETECTION TEST

At the beginning of each Naval Combat Round, **the GM must carry out a Detection Test for each potential target, using the level of the selected soundscan device,** and by applying the appropriate Modifiers (this is a completely automatic Test that doesn't require any Actions from any of the characters). If the Test result is a Success, the target is detected. If the Test is failed, the target remains unknown (on a Catastrophe, the device picks up a "ghost echo" that misleads the Soundscan Operator: the GM can give him the position of a vessel or even a torpedo that doesn't exist...). Each new vessel entering the combat within range of the soundscans must be subjected to a Detection Test in order to be acquired. Note that a moving vessel will suffer a detection penalty and, most importantly, will not be able to detect anything in the area directly behind it, because of the propulsion disturbance.

During a Naval Combat Round (and as soon as the vessel is allowed to act, depending on its Initiative), the Soundscan Operator can also carry out an "active surveillance" Action. In this case, the GM can carry out a new Detection Test **as soon as something comes within detection range of the sonar** (a submarine, a diver, a sea creature, a mine, a torpedo, etc.), while still applying the relevant Modifiers.

To make things easier for you, and depending on the level of complexity that you wish to apply to your game play, these Modifiers are sorted into two categories: the "base Modifiers" below, which should be applied as a priority, whereas you can pick and choose from the Advanced Modifiers table

below, depending on how they suit your situation. All these Modifiers are usually stackable, except in some very specific situations.

Note: if there are not many opponents engaged in the combat, you can take the time to roll once for each of the targets. If not, you can also simplify the procedure and only carry out one roll for all the targets that could potentially be detected. Compare this single result to the soundscan's Success Probability, while taking into account any specific Modifiers for each of the targets, in order to find out which of them have been detected.

Note: exo-armor suits that move without propulsion system, as well as Hybrids and sea creatures that move at a slow speed, are considered to be "Stationary Targets." Armor suits that move with a propulsion system, as well as Hybrids or sea creatures that are at their maximum speed, count as "slow Moving Targets."

The thermocline is a layer of water that suddenly changes temperature because of its depth. It reflects sound, and in the world of the *Polaris RPG*, it is usually found between 100 meters and 300 meters below the sea surface. The thermocline reduces the range of sonars and their chances of detection by half.

The shadow zones are areas that elude the detection of an active or passive soundscan because of various elements, such as pressure, salinity, ambient noise, the presence of micro elements that create static, etc. To place a vessel in a shadow zone, you will first need to find one: during a Detection Test, consider it like any other normal target, with a -3 penalty for an active sonar and a -10 penalty for a passive sonar. Then you will need to work out exactly what is causing it and how it behaves, by successfully carrying out a *Knowledge of an environment (Oceans)* Test **AND** a *Navigation* Test. Once the vessel has been maneuvered into a shadow zone, it is essential to make sure you do nothing to give away its location (the order of "complete silence" is given and speed is reduced to a minimum). Last of all, you will also need to successfully carry out a *Navigation* Test for each Naval Combat Round that you want to stay inside the shadow zone (the GM can inflict a penalty for this Test, depending on the situation and the environment surrounding the vessel). **If the result of the Test is a Success, the Success Modifier becomes a penalty for the opponent's Detection Test.** As you can see, identifying and using a shadow zone is not exactly a walk in the park, but it can indeed be an extremely precious tactical advantage during combat.

You should also note that at the beginning of each Naval Combat Round, all parties carry out their detections at the same time. Any vessel that doesn't detect its opponent is, of course, not aware of its presence (however, it will be allowed a new Detection Test at the beginning of the next Round like everyone else).

Note: stealth technologies (jammers, sound attenuators, anti-echo coatings...) also cause penalties during Detection Tests. On the contrary, electronic counter-measures (such as electronic shielding) can help to reduce or even cancel out these penalties.

Sonscan Detection Modifiers

SIZE MODIFIER		
TONNAGE OF THE TARGET	ACTIVE SONAR	PASSIVE SONAR
< 2 t	-11	
≥ 2	–10	
≥ 40	–9	
≥ 200	-8	
≥ 632	-7	
≥ 1 543	-6	
≥ 3 200	-5	
≥ 5 928	-4	
≥ 10 114	–3	
≥ 16 200	-2	
≥ 24 691	-1	
≥ 36 151	0	
≥ 51 200	+1	
≥ 70 521	+2	
≥ 94 854	+3	
≥ 125 000	+4	
≥ 161 817	+5	
≥ 206 225	+6	
≥ 259 200	+7	
≥ 321 780	+8	
≥ 395 062	+9	
≥ 480 200	+10	
≥ 578 410	+11	
≥ 690 965	+12	
≥ 819 200	+13	
≥ 964 506	+14	
≥ 1 128 336	+15	
≥ 1 312 200	+16	
≥ 1 517 669	+17	
≥ 1 746 373	+18	
≥ 2 000 000	+19	
≥ 2 280 299	+20	

BASIC MODIFIERS		
SITUATION	**ACTIVE SONAR**	**PASSIVE SONAR**
Distance from the target		
- Contact (Melee)	+5	+3
- Short range	+3	+0
- Medium range	+0	-3
- Long range	- 3	-7
- Extreme range	- 5	-10
- Extreme + range	-7	-13
Stationary target		
- In the water	+0	-3
- up against a rock face/flat on the sea bed	-5	-5
- Buried	-10	-7
Stationary detecting vessel	+3	-
Speed of the target		
- Inferior to 4 knots/SP < 1)	+0	+0
- 4 to 10 knots (SP : 1-3)	+0	+1
- 11 to 22 knots (SP : 4-7)	+1	+2
- 23 to 46 knots (SP : 8-15)	+1	+3
- 47 to 79 knots (SP : 16-26)	+1	+4
- 80 to 133 knots (SP : 27-44)	+2	+5
- 134 to 208 knots (SP : 45-69)	+2	+6
- 209 to 310 knots (SP : 70-103)	+2	+7
- 311 to 448 knots (SP : 104-149)	+3	+8
- ≥ 449 knots (SP 150+)	+3	+9
Target's mode of propulsion:		
- Natural	+0	-5
-MHD (magneto-hydrodynamic drive)	+0	-3 (TL V)/-5 (azurean tech TL VI)/-6 (Genetician Tech TL VI)
- Pump propeller (or pump-jet)	+0	-1 (TL II/III)/-2 (TL IV+)
-DT/DMT (Ducted thruster/ Ducted Mini-Thruster))	+0	+0
- Contra-rotating propeller	+0	+0 (TL II/III)/-1 (TL IV+)
- Screw Propeller	+0	+1
- Supercavitation	+0	Automatic detection
- Number of propeller	+0	+1 by additional propeller (max +3 with 4 proprellers)
Moving detecting vessel		
- Inferior to 4 knots/SP < 1)	+0	+0
- 4 to 10 knots (SP : 1-3)	-1	+1
- 11 to 22 knots (SP : 4-7)	-2	+2
- 23 to 46 knots (SP : 8-15)	-3 (soundscan range x ½)	+3
- 47 to 79 knots (SP : 16-26)	-4(soundscan range x ½)	+4
- 80 to 133 knots (SP : 27-44)	-5 (special*)	+5
- 134 to 208 knots (SP : 45-69)	-6 (special*)	+6
- 209 to 310 knots (SP : 70-103)	-7(special*)	+7
- 311 to 448 knots (SP : 104-149)	-8 (special*)	+8
- ≥ 449 knots (SP 150+)	-9 (special*)	+9

** Only pursuit soundscans (see the section "A Few Examples of Soundscan Types" above) can be used, so only if the vessel is in pursuit of its target. If, for one reason or another, these soundscans are no longer in operation, detection will be impossible.*

LOCKING ON TO A TARGET AND EVADING SOUNDSCANS

Once the detection has been confirmed, the vessel has "locked on to its target." If the situation does not change, no further Tests will be required to detect it again. Note that a target has no way of knowing whether its opponent has detected it or not. It will have to study the other vessel's reactions (an unusual change of course, a deployment of lures, a torpedo launch, etc.) to figure it out.

If a vessel has been detected, it can attempt a "soundscan evasion" to shake it off, mainly by performing a maneuver to change its course or its depth, by changing its speed, or—even better—by disappearing behind a rock formation or another vessel (see **Piloting Test** on page 140). If the target manages to throw off the lock-on, another Detection Test will be needed, taking into account the new Modifiers. The detecting vessel will however have a bonus of +3 for this Test, as its target has been locked on to previously (it is easier for soundscans to follow the existing trace of a contact). It is also possible to launch lures to blind the opponent's soundscans: in this case, the new Detection Test will have a penalty equal to the lure's level.

Note: a successful analysis can also render the evasion a lot more difficult (see **Analysis** on page 141).

OTHER DETECTION MODIFIERS

SITUATION	ACTIVE SONAR	PASSIVE SONAR
Target inside or on the other side of a disturbance (sea current, Polaris flux, school of fish or sea creatures, etc.)	-3 to -7 (depending on the intensity of the phenomenon)	-5 to -10 (depending on the intensity of the phenomenon)
Target at less than 500 meters below the sea surface		
- in a heavy sea	+0	- 3
- in a rough sea	-5	-10
- in a storm	-10	-15
Target protected by a "thermocline" (see page 133)	Chances of detection and range/2	
Target protected by a "shadow zone" (see page 133)	Variable (see page 133)	
Soundscan operator operating by ear*		
-without the Keen Senses (Hearing) Advantage	NA	-5
-with the Keen Senses (Hearing) Advantage		+0
Previously detected target	+3	+3
Target carrying out a torpedo launch	+0	+3 or +2 with Bow Weapon Bay
Target with an active soundscan	+5	+10 (soundscan range x2)
Target behind an obstacle or rock formation	Detection impossible***	Variable***
Silent target (under "complete silence" order)**	+0	-5
Target covered by anechoic tiles (Anti-echo Coating) grade I	- TL of the tiles +1(-4 at TL III, -5 at TL IV, etc.)	- TL of the tiles +1(-4 at TL III, -5 at TL IV, etc.)
Target covered by anechoic tiles (Anti-echo Coating) grade II	- TL of the tiles +2	- TL of the tiles +2
Target covered by anechoic tiles (Anti-echo Coating) grade III	- TL of the tiles +3	- TL of the tiles +3
Target covered by anechoic tiles (Anti-echo Coating) grade IV	- TL of the tiles +4	- TL of the tiles +4

** The soundscan operator carries out the detection himself. He uses his own Soundscan analysis Skill, instead of the level of the device. This action requires a "Silent Running" status (and therefore a "Stationary detecting vessel"), but be aware that this does NOT add any bonuses here... Of course, carrying out this kind of detection requires perfect concentration: it is therefore rare for a Soundscan Operator to be able to man his station for more than a few hours.*

*** Can be stacked with "Stationary Target"*

**** Any obstacles or rock formations can hinder the detection of a sonar, whether passive or active. In the case of an active sonar, a single large obstacle (a mountain, for example) will block detection. On the other hand, if the obstacle is a complex one (such as ruins, for example), the penalty for detection will be the same as that of moving over difficult terrain (see Movement on page 139) for an active soundscan and half of that penalty for a passive soundscan.*



LAST CHECKUP BEFORE THE BATTLE

INITIATIVE AND ACTIONS

BASE INITIATIVE

As is the case with any individual engaged in combat, a vessel also has a level of Initiative that defines how quick it will be to act. **The Base Initiative of a vessel is quite simply equal to its level of Maneuverability.** This base level can also be increased or decreased, depending on the talents of the vessel's Tactical Coordinator (see **Tactical Orders** on page 138). Therefore, for example, a less maneuverable vessel, and/or one under the orders of a less competent officer can end up with a very low final Initiative. That's just the way it works...

SURPRISE

A vessel can definitely be surprised if it suddenly discovers a potentially threatening signal on its soundscan AND its crew members are not ready for battle. This will be the case for most civilian vessels in a normal situation. Submarine warships tend to organize a regular rotation of crew members at battle stations, so as to always be ready for action. The Tactical Coordinator must in this case order all crew members to go to their stations ready for a possible combat (if the crew members were at their stations already, there is no Surprise).

If the attack is sudden, the Tactical Coordinator must take a *Leadership* Test:

- **If the Test is a Success, the vessel will have a Base Initiative equal to the *Success Margin** obtained** (as usual, the vehicle's Maneuverability must be taken into account in order to work out the final Initiative).
- **If the Test is a Failure, the crew is surprised and cannot act during this Naval Combat Round.** At the beginning of the next Naval Combat Round, the vessel will be back to its usual level of Initiative.

**This is the Success Margin (in other words, the score on the die) and not the Success Modifier.*

ORDER OF ACTIONS

As with regular Combat Rounds, each Naval Combat Round is divided into "Action Phases," the number of which is equal to the highest Initiative among the vessels involved in the combat. Each Round takes place in the decreasing order of the Action phases, and each vessel can act during the phase that matches its level of Initiative. Once everyone has carried out their Actions, the Combat Round is over. As usual, it is also possible to delay your Action, and act later on during the Round, depending on a specific event.

In the case of Matched Initiative, the priority goes to the vessel under the orders of the Tactical Coordinator with the highest *Tactics (Naval combat)* level. **The Actions of the**

fastest vessel must be completely resolved before its adversary begins theirs. If the Skill levels are also matched, you can consider that both vessels act simultaneously.

With the exception of a few rare situations, the lighter vehicles—and therefore usually the fastest—will always act first, with fighter being obviously at an advantage. However, if a light vessel (fighter, small transport, etc.) is opposed to a much heavier vessel, especially a submarine warship, the GM must make it quite clear to the Players that although it may be slow, the larger vessel is a terrifying threat, as it is both a lot more resistant and better armed. In the cold waters of the *Polaris RPG*, discretion and retreat are not always the worst of all possible options!

TYPES OF ACTIONS

Each vessel can freely carry out one of the following Actions during a Naval Combat Round:

- **a Movement**, to move the vessel around the combat zone (see the section on **Movements** on page 139),
- **an Analysis**, the only way of finding out more about a target and/or to get the necessary information to launch a shot calculation (see the section about **Analysis** on page 141),
- **an Attack**, (launching a torpedo or a direct weapon, ramming, boarding...). A torpedo launch first requires a relevant shot calculation (see the section about **Shots** on page 143).

As well as the above Actions, the vessel can also carry out any other simple Action that takes less than a minute or two.

MULTIPLE ACTIONS

During the Tactical Orders phase, the crew can choose to carry out several Actions during the Naval Combat Round, rather than just the one. A vessel can carry out up to three Actions per Round (this is the maximum number allowed). Bear in mind that these three Actions must be of different types (you cannot carry out two Movement Actions or two Analysis Actions, etc.) Because of the coordination required, **all the crew members receive a penalty for *all* the Actions carried out during this Round:** -5 if they want to carry out 2 Actions, -7 if they want to carry out 3 Actions. The Actions of the vessel will need to be resolved one after the other, in an order chosen by the Tactical Coordinator (for example, a Movement, then an Analysis, then a Shot, etc.). However, consider that all the vehicle's Actions are resolved at the same time during the vessel's Action Phase.

INDIVIDUAL COMBAT ROUNDS

It is not impossible that, while the vessels are fighting each other in a Naval Combat, some of the characters are having combats of their own. It is also possible that the events of a Naval Combat could affect these characters (for example, an underwater fighter may have launched a torpedo at a group of underwater commandos...) or vice versa (... who were in the middle of trying to plant an explosive on the hull of one of the vessels engaged in the combat). But the duration of a normal Combat Round and that of a Naval Combat Round are completely different. How should you manage the two together?

First of all, as a Naval Combat Round lasts for one or two minutes, it is quite logical to imagine that several Individual Combat Rounds (of a few seconds each) can take place within one of them. Technically, while the vessels are carrying out one of their Naval Combat Rounds, the characters will quite simply have the time to resolve several Individual Combat Rounds (a dozen for example, or fewer if the GM is willing to accept a slightly less realistic take on the way the events play out). If you need to establish a precise order for your actions, just trust your common sense, considering the time it would take to carry out each of the actions involved. This does, however, mean that you'll be stretching out across two very different scales; in this case, don't hesitate to simplify the rules and improvise in order to get things flowing. You can also try to play on the progression of the dramatic intensity by acting out the evolution of the combat action on your two different scales at the same time!

Note that the huge suits of exo-armor—exo 5, 6 and omega—can very well act on the scale of an Individual Combat Round, even though they are classified as Small Vehicles in terms of the Damage Management. If you chose to do so, don't forget to take into account their Initiative penalty.

Example: *having been entrusted with the protection of a small allied station, some of the Player Characters have taken the lead of a group of soldiers and infiltrated a pirate vessel that is about to attack the structure with its torpedoes. The pirates are hoping to force the station's inhabitants to give them a considerable ransom. The group's goal is to sabotage the submarine, or even better, to storm the bridge and take control of the vessel. During each Naval Combat Round that passes, a new torpedo is launched at the station. On the outside, another PC is on board an underwater fighter and is tasked with intercepting the torpedoes before they reach their target. Both vessels follow the regular underwater combat rules, while the commando of PCs make their way through the narrow walkways of the enemy vessel, fiercely fighting their way to the bridge. To keep the rhythm going and to let the Player piloting the fighter have some fun too, the GM decides that each Naval Combat Round will only contain five Individual Combat Rounds. The infiltrating group had better be quick about it...*

TACTICAL ORDERS

Defining the "Tactical Orders" is the job of the character who is the designated Tactical Coordinator. This would usually be the highest "ranking" character on the vessel, such as the submarine's captain. **This does not mean that you should use this to establish a hierarchy between the characters, and especially between the Players.** The Players should (must!) decide their tactical approach together. In the end, the Coordinator will have to carry out the necessary Tests and will be seen as the character who made the decisions... even if the ideas didn't come from the Player of that character. We encourage the GM to be especially vigilant about this point to avoid giving a rather authoritative Player an opportunity to use his status as "captain" (second only to Poseidon himself on board this ship...) to lord over his Player pals.

TACTICAL ORDERS TESTS

Underwater naval combat means fighting blind, so it is essential that you are able to predict the enemy's reactions and be smarter than him. Additionally, the characters involved constantly have to juggle with a range of factors (position, speed, terrain) while at the same time taking into account all the information provided by their detection devices. Last, but not least, Tactical Coordinators also have to manage their crew, making sure that all those individuals work well together in perfect harmony to avoid any time-wasting or misunderstandings. Tactical intelligence, intuition, cunning, quick decisions, and the ability to give clear orders are the many skills of a good Tactical Coordinator. At the start of each Naval Combat Round, all of this can be managed by a *Tactics (Naval combat)* Test carried out by the Tactical Coordinator, which usually takes place without any Modifiers (unless the GM decides that the situation calls for it).

If the result is a Failure, the Tactical Coordinator hesitates or wastes time. **In this case, the Failure Modifier reduces the vessel's Initiative.** The vessel can, however, still carry out one Action (*and only one*) when its new Initiative rank allows it to. It is quite possible that this penalty will reduce the vessel's Base Initiative down to 0 or even below. If this happens, it will mean that the vessel cannot perform any Actions during the current Naval Combat Round. It can then act during the following Round, with an Initiative of 20 minus the number of points below 0 obtained during the previous Round (for example, a vessel with an Initiative reduced to 0 will act on the following Action Phase 20, whereas a vessel with an Initiative reduced by -3 will act during Phase 17 (20–3=17), and so on. During the Round after that, the vessel's Initiative will, however, be calculated as usual (even if it is once again reduced to 0 or below due to a new penalty, which would then force the vehicle to only act during the following Round once again). If the result is a Catastrophe, the vessel completely loses its Action (it is not even delayed to the following Round) and will have to wait for the next Round to calculate its Initiative again in the usual way.

If the result is a Success, the Tactical Coordinator can use the points of his Success Modifier to make the most of the following tactical advantages:

- **Improve his vehicle's Initiative,**
- **Help his crew to carry out multiple Actions,**
- **Increase the efficiency of a single Action** (this option is exclusive and cannot be used with either of the previous ones).

All the necessary procedures (and the limits applied to them) are explained in detail in the corresponding sections below. The Tactical Coordinator can share out the points of his Success Modifier between the first two options as he wishes (for example, if he got a Modifier of +5, he could choose to use all of those 5 points to increase his vehicle's Initiative, or he could choose to only use 2 points for the Initiative and save 3 points to help the crew carry out multiple Actions, or any other combination of points). Only the last option is not included in this rule: if the Tactical Coordinator decides to increase the efficiency of a single Action, he will not be able to improve the vessel's Initiative, nor can he help the crew with multiple Actions (besides, he will be allowed a single Action only during this Round). Finally, note that the Players are allowed to announce that they will be carrying out multiple Actions **after** having carried out the *Tactics* Test; depending on its results, they will be able to choose with all the cards on the table.

Improving the vehicle's Initiative

The Tactical Coordinator can spend up to 5 points of his Success Modifier on improving the Initiative of his vessel, if he wishes to do so. The vessel's Initiative is then immediately modified: during this Round, it will be able to act much faster than its usual level of Maneuverability would allow it to.

Help for Multiple Actions

It is possible to carry out several Actions during the same Round, but the price is a penalty that affects every character involved. By improving the coordination between the members of his crew, the Tactical Coordinator can use the points of his Success Modifier to reduce the penalties caused by the multiple Actions, by sharing them out freely between the characters in question. Be careful, however; these points can be used to reduce, or even to cancel out completely the penalties due to multiple Actions, but no more than that (they cannot provide a positive bonus under any circumstances). Any undistributed points are lost (although they can be used to improve the vessel's Initiative).

Example: *a Tactical Coordinator has just achieved an excellent Success Modifier of +6 after rolling for his* Tactics *Test. The crew decides to make the most of this by carrying out two Actions during this Round: an Analysis and a Torpedo shot (hoping that the Analysis will be good enough to allow the shot calculation to take place). The Soundscan Operator and the Weapons Officer will*

have to act quickly and in perfect coordination, as they will both have a Modifier of -5 on their Actions (two Actions). However, the Tactical Coordinator has kept his 6 bonus points to help his crew members resolve their respective Actions. He can, for example, give them 3 bonus points each, or he could give 4 points to the Analysis and only 2 to the Shot). On the other hand, he will not be able to give either of the characters all of his 6 points (the penalty for two actions is only -5).

NOT TAKING ANY RISKS...

For any number of reasons, the Tactical Coordinator can be keen to avoid taking any risks; he can decide to do without the *Tactics* Test that might fail and cost him precious Initiative points. In this case, he will simply apply the standard procedures (you know, the ones from the manuals...). This is admittedly a dull course of action, but it can work out, at least for a short while. As mentioned above, the Tactical Coordinator doesn't carry out the *Tactics* Test; therefore, he can't use any of the tactical options detailed above, but his Initiative can, in theory, not be reduced by a failed Test. He does, however, suffer the following limitations:

- **The vessel's Initiative cannot be higher than the Tactical Coordinator's *Tactics (Naval combat)* Skill level.** Do not take into account any penalties that could directly affect the character—a Wound penalty, for example.
- **The vessel is limited to a single Action per Round.** Furthermore, the single Action is given a penalty of -3 (the Tactical Coordinator doesn't take the time to adapt the standard procedure to the specific situation). It is, however, possible to cancel out this penalty... but to do so will cost 3 Initiative points.
- **Using this tactic for three consecutive Rounds will allow the opponent to easily anticipate the vessel's maneuvers.** In this case, the enemy gains a bonus of +3 for his *Tactics* Test (applies as long as the vessel's Tactical Coordinator "isn't taking any risks").

Increasing the Efficiency of a Single Action

The whole crew of the vessel is concentrated on carrying out a single Action, following the Tactical Coordinator's orders. He is counting on their intuition and mastery of underwater combat to obtain the best possible result. **The attempted Action can, in this case, be awarded a bonus.** This tactical option does, however, come with a few specific conditions:

- the vessel is limited to a single Action during this Round
- it is impossible to improve its Initiative
- the bonus is equal to **half** of the Success Modifier obtained by the Tactical Coordinator,
- the maximum bonus available is **+3** (requiring a +6 or higher Success Modifier).

CHANGE OF INTENT

At any point during the Naval Combat Round, it is possible to change your intent. To do so, the Tactical Coordinator will have to carry out a *Tactics (Naval combat)* Test. If he succeeds at the Test, it is possible to cancel an Action, to replace it with another Action, etc. If the Test result is a Failure, the crew will have to stick to the Action announced during the Tactical Orders stage. In the event of a Catastrophe, the orders become contradictory and mixed up: the vessel does not perform any Actions during this Naval Combat Round.

MOVEMENTS

When it comes to vessels, speed and the various combat ranges are represented by relative values, which are not referenced by any numerical data. The aim of this is to speed up the management of the actions and to simulate the atmosphere of these underwater combats, where working out the position of an opponent can only be done indirectly by analyzing its echo on a soundscan.

RANGES

The range is the distance that stands between a vessel and its target (or its opponent):

- **Melee (or contact/ approximately 2 nautical miles):** The vessel is very close to its target, close enough for it to attempt a ramming or boarding maneuver. This range is the only one where a vessel can really see its target (as long as it has a light source available, either provided by the light generated by the vessel itself, or the light provided by a large, nearby city).
- **Short range (approximately 6 nautical miles)**
- **Medium range (approximately 12 nautical miles)**
- **Long range (approximately 20 nautical miles)**
- **Extreme range (approximately 30 nautical miles)**
- **Out of range:** A vessel at this range can't be detected or identified as a target. It is out of harm's way.

In reality, the distances that can come into play can be extremely long: it is not uncommon to be able to engage an enemy vessel several kilometers away. As mentioned before, this is not of any great importance, as the only thing that matters is the relative position of each of the opponents. **A vessel "appears" at the range at which it is detected for the first time.** From that moment on, you will need to work out if the vessel is an enemy or an ally, either by communicating directly with it, or by analyzing its reactions or the type of vessel it is. Depending on the results, the combat can begin.

You should remember that any vessel equipped with a working soundscan device has the right to perform one

Detection Test per Naval Combat Round. An undetected vessel is invisible, and if it moves towards its target, then it may appear on the soundscan screen all of a sudden, at a dangerously short range. The GM can secretly manage the movements of undetected vessels on a Round by Round basis.

Example: *although they don't know it, the PCs' vessel is heading straight toward an enemy underwater fighter, waiting for them using passive soundscan, and they come into detection range of it. Both vessels are, therefore, starting at an Extreme range. The GM manages the vessels' Actions Round by Round from that point onward. Both vessels are allowed to carry out a Detection Test at the beginning of each Naval Combat Round. The furtive fighter immediately detects the PCs' vessel, but for the moment, their soundscan hasn't picked it up yet. Without knowing it, the PCs continue on their course: both vessels are now at Long range distance. At this point, the underwater fighter decides to begin its attack, and it switches to active soundscan. The PCs then pick it up and it "appears" on their Long range scans. Then the real combat begins...*

FROM ONE RANGE TO ANOTHER

When a vessel is engaged in combat, it always requires the juggling of all the different ranges, moving from one to another in order to either come closer to the enemy or move away from it. **In concrete terms, the ability of a vehicle to move from one range to another is represented by its Move Points.** Some Move Points actually have to be "spent" to change ranges, as shown in the table below:

RANGES	<- MOVE POINTS ->	RANGES
Contact	2	Short range
Short range	4	Medium range
Medium range	6	Long range
Long range	8	Extreme range
Extreme range	10	Out of range

For instance, 4 Move Points need to be spent to move from Medium range to Short range (or the other way round). Each Round, a vessel may use some or all its Move Points to try to move from one range to another. If the movement takes several Rounds, the Move Points spent can either be recorded by the Pilot or, even better, be represented by tokens put on the table or on the vessel sheet. Therefore, we can immediately see that it has moved to its targeted range as soon as the number of MP spent reaches (or exceeds) the number of MP required.

A vessel can choose the Speed of its movement (for instance, moving more slowly makes it stealthier). Of course, a vessel can only spend its maximum number of MP on the condition it moves at its maximum Speed as well. If not, the GM may limit such spending—for slower vehicle, this can even mean spending one point every two Rounds only.

Note: a typical fighter has 4 MP. This means that it may actually move from Close range to Contact (2 MP), and then come back to Close range (2 MP) in one single Naval Combat Round. In effect, all the extra points spent are not wasted.

PILOTING TEST

Unless the GM decides otherwise—e.g. for the easiest and most obvious maneuvers—most Move actions in combat (or in any difficult situations requiring tricky maneuvers) will be solved by a *Piloting* Test with the appropriate specialty (possessed by the Pilot).

If the roll fails, the Pilot loses time: **the Failure Modifier acts as an Initiative penalty for the vessel.** This can also result in some serious consequences depending on the situation—e.g. the vessel can crash into an obstacle or another vehicle, or it can reveal its position due to a wrong maneuver when it tried to move stealthily. If the roll is successful, the vessel moves without any troubles. Please note that moving does not necessarily just mean forward, backward, or sideward: a vessel can also dive down or go back up, and actually combine any direction with any other types of maneuvers.

Here are some examples of fairly complex maneuvers:

- **A simple movement** allows the range of a vessel to be shifted in respect to its enemies.
- **A tactical positioning** allows the environment to be taken advantage of—e.g. taking cover behind a relief or another vessel, benefiting from the effects of a natural phenomenon (current, thermocline, dark spot...). Conversely, a Pilot may also try to negate the bonuses of a target under cover.
- **A movement in rough terrain** requires a *Piloting* Test (see **Movement in Rough Terrain**, below).
- **A soundscan evasion** allows an enemy lock-on to be evaded (see **Detection**, page 131). Please note that a successful analysis can also make the evasion more difficult (see **Analysis** below).
- **An evasive maneuver** (Small Vehicle-scale only) allows torpedoes to be evaded (see **Attack**, page 142).
- **A pursuit maneuver** allows a vessel to catch up with another (see **Pursuits**, below).
- **A ramming maneuver** allows an enemy vessel to be rammed into.
- **A boarding maneuver** allows a vessel to be put in position in order for its boarding tunnels to be used.

You may also find many other applications for a *Piloting* Test...

Movement in Rough Terrain

Submarines usually travel in an underwater environment where there are almost no obstacles. However, some combats or pursuits may take place in ruins, canyons, or among the

structures of a base. Such an environment requires a *Piloting* Test each Round (as a free action) with a penalty determined by the GM—usually between -3 and -7. The Speed of a vessel raises its penalty by 2 points per bracket of 5 Speed points (e.g. an underwater fighter moving at Speed 15 will suffer a penalty of 2 x 3 = 6 points). If the Test fails, the vessel will hit an obstacle, causing the usual Damage in the case of a collision (see below).

Note: some vessels—especially fighters—can be equipped with highly effective pursuit soundscans. In this case, the vessel may actually benefit from a bonus if it moves in rough terrain.

Collisions

Collisions often occur after a loss of control, when two vehicles crash into each other, or when a vessel hits an obstacle—particularly in rough terrain. The Damage a vessel suffers is then equal to 1D10 + Speed of vessel (at the time of collision). Some obstacles—rocks or shipwrecks with sharp remains—can also inflict from 1D6 to 1D10 additional Damage points, at the GM's discretion. The vessel must also make an Integrity test with a penalty equal to his Speed. Conversely, if the vessel is particularly bulky compared to the obstacle it meets, the GM can decide to reduce the Damage by 25 to 50% depending on the situation. Sometimes, a vessel may even suffer no Damage at all.

If two vessels hit each other, they both theoretically suffer Damage equal to the sum of the Size and Speed of the opposing vessel, but only if they were heading straight into each other. If one vessel hits the other on its broadside, the Speed of the latter will not be taken into account for the Damage, but it will for the vessel hit on its broadside. If the two vessels belong to two different scales (Small Vehicle and Large Vehicle) collide, the smaller one takes 2D10 additional Damage points whereas Damage for the larger one is reduced by 2D10.

Pursuits

Two machines—usually fighters and torpedoes—can chase each another underwater, one pursuing the other. For one to catch the other, it obviously needs to move at least the same speed as its target. In this kind of situation, the chased vehicle is in a real predicament: it cannot attack its pursuer with electronic weapons since its sonar is obscured by its own propulsion. Moreover, it will not be able to see its pursuer if it is not equipped with light generators that are powerful enough (keep in mind that under water, it is very, very dark...). Needless to say that the chased vessel is in a delicate situation since it can only use sonar-less weapons.

Their maneuvers will then aim to "shake off its opponent." Both Pilots need to roll an opposed *Piloting* Test (against an automated machine, the Test is rolled against its system level). The Pilot of the faster vessel gains a bonus equal to the difference between the two Speeds. Please note that both Pilots can suffer a penalty if they maneuver in rough terrain (e.g. a pursuit in ruins). If the pursuer wins the opposed roll, he can choose to either stay at its current range or to close the distance by one range. If the pursued wins the roll he can choose to either stay at its current range or to increase the distance by one range. If he reaches "out of range," he can no longer be caught up to by his pursuer.

Note: if you wish, you can also make the pursuit rules more precise, by using the difference between the Move Points of both vessels (if they have the same number of Move Points, then follow the standard procedure).

ANALYSIS

An Analysis can provide some information on a contact that cannot be seen. This is the job of the Soundscan Operator, with the help of powerful analysis computers. This is very often a necessary step, in order to identify the contact and then to attack it, as it makes it possible to determine the exact location of the enemy, its trajectory, and every piece of data needed for a shot calculation.

LEVEL AND CAPABILITY OF ANALYZERS

The analyzers on board vessels can be used at any range (see **Movements**, page 139). Like soundscans, they are considered as standard pieces of equipment, **with a default level of 13 and capable of analyzing up to 10 contacts**. Of course, the GM is free to change this base level, by giving bonuses or penalties depending on whether the characters use high-technology equipment or, conversely, equipment in bad condition.

SOUNDSCAN ANALYSIS TEST

There are two ways to perform a *Soundscan Analysis* Test:

- **Automatic analysis:** this is performed by an analysis computer that uses its own level as a Skill. The analyzer can study several targets at the same time. Normally, a Test needs to be rolled per target. However, if there are a lot of contacts to analyze at the same time (more than three) and if you wish to save time, you can also group several targets together and roll only one die per group.
- **Analysis performed by a soundscan operator :** by spending an Analysis Action, a character can try to read a soundscan echo with his *Soundscan Analysis* Skill. However, he can only analyze one target at a time.

These two types of operations can also complement each other: a character can actually perform an analysis while the computer is busy working on other targets.

In the case of a failed roll, no information can be gathered on the contact: its existence is known (as it has been detected), but its nature and exact location cannot be determined. It is useless to fire at it then. In the case of Catastrophe, the Soundscan Operator can receive information that

is completely wrong, or the contact can disappear from screen, and will have to be detected once again. In the case of a successful roll, **the Success Margin indicates which information is collected about the target:**

MARGIN	COLLECTED INFORMATION	SHOT CALCULATION	SOUNDSCAN EVASION BY THE TARGET
1	Contact direction	-5	+0
2	Exact range	-3	+0
3	Exact depth	+0	-3
5	Size and scale (H, V-, V+)	+0	-3
6	Speed	+3	-3
7	Nature (artificial, creature...)	+3	-5
10	Propulsion mode	+3	-5
13	Exact type (vessel model, variety)	+3	-5
15	Exact status (torpedo launcher, armed...)	+5	-7
17+	Other information	+5	-7

Warning: if the vessel performs an analysis with a passive soundscan, the Success Margin will have to be reduced by half.

The order in which the pieces of information are received is *always the same.* Round after Round, performing a thorough analysis on a contact is still possible: roll a *Soundscan Analysis* Test again, hoping that a better Success Margin is obtained. If that is the case, the information is updated—nothing happens in case of a lower Success Margin, no information is "lost." In the case of Catastrophe, however, the signal may be lost or mistaken for another. Of course, this still counts as an Analysis Action. If contact with a target that was analyzed before is lost, and then the same target is detected again shortly afterward, the information that had previously been collected will automatically display again.

The quality of the analysis influences the shot calculation (see **Attack**, page 142); any incomplete analysis on the contact's exact position creates a penalty whereas a more precise analysis grants a bonus. Please note that a minimum Margin still allows a shot calculation.

Finally, and at the GM's discretion, a good analysis may also create a penalty to the *Piloting* Test of a vessel that is trying to perform a soundscan evasion.

Note on soundscans: the information provided depends on the soundscan database. Information that is not already included in this database cannot be obtained. As such, it will be very difficult to have a lot of information on an unidentified prototype, an unknown propulsion system, a mysterious creature, etc. For the record, a civilian soundscan can identify most vessels known by every underwater nation. A military soundscan will be much more efficient and will include intelligence on many friendly or enemy military vehicles. Any new contact is automatically integrated by a soundscan.

INFORMATION SHARING

Several allied vessels may share the results of their analyses, but only if they are able to communicate with each other. One of the vessel may even be appointed as their main detector and analyzer. In this case, the designated vessel will roll the Tests and will automatically transmit the information to the other vessels. This technique is generally used when several vessels are in formation.

Please note that with the agreement of allied vessels, they can be considered as automatically detected (i.e. they actually give their position and any information they decide to pass on during detection). Otherwise, they need to be detected as usual.

Note: a shot calculation cannot be shared.

VESSELS IN FORMATION

If several vessels move in tight formation, soundscans may well initially mistake them for being a single target. Only an initial analysis of the group will then allow the correct identification of the formation and the number of vehicles. The GM may inflict a penalty that will vary depending on the size of the formation and the distance between each vessel. Once a formation is identified as such, it then becomes possible to analyze each vessel individually.

ATTACK

Note: these rules focus on underwater combat and on the weapons used there (torpedoes, etc.). However, they can also be applied to firing missiles on the Surface without much difficulty, with surface radars and sensors then replacing soundscans.

INDIRECT FIRE: SHOT CALCULATION

Resolving a shot calculation is necessary for a torpedo shot, and more broadly for any indirect fire, at a target that cannot be seen directly (but can still be identified through the vehicle's soundscans). **A successful analysis of the target is necessary to obtain a shot calculation:** this analysis will determine the signature of the soundscan contact, which will allow the torpedo to lock on its target. A new shot calculation is required for each attack.

Shot Calculation Test

Resolving a shot can be performed in two different ways, exactly like analyses:

- **An automatic calculation**, performed by the vehicle's targeting system, which uses its own level as a Skill.
- **A calculation made by the Onboard Weapons Officer**, at the cost of an Action, with the *Onboard weapons/ Artillery* Skill.

The Modifiers to apply are listed in the table below.

If the vehicle is equipped with several weapon systems that require a shot calculation to work, calculating several

at the same time is possible. A targeting system suffers no penalty for multiple calculations, whereas a Weapons Officer can only calculate up to three solutions, with a -3 penalty per calculation for two shots or with a -5 penalty per calculation for three shots.

Depending on the Success Margin of the analysis, the Shot Calculation Test can take either a penalty or a bonus (see **Analysis,** page 141).

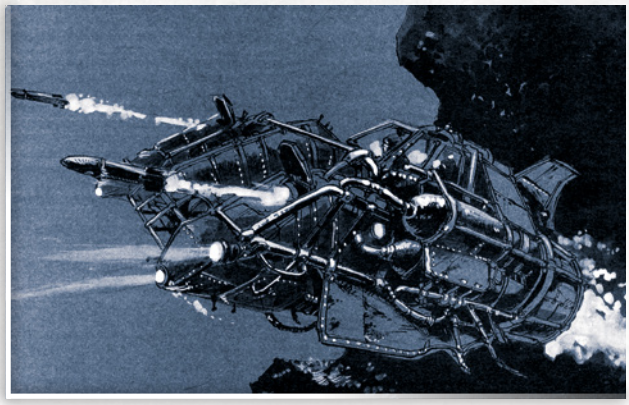
If the Shot Calculation Test is successful, the vehicle can launch its torpedo (see **Torpedo Shot**, page 143). In the case of a Failure, the Weapons Officer does not obtain a shot calculation: the shot cannot be performed. In the case of a Catastrophe, the weapon breaks down, a torpedo is stuck in the launcher, or goes off as it is exiting the tube, etc. Please note that just like normal attacks at the scale of the characters, **the Test's Success Modifier is added to the Damage dealt by the weapon or torpedo.**

MODIFIERS FOR SHOT CALCULATION

SITUATION	MODIFIER
Target Size:	**Target size:**
- Torpedo, mine	-7
- Armor, Hybrid, Human-sized creature	-5
- Fighter, patroller	-3
- Corvette, escort vessel	+0
- Frigate, cruiser	+3
- Submarine battleship	+5
- Bomber	+7
- Base, Atlantis	+10
- City	+15
Target under cover	-3 to -10*
Target within or on the other side of a flux/current	-3 to -7**
Stationary target	+5
Target embedded in a wall/the ocean floor	-10
Target in a foxhole	-15

** Depends on the type of cover. Please note that to a certain extent a torpedo is capable of going around cover. The penalty still depends on the difficulty of the operation though...*

*** Depends on the intensity of the phenomenon.*



LEVEL OF THE TARGETING SYSTEMS

The targeting systems on board vessels can be used at any range. They are considered as standard pieces of equipment, with a default level of 13 and capable of calculating 5 shots calculations simultaneously."

SHOT CALCULATION AND PASSIVE SOUNDSCANS

Resolving a shot with a passive soundscan is more difficult. Indeed, three initial analyses have to be performed in less than five Naval Combat Rounds in order to triangulate the target's position and route (keep in mind that an analysis performed with a passive soundscan suffers a -5 penalty...). When the three analyses are performed, take the best Success Margin to determine any possible bonuses or penalties to apply to the calculation. If the three Analysis Tests cannot be performed in five Rounds or less, or if during these five Rounds the GM deems that the situation of the target has changed in a significant way (major change of route or depth, switching to passive soundscan mode...), you will have to start the Tests all over again...

Forcing a Shot Calculation

It often happens that, underwater, the location of a target is known but the targeting system refuses to lock on it. This is particularly the case for buried sleeper machines or static sentry guns firing from abyssal walls. It can also be decided that a specific area needs to be fired at, to destroy an obstacle, for example. In this case, the coordinates of the targeted area need to be entered into the targeting system, and nothing else. Please note that, most of the time, a clear picture of the area is required, such as with an underwater map or an active soundscan hit, or even by relying on precise coordinates (for instance, with the help of satellite geo-positioning). Fire can then be opened on that area. Keep in mind that this only works on stationary targets—the calculation is granted the usual +5 bonus, but the GM can inflict a penalty if the Weapons Officer does not know the exact coordinates of the target he wants to hit.

TORPEDO SHOT

Torpedoes have their own particular rules: as soon as they leave the launch tube, **they have to be considered as full-fledged vehicles** that enter into combat. They can then be detected, analyzed, and even be targeted. If the target is equipped with a lock-on detector, it will automatically be warned of any approaching torpedoes (either autonomous or wire-guided).

In most cases, torpedo firings are performed at long range, which is more secure: a torpedo can thus take several

Rounds to reach its target. Incidentally, the target can take advantage of this time to defend against the torpedo (by using a soundscan evasion to try and lose the lock, by firing countermeasures or anti-torpedo weapons, by performing a last-chance evasive maneuver...). Therefore, torpedoes have a Speed Attribute, but also their own Move Points (calculated the usual way). These Move Points indicate the speed at which a torpedo can move throughout the different ranges that separate it from its target: **the GM has to consider that the torpedo heads straight at its opponent and needs to apply the usual Move rules.**

Torpedoes detonate when they reach the Contact range. This means that they do not need to actually *hit* their targets. A torpedo hardly ever hits its target but goes off at a certain distance; the air bubble and the shockwave generated by the explosion create a depression capable of making a vessel collapse under its own weight.

Note on Initiative: at the beginning of each Naval Combat Round, the Initiative of a torpedo is equal to the Initiative of the vehicle or the character that fired it, at that moment.

HIT? SUNK...

In long-range underwater combat, the only way to know if a target has been hit is either by watching its reaction with an active soundscan and perhaps with a new analysis (a vessel that is sinking down, shattering, etc.) or by listening to the sounds it emits with a passive soundscan (a hull that tears apart and the depressurization produce sounds that are particularly recognizable).

WHAT ABOUT HUMAN SCALE?

These rules mainly concern vessels battles as part of Naval Combat Rounds. And yet, a character—in an exo-armor or not—can also perform torpedo (or missile) firings, and as such will need to detect and analyze a target and calculate a shot. He can then use portable devices or the equipment included in his exo-armor. Technically speaking, this can take place during normal Combat Rounds—the Initiative being calculated normally—although the different stages of underwater combat are often complex, with Actions taking several Combat Rounds:

- **A detection** is a free Action as it is usually automatically performed by soundscans. In cases of detection "by the ear," it is then an exclusive Action: the character has to stay focused on his detection and cannot do anything else.
- **An analysis or a shot calculation** are complex Actions that take five Combat Rounds each—which is more or less equivalent to one Naval Combat Round, in case you need to move from one scale to the other.

A direct firing (see **Direct-fire Weapons**, page 145) does not count as an Action. As usual, a character can either use the systems level of his equipment or perform the operation himself with the appropriate Skills.

Note: if a character uses a portable launcher, then the *Heavy weapons* Skill is used for a direct torpedo and the *Remote piloting* skill for a wired-guided torpedo..

Autonomous Torpedoes

There are several types of torpedoes, each one with a slightly different behavior in combat. Autonomous torpedoes are intelligent automatic weapons that are equipped with an active soundscan and an independent targeting system. Prior to firing, the Weapons Officer sends the shot calculation and the target's signature (obtained by analysis) to the torpedoes, which will then lock on it.

An autonomous torpedo can be fired as active or silent. An autonomous torpedo activated at firing uses its soundscan to track down its target, and can thus be detected very easily because of its active soundscan (and also automatically if the target is equipped with a lock-on detector). This means that the target has some more time to react to the threat. A torpedo fired silently only follows the coordinates entered by the Weapons Officer to begin with. He will need to specify the range at which the torpedo activates.

However, if the target situation changes between the firing and the activation of the torpedo—e.g. change of route, speed, depth, switching to passive soundscan, etc.—the weapon will have to detect its target again by using its systems level as a Skill with the usual detection Modifiers, plus any additional bonuses that a good detection may grant (please note that the target is considered as having already been detected before, which already grants a +3 bonus). If the weapon's Detection Test is successful, it will lock on its target again. If it fails, it will keep searching for up to 2 Rounds maximum before deactivating and becoming completely harmless. The target can then escape the torpedo... provided it has detected it early enough.

When an autonomous torpedo reaches its target, it attacks it. It then needs to roll a Test with its systems level. If the weapon's attack is successful, it hits and deals Damage to which any Success Modifiers are added. If it fails, it falls back on lock-on target again (follow the same steps as for a loss of contact).

Autonomous torpedoes can be neutralized by countermeasures (see page 151) or by electronic countermeasures (jamming shielding, torpedo control, anti-torpedo field, etc.) Moreover, if it misses its target near any relief, it will have to roll a Test with its systems level (modified by any penalties inflicted by the rough terrain). In the case of a Failure, it hits the obstacle. Lastly, it is also possible to try a soundscan evasion against the torpedo (following the usual steps). However, the torpedo will benefit from a bonus as the

target has already been detected, but also from any bonuses granted by a good analysis.

Wire-guided Torpedoes

Wire-guided torpedoes are weapons connected to their launchers with a very thin wire that allows the torpedo to be guided. They are not equipped with any soundscan and can be fired without shot calculation. However, the attacker has to either see his target or have analyzed it. When the torpedo is at Contact range, the Weapons Officer may attack with his *Remote piloting* Skill, with the same Modifiers as those usually applied to the shot calculation, depending on the result of the analysis. He hits his target with one Success (the Success Modifier has to be taken into account for Damage). In the case of a Failure, the torpedo becomes harmless. These torpedoes can be disrupted with electronic warfare systems (except torpedo control) and countermeasures. Attempting a soundscan evasion is also possible. If contact is lost, the attacking vessel will have to go through the usual procedure and detect its target all over again.

Direct Torpedoes

These direct weapons are not equipped with any guidance systems. If they miss their target, they keep moving straight on until they either hit something or reach their maximum range. They are immune to electronic warfare systems and countermeasures. If the attacker can see his target, he may then perform a direct firing (see **Direct-fire Weapons** below). Otherwise, he can still calculate a shot. In that case, the target only needs to change its route, depth, or speed to avoid being hit.

DODGING AND EVASIVE MANEUVERS

Fighters can try to dodge a torpedo with a last-chance maneuver performed at the very last moment, just before it goes off. The goal is to prevent the weapon reaching the optimum range at which it usually goes off. For this maneuver to succeed, the Pilot's Initiative needs to be higher than the torpedo's (and he must also be aware of its position). Then, a *Piloting* Test opposed to the torpedo's systems level needs to be rolled. If successful, the Success Modifier acts like a penalty to the torpedo's Attack Test, or to the *Remote piloting* Test if the torpedo is wire-guided.

Note: exo-armors with a propulsion system and Hybrids—at Human Scale—can also attempt this kind of maneuver, with the *Armor maneuvering* and *Underwater maneuvering* Skills. However, those maneuvers are impossible for exo-armors without any propulsion systems or walking on the seabed.

Very high Size vehicles (or vessels that are not fighters) are not maneuverable or fast enough to dodge a torpedo. But they can try an evasive maneuver (following the same steps as a dodging maneuver) in order to reduce Damage from the explosion. The vessel needs to roll a *Piloting* Test with a penalty equal to half its Size. In the case of a Success, the Success Modifier reduces the amount of Damage dealt. Please note that vessels considered as Large vehicles may *not* perform an evasive maneuver.

DIRECT-FIRE WEAPONS

Some weapons can perform a direct fire (in a straight line...), such as energy weapons, various cannons, and even direct torpedoes. Please note that an autonomous or wire-guided torpedo can actually be used in a direct fire; it just needs to have a shot calculation forced on it. In this case, there is no need to determine a shot calculation: the vehicle only needs to aim at the target and fire. If it can see its target, at "Contact" range only, there is no need to analyze it, and technically speaking, there is not even a need to detect it. If the target is located at a higher range, a shot calculation will be required as usual.

In order to perform a direct fire, the Pilot first needs to roll a *Piloting* Test in order to aim at his target. Then the Weapons Officer rolls an *Onboard weapons/Artillery* Test with the same Modifiers as for the Shot Calculation Test, but the Success (or Failure) Modifier obtained by the Pilot that acts as a bonus (or penalty). As for a normal shot, the Weapons Officer's Success Modifier has to be added to the Damage. A direct fire hits its target instantaneously.

Note: a target can perform maneuvers to try and avoid a direct fire—just like a character can run in a zigzag to avoid being shot by a firearm. Its Pilot can then roll a *Piloting* Test; if successful, his Success Modifier acts as a penalty to the attacker's Shooting Test. However, only Small vehicles that are fast enough can attempt this kind of maneuver. The GM is completely free to inflict a penalty if the vehicle is too bulky or too slow—e.g. -3 for a patroller, -5 for a corvette, -7 for an escort vessel, -10 for a light frigate.

SATURATION FIRING

Fighters and combat vessels can pound an area by using all their weapons at the same time. In this case, they do not need

TARGETING A SPECIFIC AREA ON A TARGET

With direct fire, you can target a specific area on a target as long as it is in your line of sight. The GM will decide if the shot is possible and/or logical depending on the situation. A specific piece of equipment can thus be targeted (which can also cause some very specific Armor Damage): a cockpit not protected by a security flap, an area weakened by the Damage it took previously (in the last two cases, you can ignore 50% of the Armor), etc. Additionally, several vehicles can very well join forces to overcome a more formidable vessel by targeting the same area all together.

to detect targets or calculate a shot. For instance, a fighter can spray the wall of a canyon with bullets or a cruiser can pound the seabed. All the targets in that area, the size of which needs to be determined by the Gamemaster, have to roll a Luck Test each Naval Combat Round (for vehicles, the Luck Test is rolled by the Tactical Coordinator). If the roll fails, the target is hit. Targets that do not have a Luck Attribute (creatures, unmanned vehicles, or vessels) may roll this Test with a default level of 10.

Note: you can use this rule if a fighter or a character in exo-armor comes too near the automatic defense area of a cruiser, instead of rolling all the Attack Tests. This Luck Test does not cost any Luck Points. If hit, the target takes Damage from weapons of varying power, depending on the Failure Margin obtained on the Luck Test.

RAMMING AND VOLUNTARY COLLISIONS

Ramming is an attack technique frequently used by frigates and escort vessels in order to tear an enemy vessel apart. This can also be a last-chance maneuver... Ramming another vehicle requires being at Contact range. The Pilots of both vessels roll an opposed *Piloting* Test (the attacker may suffer a penalty if he targets a smaller and/or faster vessel). If the defender succeeds, he avoids the attack. If the attacker succeeds, his Success Modifier is added to the Damage. If the targeted vehicle is unaware of the attack, this will then be a simple *Piloting* Test with a Modifier decided by the GM depending on the situation.

The Damage is handled the same as collisions (see **Movements**, page 139). Vessels specialized in this type of attack can be fitted with an armored spur at their bow: the Damage the attacker suffers is reduced by a half but increased by 1D10 for the defender.

Finally, a vessel located to the side of another can try to ram it broadside in order to knock it against an obstacle. Underwater, this only matters if both vessels are in an area with obstacles. This can also be resolved by an opposed *Piloting* Test. If the defender fails, he then has to successfully roll another *Piloting* Test with a **Movement in rough terrain** penalty (see page 140) to avoid hitting an obstacle.

BOARDING ACTION

Boarding another vessel requires being at "Contact" range. It also requires moving at the same speed and being side by side. Both vessels are thus at risk of being hit by a salvo attack or colliding into each other. Like ramming, both Pilots roll an opposed *Piloting* Test: if the attacker succeeds, he can then put his vessel in to boarding position. Boarding tunnels or assault vehicles can then be used to send commandos to attack. The tunnels attach themselves onto the airlocks of the enemy hulls. After that, the infantry only need to force them open—airlocks are hardly ever destroyed outright to avoid sinking an enemy vessel that is more valuable when captured. Most boarding actions take place at shallow depths, as the use of airlocks is limited by depth, due to pressure.

Some cruisers use grappling hooks that fasten to the hull of an enemy vessel in order to drag it to them. Then, they send their commandos who, like a swarm of insects, fall onto their target. A diver may attack a vehicle or a fighter provided he can either move at the same speed or tether himself to it; otherwise, he will automatically be pulled away from the hull by the water.

MODEL	DAMAGE	RANGE	INI.	SHOOTING MODE	COST	AMMO. (COST)	AVA (B. MKT)	TL
Neutron canon L	6D10+4 (H)/ 1D6 (V-)	8/40/80/ 160 (240)	-3	SB (4)	101,600	40 (1,080)	1(5)	IV
Neutron canon H	1D10+2 (V-)/ 1D6 (V+)	30/150/300/ 600 (900)	-3	SB (4)	769,700	40 (16,930)	-10 (-5)	IV
Hades canon L	1D10+4 (V-)/ 1D6+1 (V+)	2/12/24/ 48(72)	-4	SS	262,700	15 (1,680)	-10 (-5)	V
Hades canon H	3D10+2 (V-)/ 1D10+4 (V+)	22/110/220/ 440(660)	-4	SS	1,020,300	15 (22,610)	-15 (-15)	V
A.M. Beam L	6D10+3 (H)/ 1D6 (V-)	3/15/30/ 60 (90)	-1	SS	194,800	20 (7,540)	1(5)	IV
A.M. Beam H	8D10+1 (H)/ 1D6+1 (V-)	10/50/100/ 200 (300)	-1	SS	290,300	20 (16,330)	-10 (-5)	IV

SALVO WEAPON PROTOTYPES

Salvo weapons are formidable weapons that use various types of energy or projectile, but with a ridiculously short range underwater. Those using projectiles were the very first supercavitation weapons to be designed and deployed on board vessels. They are often stored on the broadsides in case of boarding. Their range does not exceed 20 meters and they cannot engage individual targets. Generally speaking, they always fire in a straight line. The amount of Damage they deal depends on the number of weapons placed in a battery (usually from 2 to 4D10 according to the scale of the vessel that uses them).

NAVAL WEAPONRY

In this section, you will find common weapons and equipment for underwater combat. The prices shown are for to second-hand gear on the legal market (Integrity = 2D6+6). As usual, brand new gear can also be found on the black market (Integrity = 20), but the cost will double... See the **Gear** chapter, **Acquiring Gear** section for further details.

Examples of naval weapons

In addition to torpedoes, vessels can be equipped with a lot of weapons like energy weapons, supercavitation guns, etc. These naval weapons will be explained in the **Technical Guide** supplement. In this section you will find a few examples of energy weapons.

Neutron canon

The heavy neutron canon is a more powerful version of the neutron canon used by exo-armors.

Hades canon

This weapon inflicts terrifying damage. Manufactured by the Hegemonians, it literally vaporized water on his path. The Protection value of the targeted armor is divided by four (rounded down).

AM Beam

This weapon can destroy the target's armor. Each time this weapon hits a target, you will find in the table below the probability for it to lose X armor points (double that number for protection points). This loss is indicated in parentheses. On a critical hit, the loss of armor is doubled.

A.M. BEAM	H	V-	V+
AM Beam L	1-6 ON 1D20 (6)	1-3 ON 1D20 (1)	-
AM Beam H	1- 9 ON 1D20 (12)	1-6 ON 1D20 (2)	1- 3 ON 1D20 (1)

WEAPONS MOUNTED IN BATTERY

Generally only vessels can have weapons mounted in battery, but you can also have weapons mounted on a massive tripod and manned by gunners. When several weapons are mounted in battery, a single attack test for all the weapons will indicate how many weapons have hit the target. There is also a bonus to hit:

WEAPONS IN BATTERY	BONUS TO HIT
2	+1
3-4	+2
5-6	+3
7-9	+4
10-13	+5
14-18	+6
19-24	+7
25+	+8

If the attack test is a success, the Success Margin (and not the success Modifier) indicates how many weapons hit the target (limited naturally by the number of weapons in the battery). Moreover, a battery can obtain a maximum of hits equal to SIZE +1 of the target at the V- scale (there is no such limitation at the V+ scale). Only two hits are possible at the H scale. The number of weapons that hit the target determines the damage multiplier and the increase in penetration (if the weapons have a penetration value).

WEAPONS THAT HIT	PENETRATION	DAMAGE MULTIPLIER
2 – 3	+10 %	x 1,5
4 – 6	+20 %	x 2
7 – 8	+30 %	x 2,5
9 – 11	+40 %	x 3
12 – 16	+50 %	x 3,5
17 – 19	+60 %	x 4
20 – 24	+70 %	x 4,5
25+	+80 %	x 5

TORPEDOES

Torpedoes are fairly small underwater machines that move at an extremely fast speed, using compact, resistant engines capable of delivering a very high boost of power in very little

time (a few minutes), and that are also equipped with highly efficient propulsion systems. There are many different models of torpedoes, each one with its own specifications. **Each torpedo is thus defined by its Mark, its type, and its Speed (determined in that order):** these different options can be combined depending on the needs. Torpedoes are very expensive and are still the most efficient weapons capable of destroying a target at shallow and medium depths. This means that a torpedo is only fired when strictly necessary.

MARK OF TORPEDOES

There are 10 different torpedo Marks, which helps define their base cost, their Damage, and their maximum range (see the **table on the next page**).

Note: normally, the deeper the vessel dives, the shorter the torpedo range. If the GM decides to use that last rule, she can consider that the maximum range decreases by one level every 5,000 meters deep (for instance, the "Long" range of a torpedo becomes "Medium").

In a normal combat, torpedoes fired by a vehicle will always be set to deal Damage relative to the target's size, in order to save and manage munitions (and to be prepared to retaliate if attacked by a heavier vessel later). Please note that torpedo tubes on board vessels are always designed for one very specific Size. However, firing a torpedo whose Size is smaller by one level is still possible if the tube is equipped with a special clamp. For information, here is an example of the average torpedo Sizes that can be found on board different vehicles according to their Size (there may be some exceptions though):

MARK OF ONBOARD TORPEDOES

TYPE OF VEHICLE	MARK OF TORPEDOES
Exo-armors (up to exo-4)	1–3
Fighters, exo-5 to omega armor	3–5
Patrollers	3–6
Corvettes	4–6
Escort vessels	4–7
Light frigates	5–7
Heavy frigates	5–8
Cruisers	5–9
Submarine battleships and +	5–10

TYPES OF TORPEDOES

As previously seen in the chapter on naval combat, there are three types of torpedoes: direct, wire-guided, and autonomous. The cost of the torpedo and its range will thus be modified depending on its type—the new maximum range will then replace the one shown in the Size, Cost, Damage, and Range of Torpedoes table:

TYPE OF TORPEDOES

TYPE	COST	MAXIMUM RANGE	AVA (B. MKT)*
Direct torpedoes	-50%	Long	+3
Wire-guided torpedoes	Normal	Long	-
Autonomous torpedoes	+50%	-	-3

** Modifies the levels of Availability (normal and black market) in the Size, Cost, Damage, and Range of Torpedoes table below.*

Note: autonomous torpedoes have a default system level of 12. Torpedoes with a higher level can be acquired by looking for gear coming from a more efficient technology (see **Technology Level of Torpedoes** below).

SPEED OF TORPEDOES

A very important piece of data in combat is the Speed of torpedoes: the faster the torpedo, the more difficult it is for a target to avoid it.

Note: if you do not want to burden yourself with details, consider that any torpedoes bought by the PCs are wire-guided and have a Speed of 23 (which also means that you will not have to calculate the cost as well).

SPEED OF TORPEDOES

SPEED (MP)***	COST*	AVA (B. MKT)**
13 (3)	-30%	+3
15 (3)	-20%	+2
20 (4)	-10%	+1
25 (6)	Normal	-
30 (7)	+20%	-1
35 (8)	+40%	-2
38 (8)	+60%	-4

** The obtained Cost is modified after having selected the type of torpedo.*
*** Modifies the levels of Availability (normal and black market) in the "Size" table, cumulative with other Modifiers.*
**** Move Points*

TECHNOLOGY LEVEL OF TORPEDOES

The options above correspond to TL II torpedoes. However, it is also possible to obtain torpedoes with a TL above II, but only on the black market most of the time. As for standard weapons, they are usually military gear, prototypes, or either Azurean or Genetician equipment. Their Availability level is reduced by 2 or 3 points and their cost increases by 50% per TL above II. You can consider that for each TL above II, the torpedo has one additional special characteristic, such as:

- **Enhanced range:** the range of the torpedo is one level higher (an Extreme range becomes an Extreme + range).
- **Enhanced soundscan (autonomous torpedoes only):** equipped with superior sensors, the torpedo is granted a +2 bonus when it has to perform a new lock on target after a loss of contact. This option can be selected several times.
- **Higher quality:** the Integrity of the weapon is 3D6+7 (25).
- **Enhanced Damage:** the Damage of the torpedo increases by 1D10.
- **Deep-water torpedo:** each time this option is selected, the depth at which the torpedo's range usually starts to be reduced (5,000 meters normally) now increases by 2,000 meters.
- **Hypercavitation:** the torpedo is fired like a conventional torpedo, and then switches to supercavitation halfway thanks to a small force field that repels water in order to create a gas bubble.
- **Wire-guided Super/Hypercavitation:** the type of torpedo can be wire-guided.
- **Intelligent Super/Hypercavitation (TL V only):** the type of torpedo can be autonomous (please note that "silent" fires are still impossible).
- **Stealth torpedo:** this torpedo inflicts a -3 penalty to any Detection Tests for detecting it (this option is not available to super/hypercavitation torpedoes).
- **Etc.** (any other abilities the GM comes up with).

Note : the torpedoes are at the heart of the game so they will be more largely covered in the upcoming technical guide.

TORPEDOES WITH BLAST WARHEADS (BLAST TORPEDOES)

MARK	COST	DAMAGE*	EXPLOSIVE BLAST LEVEL	RANGE	AVA (B. MKT)
1	3,000	DM (15D10+3/H), 1D10+3 (V-), 1D6+1 (V+)	8	Contact	15 (20)
2	5,000	2D10+3 (V-), 1D10+2 (V+)	13	Short	15 (20)
3	10,000	3D10+3 (V-), 1D10+4 (V+)	18	Short	10 (15)
4	25,000	4D10+3 (V-), 2D10+2 (V+)	23	Medium	10 (15)
5	50,000	5D10+3 (V-), 2D10+4 (V+)	28	Medium	10 (15)
6	70,000	6D10+3 (V-), 3D10+2 (V+)	32	Medium	5 (10)
7	100,000	7D10+3 (V-), 3D10+4 (V+)	34	Medium	5 (10)
8	250,000	8D10+3 (V-), 4D10+2 (V+)	37	Medium	5 (10)
9	400,000	9D10+3 (V-), 4D10+4 (V+)	39	Long	-1 (5)
10	500,000	10D10+3 (V-), 5D10+2 (V+)	42	Long	-1 (5)

** H: Human Scale; V-: Small Vehicle Scale; V+: Large Vehicle Scale*

TORPEDO WITH ARMOR PIERCING WARHEAD (ARMOR PIERCING TORPEDO)

MARK	COST	DAMAGE*	PENETRATION	EXPLOSIVE BLAST LEVEL	RANGE	AVA (B. MKT)
1	30,000	6D10 (H)/1d6-1 (V-)	48(H)/8 (V-)	3	Contact	10 (15)
2	40,000	7D10 (H) / 1D6 (V-)	72 (H)/12 (V-)	3	Short	10 (15)
3	70,000	10D10 (H) / 1D10 (V-)	72 (H)/16 (V-)	5	Short	5 (10)
4	130,000	DM(20D10/H) / 2D10 (V-) / 1D10 (V+)	120 (H)/20 (V-)/10 (V+)	10	Medium	5 (10)
5	250,000	3D10 (V-) / 1D10+3 (V+)	22 (V-)/11 (V+)	15	Medium	-1 (5)
6	350,000	4D10 (V-) / 2D10 (V+)	26 (V-)/13 (V+)	20	Medium	-1 (5)
7	400,000	5D10 (V-) / 2D10+3 (V+)	28 (V-)/14 (V+	25	Medium	-1 (5)
8	1,000,000	6D10 (V-) / 3D10 (V+)	30 (V-)/15 (V+)	30	Medium	-1 (5)
9	1,200,000	7D10 (V-) / 3D10+3 (V+)	32 (V-)/16 (V+)	33	Long	-5 (1))
10	1,350,000	8D10 (V-) / 4D10 (V+)	34 (V-)/17 (V+)	35	Long	-10 (-5)

**** H:** Human Scale; V-: Small Vehicle Scale; V+: Large Vehicle Scale*

** If the penetrating value of the torpedoes is inferior to the armor of the target, the damages of the torpedoes are divided by 2.*



DEVASTATING ATTACK

SPEED OF SUPERCAVITATION TORPEDOES

Some torpedoes can reach extremely high speeds thanks to supercavitation technology. A supercavitation torpedo creates a gas bubble at its fore, which enables it to remove all the friction and resistance caused by liquid environments. However, these machines are limited in several ways:

- This process requires a lot of energy, which then limits the autonomy of the torpedo. **Its maximum range is reduced by one level.**
- **The limitations caused by high depths** are more significant: the maximum range of a torpedo is reduced by one level every 4,000 meters (instead of 5,000 meters).
- **Supercavitation torpedoes are extremely noisy:** this means they will be detected as soon as they are fired.
- Finally, supercavitation torpedoes are **direct fire weapons** by default (see also **Technology Level of Torpedoes** 148 above).

Note to the GM: feel free to consider supercavitation torpedoes as advanced weapons, and to pitch them against veteran Players who are used to the subtleties of underwater combat and whose characters are well equipped to face them...

SPEED OF SUPERCAVITATION TORPEDOES

SPEED (MP)***	OPERATING DEPTH	COST*	AVA (B. MKT)**
34 (7)	100 m	+40%	-1
47 (10)	200 m	+50%	-2
57 (12)	300 m	+60%	-2
66 (14)	400 m	+70%	-3
73 (15)	500 m	+80%	-3
103 (21)	1,000 m	+90%	-4
145 (30)	2,000 m	+100%	-4

** The Cost is modified after having selected the type and Speed of torpedo.*
*** Modifies the levels of Availability (normal and black market) in the Size, Cost, Damage, and Range of Torpedoes table, cumulative with other Modifiers.*
**** Move Points.*

Note: supercavitation torpedoes can reach a speed of 1,375 knots (458/92).

ELECTROMAGNETIC PULSE TORPEDOES

Instead of being equipped with an explosive charge, a torpedo can be designed to perform an EMP attack, which will force the systems that are hit to roll a Breakdown Test with a penalty varying according to the Mark of the torpedo. For the rest (Type, Speed, Cost, etc.), just follow the usual rules.

SIZE OF EMP TORPEDOES

MARK	PENALTY TO BREAKDOWN TEST
1	-3 (H)
2	-5 (H), -1 (V-)
3	-2 (V-)
4	-3 (V-)
5	-4 (V-), -1 (V+)
6	-5 (V-), -2 (V+)
7	-6 (V-), -3 (V+)
8	-7 (V-), -4 (V+)
9	-8 (V-), -5 (V+)
10	-9 (V-), -6 (V+)

H: Human Scale; V-: Small Vehicle Scale; V+: Large Vehicle Scale

ANTI-TORPEDO WEAPONS AND EQUIPMENT

Countermeasures

Countermeasures are devices that mimic the passive/active echo of a target. Please note that countermeasures are all specific to one type of machine: countermeasures for exo-armor cannot be used by fighters or by heavier vessels. Furthermore, a countermeasure for one type of vehicle cannot be used by another vehicle with a different propulsion system. **Countermeasures have a systems level.** Firing a countermeasure is a Free Action that can be performed in the Action Phase. The effect produced by the countermeasure depends on when they are used:

Fired before Detection, the countermeasure will be detected as a normal soundscan contact, with the usual Modifiers given by the vehicle to which it is related. The countermeasure is considered a stationary target, and you can also select its signature, either active or passive.

Fired before an Analysis, it forces the Soundscan Operator to roll a Soundscan Analysis Test successfully (this counts as a naval combat Action) with a penalty equal to his level. This roll is meant for the character to realize that he is actually analyzing... a countermeasure.

Fired before a Shot Calculation, the countermeasure disrupts this operation, inflicting a penalty on the Weapons Officer or on the targeting system equal to the level of the countermeasure.

Fired after a torpedo is fired, the countermeasure makes the torpedo roll a Test with its systems level (and with a penalty equal to the level of the countermeasure). If the torpedo fails, it starts to pursue the countermeasure.

Please note that an Electronic Shielding installed on the computers on board or on a torpedo reduces the level of a countermeasure.

SYSTEM	COST	AVA (B. MKT)	TL
Countermeasure	SIZ of Vehicle x 1,000/lvl.*	10 (15)	II

** **Maximum level:** 10. A level "0" countermeasure costs 500 Sols. This cost is doubled for Large Vehicles.*

Anti-torpedo Torpedoes

These fragmentation torpedoes intercept the trajectory of other torpedoes fired at a vehicle and detonate in order to create a shield made of matter into which the enemy torpedo will crash. Firing such a torpedo requires having previously analyzed the attacking torpedo, then rolling a Shot Calculation Test (this counts as a naval combat Action, performed by the Weapons Officer), and all that **before** the enemy torpedo reaches Contact range... Any bonuses given by a good analysis can be taken into account. In the case of a Success, the enemy torpedo is intercepted and will be destroyed if the enemy does not change its trajectory in time (which requires detecting and analyzing the anti-torpedo torpedo...) or if it is a direct fire torpedo. If the roll fails, the anti-torpedo torpedo goes off and becomes harmless.

Anti-torpedo torpedoes cost as much as normal torpedoes of the same size. However, they only have a Medium range.

Note: in order for this system to work, there cannot be more than **three Size levels of difference** between both torpedoes.

MINES AND DEPTH CHARGES

Underwater Mines

Underwater mines can be used to saturate an area or to protect an entrance. Vessels crossing a mine field are moving in rough terrain: each Naval Combat Round, they need to roll a *Piloting* Test successfully with a penalty that will vary according to the concentration of mines in the area and to be determined by the GM. Please note that the vessel has to locate the mines, either by spotting them with a light generator or by detecting them with an active soundscan. If the *Piloting* Test fails, the vessel will cause an explosion...

Mines deal the same amount of Damage as normal explosive packs, depending on their size (see the **Gear** chapter). They all need to be set in order to activate in very specific conditions. For example, no mine will go off if a fish swims near it. Similarly, an anti-vehicular contact mine is set to go off only if its target's weight is heavier than 200 kg. Here are some systems:

- **Contact mine:** they go off when in contact with their target.
- **Acoustic mine:** these mines are equipped with hydrophones that react to noise (range: around 50 m).
- **Pressure mine:** the detonation system for these mines is sensitive to variations in water pressure that are caused by the passing of a vessel (range: around 100 m).
- **Magnetic mine:** the detonation system for these mines is sensitive to variations in the magnetic field that are caused by the passing of a vessel (range: around 100 m).
- **Sonar mine:** these mines are not meant to remain unnoticed. With their sonar echo, they clearly signal that the area is off limits. However, they can detect a target within several nautical miles.
- Besides these, there are several types of devices that are more or less elaborate.
- **Spider mine:** these mines move on the seabed with small mechanical legs. They keep watch over a defined area and bury themselves between trip legs. They can be equipped with an active sonar that they sometimes use to detect a target. After using their sonar, they leave their hideout in order to find another one.
- **Patroller mine:** these mines are equipped with a small propulsion system and are designed to patrol within a

defined area. They are also equipped with an active and passive sonar.

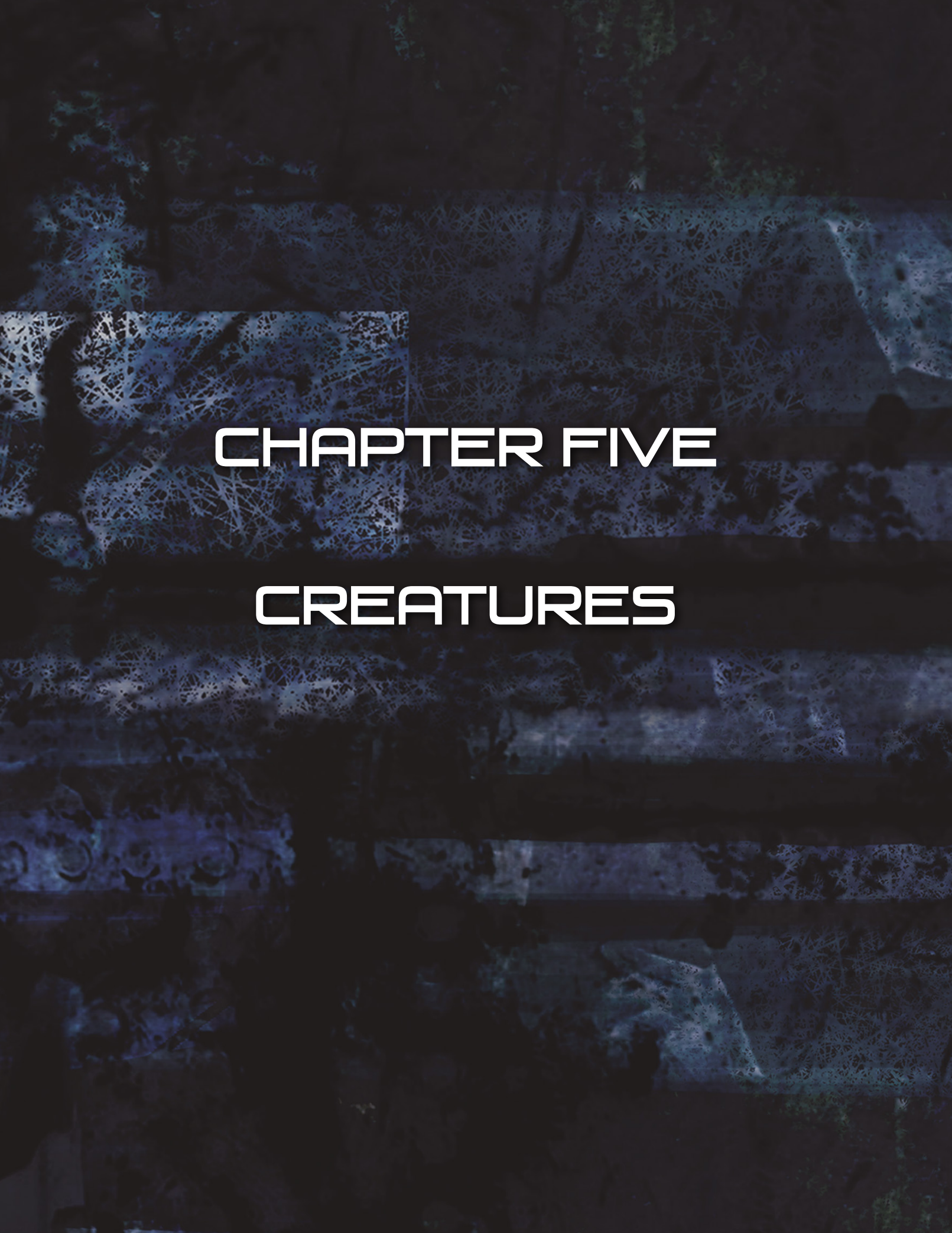
- **Floating mine:** these mines float at a specific depth.
- **Bottom mine:** these mines are placed on the seabed.
- **Drift mine:** these mines are simply floating mines left drifting.
- **Moored mine:** these mines are moored to a wire in order to remain at a specific depth.
- **Torpedo mine:** these mines release a torpedo that activates as soon as their target is spotted.
- **Magnetic mine:** these mines attach onto their targets.
- **Jump mine:** these mines are flung out from their own containers, which are buried, in order to explode near their target.
- **EMP mine:** these mines release an EMP effect.
- Lastly, mines can also be designed to behave in a certain fashion after their activation:
- **Immediate explosion:** as soon as they detect an intruder in their area, they go off.
- **Analysis:** these mines are equipped with a database. As soon as they detect a target, they analyze it. If the target is marked as Enemy or Unknown, they detonate.
- **Analysis and confirmation:** these mines can communicate with their command center and request authorization to go off.
- **Move and explode:** these mines are either buried or hidden and as soon as they spot a target, they move closer before detonating.
- **Move and wait:** as soon as a target is spotted, these mines move closer and follow it (or attach themselves onto it in the case of a magnetic mine). Then, they either activate a timer or wait for the order to go off.

Depth Charges

Depth charges are bombs set to explode either at a certain depth or if they identify something in their detection area. They are very efficient against submarines (they can actually be dropped on their trail or, by setting their ballast, against an enemy positioned below or above the vessel). Moreover, they are frequently used to "bomb" stations... They deal the same amount of Damage as normal explosive packs, depending on their size (see the **Gear** chapter).

The classic models are set to go off as soon as they reach a certain depth. The very famous Deep Impact model is also equipped with a proximity sonar that automatically detonates the charge as soon as any echo is detected within a 10 m radius. The sonar activates at a safety depth, which is set by the user. The charge comes in the form of a small, relatively compact, but heavy metal cylinder. The control panel used to set the device is located near the charge.

The Strike charge, another dreaded model, releases 12 self-propelled warheads when it reaches its targeted location. The warheads scatter around the main charge in a radius extending from 10 to 100 m and all go off simultaneously with the main charge. This device comes in the form of a rather cumbersome metal sphere. The warheads are located all around the sphere.



CHAPTER FIVE

CREATURES

CHAPTER 5

CREATURES

"One leg . . . Two legs . . . Three legs . . . Four legs . . . Five legs . . . Six! Damn! That's a lot for a three-meter high critter. I've got a bad feeling about that one!

— An ill-fated wretch on the surface



In this section, you will find a few creatures that are typical of the *Polaris RPG* world. GMs, do not forget that ignorance breeds fear: feel free to make these creatures as mysterious as possible. Keep in mind that these horrors have evolved and adapted to the dangers of this world better than mankind itself.

Note: *for more information on the creatures that inhabit the world of the Polaris RPG, please refer to the upcoming* ***Creatures*** *supplement.*

CREATURES' ABILITIES

DAMAGE-HANDLING AND LOCATION

Depending on your needs and the type of creatures that will be encountered, you can handle Damage in three different ways:

- **With the usual Wound Scale and Location system:** it is totally applicable for humanoid creatures (Burrowers, Felorms), but also bipeds or quadrupeds that are roughly the same size as a human.
- **With a single Wound Scale, and no Location:** this solution is applicable to small creatures and swarms that do not have any clear-cut form (like killer algae, for instance). You can then use the Wound Scale for the Body Location. You should also feel free to use this method if the PCs are facing too many creatures at once, or just to simplify things.
- **With a specific Wound Scale and Location system:** this can be useful against creatures with unusual body shapes, like octopods, for instance. You will find details of Location-handling in some of the creatures description.

Please bear in mind that some creatures can have a Shell level that needs to be subtracted from the Damage it receives.

SKILLS

Creatures have Skills that represent their natural abilities. The most common Skills are *Acrobatics/Balance, Athletics, Attack* (in order to attack prey, and in melee combats in general), *Endurance, Climbing, Camouflage/Concealment, Stealth/Silent Movement* and *Observation* (to spot their prey).

MOVEMENT OF SEA CREATURES

A creature's movement is determined normally (with the *Athletics* Skill) although the distances to apply are those in the 'Hybrids' column.

GIGANTIC CREATURES

Some creatures—leviathan whales for example—can reach gigantic size. When it comes to Damage in this case, they are handled on the scale of vehicles. Both Size and Speed, with the associated Move points, are added to their Attribute list. A creature's Initiative is determined by its Reaction.

ATTACKS AND DAMAGE

Each creature has its own specific mode of attack and its own natural weapons (Bite, Constriction, Charge . . .). Damage for each type of attack can be found in the description. Do not forget that certain creatures with tentacles can sometimes deal several attacks per Combat Round: see **Attacks by Creatures with several Limbs** in the **Combat** chapter in CRB1, page 219).

Note: some creatures are so mighty that they can deal Damage on the scale of a light vehicle. Their Damage Modifier at close quarters follows the same progression as exo-armors (see **Exo-Strength and Damage Modifier** in the chapter on managing exo-armors, page 77). Above a score of 100 in Strength, Large Vehicles can also be affected.

CONSTRICTION AND TENTACLE ATTACKS

Giant snakes and octopods can try to choke their prey by constriction, using their muscles. The creature must first roll a successful Melee Attack Test to grab its opponent, following the usual steps (see **Wrestling**, in **Martial Arts and Special Techniques** in CRB1, page 225). If the grappling is successful, refer to the Location Table.

After having grabbed its prey, the creature can try to deal some Constriction Damage each Combat Round. This Damage is incremental; it increases by 10% of the creature's Strength each Round, up to a maximum bonus equal to its Strength. Even if the damage is automatic, you must perform a combat Test, as this increment is modified by the Test's Success Modifier or the Failure Modifier (only at H scale). The maximum damage at H scale is equal to the Strength of the creature plus its Damage Modifier. Each round, its victim can try to get free: a successful Strength Test is required, with a Modifier equal to the difference between their Strength levels—this is applied as a bonus if the victim is stronger, or else it is a penalty. A -1 stacking penalty to the Strength Test is inflicted on the victim for each turn they fail to get free. Normal protections are no help against such an attack. As for exo-armors or vehicles, the machine takes the Damage: the characters inside are protected as long as the armor or the vehicle is not destroyed (see Crushing Damage page 91).

In addition, each Combat Round the creature can try to change its grip instead of attacking. It then needs to roll a *Grappling* Test again, and, in the case of a Success, a new roll on the Location Table above. However, this time the creature can change the result of the dice up to a maximum number of points equal to its Success Modifier.

Please note that a ship cannot free itself, but it can use an electric or microwave defense field generator; against a gigantic creature of vehicle scale, this will not deal any damage, but it will surprise the beast. The Pilot can then try to maneuver to free the ship, with a *Piloting* Test against the creature's Adaptation.

Note: A cephalopod's tentacles attack independently from one another. Each attack must then be resolved separately. For each additional tentacle grabbing the victim,the creature's strenght is augmented by +10%.

1D20	LOCATION TABLE
1–2	Right Leg
3–4	Left Leg
5–6	Both Legs
7–8	Right Arm
9–10	Left Arm
11–14	Body
15–16	Body and right Arm
17–18	Body and left Arm
19	Body and both Arms
20	Head (neck)

SWEEP

Some creatures can affect a whole area in one attack. This is the case for a whale's tail. In this situation, only one attack is dealt, but it will affect all the targets in the area.

BITE

Some creatures can cause horrible damage with a bite attack, and can even tear whole limbs apart—this is the case for sharks and orcas, for example. The creature must first roll a successful *Attack Test*, and then it can automatically inflict Bite Damage in each Combat Round as long as it still holds its prey. Even if the damage is automatic, you must perform a combat Test, as this increment is modified by the Test's Success Modifier or the Failure Modifier (only at H scale). The victim can try to get free (same procedure as for constriction attacks). If you like, you can use the location table (see next page) page). For some bite attacks, damage can increase each round. In this case follow the Constriction and tentacles rules. A creature with incremental damage can increase these types of damage up to a maximum bonus equal to its maximum base damage. When damage is sufficiently high, it can affect a target at a higher scale (for more information, see Crushing Damage)..

1D20	BITE LOCATION TABLE
1–2	Right Leg
3–4	Left Leg
5	Both Legs
6–7	Right Arm
8–9	Left Arm
10–11	Body
12	Body and right Arm
13	Body and left Arm
14	Body and both Arms
15	Head
16	Body, Head, and both Arms
17	Body and both Legs
18	Body, both Legs, and one Arm
19	Body, both Legs, and both Arms
20	Equipment*

** The creature grabbed the character's equipment and tore it away from him.*

If the creature's size allows it, it can even try to swallow its prey—after having grabbed it—using a new *Melee Combat Test* (in the case of a Failure, the creature does not deal any new damage but the victim is not released).

SWARM/GROUP ATTACK

In the world of the *Polaris RPG*, the characters may often have to face swarms or groups of small creatures—mutant insects or carnivorous fish, for example). Individually, such a small creature does not represent a danger. However, they are formidable in a group. Normally, the Damage dealt by these creatures, depending on their number, is shown in their description. This is the main rule that needs to be applied, unless you consider that these creatures, whatever their number, cannot affect a character. For instance, if a character inside a powered exo-armor is attacked by carnivorous insects, it is clear that he will have nothing to worry about. However, if he is assaulted by cockroaches secreting an acid capable of harming the armor, he will then be in a pickle, more so if he is facing a swarm of thousands of these creatures.

SEA CREATURES

CHAMELEON SHARK

	STR	CON	COO	ADA	PER	INT	WIL	PRE
Base	55	25	22	16	15	4	18	-

SECONDARY ATTRIBUTES			
Damage Modifier (H)	+22	**Reaction**	15
Damage Resistance (V-)	-2	**Speed, SPD (MP)** 50 m, 6(2)	
Damage Resistance (H)	-15		

SKILLS			
Athletics	21	**Attack**	12
Stealth/Silent movement	10	**Camouflage/ Concealment**	15
Observation	15		

ATTACK

Bite (melee, Dam.: 5D10 at Human Scale (H), 1D6-1 at Small Vehicle Scale).

LOCATIONS

1–5 Head; **6–16** Body; **17–18** Right fin; **19–20** Left fin

SPECIAL

Frenzy (when the creature holds its prey, Damage increases by 1 point per Round).

Stealth (in order to detect the creature, you must carry out an Opposed Observation test versus the shark's Camouflage/Concealment skill..

• ***Weight:*** *500 kg* • ***Height:*** *5 m*

These fearsome creatures can closely approach their prey by camouflaging themselves. They are capable of taking the appearance of a stone when settled on rocks. As soon as a shark attacks its prey, it enters into a kind of frenzy. If its size allows it, it can choose to swallow its prey.

DOLPHIN

	STR	CON	COO	ADA	PER	INT	WIL	PRE
Base	28	22	30	20	15	9	20	7

SECONDARY ATTRIBUTES			
Melee Damage Modifier	+9	**Reaction**	17
Damage Resistance	-8	**Speed, SPD (MP)** 67 m, 6(2)	

SKILLS			
Athletics	32	**Attack**	15
Stealth/Silent movement	13	**Observation**	15
Mastery of the Polaris Effect	12		

ATTACK

Charge (melee, Dam.: 1D10)

LOCATIONS

1–5 Head; **6–16** Body; **17–18** Right fin; **19–20** Left fin

SPECIAL

Polaris Effect: Force field at level 15



DOLPHIN

• ***Weight:*** *500 kg* • ***Height:*** *4 m*

These splendid creatures were on the brink of extinction. The Empire of the Geneticians reintroduced this species by equipping them with exo-respirators, enabling them to breathe underwater. It was also discovered that a certain category of dolphins, the wild dolphin, have adapted as the whales did. Farmed dolphins, which have not adapted, still need to wear exo-respirators. Farmed dolphins are often fitted with a special device that allows them to communicate with humans by emitting small 'beeps' that they can modulate in order to signify approval, refusal, appreciation, etc. The dolphins are the sharks' archenemy. Against them, their base damage increases by 1D10 and their Damage Modifier is doubled. Dolphins can use the Polaris Effect.

KILLER ALGAE

	STR	CON	COO	ADA	PER	INT	WIL	PRE
Base	10	5	3	18	3	-	-	-

SECONDARY ATTRIBUTES			
Melee Damage Modifier	+0	**Reaction**	10
Damage Resistance	+1		

SKILLS			
Attack	13		

ATTACK

Constriction (melee, Dam.: special, see **Constriction and Tentacle Attacks**, page 155)

LOCATIONS

01–20 algae

SPECIAL

-

• ***Weight:*** *1 kg/10 algae* • ***Height:*** *1 to 5 m*

These multicellular algae float near the surface and grow in the oceanic trenches. They cannot be distinguished from any other algae. As soon as prey enters a field of killer algae, the seaweed stalks coil around and crush it. Area-effect weapons and sharp-edged weapons deal normal damage against these creatures. Other weapons are rather useless . . .

Note: the Strength Attribute corresponds to a group of ten algae plants (1 STR point each; should there be more, change the Attribute value according to the number of algae). Each Damage level that is inflicted to the group destroys an algae and removes 1 STR point from the group.

KILLER CONGER

	STR	CON	COO	ADA	PER	INT	WIL	PRE
Base	20	15	27	22	12	2	15	-

SECONDARY ATTRIBUTES			
Melee Damage Modifier	+5	**Reaction**	17
Damage Resistance	-4	**Speed, SPD (PM)** 58 m, 6(2)	

SKILLS			
Athletics	26	**Attack**	15
Stealth/Silent movement	12	**Observation**	8

ATTACK

Bite (melee, Dam.: 3D10)

LOCATIONS

1–5 Head; **6–16** Body; **17–18** Right fin; **19–20** Left fin

SPECIAL

Lightning Attack

• ***Weight:*** *180 kg* • ***Height:*** *6 to 9 m*

Killer congers are vicious predators that only hunt at night. During the day, they hide in crevices, where trying to dislodge them may prove extremely dangerous. They attack everything that moves, even much bigger prey. It can use the Light-

ning Attack special ability when dashing to attack its prey, which enables it to double its speed during the first Combat Round only (consequently, it has a score of 20 in Reaction). Its flesh is particularly prized by gourmets.

KRAKEN SQUID V-

	STR	SIZ	COO	ADA	PER	INT	WIL	PRE
Base	90	2*	12	13	12	3	15	-

SECONDARY ATTRIBUTES

Damage Modifier (H)	+40	**Reaction**	12
Damage Modifier (V-)	+4	**Speed, SPD (MP)** 31 m, 3(1)	
Damage Resistance (V-)	+6		

SKILLS

Athletics	9	**Attack**	12
Stealth/Silent movement	12	**Camouflage/ Concealment**	10
Observation	12		

ATTACK

Constriction (melee, Dam.: massive damage at Human Scale, special at Small Vehicle Scale, see **Constriction and Tentacle Attacks**, page 155)
Bite (melee, Dam.: 3D10 at Human Scale, only take the Damage Modifier into account at Small Vehicle Scale)

LOCATIONS

1–2 Tentacle **1; 3–4** Tentacle **2; 5–6** Tentacle **3; 7–8** Tentacle **4; 9–10** Tentacle **5; 11–12** Tentacle **6; 13–14** Tentacle **7; 15–16** Tentacle **8; 17–19** Body; **20** Eye (uses the same Wound Scale as the Head).

A Mortal Wound on a tentacle immobilizes it; a Limb Destroyed Wound cuts it off.

SPECIAL

Poisoned ink cloud: (*contamination mode*: touch, *Onset Delay:* 1 Round, *Virulence/Evolution:* 2D6, then 1 point until the victim leaves the poisoned area, *Effects (thresholds):* nausea (5), Constitution -3 (10 and further thresholds). If Constitution drops to 0, the victim falls into a coma).
Regeneration: the squid can regenerate cut tentacles but takes a whole year to do so.

** Replaces Constitution at V- scale.*

• ***Weight:*** *10 t* • ***Height:*** *34 m (tentacles included)*

The kraken squid lives in the deepest oceanic trenches. It sometimes goes up to the surface to hunt. The creature can carry out constriction attacks with its tentacles or it can try to draw a grabbed prey to its beak in order to bite it or swallow it. In case of danger, the creature can release an ink cloud in an area covering hundreds of meters in diameter. This ink is toxic for sea creatures and Hybrids. The creature's eye is a weak spot.

LEVIATHAN WHALE V-

	STR	SIZ	COO	ADA	PER	INT	WIL	PRE
Base	200	9*	6	15	8	5	20	-

SECONDARY ATTRIBUTES

Damage Modifier (V-)	+26	**Reaction**	11
Damage Modifier (V+)	+16	**Speed, SPD (MP)** 50 m, 6(2); Charge 103, 11(3)	
Damage Resistance (V-)	+0		

SKILLS

Attack (Charge, Sweep)	15	**Observation**	15
Empathic analysis	10	**Mastery of the Polaris Effect**	13
Athletics	38	**Stealth/Silent movement**	**10**

ATTACK

Charge (melee, Dam.: massive damage at Human Scale, 1D10+2 at Small Vehicle Scale, 1D6 at Large Vehicle scale)
Sweep (contact, Dom.: 6D10+2 at Human Scale, 1D6 at Small Vehicle Scale, only take the Damage Modifier into account at Large Vehicle Scale)

LOCATIONS

1–5 Head; **6–16** Body; **17–18** Right fin; **19–20** Left fin

SPECIAL

Polaris Effect (at level 12) Psychic attack, Jamming, Force field, Premonitions

** Replaces Constitution at V-scale.*

• ***Weight:*** *780 t* • ***Height:*** *60 m*

These gigantic creatures are the biggest mammals in existence. The whale species had been thought to be completely extinct, its last specimens incapable of breathing the surface air. One day, however, an expedition found a whole community of leviathan whales cruising at the bottom of the oceans. This race has completely adapted to the marine environment. These creatures are definitely peaceful and are gifted with an empathetic talent. However, should they be attacked, they can retaliate particularly violently. In this case, they will attack either with their tail or by charging at a ship (it should also be noted that a whale will hardly ever change its route if there is an obstacle in front of it, whatever the nature of the obstacle may be). Whales can control the Polaris Effect.

MANTA

	STR	CON	COO	ADA	PER	INT	WIL	PRE
Base	45	20	20	15	12	1	12	-

SECONDARY ATTRIBUTES

Melee Damage Modifier	+17	**Reaction**	13
Damage Resistance	-11	**Speed, SPD (MP)** 40 m, 4(1)	

SKILLS			
Athletics	15	**Attack**	13
Stealth/Silent movement	7	**Observation**	10

ATTACK

Sting (melee, 2D10)
Constriction (melee, Dam.: special, see **Constriction and Tentacle Attacks**, page 155)

LOCATIONS

1–5 Head; **6–10** Body; **11–15** Right wing; **16–20** Left wing

SPECIAL

-

• ***Weight:*** *1 t* • ***Height:*** *6 m*

These graceful creatures are big manta rays that glide through the oceans. They are usually peaceful, but sometimes they can suddenly attack everything around them. The reason behind this behavior remains unknown. A manta can attack with the dreadful sting at the end of its long tail, or by enveloping its prey to crush it. The sting is extremely thin and solid. It can easily pierce through armors, reducing their protection level by half. This creature can only use a single attack mode at a time.



MERMAID

MERMAID

	STR	CON	COO	ADA	PER	INT	WIL	PRE
Base	12	12	12	15	15	3	16	-

SECONDARY ATTRIBUTES

Melee Damage Modifier	+1	**Reaction**	15
Damage Resistance	-1	**Speed, SPD (MP)** 12 m, 1(1)	

SKILLS

Athletics	3	**Attack (Pain)**	15
Stealth/Silent movement	5	**Attack (Bite)**	10
Observation	10		

ATTACK

Bite (melee, Dam.: 2D10)

SPECIAL

Domination (a mermaid can only affect one target at a time. The target must carry out an Opposed *Willpower test* against the mermaid's Willpower. Each time the creature wins, its Success Modifier temporarily reduces the target's Willpower. If this Attribute drops to 0, the victim is completely dominated. When the victim successfully wins one of these opposed Tests, the creature's attack is no longer effective, and the target recovers all its Willpower points. This mermaid attack has a range of around 500 meters.)
Pain (a mermaid may simultaneously affect a number of targets equal to half its Willpower, even if they are within a vessel. The mermaid rolls an *Attack Test* (Pain), and the Success Modifier determines the penalty its prey will have for each action until it is controlled, the creature dies, or the victim(s) are out of reach).

• ***Weight:*** *120 kg* • ***Height:*** *2 m*

Fortunately, these horrendous creatures are really rare. They look like a horrible crossbreeding between a human and a seal. These weird mammals have a completely unknown reproduction cycle. Mermaids attack with a strange power not unlike those connected to the Polaris Effect. They emit underwater vibrations that affect their prey's nerve centers, enabling them to take full control of a victim's body. All protections, and armors are ignored. This attack has two effects. The first one affects the victim's nerves, making him suffer horribly. The second one manifests through wonderful hallucinations in the prey's mind. Once their prey is controlled, the mermaid draws it to her, by seeming to become the embodiment of their fantasies. Mermaids often use their hallucinations to encourage divers to remove their visors under water, or occupants to leave their suits and vehicles.

MORAY EEL

	STR	CON	COO	ADA	PER	INT	WIL	PRE
Base	20	17	20	18	12	1	12	-

SECONDARY ATTRIBUTES

Melee Damage Modifier	+5	**Reaction**	15
Damage Resistance	-4	**Speed, SPD (MP)** 32 m, 4(1)	

SKILLS

Athletics	10	**Attack**	15
Stealth/Silent movement	10	**Observation**	12

ATTACK

Constriction (melee, Dam.: special, see **Constriction and Tentacle Attacks**, page 155)
Bite (melee, Dam.: 2D10)

LOCATIONS

1–5 Head ; **6–20** Body

SPECIAL

Electric Discharge (as soon as the moray eel coils around its target, it can release an EMP effect every 2 Rounds, compelling a *Breakdown Test* without any penalty).

• ***Weight:*** *130 kg* • ***Height:*** *4 m*

Moray eels coil around their victims They bite them, crush them, and release a powerful electromagnetic field that can cause electronic devices to break down.



ORCA V-

	STR	SIZ	COO	ADA	PER	INT	WIL	PRE
Base	94	2*	20	17	15	10	25	-

SECONDARY ATTRIBUTES

Damage Modifier (H)	+42	**Reaction**	16
Damage Modifier (V-)	+4	**Speed, SPD (MP)** 94 m, 10(3)	
Damage Resistance (V-)	+6		

SKILLS

Athletics	48	**Attack**	15
Stealth/Silent movement	5	**Observation**	14
Mastery of the Polaris Effect	12		

ATTACK

Charge (melee, Dam.: 5D10 at Human Scale (H), 1D6-1 at Small Vehicle Scale)
Bite (melee, Dam.: 3D10 at Human Scale, only take the Damage Modifier into account at Small Vehicle Scale)

LOCATIONS

1–5 Head; **6–16** Body; **17–18** Right fin; **19–20** Left fin

SPECIAL

Polaris Effect Disruption of reality and Premonitions at level 12
Against sharks, they deal 1d10 additional Damage.
The cruising speed of an orca is 7 knots but it can accelerate up to 31 knots, especially when charging.

** Replaces Constitution at V- scale.*

• ***Weight:*** *9 t* • ***Height:*** *9 m*

The orca, or killer whale, is the smartest sea mammal. Orcas move in organized communities of about a dozen individuals. Generally speaking, they do not like humans, dolphins, or sharks. Without going as far as attacking on sight, they will always respond violently to any provocation. They prefer being left alone. They are capable of communication with humans the same way as dolphins, or by using their particularly developed empathy. They can control the Polaris Effect, but they never use it to attack.

PIRANHAS

	STR	CON	COO	ADA	PER	INT	WIL	PRE
Base	9	2	25	15	12	-	15	-

SECONDARY ATTRIBUTES			
Melee Damage Modifier	+0	Reaction	13
Damage Resistance	+2	Speed, SPD (MP) 48 m, 5(2)	

SKILLS			
Athletics	20	Attack	16
Observation	5		

ATTACK

Bite (melee, Dam.: 1D10 for 10 individuals +1D10 for 10 additional individuals, 10D10 maximum)

LOCATIONS

1–20 Group of piranhas

SPECIAL

Frenzy (after their first attack, the piranhas must roll a *Willpower Test* with a -2 stacking penalty per Round. If the Test fails, the school's Attack level is reduced by half. However, they can now attack twice per round without any penalties. If their prey starts to bleed, the frenzy is automatic).
School of fish (these creatures, whatever their number, cannot damage a vehicle or a powered exo-armor with an Armor rating of 10 (H) or higher. With a normal weapon, only one piranha can be attacked at a time, but only one successful attack is needed to kill it. Using an area-effect weapon might be much more efficient. In this case, each attack kills one creature per Damage point dealt. These creatures attack in schools, but below 10 individuals, they become completely harmless).

• ***Weight:*** *1 kg per creature* • ***Height:*** *50 cm*

These brutal predators have spread out in the seas and attack everything on sight. They have experienced some mutations that make them even more dangerous. Their dreadful teeth, made of a material similar to silicon, have become extremely resistant. They can therefore damage armored structures.

PLATED SHARK V-

	STR	SIZ	COO	ADA	PER	INT	WIL	PRE
Base	190	6*	12	13	14	1	20	-

SECONDARY ATTRIBUTES			
Damage Modifier (V-)	+24	Reaction	13
Damage Modifier (V+)	+14	Speed, SPD (MP) 50 m, 6(2)	
Damage Resistance (V-)	+2		

SKILLS			
Athletics	21	Attack	13
Stealth/Silent movement	5	Observation	15

ATTACK

Charge (melee, Dam.: massive damage at Human Scale (H), 2D10 at Small Vehicle Scale)
Bite (melee, Dam.: massive damage at Human Scale, 2D10 at Small Vehicle Scale), 1D10 at Large Vehicle Scale.

LOCATIONS

1–5 Head; **6–16** Body; **17–18** Right fin; **19–20** Left fin

SPECIAL

Shell 10 (V-), **Frenzy** (when the creature grabs its prey, Damage increases by 2 points per Round).

** Replaces Constitution at V- scale.*

• ***Weight:*** *210 t* • ***Height:*** *35 m*

This gigantic sea predator attacks everything that moves, alive or not. This is the most dangerous creature in the oceans. This skin of these mutated sharks is covered with plates resembling those of a rhinoceros. As soon as a shark attacks its prey, it enters into a kind of frenzy. If its size allows it, it can choose to swallow its prey.



Plated Shark

SYLSIDE (SAND MAW)

	STR	CON	COO	ADA	PER	INT	WIL	PRE
Base	28	20	12	10	15	-	-	-

SECONDARY ATTRIBUTES

Melee Damage Modifier	+9	**Reaction**	11
Damage Resistance	-7	**Speed, SPD (MP)** 4 m, <1(1)	

SKILLS

Athletics	2	**Stealth/ Silent movement**	13
Attack	15	**Observation**	10

ATTACK

Crushing (to be handled like a constriction attack, see **Constriction and Tentacle Attacks**, page 155)
Bite (melee, Dam.: 3D10)

LOCATIONS

1–5 Maw; **6–10** Body; **11–12** Arm 1; **13–14** Arm 2; **15–16** Arm 3; **17–18** Arm 4; **19–20** Arm 5. A Mortal Wound on an arm immobilizes it, a Limb Destroyed Wound cuts it off.

• ***Weight:*** *255 kg* • ***Height:*** *4 m*

These gigantic starfish burrow into the seabed and, thanks to their sensory organs poking out of the sand (which look like plants), they can detect their prey when it approaches. The predator will erupt from the sand in an attempt to cover its victims in order to crush them. The creature then tries to swallow everything it has trapped.

TIGER SQUID

	STR	CON	COO	ADA	PER	INT	WIL	PRE
Base	35	20	12	14	12	1	14	-

SECONDARY ATTRIBUTES

Melee Damage Modifier	+12	**Reaction**	13
Damage Resistance	-9	**Speed, SPD (MP)** 51 m, 5(2)	

SKILLS

Athletics	22	**Attack**	13
Stealth/Silent movement	7	**Observation**	13

ATTACK

Bite (melee, Dam.: 2D10+3)
Constriction (melee, Dam., see **Constriction and Tentacle Attacks,** page 155)

LOCATIONS

1–2 Tentacle 1; **3–4** Tentacle 2; **5–6** Tentacle 3; **7–8** Tentacle 4; **9–10** Tentacle 5; **11–12** Tentacle 6; **13–14** Tentacle 7; **15–16** Tentacle 8; **17–19** Body ; **20** Eye (uses the same Wound Scale as the Head).
A Mortal Wound on a tentacle immobilizes it, a Limb Destroyed Wound cuts it off.

SPECIAL

Ink cloud, Spikes (+1D10 to constriction attacks)

• ***Weight:*** *425 kg* • ***Height:*** *10 m (with tentacles)*

Tiger Squids lurk in the deepest underwater caves. They are named for their tiger-like coloration. The suckers on their tentacles are fitted with spikes that inflict horrible wounds. In case of danger, the creature can release an ink cloud in an area covering dozens of meters in diameterw (this ink is not toxic).

TORPEDO FISH

	STR	CON	COO	ADA	PER	INT	WIL	PRE
Base	10	3	28	15	13	-	7	-

SECONDARY ATTRIBUTES

Melee Damage Modifier	+0	**Reaction**	14
Damage Resistance	+2	**Speed, SPD (MP)** 64 m, 7(2)	

SKILLS

Athletics	30	**Attack**	16

ATTACK

Charge (melee, Dam.: 3D10 at Human Scale, 1D6-3 at Small Vehicle Scale)

LOCATIONS

1–20 School of fish

SPECIAL

Panic (when they panic, their speed is doubled. Since it is pointless to try and fight a school of thousands of fish, there is no specific rule to handle this situation. Forced to deal with something that is more akin to a natural phenomenon, victims will have to patiently endure 1 to 3 attacks from these fish, hoping the Damage dealt is not too high).

• ***Weight:*** *20 kg* • ***Height:*** *2 m*

Torpedo Fish are strange creatures the size of a moray eel and capable of moving underwater at an incredible speed. The head of this unusual creature is covered with some sort of extremely resistant material, similar to metal. They do not pose a threat unless frightened. However, if panicked, often caused by light that is too bright or a movement that is too abrupt (*Willpower Test* to be rolled), the school of torpedo fish will suddenly accelerate, and sometimes even smash against their 'aggressors' . This formidable attack can pierce an exo-armor or the body of a vehicle. The fish die instantaneously after the shock. Schools of torpedo fish are made of thousands of creatures. In the case of a panicked school, all the targets in the area will be dealt an attack per Round for 1D3 Combat Rounds (normal or naval, depending on the size of the target).

AMPHIBIOUS CREATURES

GORGOR (Tentacled Horror) V-

	STR	SIZ	COO	ADA	PER	INT	WIL	PRE
Base	180/90*	17**	12	15	10	-	15	-

SECONDARY ATTRIBUTES			
Damage Modifier (H)	+85/ +40 *	**Reaction**	12
Damage Modifier (V-)	+22/ +4 *	**Speed, SPD (MP)**	7 m, 1(1)
Damage Modifier (V+)	+12/ - *	**Damage Resistance (V-)**	-4

SKILLS			
Athletics	5	**Attack**	12
Observation	10		

ATTACK

Gaping Maw (melee, Dam.: Massive at (H) scale, 2D10 (V-))
Tentacles Constriction (melee, Dam.: special) or Bite (melee, Dam.: 2D10 (H), only take the Damage Modifier into account at V- scale)

LOCATIONS

This creature is so huge that each attack is made either on its mass or a tentacle. A Mortal Wound on a tentacle immobilizes it, a Limb Destroyed Wound cuts it off.

SPECIAL

Speed (the creature's speed is doubled if it can cling onto something to help it move)
Tentacles (in combat, it can use 10 of its 20 tentacles and attack as many targets as it uses tentacles for that purpose. Each cut tentacle regenerates in 1D10 x 10 Rounds)

**Strength of the creature/Strength of its tentacles **Replaces Constitution at (V-) scale.*

• ***Weight:*** *4,500 tons* • ***Height:*** *variable, the creature is able to spread out to a 600 m diameter or to compress on a smaller surface (down to 60 meters).*

This vile creature looks like a heap of putrefied flesh with 20 tentacles that extend directly from its body. Therefore, they can protrude out from anywhere on its mass that it chooses and regenerate at will. This beast can attack by constriction with its tentacles, or it can try to drag a grabbed prey to its maw in order to bite or swallow it. This creature usually lives in ancient ruins, but sometimes it fancies wandering on the surface.

PROTEUS

	STR	CON	COO	ADA	PER	INT	WIL	PRE
Base	25*	30	19**	17	15**	10	20	**

SECONDARY ATTRIBUTES			
Melee Damage Modifier	+7*	**Reaction**	16
Damage Resistance	-9*	**Speed, SPD (MP)**	56 m, 6(2)

SKILLS			
Athletics	4*	**Attack**	15
Disguise/Deception	18	**Observation**	15

ATTACK

Swallowing (or weapons usable by the mimicked form)

LOCATIONS

1–20 (or the victim's location table)

SPECIAL

Shell 7 (H) (its Shell level represents the difficulty in affecting both the soft and hard matter from which these creatures are made, even when transformed. A proteus can neither be knocked down nor pushed back. These creatures benefit from these protections in human form as well)

Swallowing (If the target is protected by a watertight armor or is equipped with a respirator, the Proteus will secrete an acid dealing 1D10 Damage per Round, plus 1 point per Round, doing 1D10 in the first Round, 1D10+1 in the second Round, 1D10+2 in the third Round, etc.)

Immunities (whatever its form, a proteus is completely immune to the cold, fire, and the effects of pressure)
Regeneration (even when transformed, a proteus has no weak spot. A blow to its head has the same effect as a blow to its arm. If it loses a limb, it will replace it in 1 Round. It does not suffer any penalties due to wounds, even though they will have to be written down).
Vulnerability to sonic attacks (Sonic attacks deal double damage against proteii and are not reduced by the shell)

** Natural value. See text in case of assimilation.*
*** Natural values replaced by the victim's after the creature assumes its appearance.*

• ***Weight:*** *80 kg* • ***Height:*** *up to a diameter of 2 m.*

The proteii are strange creatures that look like amoebae that drift in the oceans. As soon as they find a victim, they hurl themselves onto it and try to envelop it. Once the victim has been killed, the proteus dissolves it entirely and takes its appearance. Many proteii are said to have already infiltrated human society. It has become more and more obvious that these creatures are particularly intelligent, but their goals and motives are dictated by a mysterious force. For further information on the proteii, please refer to the upcoming **Creatures** supplement.

TITAN CRAB V-

	STR	SIZ	COO	ADA	PER	INT	WIL	PRE
Base	80	9*	10	5	10	-	12	-

SECONDARY ATTRIBUTES

Damage Modifier (H)	+47	**Reaction**	7
Damage Resistance (V-)	+7	**Speed, SPD (MP)** 23 m, 3(1)	
Damage Resistance (V-)	+0		

SKILLS

Athletics	5	**Attack**	15
Stealth/Silent movement	7	**Camouflage/ Concealment**	14
Observation	12		

ATTACK

Claws (melee, Dam.: special, Constriction).
Claw (contact, Dom.: 7D10+2 (H)/1D6+1(V-))

LOCATIONS

1–3 Head; **4–10** Body; **11–12** Right claw; **13–14** Left claw; **15** Front right leg; **16** Front left leg; **17** Middle right leg; **18** Middle left leg; **19** Back right leg; **20** Back left leg.

SPECIAL

Shell 6(V-), except Head: 5 (H). Aiming is necessary to hit the creature's head.
The crab can attack twice per Round without any penalties (an attack per claw).

** Replaces Constitution at V- scale.*

• ***Weight:*** *756 tons* • ***Height:*** *4-meter-tall shell (a span of around 20 m)*

The titan crab is a huge creature that normally lives below 10,000 meters. However, it can sometimes be seen in underwater caves at any depths. The crab often burrows to watch for its prey. The creature's head is a weak spot, though a very difficult one to hit.



TITAN WORM V-

	STR	SIZ	COO	ADA	PER	INT	WIL	PRE
Base	60	6*	18	12	10	-	25	-

SECONDARY ATTRIBUTES

Damage Modifier (H)	+25	**Reaction**	11
Damage Modifier (V-)	-2	**Speed, SPD (MP)** 6 m, 1(1) **Underground** 12 m, 2(2)	
Damage Resistance (V-)	+2		

SKILLS

Athletics	10	**Attack**	15
Observation	15		

ATTACK

Constriction (melee, Dam.: special, see **Constriction and Tentacle Attacks**, page 155)
Bite (melee, Dam.: 10D10 at Human Scale (H), 1D10 at Small Vehicle Scale (V-))

LOCATIONS

1–3 Head; **4–20** Body

SPECIAL

Swallowing (a swallowed victim suffers 2D10 base Damage per Round due to the acid and digestive action of the gastrointestinal tract—this Damage increases by 2 points per Round. A character swallowed by the creature can attack the worm from the inside, but his Attack level is reduced by half. Furthermore, he can only use small weapons—handguns, knives, etc.)

** Replaces Constitution at V- scale.*

• ***Weight:*** *900 kg* • ***Height:*** *18 m long, 3 m diameter.*

Theses monsters live in underwater caves or in the sand. They are capable of moving underground as easily as in the water. They blindly attack everything they find, trying to grind their prey down with their powerful maw before swallowing it.

CREATURES OF EQUINOX

These peculiar creatures developed within the city of Equinox itself. They haunt its slums and can cause problems for characters who are unaware of the dangers.

BOBRATS

	STR	CON	COO	ADA	PER	INT	WIL	PRE
Base	5	10	17	15	17	5	15	-

SECONDARY ATTRIBUTES			
Melee Damage Modifier	-2	Reaction	16
Damage Resistance	+1	Speed, SPD (MP) 60 m, 7(2)	

SKILLS			
Athletics	12	Attack	13
Observation	15		

ATTACK

Bite (Melee, Dam.: 1D6+3)

LOCATIONS

01–20 Bobrat

SPECIAL

Night Vision
Pack (during combat these creatures attack as groups of 10 or 20 individuals. When they take on a person who is wearing an armor that is not completely insulated, they will seek out even the tiniest weak spot. Their attack can therefore ignore any form of protection. The risk that this may happen is equal to (20 - protection), rolled on a 1D20).

• ***Weight:*** *2.5 kg* • ***Height:*** *50 cm (90 cm with tail)*

These horrible creatures dwell in Equinox's slums within the machinery level. These huge, rather smart rats feed on garbage and on any creature they can find on their travels. Contrary to popular belief, they do not transmit any diseases, and they are not considered a danger to the city. Their jaws are powerful and their fangs are as sharp as razor blades.

GHOST WIRES

	STR	CON	COO	ADA	PER	INT	WIL	PRE
Base	1 to 50	12	19	10	15	-	-	-

SECONDARY ATTRIBUTES			
Melee Damage Modifier	-6 to +20	Reaction	13
Damage Resistance	+2	Speed, SPD (MP) 38 m, 4(1)	

SKILLS			
Athletics	13	Attack	12
Camouflage/ Concealment	16	Observation	12

ATTACK

Acid (melee, Dam.: 1D6 (+1 bonus per ghost wire), +2 per Round up to a maximum equal to twice the number of ghost wires in contact with the target. Acid damage is reduced by 1 point per Round as soon as the victim is no longer in contact)
Constriction (melee, Dam.: special, Constriction)

LOCATIONS

1–20 ghost wire

SPECIAL

Acid (when a ghost wire clings to a target, it starts to crush it and secrete its acid. Damage shown is for one ghost wire. When another ghost wire clings to the same target, it can increase the creature's strength by 1 point, and acid Damage increases by 1 point per ghost wire. Therefore, if a character is attacked by 20 ghost wires, constriction will have 20 Strength and acid will deal 1D6+20 Damage, +2 points per Round, up to a maximum of +40.)
Ghost wires do not give off any heat.
Tiny (they are extremely difficult to hit with a gun (they are considered Tiny targets, causing a -10 penalty), and even with a successful attack, only half Damage is dealt. Only bladed weapons and area-effect weapons are 100% effective)

• ***Weight:*** *1 kg* • ***Height:*** *1 m*

These weird creatures only live within Equinox's machinery. They look like translucent filaments that float in groups of 10 to 40 individuals. When they detect a living organism, they rush toward it and try to crush it in order to assimilate it with an acid they secrete.

GLIDERS

	STR	CON	COO	ADA	PER	INT	WIL	PRE
Base	15	20	10	10	12	-	-	-

SECONDARY ATTRIBUTES			
Melee Damage Modifier	+0	Reaction	11
Damage Resistance	-4	Speed, SPD (MP) 14 m, 2(1)	

SKILLS			
Athletics	2	Stealth/Silent movement	18
Camouflage/Concealment	20	Observation	13

ATTACK
Acid (melee, Dam.: 2D10, +2 per Round as long as it is in contact with its target for up to a maximum duration of 20 Rounds. Acid damage is reduced by 1 point per Round as soon as the victim is no longer in contact) **Constriction** (melee, Dam.: special, Constriction)
LOCATIONS
1–20 Glider
SPECIAL
Acid (During suffocation: If the target is protected by watertight armor or is equipped with a respirator, the creature will secrete an acid dealing 2D10 Damage per Round, plus 2 additional points per Round, (thus doing 2D10 in the first Round, 2D10+1 in the second Round, 2D10+2 in the third Round, etc.). This attack first affects the armor, then the victim. **Invulnerabilities** (gliders are only vulnerable to fire, cold, and bladed weapons that can tear them down.) However, the cold does not kill them, it merely slows them down. Apply all wound penalties (to all of their actions and to their movements) even though these wounds are only temporary. The penalties are reduced by 1 point per Round.)) **Suffocation** (a glider attacks by falling onto its prey. The prey can roll a *Reaction Test* to dodge the attack, but with a penalty equal to the creature's *Stealth Test*. If the Test fails, the creature falls onto its target and envelops it completely. The only way to get free is to win an Opposed *Strengh Test* against the Glider's Strength. In the case of failure, the victim risks dying, crushed and suffocating)

• ***Weight:*** *10 kg* • ***Height:*** *1.50m diameter, can stretch out up to 3 meters to envelop a prey.*

These horrors belong to the same family as the ghost wires. They are a kind of transparent protoplasm that glides along the sides of pieces of machinery. They hardly give off any heat.

GORGING WORM

	STR	CON	COO	ADA	PER	INT	WIL	PRE
Base	20	20	20	15	15	-	13	-

SECONDARY ATTRIBUTES			
Melee Damage Modifier	+5	**Reaction**	17
Damage Resistance	-5	**Speed, SPD (MP)** 14 m, 2(1)	

SKILLS			
Athletics	3	**Camouflage/ Concealment**	12
Attack	13	**Observation**	15

ATTACK
Bite (Melee, Dam.: 1D10)
LOCATIONS
1–20 Gorging worm
SPECIAL
Covered with spikes (the spikes covering the creature's body deal 1D6 Damage by direct contact) **Poisoned Bite** has the following characteristics: **Poison:** *Contamination mode*: touch, *Onset Delay:* 4 Rounds, *Virulence/Evolution*: 1D6, then 1 point every 5 minutes for 30 minutes, *Effects (thresholds):* paralysis (5) The victim may roll one *Constitution Test* per minute with a penalty equal to the number of inflicted poisoning points: if the Test is successful, the effects of the poison are blocked. After 1D6 hours, the poisoning level drops by 1 point per hour.

• ***Weight:*** *40 to 110 kg* • ***Height:*** *1.80 m long*

These disgusting creatures are assassin larvae (see below) that adapted to Equinox's environment. Bigger and more aggressive, they dwell in the dark corridors of the city's machineries and slums. They watch their prey from a crevice before pouncing on their victim and dragging them to their lair with their maw. Their paralyzing poison is weaker than the assassin larvae's.

KRAAL HOUNDS

	STR	CON	COO	ADA	PER	INT	WIL	PRE
Base	15	13	18	20	25	3	17	-

SECONDARY ATTRIBUTES			
Melee Damage Modifier	+2	**Reaction**	23
Damage Resistance	-2	**Speed, SPD (MP)** 48 m, 5(2)	

SKILLS			
Athletics	17	**Attack**	15
Observation	20		

ATTACK
Bite (melee, Dam.: 2D10)
LOCATIONS
1–4 Head; **5–12** Body; **13–14** Right foreleg; **15–16** Left foreleg; **17–18** Right hind leg; **19–20** Left hind leg
SPECIAL
Night Vision **Poisoned Bite** (contamination mode: touch, Onset Delay: 3 Rounds, Virulence/Evolution: 2D6, then 2 points every 10 minutes for 1 hour, Effects (thresholds): violent stomachaches, -10 penalty to any actions (5), Constitution -2 (10 and further thresholds). If Constitution drops to 0, the victim falls into a coma).

• ***Weight:*** *220 kg* • ***Height:*** *1.20 m at the shoulder*

These creatures are the result of failed experiments on the rare dogs that still inhabit the world of **Polaris**. Having escaped one of the Cortex laboratories, they breed and multiply enthusiastically on Equinox, haunting the city's dark alleys. They are hairless and can hunt either with their sight or with

their sense of smell, in addition to a sonar system similar to bats. Their bites are particularly dangerous because of the poison these things secrete. They always hunt in packs and are extremely smart (at least enough to set a trap and use bait). The dogs always try to bite their prey at the throat (the animal needs to aim at the Head Location). If the attack is successful, the creature deals Damage each Round as long as it has not let go. These damages are increased by 1 point per Round until a maximum bonus level equal to the potential base damages (+20).

NECRONS

	STR	CON	COO	ADA	PER	INT	WIL	PRE
Base	16	12	9	9	12	1D6	10	-

SECONDARY ATTRIBUTES			
Melee Damage Modifier	+3	**Reaction**	11
Damage Resistance	-2	**Speed, SPD (MP)** 32 m, 4(1)	

SKILLS			
Attack	12	**Athletics**	10
Stealth/Silent movement	10	**Observation**	12

ATTACK

Barehanded (melee, Dam.: 2D6 (H)) or
Bite (melee, Dam.: 1D10 (H)) or various weapons

LOCATIONS

Human

SPECIAL

Light Fright (they are almost blind and a bright light scares them off, as well as inflicting a -7 penalty on their actions).
Virus (if one of their barehanded or bite attacks inflicts a wound, the victim is automatically contaminated with this virus. This is the only means of transmission for the virus. The victim will then have to roll a *Constitution Test* every day, for two days with a Light Wound, for 4 days with a Moderate Wound, for 6 days with a Serious Wound, 10 days for a Critical Wound, and 16 days for a Mortal Wound. Only a Success Margin equal to the wound threshold (up to 15 maximum) can cure the victim, as there is no remedy to this disease. Each failed Test reduces the victim's Intelligence, Strength (rapid loss of weight), and Willpower by 1 point. They also become more and more sensitive to light. If the victim loses more than 50% of their Willpower, they succumb to the virus entirely and they become a necron, and are uncontrollably drawn to Equinox's slums. If their Willpower remains above 50%, the victim manages to win against the virus and recovers their lost points at a pace of 1 point per day of full rest)

• ***Weight:*** *50 to 60 kg* • ***Height:*** *1.50 to 1.80 m*

The necrons are pathetic slaves who are used by the Watcher supervisors (behind their bosses' backs) to maintain Equinox's machinery. These creatures used to be beggars in Equinox, until they were deported to the machinery level. Their life conditions there are horrible, feeding on civilization's waste, on rats, and sometimes on humans. Some of them still have enough intelligence to speak and think. The main threat these creatures pose resides in the lethal virus they transmit. Very few people are aware of their existence.



KRAAL HOUND

OTHER CREATURES

ASSASSIN LARVA

	STR	CON	COO	ADA	PER	INT	WIL	PRE
Base	9	10	20	15	15	-	12	-

SECONDARY ATTRIBUTES			
Melee Damage Modifier	+0	Reaction	15
Damage Resistance	+0	Speed, SPD (MP) 20 m, 2(1)	

SKILLS			
Athletics	12	Attack	12
Camouflage/Concealment	14	Observation *	15

ATTACK

Bite (Melee, Dam.: 1D6)

LOCATIONS

1–20 Larvae

SPECIAL

Poisoned Bite (*contamination mode*: touch, *Onset Delay:* 1 Round, *Virulence/Evolution:* 2D6, then 1 point every 5 minutes for 30 minutes, *Effects (thresholds):* paralysis (5) The victim may roll one *Constitution Test* per minute with a penalty equal to the number of inflicted poisoning points: if the Test is successful, the effects of the poison are blocked. After 1D6 hours, the poisoning level drops by 1 point per hour.
Slimy (its slick body is more slippery than soap and grabbing it without barbed gloves is impossible)

** This creature can feel vibrations.*

• ***Weight:*** *1 to 2 kg* • ***Height:*** *35 to 50 cm*

This parasite is usually attached to the biggest creatures on the surface. The huge larva is the size of a forearm and feeds on the flesh of its prey. Its circular maw is filled with extremely sharp and tough spikes. They live in perfect symbiosis with creatures from the outside, and they inflict no more than superficial wounds to their hosts. Put on a human being, though, this disgusting creature will devour its unfortunate victim. They attack by pouncing at an uncovered part of the body, usually the throat (thus aiming at the Head Location). They continuously secrete a powerful paralyzing poison. The assassins who use these creatures often use barbed gloves to handle them. Contrary to popular belief, this parasite does not transmit any diseases.

BURROWER (FIGHTER)

	STR	CON	COO	ADA	PER	INT	WIL	PRE
Base	30	25	12	16	15	11	18	6



SECONDARY ATTRIBUTES			
Melee Damage Modifier	+10	Reaction	15
Damage Resistance	-9	Speed, SPD (MP) 40 m, 4(1)	

SKILLS			
Throwing weapons	10	Armed combat	12
Bows and crossbows	10	Hand-to-hand combat	12
Athletics	15	Observation*	12 (14)

Other Skills at the GM's discretion.

ATTACK

Claws (Melee, Dam.: 1D10+2)
Sonic Wave (range: 4 m, Dam.: 1D10, +1D10 Shock Damage) The attack affects a very precise area (*Location Test* to be rolled)

LOCATIONS

Human

SPECIAL

** Burrowers can feel vibrations.*



• ***Weight:*** *650 to 1,200 kg* • ***Height:*** *2.60 to 3.20 m*

Although mankind has waged an ongoing war against these creatures for centuries, still very little is known of their nature and society. Burrowers look like bipedal bears with the face of a warthog. They maneuver within their subterranean realm with great ease. Their powerful claws, their excavating jaws, and their ability to release sonic waves that can shatter stone create the perfect organism for digging tunnels very rapidly. The Abilities above represent an average burrower. Some burrower priests are said to be capable of turning stone into magma.

FELORM

	STR	CON	COO	ADA	PER	INT	WIL	PRE
Base	18	20	20	15	12	8	15	-

SECONDARY ATTRIBUTES			
Melee Damage Modifier	+4	**Reaction**	13
Damage Resistance	-5	**Speed, SPD (MP)** 56 m, 6(2)	

SKILLS			
Athletics	21	**Attack**	12
Stealth/Silent movement	12	**Observation**	12

ATTACK

Claws (Melee, Dam.: 2D10)

LOCATIONS

Human

SPECIAL

Primitive Weapons (a rare instance, but a few felorms have already been seen using primitive weapons)
Natural Armor 5 (H)
Ternaset (at the command of a ternaset, a felorm can deal 3D10 damage and double its Melee Damage Modifier)

• ***Weight:*** *120 kg* • ***Height:*** *2 m*

Felorms are a sort of fish-men living in the depths of the oceans. They are almost exclusively seen with ternasets. Underwater, they attack with their powerful claws.

TERNASETS

	STR	CON	COO	ADA	PER	INT	WIL	PRE
Base	45	25	8	15	16	25	20	-

SECONDARY ATTRIBUTES			
Melee Damage Modifier (H/V-)	+17/ +7	**Reaction**	15
Damage Resistance	-13	**Speed, SPD (MP)** 4m, 1(1)	

SKILLS			
Athletics	1	**Empathic analysis**	18
Attack	12	**Observation**	20

ATTACK

Fangs x3 (Melee, Dam.: 4D10)
Claws x3 (Melee, Dam.: 2D10+3)
Pounding x3 (Melee, Dam.: 1D6(V-), ternasets can damage vehicles by pounding their target with their heads. This attack can only be launched at big-sized targets. They can choose to claw at a smaller target or to grab it in their maw. For the latter situation, use the Bite attack rule).

LOCATIONS

1–7 Bulb; **8** Eye; **9–12** Flower 1; **13–16** Flower 2; **17–20** Flower 3

SPECIAL

Domination (see below)
Unfeeling (ternasets are completely immune to poisons, drugs, and diseases. They are not affected by pressure, and damage from any weapons is reduced by half. Only fire can inflict normal damage. Last, but not least, they are impervious to the surface environment.)

• ***Weight:*** *900 kg* • ***Height:*** *8 m*

These creatures that come from the darkest depths look like gigantic plants stemming from a bulb. From the bottom of the bulb-like body extend several small tentacles that enable the organism to move slowly across surfaces. Several shoots–usually four–also sprout from the upper portion of the bulb, and they can grow up



to 8 meters long and 2 meters diameter in size. One of the shoots ends with a huge eye, protected by an extremely tough membrane (and therefore is not a weak spot). The other shoots look like flowers. However, the petals are powerful claws and the bulb is a maw fitted with formidable fangs.

Ternasets do not like fighting. To do that, they use the felorms (see above), a race of fish-men, as slaves. Ternasets are telepaths and can use a particular form of the Polaris Effect. This is a variation of the power of suggestion that they use to dominate their prey. These creatures can only dominate one target at a time, which needs to be within a radius equal to twice the creature's Willpower in kilometers. The victim must roll an Opposed *Willpower Test* against the creature's Willpower.If the victim's Test is successful, the ternaset cannot control him and the encounter stops immediately. If the ternaset's Test is successful, their Success Modifier reduces the target's Willpower. The encounter continues until the victim's Willpower drops to 0, at which point he is completely dominated. This suggestion attack is completely imperceptible. A dominated victim can try to free himself from this mind control by rolling a *Willpower Test* with a -10 penalty each day (or each time he is asked to do something that can shock him).

These monsters can each grow some kind of pod that takes years to reach maturity. However, when in a warm environment (like inside a station), they give birth to a monstrous progeny, that will eventually become another ternaset. They feed on microelements that float in the seawater.

The origin of the ternasets is completely unknown. They seem to be creatures from another time, endowed with considerable knowledge. When threatened directly, a ternaset can often communicate particularly interesting information through the means of enigmas in exchange for its life. They come from trenches that are beyond 20,000 meters deep, but can sometimes settle near the surface.

TERNASET SPAWN

	STR	CON	COO	ADA	PER	INT	WIL	PRE
Base	24	20	12	17	15	12	18	-

SECONDARY ATTRIBUTES

Melee Damage Modifier	+7	**Reaction**	16
Damage Resistance	-6	**Speed, SPD (MP)** 58 m, 6(2)	

SKILLS

Athletics	15	**Attack**	13
Climbing	20	**Observation**	12

ATTACK

Tentacle (Melee, Dam.: 4D10, each tentacle has Strength 8, which means that a victim hit by 3 tentacles will be grabbed by Strength 24.)
Bite (Melee, Dam.: 2D10, when the prey is dragged near the spawn, a huge, viscous maw springs out to eat its victim.)

LOCATIONS

1–12 Body; **13–14** Tentacle 1; **15–16** Tentacle 2; **17–18** Tentacle 3; **19–20** Tentacle 4. A Mortal Wound on a tentacle immobilizes it; a Limb Destroyed Wound cuts it off.

SPECIAL

Psychic Detection (the spawn can feel the psychic presence of any living beings within a 100-meter radius)
Immunity (the spawn are not affected by pressure or toxic gases)
Can change their Shape

• ***Weight:*** *250 kg* • ***Height:*** *3 m diameter*

These creatures are the spawn of the ternasets. At birth, their only concern is to kill and feed upon the psychic energy of their prey, which enables them—once they become adults—to master their suggestion power.

They appear is shapeless and viscous. Spawn can literally ooze from the narrowest spaces. They prefer moving on ceilings and in installation air vents using their four tentacles. In combat, they only attack with three tentacles. When one of these tentacles grabs a prey, the ternaset spawn will try to immobilize it. When the prey is dragged near the spawn's body, a huge viscous maw springs out to eat the victim. If the creature faces too many opponents, it will lash out at its enemies using its tentacles.

CHAPTER SIX

ADVANCED RULES

CHAPTER 6

ADVANCED RULES

In this chapter, you will find more advanced and optional rules you can include in your games or not, depending on your preferred gameplay.



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CHARACTER OPTIONS

RANDOM MUTATIONS

See **MUTATIONS** in CRB1 page 110 for basic rules on mutations.

If he wishes, a Player, with the GM's consent, who does not want to buy mutations with his CP—or, broadly speaking, a Player who did not spend any CP during this stage—can still roll 1D20 on the following table:

1D20	RESULT
1–15	1 mutation
16-19	2 mutations
20	3 mutations

This dice roll is free, but the results are completely random. Of course, the mutations are then determined by one (or several) D100 rolls on the Mutations Table. If the Player is lucky, he can thus freely grant his character an advantageous mutation. Conversely, he can also roll a disadvantageous mutation, which will not earn him any CP...

Note: a Player who wants his character to have a disadvantageous mutation without obtaining the proper result on the Mutation Table can still select one freely, and also earn the corresponding amount of CP.

In any case, a Player always has the possibility to discard a mutation (of any kind) if he is not satisfied by the result of the roll on the Mutation Table. A disadvantageous or neutral mutation can thus be discarded. It has a cost though: the Player must spend 1 CP (or earn 1 Disadvantage point if he chooses to use method 1 of automatic CP distribution per archetype). On the other hand, discarding an advantageous mutation is free. It is, therefore, theoretically possible to discard a randomly obtained mutation in order to replace it with another, which will be bought this time. However, the cost in CP can be high in some cases!

LATENT AND UNCONTROLLED POLARIS

With the GM's approval—and this is mandatory—a Player can gift his character with a "latent Polaris" ability, or with an "uncontrolled Polaris" ability, for 3 CP.

In the first case, the character is totally unaware of the phenomenon: the Polaris Effect is dormant inside him and is biding its time before awaking. It is at the GM's discretion to decide when and under what circumstances (this usually requires a major trauma). Keep in mind that the character can in no way wake it up by his own will, even by mutilating himself or willingly trying to put himself under serious stress.

In the case of an uncontrolled Polaris, the character knows that he is gifted with Polaris powers, even though he has never managed to control this ability. He can purchase some powers (2 maximum, rolled on the Accidental Power Release Table); however, he has no access to the *Mastery of the Polaris Effect* Skill. Therefore, his power can only be activated through uncontrolled means, which can end up being dangerous (see the **Polaris Effect** chapter for more details). Keep in mind that an accidental power release is still possible, in the same conditions described above.

The consequences of such an accidental power release of the latent Polaris are always spectacular, and in some cases disastrous (quite often, actually...). Everything depends on the GM, who can draw from accidental power release rules in the Polaris Effect chapter. If the GM wishes so, this power may just as easily never be released directly. The Polaris Effect can indeed manifest inadvertently, even though this hardly ever occurs. The GM may then decide to bring this latent power into play in a more subtle way, through mysterious effects that will help the character, or which will manifest randomly without really managing to pinpoint the origins of those phenomena.

The Polaris can be controlled, but the character will definitely have to find somebody to help him with that. Needless to say that this "mystical quest" will have to be difficult and fraught with pitfalls. It is highly recommended that the GM build one or several scenarios around this search (or even to have it be one of the central themes for her campaign).

Endowing a character with a latent or uncontrolled Polaris should not be a light decision, as the GM and the Player really need to see eye to eye about this. The GM will have to take this feature into account, as it may well have some dramatic consequences on her campaign, and even drive some of her scenarios as well. In any case, barring exceptional circumstances, the GM should not allow more than one latent or uncontrolled Polaris among the characters.

See **Polaris Effect** in CRB1 page 248 for normal Polaris Mastery.

RANDOM PROFESSIONAL ADVANTAGES

For every 2 years spent in the same Profession—i.e. years 2, 4, 6, etc.—the Player may freely choose to roll on the **Random Professional Advantages** table, which is specific to each

Profession, instead of distributing the 5 points among the standard Professional Advantages for that year (CRB1 page 177).

Assassin — CRB1 page 157

Every 2 years, roll a 1D10 on the following list, instead of allocating your 5 automatic Professional Advantages Points:

1. **Enhanced Attribute:** Adaptation +1
2. **Performance:** the character has done a particularly noteworthy job. Skill Points +2, Fame +2, Forgery +2, Corruption/Blackmail +2.
3. **Secret:** the character has learned an interesting secret, such as the identity of the killers of an important person. The Player and GM should determine what this secret is. The character may possibly trade this piece of information if he wishes to.
4. **Corruption:** Corruption/Blackmail +8.
5. **Achievement:** the character did a particularly impressive job, such as the murder of an important person. Skill Points +4, Fame +4, Forgery +4, Corruption/Blackmail +4.
6. **Forgery:** Forgery +8, Skill points +1.
7. **False Identity:** False Identity +9, Skill points +1.
8. **Contract:** the character has won a contract with an important group (secret services, criminal organization, etc.), for recurring "operations." Fame +5, income increases by 10% starting this year, Skill points +4, Connections +2, Ally or Supplier +1.
9. **Network:** Connections +6.
10. **You choose:** pick one Random Advantage (1–9) or allocate 7 Points among the character's Automatic Professional Advantages (see above).

Bartender — CRB1 page 158

Every 2 years, roll a 1D10 on the following list, instead of allocating your 5 automatic Professional Advantages Points:

1. **Enhanced Attribute:** Willpower +1.
2. **Service:** the Bartender is particularly well liked by his clients. Skill Points +4, Fame +2, Bar +4.
3. **Protection :** The Bartender is protected by a group (a gang, Smugglers, Pirates, Police), which he can call on in case of emergency. One of his Allies freely gains the Group/Gang Improvement. Connections +4, Ally +1.
4. **Prestigious Customers:** one or several clients of the bar are famous Fame +4, Bar +2, Connections +2, Ally +1, income increases by 10% starting this year.
5. **Good Year:** it's a good year for the Bartender Pay is doubled, Fame +4, Skill Points +4, Bar +4.
6. **Warehouse:** the Bartender can stash goods dropped off by clients (Smugglers, Pirates, etc.). Inventory of Goods +6, Skill points +2, Connections +2, income increases by 10% starting this year.
7. **Network:** the Bartender really knows a lot of people... Bar +5, Connections +8.
8. **Trafficking:** the bar is used as a hub for various trafficking. The Bartender is being paid back, income increases by 20% starting this year, Connections +2, Inventory of Goods +6.
9. **Secret:** The Bartender knows a secret one of his clients told him when he was heavily drunk. The Player and GM should determine what this secret is. The character may possibly trade this piece of information if he wishes to. Skill points +2.
10. **You choose:** pick one Random Advantage (1–9) from this table or allocate 7 Points among the character's automatic Professional Advantages (see above).

Bounty Hunter — CRB1 page 158

Every 2 years, roll a 1D10 on the following list, instead of allocating your 5 automatic Professional Advantages Points:

1. **Enhanced Attribute:** Adaptation +1.
2. **Performance:** the character has done a particularly noteworthy job. Skill Points +2, Fame +2, Gear +4.
3. **Guild:** the character has drawn attention to himself and has been hired by a Guild of Mercenaries specialized in chasing fugitives. His salary increases by 10% starting this year, Fame +4, Gear +6.
4. **Large Firm:** the character has been contacted by a large bounty hunters' firm, such as Bloodhound. If the PC accepts their offer, his salary increases by 20%, Fame +4, Skill Points +4, Gear +4. Such a decision will, of course, have consequences in the PC's future.
5. **Achievement:** the character has arrested an important person (chosen by the GM). Skill Points +4, Fame +4, Gear +2, doubled income for the year.
6. **Network:** the character has an informant network that keeps him posted on potential marks. Fame +2, Connections +8.
7. **Arms Dump:** the character has collected military gear. Gear +6.
8. **Combat Companions:** the character can count on the help of his combat companions. One of his Allies freely gains the Group/Gang Improvement. Ally +1, Connections +4.
9. **Good Year:** it's a good year. Their pay is doubled, Skill points +2, Fame +2, Gear +4.
10. **You choose:** pick one Random Advantage (1–9) from this table or allocate 7 Points among the character's automatic Professional Advantages (see above).

Craftsman/Artist — CRB1 page 159

Every 2 years, roll a 1D10 on the following list, instead of allocating your 5 automatic Professional Advantages Points:

1. **Enhanced Attribute:** Intelligence +1.
2. **Performance:** the Craftsman/Artist has done a particularly noteworthy job. Skill Points +2, Art/Craftsmanship +2, Fame +2.
3. **High Places:** the Craftsman/Artist has done a job for a high-level person. Doubled income for the year, Fame +4, Skill Points +2, Art/Craftsmanship +2, Connections +1.
4. **Guild/Company:** the Craftsman/Artist has drawn attention to himself and has been hired by the Craftsmen's Guild/Artists' Company. Each similar result allows their salary to increase by 10% for the coming years and also Fame +2, Stall/Shop +2, Connections +1.
5. **Patron/Sponsor:** the Craftsman/Artist is protected by a powerful figure who donates generous amounts of money to him. Fame +4, Art/Craftsmanship +6, income increases by 20% starting this year, Stall/Shop +1, Ally +1.
6. **Masterpiece:** the character has made a masterpiece (not necessarily a work of art) that has become famous. Fame +6, tripled income for the year, Skill Points +4, Connections +2.
7. **Contract:** the character has won a contract to produce his works/products/services for a company, a community, a character, etc. Fame +4, Art/Craftsmanship +6, income increases by 10% starting this year, Contact +1.
8. **Fame:** the character enjoys an excellent reputation even outside his community. Fame +8, income increases by half starting this year, Skill Points +2.
9. **Good year:** it's a good year for the Craftsman/Artist. Wages are tripled for the year and Art/Craftsmanship +4.
10. **You choose:** pick one Random Advantage (1–9) from this table or allocate 7 Points among the character's automatic Professional Advantages (see above).

Diplomat — CRB1 page 159

Every 2 years, roll a 1D10 on the following list, instead of allocating your 5 automatic Professional Advantages Points:

1. **Enhanced Attribute:** Presence +1.
2. **Performance:** the Diplomat has done a particularly noteworthy job. Skill Points +2, Fame +3, Corruption/Blackmail +2, Private Cabin +1.
3. **Achievement:** the Diplomat has successfully achieved a particularly noteworthy mediation. Skill Points +4, Fame +4. Ally +1, Enemies +2. Connections +2, Corruption/Blackmail +3.
4. **High Places:** the Diplomat has stepped into world politics' high places. Skill Points +6, Fame +6. Ally +1, Enemies +2, Connections +4, Corruption/Blackmail +2, Private Cabin +2.
5. **Corruption:** the Diplomat has been approached by people who want him to act in their favor. If he refuses, he earns the reputation of being incorruptible, Fame +6, Ally +2, Connections +4, Enemy +1. If he agrees, his income is doubled for this year, Connections +4, Corruption/Blackmail +4, Private Cabin +4. This decision may affect his future.
6. **Diplomatic Network:** the Diplomat can use a network of informants in the administration of a nation (choose one). Connections +6.
7. **Private Cabin:** for having done a community a favor, the Diplomat is enjoying a free space in this community. Private Cabin +6.
8. **Assistance Provided:** the Diplomat has provided assistance to someone or an influential group Fame +2, Pay doubled for the year, Ally +1, Connections +4.
9. **Dark Secret:** the Diplomat knows an important secret about a powerful character, a community, a group, or a nation. The Player and GM should determine what this secret is. The character may possibly trade this piece of information if he wishes to.
10. **You choose:** pick one Random Advantage (1–9) from this table or allocate 7 Points among the character's automatic Professional Advantages (see above).

Doctor/Surgeon — CRB1 page 160

Every 2 years, roll a 1D10 on the following list, instead of allocating your 5 automatic Professional Advantages Points:

1. **Enhanced Attribute:** Intelligence +1.
2. **Performance:** the Doctor has done a particularly noteworthy work. Fame +2, Personal Medicine Cabinet +3, Skill Points +2, Medical database +2.
3. **Guild:** the character has drawn attention to himself and has been hired by the Doctors' Guild. His salary increases by 10% starting this year, Fame +2, Medical Practice +4, Medical database +4.
4. **Large Firm:** the character has been contacted by a large firm (such as Cortex). If the PC accepts the firm's offer, his salary increases by 20%, Fame +2, Medical Practice +2, Skill Points +3, Gear (medical) +10. Such a decision will, of course, have consequences for the PC's future.
5. **Traffickers:** the Doctor has been contacted by organ traffickers. If the PC accepts their offer, his salary quadruples for the year, but it may have consequences in the future.
6. **Influential Person:** the Doctor has treated an influential character. Doubled income for this year, Ally +1, Connections +2, Fame +4, Medical Practice +4, Skill Points +2.
7. **Prestigious Client:** the Doctor has a prestigious client. Income increases by 10% starting this year, Ally +1, Connections +2, Fame +6, Medical Practice +4.
8. **Forbidden Experiment:** the Doctor has taken part in very dangerous illegal medical experiments. Income

doubles for the year, Personal Medicine Cabinet +2, Skill Points +5.

9. **Stock and Data:** Medical database +4, Personal Medicine Cabinet +6.
10. **You choose:** pick 1 Random Advantage (1–9) from this table or allocate 7 points among the character's automatic Professional Advantages (see above).

Elite Soldier — CRB1 page 160

Every 2 years, roll a 1D10 on the following list, instead of allocating your 5 automatic Professional Advantages Points:

1. **Enhanced Attribute:** Willpower or Adaptation+1.
2. **Battle:** the character has taken part in a battle. Fame points +2, Gear +2, Skill Points +1.
3. **Decoration:** the character has taken part in a battle and has been decorated in combat. Salary doubles for the year, Fame points +3, Gear +4, Skill Points +2.
4. **Hero:** the character has taken part in a battle and has been decorated. Salary triples for the year, Fame points +4, Gear +5, Skill Points +3.
5. **Elite:** the character has taken part in a battle and has joined an elite group. Salary doubles starting this year (no tripling the salary even if a new roll is successful), Fame points +6, Gear +6, Skill Points +5.
6. **Performance:** the character has been noticed by his superiors. Fame points +1, Gear +4, Skill Points +1.
7. **Training:** the character has been trained, which allows him to add a Skill (choose one) to the list of his Professional Skills. Connections +1, Gear +4, Skill Points +2.
8. **Combat Companions:** the character can count on the help of the members of his combat unit. Ally +1, Gear +4, Connections +2.
9. **Mercenaries/Private Militia:** former combat companions have created or are members of a group of Mercenaries/Militiamen that the character can call upon. Allies +2, Gear +3, Connections +4.
10. **You choose:** pick 1 Random Advantage (1–9) from this table or allocate 7 points among the character's automatic Professional Advantages (see above).

Farmer/Livestock Farmer — CRB1 page 162

Every 2 years, roll a 1D10 on the following list, instead of allocating your 5 automatic Professional Advantages Points:

1. **Enhanced Attribute:** Constitution +1.
2. **Performance:** the Livestock/Aquaculture Farmer has done a particularly noteworthy job. Skill Points +4, Fame +4, Land Lot/Farm +4.
3. **Guild:** the Livestock/Aquaculture Farmer has drawn attention to himself and has been hired by the Guild of Aquaculture Farmers. Income increases by 10% starting this year, Fame +4, Skill Points +4, Land Lot/Farm +4., Ally +1, Connections +4
4. **Empathy:** the Livestock/Aquaculture Farmer automatically has developed the Empathy Mutation at level 1.
5. **Dolphin:** the Livestock/Aquaculture Farmer has made friends with a dolphin.
6. **Associates:** the Livestock/Aquaculture Farmer is getting associates. Ally +1, Connections +2, Land lot/Farm +4, income increases by 10% starting this year.
7. **Good Year:** It's a good year. Doubled income for this year, Skill Points +4, Land Lot/Farm +2, Fame points+2.
8. **Land Lot/Farm:** the Livestock/Aquaculture Farmer has acquired extra plots. Land Lot/Farm +6, Fame points +3, Connection +2, income +10% starting this year.
9. **Laboratory:** the Livestock/Aquaculture Farmer has accepted a contract to breed creatures for a laboratory or to grow experimental plants. Income increases by 20% starting this year, Skill Points +5, Fame +2, Land Lot/Farm +6, Ally +1, Connections +2.
10. **You choose:** pick one Random Advantage (1–9) from this table or allocate 7 Points among the character's automatic Professional Advantages (see above).

Fighter Pilot — CRB1 page 162

Every 2 years, roll a 1D10 on the following list, instead of allocating your 5 automatic Professional Advantages Points:

1. **Enhanced Attribute:** Adaptation +1.
2. **Battle:** the character has taken part in a battle. Fame +2, Gear +4, Skill Points +1.
2. **Decoration:** the character has taken part in a battle and has been decorated in combat. Salary doubles for the year, Fame +3, Gear +4, Skill Points +2.
4. **Hero:** the character has taken part in a battle and has been decorated. Salary triples for the year, Fame +4, Gear +5, Skill Points +3.
5. **Elite:** the character has taken part in a battle and has joined an elite group. Salary doubles starting this year (no tripling the pay even if a new roll is successful), Fame +6, Gear +6, Skill Points +5.
6. **Performance:** the character has been noticed by his superiors. Fame +1, Skill Point +1, Gear +4.
7. **Training:** the character has been trained, which allows him to add 1 Skill (choose one) to the list of his Professional Skills. Connections +1, Gear +2, Skill Points +2.
8. **Combat Companions:** the character can count on the help of his combat companions. Ally +1, Gear +2, Connections+2.



9. **Mercenaries/Private Militia:** former combat companions have created or are members of a group of Mercenaries/Militiamen that the character can call upon. Ally+2, Connections +4, Gear +2.
10. **You choose:** pick 1 Random Advantage (1–9) from this table or allocate 7 points among the character's automatic Professional Advantages (see above).

MERCENARY — CRB1 PAGE 163

Every 2 years, roll a 1D10 on the following list, instead of allocating your 5 automatic Professional Advantages Points:

1. **Enhanced Attribute:** Constitution +1.
2. **Performance:** the character has done a particularly noteworthy job. Fame +2, Gear +4, Skill Points +2.
3. **Guild:** the character has drawn attention to himself and has been hired by the Mercenaries' Guild. His salary increases by 10% starting this year, Skill Points +2, Fame +2, Gear +4.
4. **Large Firm:** the character has been contacted by a large firm, such as Legion, the Wolves of the Deep, the Gabriel Cohort, etc. If the PC accepts the firm's offer, his salary increases by 20%, Fame +4, Skill Points +4, Gear +4. Such a decision will, of course, have consequences for the PC's future.
5. **Achievement:** the character has taken part in a major battle. Income doubled for the year, Fame +4, Skill Points +4, Gear +4.
6. **Informant Network:** the character benefits from an informant network that tells him about potential contracts. Connections +6.
7. **Arms Dump:** the character has stashed military equipment. Gear +8.
8. **Combat Companions:** the character can count on the help of his combat companions. Ally +1, Connections +2, gear +4.
9. **Good Year:** it's a good year, salary doubles, Fame +2, Gear +6.
10. **You choose:** pick 1 Random Advantage (1–9) from this table or allocate 7 points among the character's automatic Professional Advantages (see above).

MILITARY OFFICER — CRB1 PAGE 164

Every 2 years, roll a 1D10 on the following list, instead of allocating your 5 automatic Professional Advantages Points:

1. **Enhanced Attribute:** Willpower +1.
2. **Battle:** the character has taken part in a battle. Fame +2, Gear +4, Skill Points +1.
3. **Decoration:** the character has taken part in a battle and has been decorated in combat. Salary doubles for the year, Fame +3, Gear +4, Skill Points +2.
4. **Hero:** the character has taken part in a battle and was decorated. Salary triples for the year, Fame +4, Gear +5, Skill Points +3.
5. **Elite:** the character has taken part in a battle and joined an elite group. Salary doubles starting this year (no tripling the pay even if a new roll is successful), Fame +6, Gear +6, Skill Points +5.
6. **Performance:** the character has been noticed by his superiors. Gear +2, Fame +1, Skill Point +1.
7. **Training:** the character has been trained, which allows him to add 1 Skill (choose one) to the list of his Professional Skills. Connections +1, Gear +2, Skill Points +2.
8. **Combat Companions:** the character can count on the help of his combat companions. Ally +1, Connections+2, Gear +2.
9. **Mercenaries/Private Militia:** former combat companions have created or are members of a group of Mercenaries/Militiamen that the character can call upon. Allies +2, Connections +4, Gear +4.
10. **You choose:** pick 1 Random Advantage (1–9) from this table or allocate 7 points among the character's automatic Professional Advantages (see above).

MINER — CRB1 PAGE 164

Every 2 years, roll a 1D10 on the following list, instead of allocating your 5 automatic Professional Advantages Points:

1. **Enhanced Attribute:** Strength +1.
2. **Concession:** the character gains the rights to a new unexploited claim (determined by the GM). Gear +6.
3. **Performance:** the character has done a particularly noteworthy job. Fame +2, Gear +4 Skill Points +2.
4. **Guild:** the Miner has drawn attention to himself and has been hired by the miner's Guild. His salary increases by 10% starting this year, Skill points +4, Fame +4, Mining claim +4.
5. **Good Year:** it's a good year, salary doubles, Skill points +2, Fame +2, Gear +4.
6. **Miners' Solidarity:** the character can count on the help of his fellow miners to get him out of a bad situation, find a hideout, etc. Allies +2, Gear +2, Connections +4.
7. **Community Help:** the Miner benefits from the help of his community. Gear +6, Mining claim +4.
8. **Private Company:** the Miner has been hired by a private company. His salary increases by 20% starting this year, Skill points +2, Fame +2; Gear +3.
9. **New Vein:** Mining claim +6, Skill points +2.
10. **You choose:** pick 1 Random Advantage (1–9) from this table or allocate 7 points among the character's automatic Professional Advantages (see above).

Naval Officer/Navigator — CRB1 page 165

Every 2 years, roll a 1D10 on the following list, instead of allocating your 5 automatic Professional Advantages Points:

1. **Enhanced Attribute:** Intelligence +1.
2. **Decoration/Accomplishment:** the character has taken part in a battle and has been decorated in combat, or he has done a particularly noteworthy work. Salary doubles for the year, Fame points +3, Gear +5, Skill Points +3.
3. **Fellowship:** the character has been noticed by a Pirate fellowship and has the opportunity to join them. If the character agrees, he becomes a Pirate. Whether he agrees or not, Ally +1, Connections +4, Fame points +3, Skill Points +3.
4. **Good Year:** it's a good year, salary doubles, Fame points +2, Gear +5, Skill Points +2.
5. **Secret/Map:** the character, while on a vessel or in a harbor, has heard about a secret or a treasure map or an ancient legend. It's up to the GM to determine its details.
6. **Sailors' Solidarity:** the character can count on the help of his fellow sailors to get him out of a bad situation, find a hideout, etc. Allies +2, Connections +4, Gear +4.
7. **Trafficking:** the character agrees to smuggle goods in a harbor for an organization. Income increases by 20% starting this year, Ally +1, Connections +3, Gear +4, Skill Points +2.
8. **Training:** the character has been trained, which allows him to add 1 Skill (choose one) to the list of his Professional Skills. Connections +2, Skill Points +2.
9. **Friends in every harbor:** the character knows a lot of people in many harbors. They can be custom officers, prostitutes, bartenders, security agents, etc. Allies +3, Connections +6, Gear +5.
10. **You choose:** pick 1 Random Advantage (1–9) from this table or allocate 7 points among the character's automatic Professional Advantages (see above).

Pirate — CRB1 page 166

Every 2 years, roll a 1D10 on the following list, instead of allocating your 5 automatic Professional Advantages Points:

1. **Enhanced Attribute:** Willpower +1.
2. **Performance:** the Pirate has done a particularly noteworthy job. Corruption/Blackmail +6, Fame points +2, Gear +2, Skill Points +4.
3. **Loot:** it has been a good year. The Pirate will earn 100 x 1D10 extra Sols, Fame points +2, Gear +2.
4. **Fellowship:** the character has been noticed by a large fellowship and has the opportunity to join them. Salary doubles starting this year (no tripling the pay even if a new roll is successful), Fame points +4, Gear +4, Skill Points +4.



5. **Wanted with Reward:** one or several nations have put a bounty on the character's head. It's something Pirates usually pride themselves on. Fame points +6. Bounty base value: Fame x 1,000 Sols. Each result of a "Wanted with Reward" doubles that sum.
6. **Map:** the character has found a treasure map. Its nature will be determined by the GM.
7. **Code Respect/Violation:** the character is known for his respect or violation of the code (choose either one). Ally +1, Connections +4, Fame points +4.
8. **Genetic Transfer:** the Pirate enjoys the great honor of being able to transfer his genes from generation to generation. Ally +2, Connections +4, Fame points +6.
9. **Arena:** the character has triumphed in an arena fight. Salary doubles for the year, Fame points +4, Gear +4, Skill Points +4.
10. **You choose:** pick 1 Random Advantage (1–9) from this table or allocate 7 points among the character's automatic Professional Advantages (see above).

Police Officer/Investigator CRB1 page 166

Every 2 years, roll a 1D10 on the following list, instead of allocating your 5 automatic Professional Advantages Points:



1. **Enhanced Attribute:** Intelligence +1.
2. **Decoration:** the character has been decorated after one of his investigations. Salary doubles for the year, Fame points +3, Gear +2, Skill Points +2.
3. **Performance:** the character has been noticed by his superiors. Fame points +1, Connections +3, , Corruption/Blackmail +4, Skill Point +1.
4. **Hero:** the character has solved a major case and has been decorated. Salary triples for the year, Fame points +4, Skill Points +3.
5. **Elite:** the character has joined an elite group. Salary doubles starting this year (no tripling the pay even if a new roll is successful), Fame points +6, Skill Points +4.
6. **Informant Network:** the character can use a network of informants. Connections +8, Gear +2.
7. **Questionable Methods:** the character may take advantage of his position. Salary doubles for the year, Corruption/Blackmail +8, Enemy +1, Gear +2.
8. **Training:** the character has been trained, which allows him to add 1 Skill (choose one) to the list of his Professional Skills. Connections +4, Gear +2, Skill Points +2.
9. **Mercenaries/Private Militia:** former combat companions have created or are members of a group of Mercenaries/Militiamen which the character can call. Ally +2, Connections +4, Gear +4.
10. **You choose:** pick 1 Random Advantage (1–9) from this table or allocate 7 points among the character's automatic Professional Advantages (see above).

Priest of the Trident CRB1 page 167

Every 2 years, roll a 1D10 on the following list, instead of allocating your 5 automatic Professional Advantages Points:

1. **Enhanced Attribute:** Willpower +1.
2. **Performance:** the Priest has done a particularly noteworthy work. Fame points +2, Gear +2, Private Cabin +4, Skill Points +2.
3. **Elite Corps:** the character has joined one of the elite corps of the Trident as an administrator (Orpheus, Lares, Vejovis, or Hermes). Fame points +4, Gear +4, Private Cabin +4, Skill Points +3.
4. **Ordainers:** the character has been accepted to this elite corps and has access to the following Skills: Acrobatics/Balance, Hand to hand combat, Martial art (Offensive techniques). Fame points +2, Gear +2, Skill Points +3.
5. **Traitor:** the character has the opportunity to be recruited by a traitor inside the Trident. The PC won't know the traitor's identity but he can agree to work for him. In this case, salary doubles starting this year and Gear +6. If he turns it down, he earns the trust of his superiors, his salary doubles for the year (bonus), Ally +1, Connections +2, Enemy +1, Private Cabin +2.

6. **Black Sun:** the character has been approached by members of the Black Sun. The PC can agree to join them or turn down their offer. The consequences are similar to those of Traitor.
7. **Informant Network on Equinox:** the character can use the help of an informant network on Equinox. Connections +6.
8. **Training:** the character has been trained, which allows him to add 1 Skill (choose one) to the list of his Professional Skills. Connections +1, Gear +4, Skill Points +2.
9. **Reward:** the Priest is rewarded by his superiors for his excellent work. Salary doubles for the year, Gear +4, Private Cabin +6, Skill Points +2.
10. **You choose:** pick 1 Random Advantage (1–9) from this table or allocate 7 points among the character's automatic Professional Advantages (see above).

Scholar/Archaeologist — CRB1 page 167

Every 2 years, roll a 1D10 on the following list, instead of allocating your 5 automatic Professional Advantages Points:

1. **Enhanced Attribute:** Intelligence +1.
2. **Performance:** the Scholar has done a particularly noteworthy job. Skill Points +2, Fame points +3, Database +2.
3. **Achievement:** the Scholar has uncovered some important elements of the past. Skill Points +2, Fame points +2, Ally +1, Enemies +2, Connections +4, Database +4.
4. **Dark Secret:** the character has uncovered some historical details that are embarrassing for some powerful character. The Player and GM should determine what this secret is. Skill Points +4, Fame points +6, Ally +1, Opponents +3 (or Enemy +1), Connections +4, Database +4.
5. **Sponsor:** the Scholar's research is funded by a patron (an individual or a large firm). Skill Points +2, Fame points +2, Ally +1, doubled money for the year and income increases by 20% starting this year, Database +4.
6. **Government Funding:** the Scholar's research is funded by a government or an important community. Skill Points +2, Fame points +2, Ally +2, income increases by 10% starting this year, Database +6.
7. **Scholar Network:** the Scholar can count on a network of colleagues if need be. Connections +6.
8. **Private Cabin:** for useful research done for a community, the Scholar is enjoying a free space in this community. Private Cabin +6.
9. **Data:** the Scholar has collected data in different places. Database +6.
10. **You choose:** pick one Random Advantage (1–9) from this table or allocate 7 Points among the character's automatic Professional Advantages (see above).

Scientist/Engineer — CRB1 page 168

Every 2 years, roll a 1D10 on the following list, instead of allocating your 5 automatic Professional Advantages Points:

1. **Enhanced Attribute:** Intelligence +1.
2. **Performance:** the character has done a particularly noteworthy job. Databases +2, Fame points +3, Skill Points +1.
3. **Discovery:** the character has discovered a scientific fact or an important technological process. Ally +1, Connections +4, Databases +4, Enemies +2, Fame points +2, Skill Points +2.
4. **Dark Secret:** the character has uncovered some embarrassing research plans that belong to a rival laboratory or a foreign power. Player and GM can agree to determine what this secret is. Adversaries +3 (or Enemy +1), Ally +1, Connections +2, Databases +6, Fame points +6, Skill Points +4.
5. **Sponsor:** the character's research is funded by a patron (an individual or a large firm). Salary doubles for the year and income increases by 20% starting this year, Ally +1, Databases +4, Fame points +2, Skill Points +2.
6. **Government Funding:** the character's research is funded by a government or an important community. Salary increases by 10% starting this year, Ally +2, Databases +4, Fame points +4, Skill Points +1.
7. **Network:** the Scholar can count on a network of colleagues if need be. Connections +6.
8. **Private Cabin:** for useful research done for a community, the character enjoys a free space in that community. Private Cabin +6.
9. **Training:** the character has been training, which allows him to add 1 Skill (choose one) to the list of his Professional Skills. Connections +1, Skill Points +2.
10. **You choose:** pick 1 Random Advantage (1–9) from this table or allocate 7 points among the character's automatic Professional Advantages (see above).

Smuggler — CRB1 page 169

Every 2 years, roll a 1D10 on the following list, instead of allocating your 5 automatic Professional Advantages Points:

1. **Enhanced Attribute:** Adaptation +1
2. **Performance:** the Smuggler has done a particularly noteworthy job. Skill Points +2, Fame points +2, Inventory of Goods +2.
3. **Achievement:** the Smuggler has made an outstanding deal in the smuggling business. Skill Points +4, Fame points +4, Inventory of Goods +5, Doubled money for the year.
4. **Contract:** the Smuggler is under contract with an organization, a group, or a character. Fame points +2, income increases by 10% starting this year, Connections +3.

5. **Exclusive Rights:** the Smuggler is under an exclusive contract with an organization, a group, or a character. Skill points +2, Fame points +4, Income increases by 20% starting this year, Connections +5, Ally +1.
6. **Corruption:** the Smuggler is helped by members of the authorities; he can count on the help of guards or customs officers in a harbor he has chosen. Skill points +2, Connections +1, Corruption/Blackmail +4, Hideout/Cache +1.
7. **Forgery:** the Smuggler is helped by a member of the administration who provides him with forged documents. Connections +1, Forgery +6.
8. **Network:** the Smuggler is assisted by a network. Connections +2, Inventory of goods +2, Hideout/Cache +2.
9. **Hideouts/caches:** Inventory of Goods+6, Hideout/Cache +6.
10. **You choose:** pick one Random Advantage (1–9) from this table or allocate 7 Points among the character's automatic Professional Advantages (see above).

Soldier/Militiaman — CRB1 page 169

Every 2 years, roll a 1D10 on the following list, instead of allocating your 5 automatic Professional Advantages Points:

1. **Enhanced Attribute:** Willpower +1.
2. **Battle:** the character has taken part in a battle. Fame points +2, Gear +2, Skill Points +1.
3. **Decoration:** the character has taken part in a battle and has been decorated in combat. Salary doubles for the year, Fame points +3, Gear +4, Skill Points +2.
4. **Hero:** the character has taken part in a battle and has been decorated. Salary triples for the year, Fame points +4, Gear +5, Skill Points +3.
5. **Elite:** the character has taken part in a battle and has joined an elite group. Salary doubles starting this year (no tripling the salary even if a new roll is successful), Fame points +6, Gear +6, Skill Points +5.
6. **Performance:** the character has been noticed by his superiors. Fame points +1, Gear +4, Skill Points +1.
7. **Training:** the character has been trained, which allows him to add a Skill (choose one) to the list of his Professional Skills. Connections +1, Gear +4, Skill Points +2.
8. **Combat Companions:** the character can count on the help of the members of his combat unit. Ally +1, Gear +4, Connections +2.
9. **Mercenaries/Private Militia:** former combat companions have created or are members of a group of Mercenaries/Militiamen that the character can call upon. Allies +2, Gear +3, Connections +4.
10. **You choose:** pick 1 Random Advantage (1–9) from this table or allocate 7 points among the character's automatic Professional Advantages (see above).

Spy — CRB1 page 169

Every 2 years, roll a 1D10 on the following list, instead of allocating your 5 automatic Professional Advantages Points:

1. **Enhanced Attribute:** Adaptation +1
2. **Double Agent:** the character has been contacted by the services of another nation and can become a Double Agent if he wishes. If he refuses, he will not be able to spy in the country that contacted him. If he accepts, his salary doubles for 1D6 years.
3. **Secret:** the character has learned an interesting secret. The Player and GM should determine what this secret is. The character may possibly trade this piece of information if he wishes to.
4. **Corruption:** +6 points of Corruption/Blackmail.
5. **Achievement:** the character did a particularly impressive job, such as the murder of an important person or the uncovering of a capital piece of information. Skill Points +4, Fame points +4, Forgery +4, Corruption/Blackmail +4.
6. **Forgery:** +8 Forgery points, Skill points +2.
7. **False Identity:** +8 False Identity points, Skill points +2.
8. **Performance:** the character has done a particularly noteworthy job. Skill Points +4, Fame points +2, Forgery +2, Corruption/Blackmail +4.
9. **Network:** Smuggling Network +6., Gear +4
10. **You choose:** pick one Random Advantage (1–9) or allocate 7 Points among the character's automatic Professional Advantages (see above).

Submariner — CRB1 page 170

Every 2 years, roll a 1D10 on the following list, instead of allocating your 5 automatic Professional Advantages Points:

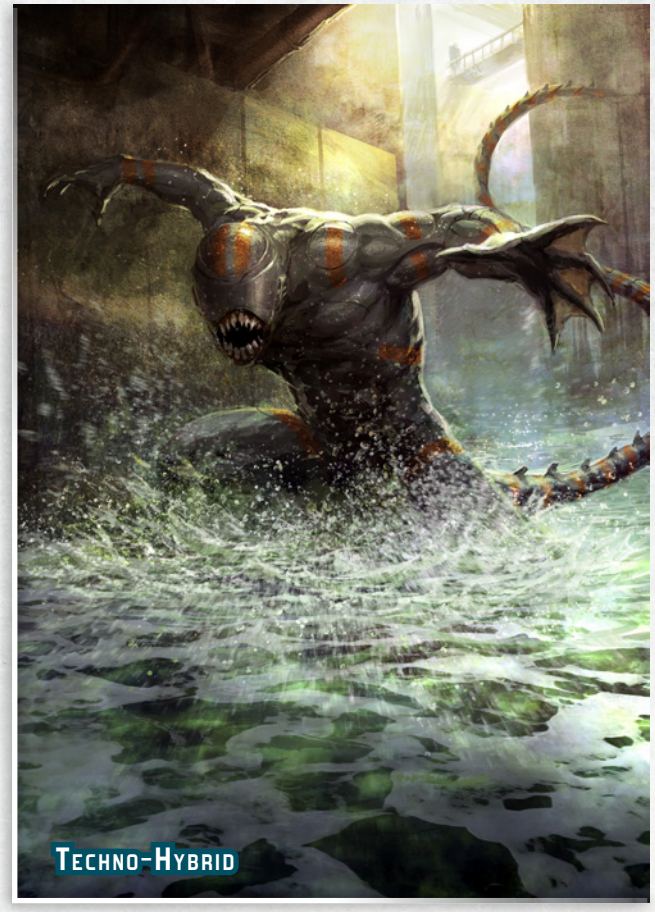
1. **Enhanced Attribute:** Constitution +1.
2. **Performance:** the character has done particularly noteworthy work. Fame points +2, Gear +4, Skill Points +2.
3. **Fellowship:** the character has been noticed by a pirate fellowship and has the opportunity to join them. If the character does, he will become a Pirate. Whether he accepts or not, Connections +2, Fame points +3, Gear +2, Skill Points +3.
4. **Good Year:** it's a good year. Salary doubles, Fame points +2, Gear +4, Skill Points +3.
5. **Guild:** the character has drawn attention to himself and has been hired by the Sailors/Fishermen's Guild. His salary increases by 10% starting this year, Connections +2, Fame points +3, Gear +4, Skill Points +2.
6. **Secret/Map:** the character, on a vessel or in a harbor, has heard about a secret or a treasure map or an ancient legend. It's up to the GM to determine its details.

7. **Sailors' Solidarity:** the character can count on the help of his fellows to get him out of a bad situation, find a hideout, etc. Allies +2, Connections +4, Gear +4.
8. **Trafficking:** the character agrees to smuggle goods into a harbor for an organization. Salary increases by 20% starting this year, Ally +1, Connections +3, Gear +2, Skill Points +2.
9. **Friends in every harbor:** the character knows a lot of people in many harbors. They can be customs officers, prostitutes, bartenders, security agents, etc. Allies +3, Connections +6, Gear +4.
10. **You choose:** pick 1 Random Advantage (1–9) from this table or allocate 7 points among the character's automatic Professional Advantages (see above).

Technician/Mechanic — CRB1 page 171

Every 2 years, roll a 1D10 on the following list, instead of allocating your 5 automatic Professional Advantages Points:

1. **Enhanced Attribute:** Intelligence +1.
2. **Performance:** the character has done a particularly noteworthy work. Assembly Points +2, Fame points +1, Gear +2, Skill Points +2.
3. **Guild:** the character has drawn attention to himself and has been hired by the Technicians' Guild. Salary increased by 10% starting this year, Fame points +2, Gear +2, Skill Points +2, Workshop +2.
4. **Masterwork:** the character has taken part in the conception of an important work (prototype, repairs on a major station, creation of a vehicle, etc.): Assembly Points +4, Fame points +3, Gear +2, Skill Points +4, Workshop +4.
5. **Contact:** the character has been contacted by a large firm, by Malgo Eight-Legs on Equinox, or by the Scavengers. The PC may join the organization that contacted him if he wishes to. Assembly Points +2, Fame points +2, Gear +2, Skill Points +2, Workshop +2.
6. **Good Year:** salary doubles for the year, Gear +2, Workshop +2, Skill points +2.
7. **Spare Parts:** the character gets some gear. Gear +6, Workshop +1.
8. **Patron/Sponsor:** the Technician is protected by a powerful patron who donates generous amounts of money to him. Salary increases by 20% starting this year, Ally +1, Assembly Points +3, Fame points +2, Workshop +1.
9. **Smugglers/Pirates:** the Technician sometimes helps pirates or smugglers. Salary increases 10% starting this year, Allies +2, Assembly Points +4, Connections +2, Gear +2.
10. **You choose:** pick 1 Random Advantage (1–9) from this table or allocate 7 points among the character's automatic Professional Advantages (see above).



Techno-Hybrid — CRB1 page 171

Every 2 years, roll a 1D10 on the following list, instead of allocating your 5 automatic Professional Advantages Points:

1. **Enhanced Attribute:** Constitution or Strengh +1
2. **Battle:** the character has taken part in a battle. Fame points +2, Gear +2, Skill Points +1.
3. **Decoration:** the character has taken part in a battle and has been decorated in combat. Salary doubles for the year, Fame points +3, Gear +4, Skill Points +2.
4. **Hero:** the character has taken part in a battle and has been decorated. Salary triples for the year, Fame points +4, Gear +5, Skill Points +3.
5. **Elite:** the character has taken part in a battle and has joined an elite group. Salary doubles starting this year (no tripling the salary even if a new roll is successful), Fame points +6, Gear +6, Skill Points +5.
6. **Performance:** the character has been noticed by his superiors. Fame points +1, Gear +4, Skill Points +1.
7. **Training:** the character has been trained, which allows him to add a Skill (choose one) to the list of his Professional Skills. Connections +2, Gear +4, Skill Points +2.
8. **Controlled mutations:** one free mutation (choose among : Reinforced skeleton, reinforced skin, fangs, claws, natural resistance, regeneration).

9. **Mercenaries/Private Militia:** former combat companions have created or are members of a group of Mercenaries/Militiamen that the character can call upon. Allies +2, Gear +6, Connections +4.
10. **You choose:** pick 1 Random Advantage (1–9) from this table or allocate 7 points among the character's automatic Professional Advantages (see above).

Thief/Criminal CRB1 page 172

Every 2 years, roll a 1D10 on the following list, instead of allocating your 5 automatic Professional Advantages Points:

1. **Enhanced Attribute:** Adaptation +1.
2. **Performance:** the character has done particularly noteworthy work. Fame points +2, Gear +4, Skill Points +2, Hideout/cache +2.
3. **Criminal Gang:** the character works for a crime lord. Ally +1, Connections +2, Fame points +3, Hideout/Cache +4, Skill Points +4. The character may move to another organization if he gets this result again.
4. **Network:** the character has set up a network. Fame points +2, Connections +4, Gear +4, Smuggling network +4, Skill Points +2. His salary increases by 10% starting this year.
5. **Wanted with Reward:** one or several nations have put a bounty on the character's head. It's something thieves and criminals usually pride themselves on. Skill Points +2, Fame points +4. Bounty basis: Fame x 500 Sols. Each result Wanted with Reward doubles that sum.
6. **Good Year:** it's a good year. Salary doubles, Gear +4, Skill Points +2, Smuggling Network +2.
7. **Informant:** the character is working as an informant for the authorities or for another criminal gang. Salary doubles starting this year, Ally +1, Enemy +1, Fame points +2.
8. **Pet:** the character owns a pet—a bobrat, for instance.
9. **Amenities:** Hideout/Cache +6, Gear +4, Smuggling network +3.
10. **You choose:** pick 1 Random Advantage (1–9) from this table or allocate 7 points among the character's automatic Professional Advantages (see above).

Trader CRB1 page 172

Every 2 years, roll a 1D10 on the following list, instead of allocating your 5 automatic Professional Advantages Points:

1. **Enhanced Attribute:** Intelligence +1.
2. **Performance:** the Trader has done a particularly noteworthy job. Skill Points +2, Fame points +2, Inventory of Goods +2, Stall/shop +2.
3. **Guild:** the Trader has drawn attention to himself and has been hired by the Traders' Guild. Income increases by 10% starting this year, Skill points +2, Fame points +2, Stall/Shop +4, Connections +1.
4. **Good Deal:** the Trader has received a very good deal. Doubled income for the year, Fame points +4, Skill Points +4, Inventory of Goods +4.
5. **Good Year:** it's a good year for the Trader. Income triples for the year and Inventory of Goods +4, Stall/Shop +2, Skill points +2.
6. **Black Market Network:** the Trader can use a black market network to sell his stock. Ally +1, Connections +6, Skill points +2.
7. **Suppliers Network:** the Trader can use a network to find goods. Ally +1, Connections +6, Inventory of Goods +4.
8. **Salvaged Stocks:** the character has collected an inventory. Inventory of Goods +6.
9. **Profitable Market:** the Trader is developing his business, Stall/Shop +6, Income increases by 10% starting this year.
10. **You choose:** pick one Random Advantage (1–9) or allocate 7 Points among the character's automatic Professional Advantages (see above).

Travelling Trader/Storyteller CRB1 page 173

Every 2 years, roll a 1D10 on the following list, instead of allocating your 5 automatic Professional Advantages Points:

1. **Enhanced Attribute:** Adaptation +1
2. **Performance:** the Trader has done a particularly noteworthy job. Skill Points +4, Fame points +2, Inventory of Goods +4, Connections +2.
3. **Secret:** the Trader knows a secret he has uncovered during one of his trips. It can be the location of a secret base, of a shipwreck, etc. The Player and GM should determine what this secret is. The character may possibly trade this piece of information if he wishes to.
4. **Relics:** the character has discovered relics from the past or strange artifacts. These trinkets have a 1d100 x 500 Sol value, but their value can be much higher to the right people (determined by the GM), Inventory of goods +5.
5. **Community Welcome:** the Trader is welcome in a community (to be determined). Ally +1, Fame points +2, Connections +4, Skill Points +2.
6. **Good Year:** it's a good year for the Trader. Tripled income for the year and Connections +2, Inventory of Goods +4, Skill Points +2.
7. **Black Market Network:** the Trader can use a black market network to sell his stock. Smuggling Network +6, Ally +1, Connection +4.

8. **Salvaged Stocks:** the Trader has collected an inventory in a shipwreck. Inventory of Goods +8.
9. **Good Deal:** the Trader has received a very good deal. Doubled income for the year, Fame points +4, Skill Points +4, Inventory of Goods +6.
10. **You choose:** pick one Random Advantage (1–9) from this table or allocate 7 Points among the character's automatic Professional Advantages (see above).

Trident Hybrid (Member of the S.I.G.) CRB1 page 174

Every 2 years, roll a 1D10 on the following list, instead of allocating your 5 automatic Professional Advantages Points:

1. **Enhanced Attribute:** Coordination +1
2. **Performance:** the Hybrid has done a particularly noteworthy job. Skill Points +4, Fame points +2, Gear +2.
3. **Marine mammals:** the Hybrid is friends with a marine mammal (not with a Leviathan Whale, however...).
4. **Black Sun:** the Hybrid has been contacted by the Black Sun. He can accept their proposition and thus automatically becomes a renegade in the eyes of the Cult of the Trident. He can continue to pursue his career at the Black Sun. If he refuses, he will be considered an enemy of the Black Sun, but he earns the confidence of the Cult. In both cases, he gains the same thing: his income doubles for the year, Connections +4, Ally +1, Enemy +1, Gear +4.
5. **Mission:** the character has taken part in a mission and has been distinguished. Income doubles for the year, Skill Points +3, Fame points +4, Gear +2.
6. **Perilous Mission:** the character has taken part in a particularly tricky mission. Income triples for the year, Skill Points +4, Fame points +4, Gear +4.
7. **Elite Unit:** the character has been incorporated into an elite group. Salary doubles starting this year (no tripling his pay, even if a new roll is successful), Ally +1, Skill Points +4, Fame points +6, Gear +4.
8. **Training:** the character has been trained, which allows him to add a Skill (choose one) to his list of Professional Skills. Skill Points +2, Connections +3, Gear +2.
9. **Hybrid Fellowship:** the character can count on the help of the other Hybrids. Ally +2, Connections +4, Gear +4.
10. **You choose:** pick one Random Advantage (1–9) from this table or allocate 7 Points among the character's automatic Professional Advantages (see above).

Watcher CRB1 page 174

Every 2 years, roll a 1D10 on the following list, instead of allocating your 5 automatic Professional Advantages Points:

1. **Enhanced Attribute:** Willpower +1.
2. **Battle/Riot:** the character has taken part in a battle or a riot on Equinox. Fame points +2, Gear +2, Skill Points +1.
3. **Decoration:** the character has taken part in a battle and has been decorated in combat. Salary doubles for the year, Fame points +3, Gear +2, Skill Points +2.
4. **Hero:** the character has taken part in a battle and has been decorated for heroic effort in combat. Salary triples for the year, Fame points +4, Gear +3, Skill Points +3.
5. **Elite:** the character has taken part in a battle and has joined an elite group. Salary doubles starting this year (no tripling the salary even if a new roll is successful), Fame points +6, Gear +4, Skill Points +5.
6. **Informant Network:** the Watcher has informants on Equinox, Connections +8.
7. **Questionable Methods:** the character may take advantage of his position. Salary doubles for the year, Corruption/Blackmail +8, Gear +4.
8. **Training:** the character has been trained, which allows him to add a Skill (choose one) to the list of his Professional Skills. Connections +1, Gear +2, Skill Points +2.
9. **Mercenaries/Private Militia:** his former combat companions have created or are members of a group of Mercenaries/Militiamen that the character can call upon. Ally +2, Connections +4, Gear +2.
10. **You choose:** pick 1 Random Advantage (1–9) from this table or allocate 7 points among the character's automatic Professional Advantages (see above).

Worker/Longshoreman CRB1 page 175

Every 2 years, roll a 1D10 on the following list, instead of allocating your 5 automatic Professional Advantages Points:

1. **Enhanced Attribute:** Strength +1.
2. **Performance:** the character has done particularly noteworthy work. Fame points +2, Gear +4, Skill Points +4.
3. **Guild:** the character has drawn attention to himself and has been hired by the Workers/Longshoremen's Guild His salary increases by 10% starting this year, Fame points +4, Gear +4, Skill Points +1.
4. **Workers' Solidarity:** the character can count on the help of his fellows to get him out of a bad situation, find a hideout, etc. Allies +2, Connections +4, Gear +4.
5. **Good Year:** it's a good year. Salary doubles, Fame points +2, Gear +4, Skill Points +2.
6. **Stolen Gear:** the character has stashed gear stolen in warehouses. Gear +8.
7. **Assisting Smugglers:** the character is helping smuggling contraband goods. His salary increases by 20% starting this year, Gear +4.

8. **Training:** the character has been trained, which allows him to add 1 Skill (choose one) to the list of his Professional Skills. Connections +1, Gear +4, Skill Points +2.
9. **Pirates:** the character was noticed by a pirate fellowship and has the opportunity to join them. If the character agrees, he becomes a Pirate. Whether he accepts or not, Connections +2, Fame points +3, Gears +5, Skill Points +3.
10. **You choose:** pick 1 Random Advantage (1–9) from this table or allocate 7 points among the character's automatic Professional Advantages (see above).

EXPERIENCED CHARACTERS

Experienced characters, those with more than 10 or 12 years of experience, are often at a slight advantage compared to younger characters. For balance's sake, we suggest the following rule: every three years of experience beyond the tenth year (so in years 13, 16, 19...) the Player has to roll on the Setback table (see CRB2 page 186), and accept the consequences. Under the seas, aging is never a good thing (by the way, you should also have a look at the rules below concerning the effects of aging).

VERY YOUNG CHARACTERS

If you wish to introduce a bit more realism concerning the abilities of particularly young characters, you can use the following modifiers, based on the age of the character:

- **16–17 years:** Strength -3, Presence -2.
- **18 years:** Strength -2, Presence -1.
- **19 years:** Strength -1.

These penalties are not applicable if the Attributes concerned have a level of 7 or less. Also, they are temporary if you play in a campaign; they disappear naturally over time as the character gets older.

DISADVANTAGES OF THE CHARACTERS

It is often easy for Players to take Disadvantages so they gain extra points, but without real consequences. And most of the time, the GM has better things to do than memorize the list of Disadvantages for each Player Character, so she can put them into scenes as she likes. The solution ? The carrot and the stick! In other words, rather than giving the GM the responsibility of managing the PCs' Disadvantages, let the Players do it themselves like big kids, with a little encouragement thrown in.

They can decide of their own free will to bring in their characters' Disadvantages. For example, a Player whose character suffers from a Phobia should not hesitate to remind the GM about it, so that his alter ego finds himself in contact with the object of his fears. Similarly, a Player whose character suffers from Paranoia or Hallucinations may himself choose to trigger a crisis in a scene.

In exchange for this small effort, as unpleasant as it is for the character (hey, that's what Disadvantages are for!), the Gamemaster can reward the Player by giving him a Luck point. It's up to the GM to decide the frequency of these "rewards" (once per session, per Player seems to be a good balance), depending on her needs and the goodwill of her Players. In any case, obviously, she always has the sacred right of veto, especially to avoid abuse (Players can be pushy...).

Note: this is especially relevant for the Disadvantages of Hybrids and Professional Disadvantages!

FAME (ADVANCED RULES)

Find the basic rules for Fame in CRB1 page 176.

IDLE CHARACTERS

An idle character (who is hiding, wounded, or does nothing significant) regularly loses Fame Levels, at the following rate:

- Fame 1–10: -1 Level/year.
- Fame 11–15: -1 Level/2 years.
- Fame 16–20: -1 Level/3 years.

Levels above 20 do not comply with this rule (see **Fame score over 20** below).

Fame is both an Advantage and a Disadvantage. If a character is recognized in a friendly country, people will give a more hearty welcome (they will even like him), and they will be more inclined to trust him and help him. He will be able to benefit from the effects of Influence (see **Influence Modifier** below). On the other hand, in an enemy community, he takes the risk of being identified, of attracting problems, or even of being hunted...

GROUP FAME

A community, a group, or even a vessel and its crew may also have a collective Fame Level. This may prove interesting for a group of characters or for the organization that employs them (a firm of Mercenaries or a military unit, a company, a pirate crew, etc.).

FAME TEST OPTIONAL MODIFIERS

Here are the Modifiers to apply, depending on the situation:

GEOGRAPHICAL SITUATION:

- Small community/Neighborhood of origin: +5 (but the Test is often useless because usually everybody knows each other, especially in small communities).
- Large community/Level (in a town) of origin: +3
- Underwater community of origin: +0
- Other stations of the community: -3
- Neighboring communities: -5
- Neighboring town: -7
- Distant communities (same ocean): -10
- Distant town (same ocean): -13
- Distant communities (different ocean): -15
- Distant town (different ocean): -17

YEARS OF PRESENCE/IMPORTANT EVENTS:

- For each year spent in a community, including the childhood years (only for this community): +1
- For each action done for/against a community, a town, a faction, or an influential group: +1 to +2, depending on the importance of the event.

PROFESSION/SOCIAL BACKGROUND:

- Own Profession/Social background: +7
- Similar Profession/Social background: +3
- Other Profession/Background: no Modifier

FAME SCORE OVER 20

A character who gains Fame Levels over 20 is a true legend (living or dead, according to his fate). Every Level above 20 can never be lost, even if the character no longer gets himself talked about for years (see **Idle Characters** above).

SETBACKS

To gain 5 extra Professional Advantages Points per year of experience, the Player can roll a die on the Setback Table. Setbacks are almost always very bad news for a character. If the Player thinks a Setback is hampering him too much, he can refuse it but he must then give up his character's Professional Advantages and savings for the year. In many cases the GM will have to adapt the Setbacks to the character's Profession and Community.

1D100	SETBACK
01–20	Minor incident of no consequence
21–25	Accident
26–28	Terrorist attack
29–31	Banishment
32–36	Wound
37–39	Catastrophe
40–48	Psychological shock
49–51	Conspiracy
52–54	Contamination/Disease
55–57	Hit contract
58–60	Mourning
61–62	Slander
63–64	Kidnapping
65–69	Imprisonment
70–74	Enemy
75–79	Major enemy
80–82	Serious misconduct
83–86	Fugitive
87–92	Rough patch
93	Mutilation
94	Looting
95	Polaris Effect
96	Laid-off
97	Vendetta
98	Betrayal
99	Irradiation
100	Roll again or another Setback is chosen by the GM

SETBACK DESCRIPTIONS

Accident

The character has been in an accident. He loses 5 Skill Points for this year. Also, there is a 2-in- 10 chance (1–2 on 1D10) that he suffers the effects of the Wound Setback.

Banishment

The character has been banished from his community. He may keep on practicing his profession somewhere else. He loses all of his Skill Points and savings for that year. See **Loss of Employment and Moving from One Community to Another** in section **4. Prior experience**, page 115.

Betrayal

The character is betrayed by his close relations. He loses a quarter of his Allies and half of his Contacts.

Catastrophe

A major catastrophe has threatened the PC's community (earthquake, reactor explosion, landslide, etc.). The

community may be annihilated (especially if it is a small, non-official and/or unimportant one). In that case, the character will become an exile. He loses 5 Skill Points and all of his savings for that year. In addition, it is possible he suffers the effects of the Wound (1–4 on 1D10), Mourning (1–8 on 1D10), and Mutilation (1–2 on 1D10) Setbacks. If it is a large community, the disaster is limited to one particular sector and the character may stay there.

Conspiracy

The character's Opponents or Enemies have been plotting against him or he has been wrongfully accused. You must roll 1D10 to determine what is happening to him:

1D10	EFFECT
1	Hit contract (see the Setback of the same name)
2	Banishment (see the Setback of the same name)
3–4	Imprisonment (see the Setback of the same name)
5	Fugitive (see the Setback of the same name)
6–8	Temporary suspension (he loses his Skill Points and savings for that year)
9	Laid-off (see the Setback of the same name)
10	Two rolls on this table

Contamination/Disease

Following a bacteriological incident or an epidemic, the character has become sick. Roll 1D10 to determine the effects of this Setback (see table on next page):

1D10	EFFECT
1–3	Recovery (the character loses 5 Skill Points but he gets out of this alive)
4–5	Aftereffects (the character suffers the effects of the Wound Setback)
6–7	Latent virus (the character is infected with an unknown virus that may flare up at any time; he is not supposed to know that of course)
8–9	Noncontagious, incurable disease (the character suffers from an incurable disease chosen by the GM or the Player)
10	Contagious, incurable disease (the character is a true pariah; the GM and the Player must think of a way for this character to hide his disease and avoid contaminating those around him)
9	Laid-off (see the Setback of the same name)
10	Two rolls on this table

Enemy

The character has made an additional Enemy.

Fugitive

The character is (wrongly or not) accused of a very serious crime. He managed to escape but he is now hunted. If he belongs to a small independent community, he just has to leave. If he belongs to a large nation, he will have to leave this country or travel from station to station at the risk of being caught. When he comes to a new station, he has 1 chance in 10 of being spotted the first year, then 2 chances in 10 the second year, etc. Note that he will still be considered a fugitive at the beginning of the campaign. The character will often be hunted down by bounty hunters. He automatically gets the Wanted Disadvantage (without gaining Advantage Points) and loses all his money and his Skill Points for that year. See also **Loss of Employment and Moving from One Community to Another** in section 4. **Prior experience**, page 115.

Imprisonment

The character is in jail for a misdemeanor, whether he is guilty or not. He spends the following year in prison (so he grows one additional year older). Each year he then has to roll 1D10. On a 10, he stays in prison for one more year. From 1 to 9 he is free. The character may refuse to go to jail but then he becomes a fugitive (with the Wanted Disadvantage that goes with it, but without the Advantages Points...).

Irradiation

The character adds 2D10 Irradiation Points that he still has at the beginning of the game.

Hit Contract

After he (whether by mistake or not) got himself into the business of an organization (usually criminal, but not all the time), the character's head has a price put on it. The character gains 1 extra Enemy and the Wanted Disadvantage (he may, however, try to prove he is innocent). This Setback will take effect at the beginning of the campaign only.

Kidnapping

The character has been abducted by terrorists, pirates, or any other group at the GM's discretion. He loses all of his Skill Points and savings for the year. He may also have suffered the Mutilation Setback (1–4 on 1D10). It is assumed that the character has managed to break free or has been freed by the authorities.

Laid-Off

The character loses his work at the end of the current year. See **Loss of Employment and Moving from One Community to Another** in section **4. Prior experience**, page 115.

Looting

Pirates have attacked the character's community (or the vehicle he was traveling on). He loses all the money of the current year and may suffer the effects of the Mourning (1–6 on 1D10), Wound (1–3 on 1D10), and Catastrophe (1 on 1D10) Setbacks.

Major Enemy

The character has made a new Enemy... but this one is either an influential person or a group/gang (**chosen by the GM**).

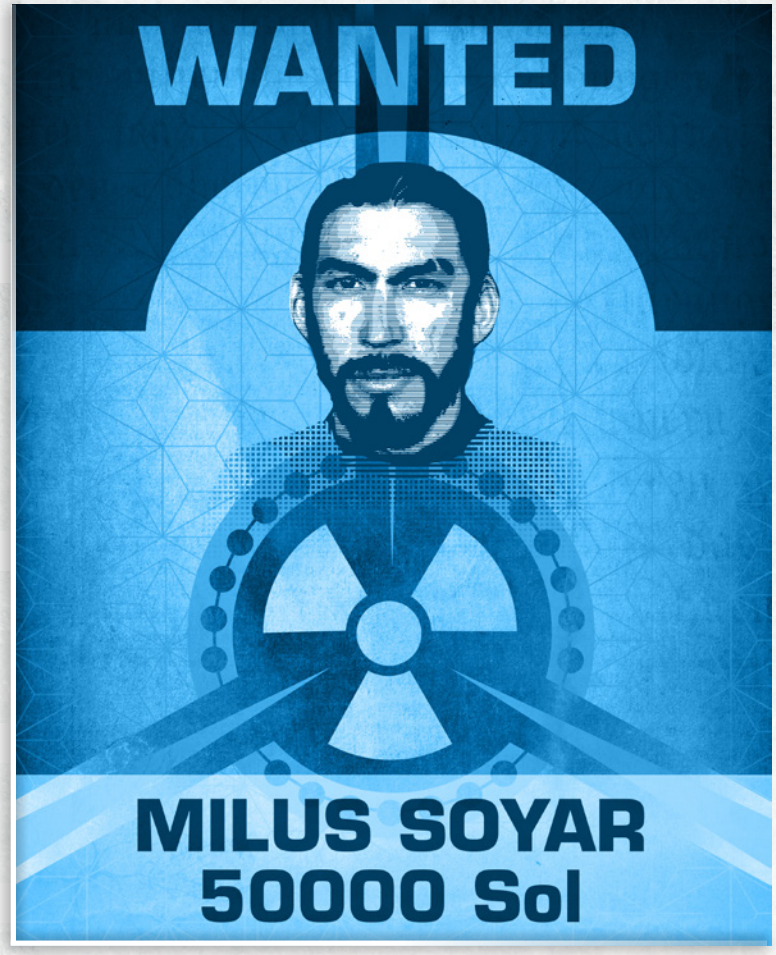
Mourning

The character has lost a relative or a very close friend. He loses 1 Ally.

Mutilation

The character suffers a mutilation. Usually a surgical operation can fix the problem (repair or plastic surgery, cybernetic implant) but it will be a long and expensive procedure. Roll 1D100 on the table below:

1D100	MUTILATION
1–2	Loss of an eye
3–4	Loss of a hand
5	Loss of an arm
6	Loss of a leg
7–8	Paralyzed arm
9–10	Stiff leg (Speed reduced by half)
11–18	Impaired sight (like the Diminished Senses Disadvantage)
19–30	Impaired hearing (like Diminished Senses)
31–42	Impaired smell (like Diminished Senses)
43–54	Impaired touch (like Diminished Senses)
55–66	Substance sensitivity (like the Serious Allergy Disadvantage)
67–78	Ravaged face (Presence -1)
79–90	Brain Damage (Adaptation -1)
91–100	Nervous tremors (Coordination -1)



Narco-damages

The character adds 1D6+3 Narco-damages Points.

Polaris Effect

The character has been victim of an accidental Polaris Effect release. This may either not be serious or have tragic consequences. The character may suffer the effects of the Wound (1–3 on 1D10), Mutilation (1 on 1D10), Catastrophe (1–3 on 1D10), or Mourning (1–6 on 1D10) Setbacks. If the character is gifted with the Polaris Effect, he is responsible for the accident. He may suffer the following Setbacks: Fugitive (1–2 on 1D10), Major enemy (1–6 on 1D10), Banishment (1–8 on 1D10), Mourning (1–7 on 1D10), Cult of the Trident (1–7 on 1D10); the character has been handed over to the Cult of the Trident. He may accept, and in that case embrace the profession of priest, or refuse, and in that case become a fugitive (Wanted Disadvantage).

Psychological Shock (roll 1D10)

Following a tragic event (to be determined by the gm), the character suffers from the phobia disadvantage (1–6; see CRB1 page 121) or a Mental Disorder (7–10; see CRB1 page 121). Of course, he doesn't gain any Advantage Points.

Rough Patch

The character has had a bad year. His income is reduced by half and he loses 5 Skill Points.

Serious Misconduct

The character has committed serious misconduct while carrying out his duties. You have to roll 2D10 to determine what is happening to him:

2D10	EFFECT
2–4	Fine (he loses all of his money for the year)
5	Banishment (see the Setback of the same name)
6–7	Imprisonment (see the Setback of the same name)
8–9	Enemy (see the Setback of the same name)
10–11	Major enemy (see the Setback of the same name)
12–15	Temporary suspension (he loses his Skill Points and savings for the year)
16–18	Laid-off (see the Setback of the same name)
19	Vendetta (see the Setback of the same name)
20	Two rolls on this table

Slander

The character is badmouthed by a rival or an organization. He loses a quarter of his Fame and Allies, as well as half his Contacts.

Terrorist Attack

The character has been one of the victims of a terrorist attack. He loses 5 Skill Points for this year. Moreover, he may suffer the effects of the Mutilation (1–2 on 1D10) and Mourning Setbacks (1–5 on 1D10). It's up to the GM to determine who is responsible for the attack. The PC may develop a fierce hatred toward the terrorists.

Vendetta

The character (or a relative) has incurred the wrath of a group, a family, or a crime syndicate. He gains an extra Enemy and the Wanted Disadvantage.

Wound

The character suffers from the aftereffects of a wound that hasn't healed properly. In most cases, a surgical operation may solve the problem (repair or plastic surgery) but it will be a long and expensive operation. Roll 1D10 on the table below:

1D10	CONSEQUENCE OF WOUNDS
1	Strength -1 (internal wound, fracture, etc.)
2	Constitution 1 (internal wound, fracture, etc.)
3	Coordination 1 (internal wound, fracture, etc.)
4	Adaptation -1 (head trauma)
5	Perception -1 (head trauma)
6	Intelligence -1 (head trauma)
7	Willpower -1 (head trauma)
8	Presence -1 (scars, broken jaw, torn ear, etc.)
9	Disabled leg (determined by chance), Movement reduced by 25%
10	Disabled arm (determined by chance), any action with this arm suffers a -5 penalty.



SKILLS

MAXIMUM SKILL LEVEL

During creation, the maximum Mastery Level a character can reach in a given Skill depends on the years of experience spent in the Profession to which that Skill is connected (take also into account the 2 years necessary for *Higher Education*):

EXPERIENCE	MAX. LEVEL
1 year	+3
2 years	+5
3 to 5 years	+7
6 to 10 years	+10
11 to 20 years	+13
21 years or more	+15

Of course, if a Skill is listed under several Professions chosen by the character, the years of experience are cumulative.

OPTIONAL RULES FOR FOF BREATHING AND HYBRID SKILLS

DIVING DEPTHS FOR HYBRIDS AND FOR DIVERS USING FLUIDS

A hybrid, or a diver using fluid, can dive down to a given depth, but they can temporarily dive deeper if they use certain drugs. In all cases, they are limited to 1.5 times their Operating Depth.

DEFINITION:

- The Operating Depth (OD) is the maximum depth that the diver can reach without using drugs. If a diver goes beyond that depth without taking drugs, they will be subject to the effects of pressure.
- The Increased Depth (ID) is always equal to 1.5 times the Operating Depth. This is the maximum depth that a diver can reach while using drugs before suffering any damage. If the diver does go beyond this depth, even with drugs, they will suffer the effects of the pressure.

When a hybrid or a diver using fluid moves beyond their OD (without drugs) or their ID (with drugs) they will suffer damages each Round of 1D6 +1 per 100 meters over their limit. These damages are inflicted again each Round, but they are reduced by 1 point per Round if the divers remains at a stable depth. As soon as the damage inflicted reaches 0, the damage repetition stops. If the diver moves up to a more bearable depth, the damage stops, and if they go deeper, the damage will become more severe.

Example: *a hybrid who can move 50 meters per Round and has an OD of 10,000 m wants to dive down to -10,100 meters. During the first Round, he suffers 1D6 damage points (he is at -10,050 meters) and on the second Round that increases to 1D6+1 damage points. He decides to stay 2 Rounds at this depth. During the first Round, he suffers 1D6 damage points and during the second one, 1D6-1 damage points. Then he moves down to -10,200 meters. During the first Round, he takes 1D6+1 damage points (he is now at -10,150 m) and during the second, 1D6+2 damage points. He then decides to swim back up to -10,000 m, in other words, his OD. In one Round he reaches a depth of -10,150 and therefore suffers 1D6+1 damage points. Then, on the next Round, he reaches -10,100 meters and suffers the same damage. One more Round of swimming and he reaches the depth of -10,050 meters and suffers 1D6 Damage Points. At last, during the next Round, he stabilizes at -10,000 m and he no longer is affected by any further damage.*

OPTIONAL SKILLS

If you want more realism in your games, you can use these two skills to limit the use of weapons when underwater and in automatic mode. So, if you have *Shoulder-fired weapons/Rifles* at level 12 and *Underwater weapons* at level 10, you can use your shoulder-fired weapons at level 10 while underwater. If you have *Shoulder-fired weapons/Rifles* at level 12, *Underwater weapons* at level 10 and *Automatic weapons* at level 9, you can use your shoulder-fired weapons in automatic mode at level 9 when underwater. All the ***Polaris RPG*** professions have access to these skills. If use these two skills, please ignore the penalties for firing weapons underwater.

Automatic Weapons •

Associated Attributes: STR/PER
Limiting Skill for: all firearms Skills used to shoot in automatic mode.

This Skill allows the character to use heavy machineguns, as well as other firearms in automatic mode (assault rifles, submachine guns...). The semi-automatic mode is included in the *Handguns* and *Shoulder-fired weapons/Rifles* Skills. If the character shoots with a heavy machinegun and the weapon is not steady (special harness, tripod...), the Skill level is divided by two.

Underwater Weapons •

Associated Attributes: COO/PER
Limiting Skill for: all firearms Skills used underwater.
This Skill allows the use of weapons especially designed to be used underwater, such as supercavitation weapons.

LIMITING SKILLS (ADVANCED)

CASCADING LIMITATIONS

See **Limiting Skills** page 182 in CRB1.
Most of the time, we only consider the joint use of two Skills at a time. If you want to, once you are used to using the Limiting Skills system and it has become natural, you can also extend it to a third Skill for certain actions. For example, the *Stealth/Silent Movement* Skill can limit *Armed Combat*, in the case where a character wishes to silently get rid of a sentry. However, there are other Skills that could also limit the *Armed Combat* Skill: these are the *Martial Arts* Skills. The character can very well use one of them too in a Test that would then call for *Stealth/Silent Movement*, *Armed Combat,* and a *Martial Arts* technique! The rule remains the same: you always use the value of the lowest level of Skill. This case should, however, remain fairly rare. Trust your common sense, and don't hesitate to invent other Skill combinations!

QUALIFIED FAILURES

As several Skills (with levels that are probably different) are in play, a Failure with a Limiting Skill doesn't always mean that the action itself has failed. This means that the Test could well be a Failure for the level of the Limiting Skill (in theory the lower one) but a Success in terms of the other Skill used. The GM is free to interpret this as she wishes, depending on the situation. For example, if we take the case

SUPPORTING SKILLS

In some cases, an action performed with one Skill can facilitate another action, performed with another Skill. Here are a few examples:

- A *Camouflage* Test can allow a character to blend into his environment and therefore make it easier to succeed at a *Stealth/Silent Movement* Test.
- A *Stealth/Silent Movement* Test can allow a character to silently get up close to his opponent, making it easier to succeed at a Test that uses any of the combat Skills.
- A Test of *Empathic Analysis* can help a character find a weak spot in his opponent's personality helping him succeed at a Test of *Persuasion* or *Intimidation*, etc.

Unlike the rule of Limiting Skills (that were combined in *a single action*), here we are looking at two separate actions, which take place one after the other. Thus, to continue with the examples used previously, you must differentiate between the action of approaching a target silently to *then* attack (two actions: use the Supporting Skills rule), and the action of *silently* getting rid of an adversary (a single action: use the Limiting Skills rule). Of course, you could always carry out a first action using the Limiting Skills rule and then two actions based on the Supporting Skills rule. There are many possible combinations, depending on the Players' imaginations and, once again, based on the GM's common sense (she will need to respect the balance of the game and avoid abusive uses).

Technically speaking, a Test is required for each of the Skills used, in the order that the actions are undertaken (*Camouflage/Concealment* then *Stealth/Silent Movement*, for example). If the first Test is a Success, the character can then apply the Success Modifier obtained, which is therefore logically a bonus (see the table of Success or Failure Margins), to add to the Success Probabilities of his second Test. If he fails, a Failure Modifier (a penalty) will reduce the Success Probability of the second Test. **Don't forget that the GM is always free to apply the bonus (or the penalty) or not, depending on whether or not she thinks it is necessary.**

GAME MECHANICS

EXTENDED OPPOSED TESTS

In some case, when two contestants are challenging each other, the victory or the defeat is not determined by a single test but by several. In order to win the confrontation, one of the contestants must reduce the Attribute or Skill of his challenger to zero. For example, in an arm wrestling contest, each contestant must roll Strength tests to reduce the Strength of his opponent to zero.

- If only one of the characters succeeds his Test, the Attribute or Skill of his adversary is reduced by the Success Modifier corresponding to his Degree of Success.
- If both characters succeed their Tests, there are two possible cases that depend on the Opposed Test (the case a or b will always be specified in the description of the Opposed Test) :
  - **a/** The Attribute or Skill of each contestant is reduced by the Success Modifier corresponding to the Degree of Success of his adversary.
  - **b/** The Success Margin of the winner is reduced by the Success Margin of the adversary (the result being called the Net Success Margin) to determine his Success Modifier. **The Attribute or Skill of his adversary is reduced by this Success Modifier. The winner doesn't lose anything.**

SECOND ATTEMPTS AND FINAL COUNTDOWNS

Final Countdowns are an advanced version to the Second Attempts rule that can be found in CRB1 on page 203.

In certain situations, time ticking by is often a crucial factor for the characters. Each Failure can therefore increase the risk of something bad happening. Here are a few examples of negative events:

- A patrol happens to walk past as the group was trying to illegally break into a building.
- A bomb with an ever-ticking timer is on the point of going off while the team of PCs are trying to defuse it.
- An enemy is ready to release a torpedo aimed at their vessel, which cannot move due to a technical problem that the mechanic is desperately trying to repair.
- A damaged submarine is taking on water, threatening to sink with all its occupants if they can't put on their diving armor in time.

In this kind of situation, the GM should never hesitate to fix a time limit that will be applied as a maximum number of attempts. The PCs can start over as many times as they have remaining attempts. Triggering a Catastrophe can even mean that the characters lose one or two of those allotted attempts. If they don't manage to accomplish the action, the expected event takes place (the security guards arrive on the scene, the bomb explodes, etc.). In the interest of the game, the GM should define a maximum number of attempts that relates to the Difficulty of the action, in order to give the characters a way out (so they can run away—if that is actually possible!—if they fear they will never succeed in performing the action). This kind of final countdown does wonders for the game's atmosphere!

TEAMWORK

Several characters can choose to work as a team to improve their results (by "team," we mean a regular-sized group of PCs, so about 4 to 6 people). Here is how it works:

1. **Choose a team leader:** this is usually a role given to the person with the highest Base Success Probability ...or the one who managed to convince everyone else. All the other characters taking part in the team effort will assist him (the Gamemaster is free to limit the number of people who can work together on the same task—perhaps only three people can fit in the area).
2. **Everyone takes a Test. Note the Success (or Failure) Margins of each character.**
3. **The assistants who succeeded in the Test can add a teamwork bonus equal to half their** *Success Modifier* **(not to be confused with their Success Margin). On the other hand, the assistants who failed their Tests inflict a penalty equal to half of their Success Modifier.**
4. **If the team leader succeeds in his Test, the bonuses of his assistants increase his Success Margin, while their penalties decrease it. These penalties cannot, however, cause the Success Margin to go below 0, unless one of the assistants obtains a Catastrophe (his Teamwork Modifier can then take the Margin below 0 and turn it into a Failure Margin).**

5. **If the team leader fails his test, the bonuses of his assistants reduce his Failure Margin, whereas their penalties make it worse. If the bonuses bring the Failure Margin above 0, then at that point it becomes a Success Margin.**

LUCK

MARGINS OF SUCCESS OR FAILURE

If he so wishes, and if it is appropriate, the GM can take into account the Success or Failure Margin (as well as any possible Catastrophes), to determine the precise effects of the event. For example, after a Luck Test intended to determine if the character sets off an explosive trap or not, a Catastrophe could increase the damage caused by the bomb, while an "Excellent" Success could allow him to detect and disarm the device and even take it with him to use later. If he manages a "Just barely" level of success, he steps on the trap... but the device doesn't go off as long as the character doesn't move, therefore forcing him to wait for a specialist who can disarm the bomb. Be creative!

MODIFIERS

Depending on the probability of the event, the GM can very well apply a bonus—or on the contrary, a penalty—to the Luck Test, according to the same principle as the usual Test Difficulty Modifiers. Here are a few examples:

- **A very probable event:** *+7 to +10*
- **A probable event:** *+3 to +5*
- **An uncertain event:** *+0*
- **A fairly improbable event:** *-3 to -5*
- **A very improbable event:** *-7 to -10*
- **A totally improbable event:** *-13 to -15*

HEROIC CHARACTERS

Each character can have a Luck level that can reach up to 25 points. The points above 20 can, however, only be used to reduce inflicted Wounds (see **...And Surviving Another** Day above), and are not taken into account in the Luck Tests (we consider that the Luck level of the character is equal to 20, even if he actually has a higher level).

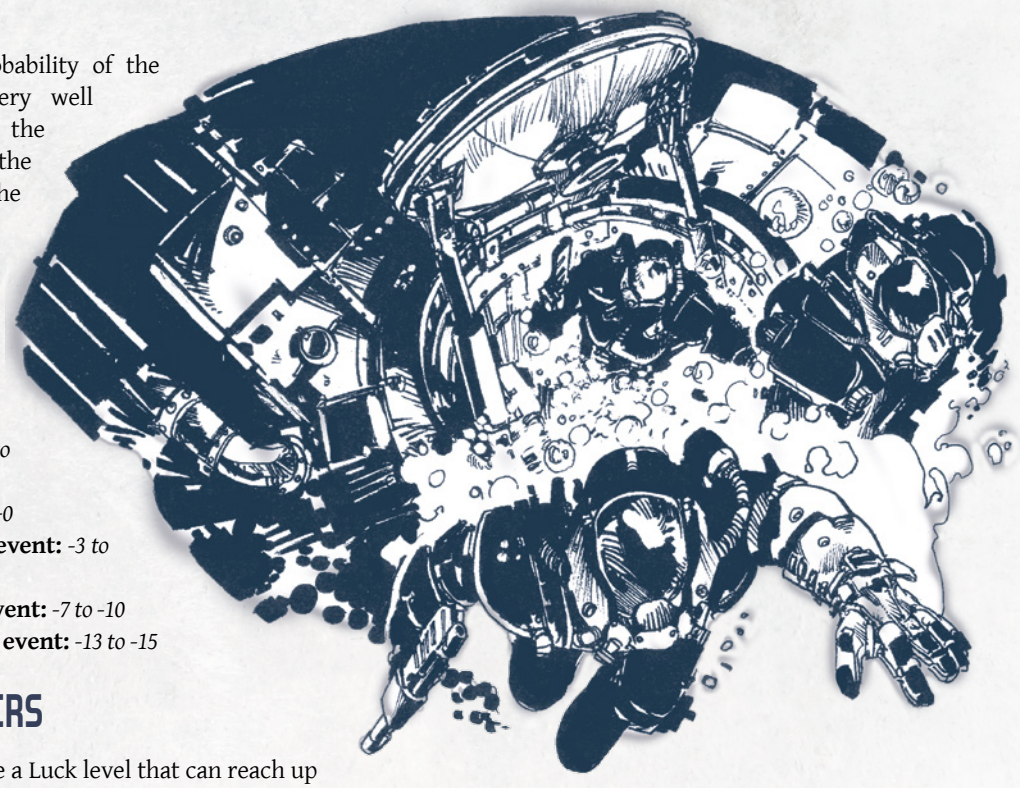
Note: in any case, **the maximum level that a character can have in Luck is 20** (you can also apply the optional rule of "Heroic Characters" as described).

GROUP LUCK

All the points over 20 are added to a common pot that belongs to the whole group (one Player can be designated to manage this "Group Luck"). Each Player can dip into it as he requires, as long as the rest of the group agrees. This method is mainly useful when some characters have a particularly low Luck level.

POLARIS INCIDENTS

In normal conditions, each use of the Polaris effect, even when controlled, can trigger a minor or a major incident. You can therefore carry out Incident tests every time one of these effects is used. The character using it can, however subtract from the result of a D100 three times their level of Mastery of the Polaris Effect."



COMBAT

COMBAT PHASES

These rules handle special situations when determining Initiative and resolving of Action Phases during combat (See Structure of a Combat, CRB1 page 211).

INITIATIVE IN EXO-ARMOR

A character inside mechanical armor is isolated from the exterior and is therefore naturally less apt to react quickly than an individual in a normal situation. To simulate this, you can compare the character's Reaction Level to his level in *Armor maneuvering* (with the required specialty) and then use the lower of the two to determine the character's Initiative.

CHANGE OF INTENT

If, during the combat, the Player decides to change his intended Action, he will need to take an Adaptation Test. If he succeeds at the Test, the Player can change his character's Action (if the GM is okay with it). If he fails the Test, he will have to go with his original Declaration of Intent. If he rolls a Catastrophe, the character becomes confused and doesn't perform any Actions during this Combat Round.

NEW OPPONENTS JOIN THE COMBAT

Sometimes taking a Reaction Test can be necessary during the combat itself, if one or more combatants are at risk of being surprised by the unexpected arrival of new opponents. The result of the Test indicates the possibilities available to the characters:

- **If the Test succeeds, the character is not Surprised** and will even be able to Attack his new adversaries, just as he would have the existing combatants if he decides to change his intentions (see **Change of Intent [Optional]**, as above).

- **If he fails the Test, the character is Surprised.** He will not be able to attempt any Attacks against his new opponents. If the GM considers that the character cannot even detect them (if they are arriving from behind him, for example), then they can very well be given a free Attack.

USING A SLOW WEAPON

Some weapons are slower than others—heavy weapons, for example, or those that need to be armed before each shot, such as a thrown weapon, a bow or crossbow, or even a shotgun that needs to be shouldered. If you want to manage this precisely, the use of one of these weapons requires a penalty to be applied to the Initiative (from -2 to -5 in general). As their name suggests, shoulder-fired weapons are designed to be fired from the shoulder, and lack precision when "shooting from the hip" (see **Shooting From the Hip** in **Ranged Combat** on page 196). This gives quite an advantage to weapons like submachine guns, which don't give any penalties for Initiative as they don't need to be shouldered; the shooter can fire straight from the hip. A character can very well move with his shotgun shouldered, ready to shoot; in this case, he doesn't get an Initiative penalty, but his movement is limited to an Moderate Speed (this is a classic position for soldiers or police special forces agents who are methodically inspecting an area, with their weapon shouldered to be ready to face any possible threat).

HURRYING AN ACTION

A character can always choose to Hurry his Action by choosing to concentrate on the speed of it rather than its precision. **In terms of game play, the Player can add a bonus of +3 to his character's Initiative,** therefore giving him a chance to act three Action Phases earlier than originally planned. To choose this option, a Player simply needs to mention during the Declaration of Intent that he wants to Hurry his Action. **The cost of the bonus on Initiative is a -5 penalty for the character's Action...**

> **Example:** *stuck in an ambush, a character (Initiative: 13) wants to draw a weapon to defend himself. Drawing a weapon is a Preparation that would usually cost him 5 Initiative points, which would mean waiting for Action Phase 13 – 5 = 8 before he could act... That's too slow! He therefore decides to Hurry his Action, which gives him a new Initiative of 13 + 3 = 16; therefore, he will be able to shoot at one of his attackers as soon as Phase 11, once he has drawn his weapon (16 – 5). The time saved is not huge, but sometimes a fraction of a second can make all the difference... Because of the Hurried Action, however, his Attack will suffer a penalty of -5.*

If the Action does not require a Test (for example, a Movement), the GM can choose to request a Test of the Attribute that suits the situation (this Test is then taken without applying the penalty of -5).

Example (continued): *after having taken his shot, the character decides to head for cover, fearing that he will be caught in a crossfire. Once again, he decides to Hurry his Action, this time to perform a Movement. With an Initiative of 13, he will be able to move as soon as Phase 13 + 3 = 16. A Movement doesn't usually require a Test, but the GM decides to ask him to do one all the same; the Player must pass an Agility Test (this is the best-suited Attribute for this situation) for his character to be able to reach the nearest shelter for cover. The result of the Test is clear: he fails... The GM decides that the character has stumbled and he therefore loses the +3 bonus on his Initiative; he will only be able to begin his Movement at Phase 13. If the Test result was a Catastrophe, the character could even have fallen all the way to the ground and been stunned at the mercy of his opponents' shots!*

Note that a Hurried Action cannot be Delayed.

CHARACTER POSITION

A character can end a Movement or any other Action in any position (standing, crouching, kneeling, lying down...). It can sometimes be useful to run and dive onto the ground to avoid enemy fire! Any important change of position (diving or getting up, especially), when performed before an Action (of any kind) can however be considered as a Preparation:

- **Crouch down / Stand up straight (Init. -3)***
- **Throw oneself onto the ground, dive (Init. -5)***
- **Expose oneself / Take cover (Init. -3):** to shoot from a covered position, behind a wall or any kind of object, for example.
- **•Get up (Init. -10):** after a fall or standing up from a lying position. If a character is laden in some way, this Movement can even take a full Combat Round.

**Free if this ends a Movement Action.*

COMBAT MODES

Whenever a character is in position to execute a Melee Action, he can choose a specific "Combat Mode," each with its own advantages and disadvantages:

Normal

This is the default Combat Mode. The character attempts to hit his adversary but without exposing himself to any undue risks of being hit. There are no particular Modifiers.

Defensive

The character chooses to focus on defense more than offense. To do this, he must Delay his Action (see **Delaying an Action**) and await his adversary's next Attack. He gets a +3 bonus on his Opposed Test but may not Attack.

Retreat

The character protects himself to the max, doing everything he can to avoid being hit. As with the Defense Mode described above, the character must Delay his Action and cannot Attack. If attacked, he gets a +5 bonus applied to his Opposed Test. The downside is that he must back off and give ground in order to keep his adversary at a safe distance (this move is free). If the character cannot make this move, he will simply defend in normal Defense Mode. This Combat Mode also allows a character to move continuously and to circle his adversary while remaining out of reach of his blows.

Offensive

The character puts everything into the attack while neglecting his defense, and this gives him a +3 bonus on his attack Tests. The downside of this is that until he can change his Combat Mode (during his next Action) the character suffers a -5 penalty on his Opposed Test, if attacked.

- **Charge (Exclusive Action):** the character truly hurls himself at his adversary. He gets a +3 bonus on his attack Test and a +3 bonus on Damage, if he hits. The downside is that the character will suffer a -7 penalty on any Opposed Tests (if attacked) until he changes his Combat Mode (in his next Action Phase). Executing a Charge requires a run-up: the character cannot be within the Melee range (i.e. less than 3 meters from his adversary) and must at least execute a "Short Move"; however, he can do so at no cost in this case (normally it would count as a Preparation costing him 3 Initiative points). If the character still finds himself too far away from his adversary, the Charge is still possible. The Gamemaster is free to treat this as a Preparation costing 3 to 5 Initiative points, depending on the circumstances. Underwater, only Hybrids, marine creatures, and divers equipped with hydro-jets can charge. ***Remember:*** a Charge is an exclusive action that prevents the character from attacking more than once per Round (see **Performing Multiple Attacks per Round**, CRB1 page 218).

A Combat Mode cannot be chosen or modified except during the Declaration of Intent phase. The character must wait out one Action Phase to be able to choose or modify his Combat Mode. Otherwise, he is considered by default to be in "normal" mode or his most recently chosen Combat Mode.

Note: if you don't want to use the Combat Modes, treat all attacks in melee situations as executed in "normal" Combat Mode.

MARTIAL ART - DEFENSE TECHNIQUE: SIMULTANEOUS COUNTERATTACK

A character who has opted (for whatever reason) to fight in Defense Mode cannot usually attack. This combat technique enables him to defend himself if attacked, but also to counterattack in the same movement. To carry this out, he must carry out a successful Combat Test with a -5 penalty (the Combat Skill utilized is always limited to those available with *Martial arts*). His adversary will defend normally against this Attack. A character may only make one counterattack per Combat Round.

Use by the untrained: *impossible*

ATTACKING AN ARMED CHARACTER WITH ONE'S BARE HANDS

It is very dangerous to attack anyone armed with a blade or a gun when you are bare-handed. To simulate this, give an armed Defender—provided he *wins* his Opposed Test—the option of inflicting damage on his Attacker (as if the Defender himself were attacking). He then proceeds to roll damage (see **Damage** in CRB1 on page 228).

SHOOTING FROM THE HIP

No one shooting from the hip even thinks about aiming, since their accuracy is sacrificed for speed. This kind of shooting is classified as a **Hurried Action:** the shooter gets a +3 bonus to his Initiative, but also a -5 penalty for his Shooting Test. With shoulder-fired weapons the "shot from the hip" is quite literally shot from the hip: the weapon is not shouldered (this preparation costs 3 Initiative points), therefore, the shooter can then act in accordance with his normal Initiative but at the cost of accuracy.

STRAY BULLETS! (OPTIONAL)

The idea of "stray bullets" can make for some interesting (or catastrophic) moments in firefights (depending on your point of view). It is even more complicated in confined spaces and/or when automatic fire is involved. Now in the world of *Polaris RPG*, enclosed spaces, narrow gangways, and tiny passages are not uncommon... nor are characters equipped with firearms for that matter. Given the above, the Gamemaster should never hesitate to ask the characters to carry out a "Stray Bullet Test" from time to time (without going overboard), especially in the following cases:

THE CHARACTER COMES UNDER FIRE:

- in a confined space
- while next to dangerous objects (munitions, volatile substances, high-pressure pipes filled with boiling water, liquid nitrogen, etc.)
- under heavy or continuous fire
- right behind someone who's just taken a bullet (since there's a chance the bullet may not stop there)

THE CHARACTER DOING THE SHOOTING IS:

- in a crowd
- in an area housing sensitive and fragile components (such as the electronic or scientific equipment found in control rooms, engine rooms, command centers, laboratories, etc.)
- in a space containing volatile substances (munitions, dangerous goods, explosives...)
- and fires continuously or in bursts...

Generally speaking, if two (or more!) of these conditions apply, the GM can quite logically assume that the risk of a stray bullet is real. If that is the case, the character involved (whether shooter, target, or both) must carry out a Luck Test, with whatever Modifiers the GM deems appropriate. If he makes it, all goes well. Should he fail, something bad happens, depending on the Margin of Failure and the GM's interpretation:

THE CHARACTER UNDER FIRE:

- **suffers a more or less inconvenient collateral effect**; for example, a bullet pierces a nearby high-pressure conduit, triggering a blast of boiling steam resulting in a slight penalty to his ensuing actions (just barely fails)
- **gets hit by a splinter** from the projectile, causing 1D10 points of Damage (minor fail)
- **gets hit by a ricochet**, a common occurrence in enclosed spaces, which inflicts normal damage, reduced by 1D10 (moderate fail)
- **gets hit by a stray bullet** (or a bullet that has gone through the body of another guy), doing normal damage (major fail or Catastrophe).

THE CHARACTER DOING THE SHOOTING:

- **hits a target other than** the one intended (apply the same results as above, depending on the shooter's Degree of Failure)

- **hits something dangerous,** with more or less dangerous results depending on his Degree of Failure: thick smoke fills the area (and/or sets off the sprinkler system) and obscures vision, a fuel or alcohol supply is hit and starts burning, munitions explode, dangerous substances (toxic gases, contaminated or radioactive substances, liquid nitrogen, etc.) flood the area, etc.
- **hits a sensitive piece of equipment,** the greater the fail, the more important the equipment: light source, power supply, generator, motor, controls, onboard computer, control panel, command center, etc. A firefight in a navigation or generator room can immobilize a vessel or plunge a small station into darkness or cold for hours, even days!

The Gamemaster should, of course, adapt the examples to the situation. You will note that at no point have we spoken of the risk posed by a projectile penetrating a vessel's hull or window... quite simply because this would never happen. The materials used in the construction of vessels and stations are designed to resist unimaginable pressures and are impervious to any bullet, even armor-piercing ones. The people and sensitive equipment housed therein, on the other hand...

MORALE (COMBAT)

This chapter on combat wouldn't be complete without taking into account a point that is so often overlooked when it comes to role playing games: the issue of the combatants' morale. During a fight, the effects of stress and adrenaline are things that you have to deal with: your heart rate increases, your range of vision becomes narrower, your legs become heavy, your mind fills with panic and doubt... Don't worry, there are also good sides to this state: your survival instincts kick in, your physical abilities increase, your tolerance to pain increases, etc. A good fighter is someone who knows how to manage his stress and his fear to keep a clear mind when facing an opponent...

ABOUT THE MORALE RULES

The Morale rules are, of course, completely optional and were designed to be a tool in the service of the game's atmosphere, to be used as the Gamemaster wishes. In the dangerous universe of the *Polaris RPG*, the Player Characters are hardly at risk of lacking in adrenaline, whether they're in the middle of a violent combat in the slums of Equinox, being hunted along the walkways of their own vessel by an unknown and invisible predator, or confronted with a terrifying manifestation of the Polaris Effect. Of course, not all confrontations will need rules to manage the stress and fear of the characters. Furthermore, the Gamemaster can decide to steer the game more toward a style based on grand, heroic gestures rather than play it purely realistically. In that case, there is no need for these rules! If you do need them, however, just follow these guidelines...

WHEN SHOULD YOU PAY ATTENTION TO THE COMBATANTS' MORALE?

The answer is simple: when the GM considers that the current confrontation is particularly stressful or even scary. Here are a few examples:

- **Getting wounded!** This is a real classic; few combatants will continue to attack after having suffered a Serious Wound (or even a Moderate Wound, for those who are less motivated...).
- **Facing vastly superior numbers of opponents,** or better-armed opponents, or opponents more determined to kill.
- **Finding oneself under heavy fire,** for example, getting trapped in the middle of a shootout, or being the target of suppressive fire.
- **Being the victim of a sudden or particularly intimidating attack,** accompanied by a lot of noise, movement, and violence.
- **Being directly threatened with a weapon** (even if it is only a bladed weapon; hand-to-hand combat with an armed opponent is always intimidating).
- **Losing a commanding officer,** in the case of military units (or similar). Soldiers (good soldiers, at least) count on their officers; if one of them falls in battle, the subordinates could well be thrown off and break off combat, as well as being less efficient tactically (the bad soldiers won't have survived this long anyway).
- **Being confronted with an unknown, huge, or Surface-dwelling creature**, or possibly a fearsome-looking mutant, or a disciple of the Polaris Effect with terrible powers (this is also the case if the Polaris Effect is triggered accidentally...).
- **Having to do battle in a particularly worrying environment,** for example, in the dark, on the Surface, in underwater tunnels, etc.
- **Suspecting the presence of a potential danger,** or anticipating a known danger, for example, suspecting the presence of hidden enemies, seeing a marine creature lurking in the distance, exploring the territory of a known predator, etc.
- **Being confronted with the object of a personal phobia,** for example, a fear of the dark, creatures from the Surface, mutants, or even rats! This situation can very easily add to the aggravation of one of the events listed above.

MORALE TEST AND CONSEQUENCES

When the GM considers that a Morale Test is required, she must first fix the penalty, depending on the situation, the strength of the opponent, etc., by using the descriptions above. The exact penalty depends on the level of the threat: generally speaking, it will be between +0 and -3 for a situation that is deemed stressful, and between -5 and -7 for a truly terrifying event. Of course, things can get really tricky if the situation combines several of the previously listed cases (fighting on the Surface, against an unknown creature, in the dark, with a phobia of the dark while wounded, etc.), but you just need to work out an overall penalty. Note that the morale of the combatants can be modified well before the beginning of any kind of combat (for example, a character who is making his way along the tunnels in Burrowers' territory could have walked for hundreds of meters in a state of permanent stress before he comes across an ambush set by his fearsome adversaries).

Once the combat has begun, the GM then requests a Morale Test, which is a Willpower Test with the appropriate penalty (in the case of a Surprise, the Morale Test comes just after the Reaction Test). **However, the GM can also award bonuses, depending on the character's history.** An experienced soldier or a hardened criminal caught under enemy fire will not react in the same way as a character who is less used to that sort of thing, whereas a priest of the Cult of the Trident will be more comfortable with the mysterious manifestations of the Polaris Effect. This bonus should, however, not exceed +5, and should be determined on a case-by-case basis for each character, while avoiding any abuse. A quick method for doing this is to consider the character's past experience in a Profession that could offer him a bonus in the current situation, and divide the number of years spent in that Profession by two to get the value of the bonus (for example, 4 years spent as a Soldier can provide a bonus of +2, as long as the environment of the combat is well known by the character).

Note that during a single combat, the GM could very well request other Morale Tests, depending on how the situation plays out: one of the characters is wounded, the opponents receive back-up, suppressive fire begins, etc.

If he succeeds at the Test, the character manages to control his stress or his fear, and he can act normally. If he fails the Test, roll 1D10 + the Failure Modifier on the following table:

1–3: Boo! The character yells and jumps. Because of the stress, he suffers a penalty of -3 on all his Actions for one Combat Round.

4–7: Everyone to defensive stations! The character can fight in normal conditions but only in defense for one Combat Round (Defensive Combat Mode or Retreat in a melee combat, looking for cover in a ranged combat).

8–10: Run! The character cannot fight (unless he is forced to—in that case treat as "Defensive stations" above) and he can only think of one thing: running away from the battlefield. Once he has moved away, or found shelter, he can, however, get his thoughts back in order and return to the fight.

11–12: I'm scared! The character rolls up in a ball, without trying to actively defend himself. He will try to run away by any means possible. He will have to roll a Willpower Test each Combat Round (with the same Modifier as the Morale Test): if he succeeds at the Test, he pulls himself together (in this case, treat it as the "Defensive stations" level above); if he fails, he remains in this same state.

13–14: I'm panicking! The character screams and has a panic attack. He can remain completely paralyzed with fear, roll up in a ball on the ground, or even begin to hit (or shoot at) anything in sight uncontrollably. He will have to take a Willpower Test each Combat Round (with the same Modifier as the Morale Test): if he succeeds at the Test, his panic attack ends (in this case, treat it as the "I'm scared!" level above); if he fails, his condition remains the same.



15 and over: AAAAAAAH! As well as panicking (see above), the character has a fainting spell and has to pass a Shock Resistance Test with a penalty of -10...

ADRENALINE!

Adrenaline is an ideal ally when it comes to facing combat conditions (or escaping danger). Of course, things are not that simple, as it is impossible to really control the effects of this natural reflex, so this really is a bit of a double-edged sword. A Player whose character is undergoing a Morale Test can ask to benefit from the effects of adrenaline. In this case, he can decide on his own bonus, between +1 and +5, and he then takes the Morale Test with this bonus (as well as the other Modifiers defined by the GM, of course).

And that's when things start getting fun. If he fails the Morale Test, the Player rolls 1D10 as usual on the table above, and he adds his Failure Modifier as usual, but this time he also adds the value of the bonus that he chose to give his character. You should, however, ignore scores over 10. If the Player succeeds at his Test, he can choose one of the following options (some of the options require a minimum Success Margin):

- **Survival instinct!** The character instinctively reacts to protect himself. All of his Actions for this Combat Round will only be defensive ones (Defensive Mode Combat, running away, diving for cover...), but on the other hand, he gains a bonus of +3 on his Initiative.
- **'Tis but a scratch!** The character manages to forget about the pain. He is given a penalty of -3 on his Initiative, but can ignore any penalties due to Wounds for one Combat Round.
- **Win or Perish! (minimum margin: 5)** The character instinctively rushes into the combat. The Player can choose between a bonus of +3 Initiative for his character, or the ability to ignore penalties due to Wounds. In both cases, this lasts for one Combat Round. The character can Attack, but his Actions during this Combat Round will be all-in, no half-hearted attacks: a Charge in Melee Combat, or Sustained Fire—Repeating Shot or a Long Burst—in Ranged Combat (in both cases, the character completely empties his magazine...).
- **BERSERK! (minimum margin: 10)** The character is overcome by a true warrior fury. He is given a bonus of +3 Initiative and the ability to ignore penalties due to Wounds. As is the case in "Win or Perish!" his attack will be all-in. On the other hand, he will not stop attacking until he has wounded or killed (depending on the severity of the conflict) one of his opponents. And it doesn't matter how many Combat Rounds it takes...

INTIMIDATION

The *Intimidation* Skill can, of course, be used during combat, by taking on an aggressive pose or a mean look, by voicing insults or threats, by attacking brutally and violently, etc. The character can then take an *Intimidation* Test, which will be opposed by his adversary's Willpower Level. If he succeeds at the Test, the opponent is shaken, and will suffer a penalty of -3 for all his Actions for a number of Rounds equal to the character's Success Modifier. Note that the Gamemaster can award bonuses on the *Intimidation* Test, if the character uses his "artistic license": using a weapon, a reputation for being a dangerous fighter, or even a helmet or a balaclava that could lead his opponent to think that he is a dangerous criminal or a wanted terrorist...

THE FIGHTING SPIRIT OF NPCS AND CREATURES

Non-Player Characters are also subject to the rules of Morale. Opponents who are willing to fight to the death against the PCs are not exactly common; most of them will prefer to run away or surrender. This is what makes the difference between simple, anonymous henchmen who have been (badly) paid to break an arm or two, and deadly enemies who have sworn that they would reap revenge on the characters. The Gamemaster should therefore never neglect the fact that the NPCs also need to take Morale Tests now and again.

When the combats involve a large number of combatants, it is also possible to carry out group Tests, by fixing an average Morale Level for the group (for example, 12 for a simple gang of thieves, 15 for military units, and even more for a group of complete fanatics); if the Test is failed, the Failure Margin will give you an estimate of the number of opponents in a rout. This is also applicable to any groups that may be allied to the Player Characters. You should also bear in mind that a leader with a good level of the *Leadership* Skill can try to galvanize his troops or rally routed combatants, thus giving them a bonus on their next Morale Test.

When it comes to creatures, the case is slightly different, as most of them will simply try to flee if they come up against too strong a resistance. However, there are still a few vicious predators that have a genetically programmed instinct for battle. Likewise, a creature that has been fought into a corner and has no hope of escape will always be willing to fight to the death.

STATES OF HEALTH

WOUND PENALTIES

CUMULATIVE PENALTIES?

It may seem a little strange to only apply a single penalty even though the character has received several Wounds. The aim of this is first and foremost to simplify the management of Wound-related penalties, in order to avoid pointless calculations. In the end, we consider that the most serious of the Wounds cancels out the others (and this applies even if the character has suffered several major Wounds of the same level of severity: after all, if the character already has a broken arm, a fracture or two more won't make much of a difference...). If you do, however, want to take into account all of the Wounds, you can use a different (but also more hindering) system; you can, for example add **an additional penalty of -1** for each Location that has received a Serious Wound (or worse) after the first Wound.

WORSENING OF WOUNDS

Any Wound that is not treated (or was badly treated) is at risk of getting worse and creating some more or less serious unpleasantness (or even the death of the character in the case of Mortal Wounds). Two factors can worsen the state of a Wound: infection and Overactivity.

INFECTION

When they reach a certain level of severity, Wounds are at risk of becoming infected (or generating other comparable complications), if they are not treated (see the "Care and Healing" section above). **Every two days,** and for each Location that has one or more Wounds that could become infected and that have not been treated properly, the Player has to take a Constitution Test for his character, with the modifier indicated below, and apply the effects that match the result of the Test:

MODERATE WOUNDS

Modifier of +5 on the Constitution Test.

- **Successful Test:** no Infection for the tested Location, healing will continue normally.
- **Failed Test:** light Infection. The Player must tick an extra Wound box on the line for Moderate Wounds (and he also risks exceeding the capacity of this line, which will lead to a more serious Wound).

SERIOUS WOUNDS

No modifier on the Constitution Test, but a cumulative penalty of -2 for each ticked box on the Wound Scale past the first one.

- **Successful Test:** the Wounds in the tested Location do not become infected, but for each day that passes that the Wound has not been properly treated, the Constitution Test receives a cumulative penalty of -2 (no penalty on the first day, -2 on the second day, -4 on the third day, and so on).
- **Failed Test:** light Infection. The Wounds in the tested Location become slightly infected. The Player must tick an extra box on the line of Serious Wounds.

CRITICAL WOUNDS

Modifier of -5 on the Constitution Test, plus a cumulative penalty of -2 for each box ticked on the Wound Scale after the first one.

- **Successful Test:** although the Test was successful, the Wounds still become infected; in the absence of treatment it's unavoidable. The Player must tick an extra box on the Critical Wound line.
- **Failed Test:** the Wounds in the tested Location become infected. The Player must tick one more box on the Critical Wound line. Furthermore, for each period of two days that passes without the Wound being properly treated, the Constitution Test receives a cumulative penalty of -2 (no penalty on the first day, -2 on the second day, -4 on the third day, and so on).

MORTAL WOUNDS/LIMBS DESTROYED

Modifier of -10 on the Constitution Test, plus a cumulative penalty of -2 for each box ticked on the Wound scale past the first one.

- **Successful Test:** in spite of the Success, the Wounds in the tested Location are inevitably infected due to the lack of treatment, and they worsen into an advanced gangrene. The wounded character can survive for a number of hours equal to his Constitution Attribute, then he dies of septicemia (blood poisoning due to the Infection). If the Wound is located on an arm or a leg, amputation becomes inevitable in order to save the wounded character. In other Locations, nothing can be done, except maybe a surgical intervention accompanied by very high-tech medical care.
- **Failed Test:** as above, but the wounded character can only survive during a number of hours equal to half of his Constitution Level.

Note: if the character is located in a particularly unsanitary environment (a street, a vessel, or worse, the sewers), the GM can even inflict a further penalty (from -3 to -5, depending on the situation).

OVERACTIVITY

A wounded character is supposed to rest (and receive medical care...) to be able to recover from his Wounds. If he remains physically active, his Wounds can only get worse. Of course, the level of physical activity necessary to make the Wounds worse in this way depends on the severity of the Wound:

- **Light Wounds:** very intensive physical activities (ongoing combats, intensive training, hard physical work...).
- **Moderate Wounds:** intensive physical activities (training or normal physical work).
- **Serious Wounds:** most physical activities and work.
- **Critical Wounds:** anything that can prevent a wounded character from getting some quiet and rest...

It is up to the GM to decide if the activity of a character is susceptible to making his Wounds worse, based on the indications given above. If she considers that the level of activity may have made the Wounds worse, the Player will then have to tick an additional box on the line that matches the most serious of his Wounds. If several Locations are affected by Wounds of identical levels, the Location to be affected is chosen at random.

AFTEREFFECTS

The more serious Wounds (Critical Wounds, Mortal Wounds, and Limbs Destroyed) can leave permanent aftereffects (some of them are, of course, quite obvious, in the case of Limb Destroyed, for example). For each Wound that has a risk of leaving an aftereffect, roll 1D10 and match the result with the relevant table below. You may need to adapt the effects indicated below depending on the situation and the causes of the Wound (Wounds caused by a sharp blade, by a blunt weapon, by a bullet, etc.).

In most cases, an—expensive—surgical operation can solve the problem (plastic surgery, organ reconstruction, implanting new organs, adding a cybernetic replacement, etc.). However, the lost levels in the Attributes remain permanent.

HEAD WOUNDS

SERIOUS WOUNDS:

1–5	**No aftereffect.**
6–7	**Minor scar,** no effect.
8–9	**Some broken teeth.** Man, what a ravishing smile!
10	**Broken nose.** The Wound is not all that serious, but it's very painful; any further Wound to the head will require a Shock Resistance Test with a penalty of -5.

Note: Serious Wounds that affect other Locations will only leave a scar, with no further after effects.

CRITICAL WOUNDS:

1–4	**Minor scar**, no effect.
5–6	**Major scar**, penalty of -3 on any Tests that aim to gain trust, be attractive, etc.
7	**Broken jaw**, the character won't be able to feed normally until the Wound has healed.
8	**Broken nose.** The Wound is not all that serious, but it's very painful: any further Wounds to the head will require a Shock Resistance Test with a penalty of -5. If the Wound gets infected, the character gains the Diminished Senses (Smell) Disadvantage.
9	**Torn ear,** the character gains the Diminished Senses (Hearing) Disadvantage.
10	**A damaged eye.** If the Wound gets infected, the character gains the Diminished Senses (Sight) Disadvantage.

MORTAL WOUNDS:

1–2	**Minor scar,** no effect.
3	**Major scar,** penalty of -3 on any Tests that aim to gain trust, be attractive, etc.
4	**Horrific scar,** penalty of -5 on any Tests that aim to gain trust, be attractive, etc.
5	**Torn jaw,** the character can't feed normally until the Wound has healed. Presence -2, penalty of -7 on any Tests that aim to gain trust, be attractive,

etc. After healing is complete, he will not be able to speak until he has undergone a plastic surgery operation that is capable of reconstructing his jawbone.

6 **Damaged vocal chords,** the character can only speak in a hoarse whisper.

7 **Torn nose,** the character gains the Diminished Senses (Smell) Disadvantage, Presence -2, penalty of -7 on any Tests that aim to gain trust, be attractive, etc.

8 **Ruptured eardrum,** the character gains the Diminished Senses (Hearing) Disadvantage, and he can no longer dive at depths of over two meters without a pressurized suit or armor.

9 **Punctured eye,** the character gains the Diminished Senses (Sight) Disadvantage, penalty of -5 on any Tests that aim to gain trust, be attractive, etc.

10 **Brain damage,** roll 1D6 again (this is one of the rare cases where a surgical intervention won't be of any use):

- **1–3:** memory loss, the character has problems remembering mundane things, he forgets names, dates, etc.
- **4:** Presence -1
- **5:** Adaptation -1
- **6:** Intelligence -1

Optional rule (blind character): a character who has become permanently blind (due to a disability, an accident, or a Wound) gains a bonus of +3 applied to any Perception Tests that are directly linked to hearing, touch, or smell.

BODY WOUNDS

CRITICAL WOUNDS:

1–6 **Minor scar,** no effect.

7–8 **Muscular damage / Broken ribs,** even after the Wound has healed, the character will have a penalty of -3 on all physical Actions for the next 1D6 weeks.

9–10 **Internal organ damage,** even after healing is completed, the character will suffer a penalty of -5 on all physical activities for the next 2D6 weeks.

MORTAL WOUNDS:

1–3 **Minor scar,** no effect.

4–6 **Internal organ damage**, even after healing is completed, the character will suffer a penalty of -5 on all physical activities for the next 2D6 weeks.

7 **Crushed rib cage,** Constitution -1. Without a surgical intervention, the character will receive a penalty of -5 on all physical activities.

8 **Punctured lung,** Constitution -1. Without a surgical intervention, the character will receive a penalty of -7 on all physical activities.

9 **Spinal cord damage.** Without a surgical intervention, the character can only move at a Slow Speed and he will receive a penalty of -7 on all physical activities.

10 **Ruptured internal organ,** Constitution -2. The character is bedridden and will have to be operated on to replace the ruptured organ.

ARM WOUNDS

CRITICAL WOUNDS:

1–6 **Minor scar,** no effect.

7 **Broken fingers,** even after healing is complete, the character suffers a penalty of -5 on all Actions that require precision and that require the use of this hand for the next 1D6 weeks.

8 **Damaged hand/wrist,** even after healing is complete, the character suffers a penalty of -5 on all Actions that require precision or strength and that require the use of this hand for the next 2D6 weeks.

9 **Muscular Damage/damaged joint/serious fracture of the arm or shoulder,** even after healing is complete, the character suffers a penalty of -5 on all physical Actions that require the use of this arm for the next 2D6 weeks.

10 **Torn Fingers,** the character suffers a penalty of -3 on all Actions that require precision, and -5 on Actions that require strength, when using this hand.

MORTAL WOUNDS:

1–3 **Minor scar,** no effect.

4–7 **Damaged hand/wrist:** the character suffers a penalty of -5 on all Actions that require precision or strength and that require the use of this hand.

8–10 **Destroyed muscle or joint,** Strength -1, the character suffers a penalty of -5 on all physical Actions that require the use of this arm.

LIMBS DESTROYED:

1–4 Severed/destroyed hand.

5–7 Severed/destroyed forearm.

8–10 Severed/destroyed arm.

LEG WOUNDS

CRITICAL WOUNDS:

1–6 **Minor scar,** no effect.

7–8 **Broken foot/ankle/knee,** even when healing is complete, the character can no longer run and

suffers a penalty of -5 on all Actions that require the use of this leg for the next 1D6 weeks.

9–10 **Muscular damage/damaged joint/serious fracture,** even when healing is complete, the character can no longer run and suffers a penalty of -5 on all Actions that require the use of this leg for the next 2D6 weeks.

MORTAL WOUNDS:

1–3 **Minor scar,** no effect.

4–7 **Damaged muscle or joint:** the character can no longer run (Fast Speed maximum), and suffers a penalty of -5 on all Actions that require the use of this leg.

8–10 **Destroyed muscle or joint,** Coordination -1, the character can no longer run (Moderate Speed maximum), and suffers a penalty of -5 on all Actions that require the use of this leg.

LIMB DESTROYED:

1–4 **Severed/destroyed foot.**

5–7 **Severed/destroyed leg,** from the knee down.

8–10 **Severed/destroyed leg,** from the thigh or the groin down.

HYPERVENTILATING

Before beginning to hold his breath, a character can choose to use hyperventilation techniques to improve his performance, by intensely increasing his breathing rhythm and intensity. This method is, however, dangerous as it can mislead the body's natural alert levels and reflexes when it comes to its needs in terms of oxygen, and it can lead to an unexpected fainting spell. In game-play terms, before the character begins to hold his breath, the GM must secretly perform an Athletics Test for the Player. The Player should not be made aware of the results of the Test, to simulate the real effects of a failed hyperventilation. If the Test is a Success, the Success Modifier indicates the number of additional Combat Rounds that the character will gain, on top of his usual level of Apnea. If he fails the test, the Modifier should be subtracted from the Apnea score.

Note: to use a hyperventilation technique, the character will need to have a bit of time available before he needs to start holding his breath (count about 10 Combat Rounds; in other words, roughly one minute). He cannot perform any other Actions during this time.

WOUNDS CAUSED BY FIRE

The wounds inflicted by fire are horrifying; they get infected terribly quickly and, moreover, they are intolerable for the body. The Difficulty for treatment suffers a penalty of -5 and the healing time is doubled, unless the victim is submerged in a healing chamber or the wounds are treated with an anti-burn Medkit (this is the same thing as a Medkit, but specialized for treating burns). The Tests against Infection (if there are any) must be done every day with an additional penalty of -3. Finally, in the event of a wound to the face, the aftereffects are severe: when there are scars, the character loses 1 point of Presence for a Serious Wound, 3 points for a Critical Wound, and 5 points for a Mortal Wound. It requires a serious and costly plastic surgery operation to repair it.

EXPERIMENTAL TREATMENT

A doctor who does not recognize the disease or the poison (or who is faced with an unknown sickness) may attempt to administer an experimental treatment to the patient. For this, he must make a *Medicine* Test, with a Difficulty equal to the disease's diagnosis Modifier. In the event of a Success, his Success Modifier allows him to proportionally reduce the -7 penalty imposed on the patient, as a result of a poorly diagnosed disease or poison (up to a maximum modifier of +0). The risks are many, though: in the event of a Failure, the Failure Modifier is added to the disease level of the character treated...

FATIGUE

As you will see, the rules for Fatigue stay deliberately vague, leaving many things up to the discretion of the Gamemaster (hence the status of "advanced rules"). We could have conjured up a more precise system, for example, based on the Fatigue points that the characters may have lost little by little as a result of their actions and efforts... But when it comes down to it, we abandoned that option, for a very simple reason: this "layer" of extra complexity seemed a bit too much to us. The majority of existing roleplaying games do not bother with Fatigue rules, although it's a logically fundamental fact for characters required to fight, to act while stressed, and to live through all sorts of perilous adventures. So, rather than offer a system that would not be used, we propose a simpler tool, more in keeping with the setting than with a technical game mechanism that could be a little tiresome.

STAGES OF FATIGUE

These are the different stages of Fatigue that a character may go through, as well as their effects:

- **Normal:** the character is not tired.
- **Mildly tired:** the character begins to feel the effects of Fatigue, without them being too serious yet. He is lightly winded (after a physical effort), or a little weakened (after a too-short night, for example). He suffers a -3 penalty on all his Tests.
- **Tired:** the effects of Fatigue now make themselves truly known. The character is very winded and is not in the best shape. He suffers a -5 penalty on all his Tests.
- **Very tired:** Fatigue has become a real handicap, forcing the character to slow down his efforts and to regain his strength by resting. He suffers a -7 penalty on all his Tests (maximum movement speed: Fast Speed).
- **Exhausted:** the character is exhausted; he absolutely must rest and can only do the simplest tasks. He suffers a -10 penalty on all his Tests (maximum movement speed: Medium Speed).
- **Worn-out:** at this level, the character is extremely weak and is drawing on his very last reserves. He always suffers a -10 penalty on all his Tests (maximum movement speed: Slow Speed), but also at risk of fainting. For each action that causes Fatigue, he must make a Shock Resistance Test. He risks becoming dizzy or collapsing into unconsciousness from Fatigue.

WHEN SHOULD THE GM DEMAND FOR A FATIGUE TEST?

The idea of "Fatigue" covers not just physical fatigue resulting from a sustained effort over a long period (or on the other hand, from a brief but very intense effort), but also the weakening effects resulting from various causes: lack of sleep or food, illness, etc. When a character throws himself into one of these activities (or when he doesn't sleep enough), he runs the risk of getting tired. The rules for Fatigue rest on a simple principle: **whenever the GM thinks that a Fatigue Test is necessary, it's the right moment to demand one.** Moreover, beyond the necessity for a Fatigue Test, the GM should also consider the frequency of Tests. In fact, Fatigue manifests over time and it can only really be taken into account in the case of a sustained effort, over a more or less long duration. To simulate this, the GM should impose repeated Fatigue Tests, at a regular, fixed frequency.

Here are several sample situations that are appropriate for a Fatigue Test, with their frequency:

- During a chase, when the character attempts to catch a fugitive—or to escape his pursuers—on the streets of a large city. Frequency: every 3 Combat Rounds.
- During Melee Combat that lasts for a longer period of time (see Fatigue in Combat, below). Frequency: every 5 Combat Rounds.
- When the character loses sleep, whether it's because he can't rest, or because he is trying to stay awake (to perform a turn on guard duty, for example). Frequency: every hour, from the moment when the character starts to fight to stay awake.
- During any mental activity that demands an effort of concentration (for example, to solve a complex problem in a relatively short time, or competently pilot a vehicle by remaining in command for a very long time without taking a break). Frequency: every hour.
- Throughout an exhausting workday, for example, working in a mine or performing extensive repairs on a vehicle without being able to rest or take one's time. The working conditions are rough in the universe of the *Polaris RPG*. The work is punishing and exhausting, wearing out the body as well as the soul, which forces many workers to drown their weariness in alcohol and drugs. Frequency: every 2 hours.
- And, of course, during any long-lasting physical activity, for example, swimming a long distance (without the help of mechanized armor, obviously). Frequency: every 10 minutes if the character proceeds at a moderate speed, or every 3 Combat Rounds if he swims at the fastest possible speed!

This list is not exhaustive, of course, and the indicated frequencies are only suggested, but the Gamemaster can find inspiration to put these scenes into the action. As you can see, these rules rest mainly on the interpretation of the GM. It's up to her to rule on the frequency and difficulty of Fatigue Tests, depending on the situations and her own needs, while above all trying to remain fair and equitable. Don't forget what the real objective of the Fatigue rules is: to reinforce the setting of the game and make the Players understand that their character is not an inexhaustible superhuman. It's pointless, however, to totally overwhelm the PCs by doing things like making them faint as soon as they try to run more than 50 meters.

The GM must take the time to come to grips with these rules, and to make them her own. She is especially invited to keep an eye on the group's Fatigue levels, because not all characters are equal in their resistance to exertion. She may even need to space out the Tests if it becomes necessary (without forgetting that the Non-Player Characters themselves suffer the effects of Fatigue too!). Everything depends on each person's gaming style: it's logical that Fatigue Tests are relatively frequent for a "Realistic" setting (thus forcing the Players to ration their characters' efforts), but they might happen a little less often for an "Intermediary" setting, and be even more rare (even nonexistent!) for a "Heroic" style adventure.

FATIGUE TEST

Fatigue can have many causes, and to resist it, a character may use different physical or mental abilities, depending on the occasion. So, for a Fatigue Test, the character may undergo:

- **A Constitution Test,** when it's a matter of testing his physiological resistance (example: a physically punishing job).
- **A Willpower Test,** when it's meant to measure his concentration (example: a long period of sleeplessness).
- **An Endurance Test,** when it's necessary to measure his stamina during a physical activity (running, combat, etc.).

Note: in the event of hesitation, the GM may demand a Test with a value equal to the average of Constitution and Willpower.

It is always possible to apply a Difficulty Modifier to the Fatigue Test, depending mainly on the intensity of the action taking place. So, an action that's not too intense, in which the character has the opportunity to rest, may be considered easy (and thus qualifies for a bonus). On the other hand, a very intense action, during which the character must put everything he has into it, might be judged difficult, and therefore subject to a penalty.

FATIGUE SCALE

The Fatigue Scale (found on the character sheet in the *Character's File*) makes it possible to keep track of the character's current Fatigue level. Each stage of Fatigue is divided into three sections, each one indicating a Modifier (negative, most of the time). We advise you to use a marker to visually represent the changes in the character's Fatigue level. At the beginning, for a character who is not tired, the marker is placed on the first section of the counter (Normal state, box +0).

The counter's use is extremely simple, and depends on the results obtained during the Fatigue Test described above:

- **The required Test is failed:** the character's state of Fatigue goes up by a level (and not a box), going, for example, from Normal to Mildly tired. The marker is then placed on the first box of the new Fatigue level.
- **The required Test is passed:** the character's state of Fatigue does not change levels. Conversely, the marker advances by one place, moving, for example, from the box "+0" to the box "-5." This penalty will be applied to the next Fatigue Test required by the GM, thus making it a little more difficult. If the marker is already on the box
- "-10," it doesn't move: the Player makes all his Tests with a -10 penalty, and the character's state of Fatigue doesn't move until he fails his Test.

In the event of a Catastrophe, the Fatigue goes up a level as usual, but the marker must be placed on the second box of the new stage (that is, on the box for "-5" and not "+0"). On the other hand, with a Success Margin that's particularly high (15 or more), the character benefits from a "second wind." This allows him to forget his Fatigue for a time and the marker moves to the left, thus reducing the general level of Fatigue.

Note: the Fatigue Tests are not affected by the penalty that the different states of Fatigue impose on other Tests for the character. So, a Mildly tired character who is engaged in combat suffers a -3 penalty on his Combat Tests because of Fatigue, but his next Fatigue Test is not subject to this penalty in addition to the usual penalty indicated by the Counter boxes.

When a character reaches his last state of Fatigue, Worn-out, he should not attempt any more fatiguing actions. He must stop and rest to recoup his energies. If he decides to go ahead and undertake a fatiguing activity, the usual Fatigue Test is replaced by a Shock Resistance Test, with the penalty indicated on the table. In the event of a Failure, he suffers the effects of Shock: Dizziness for 1D6 Combat Round(s), or Fainting for 1D6 minute(s). In the event of a Success, the marker simply moves one box to the right.

Note (diseases): certain illnesses bring a forced increase of the Fatigue level (see **Diseases and poisons**, CRB1 page 240). In this case, the Fatigue marker is, not surprisingly, placed on the first box for the state of Fatigue in question. It's understood that the character suffers the effects of this Fatigue semi-permanently, as long as the illness remains unhealed.

FATIGUE AND COMBAT

These Fatigue rules were set up to avoid having to keep precise track of the characters' state of Fatigue on each Combat Round. If the GM wants to use the Fatigue rules in combat, she must regularly require Tests as usual, over the course of the confrontation's progress. Most of the time, only Melee Combat is subject to Fatigue Tests... but there may be some exceptions (example: a very lively Ranged Combat where the characters have to move around a lot, run, change position, etc.)

For a Melee Combat Test, the GM may reasonably require a Fatigue Test every 5 Combat Rounds. She can also give a bonus to a combatant who has mainly concentrated on defense, and inflict a penalty on a character who has gone mainly on the offensive. Certain forms of combat, like fighting unarmed—or even worse, fighting underwater without mechanized armor—are particularly exhausting activities because they demand all the combatants' physical strength. In this case, it is also possible to impose additional penalties on the combatants.

RECUPERATION

A character can only recuperate—and lower his Fatigue level—when he finally rests. Here are the necessary rest times:

- **Mildly tired:** a few minutes.
- **Tired:** 15 minutes.
- **Very tired:** an hour.
- **Exhausted:** several hours.
- **Worn-out:** a full night of sleep.

When the character has been able to properly rest for the amount of time indicated, his Fatigue level drops by one level. If the resting time was not completed, or if the resting conditions were poor, the GM may decide to simply move the Fatigue marker one or two boxes, without allowing the character to go to a lower Fatigue level.

OTHER TYPES OF DAMAGE

In the case of unusual types of Damage caused by unconventional weapons, the GM can reduce or increase the armor levels, depending on what makes the most sense. Here are a few indications about how to manage these special types of Damage:

ACIDS AND CORROSIVE AGENTS

The acid mainly attacks the character's protective gear. If he is protected, he will not suffer any damage as long as the acid has not destroyed his protection. All types of armor provide 100% protection against Damage caused by acids... as long as they do not give way (see **Damage to Simple Armor** page 206 for more details). If a character is completely submersed in acid, his armor will not provide any protection at all unless it is insulated or watertight.

There is no attack test for Acid... the damage is automatic and increases progressively. The damage can affect targets at the V- or V+ scale (you need 10 points of damage at the H scale to inflict 1 point of damage at the V- scale and 20 points of damage at the H scale to inflict 1 point of damage at the V+ scale).

CRUSHING, CONSTRICTION, STRANGULATION, ETC.

Only rigid types of armor can provide any protection against this type of attack (which can destroy the armor in the process, see **Damage to Simple Armor** page 206 for more details). Some full-body outfits can provide a slight bonus against strangulation thanks to their thickness (or apply a penalty to the attacker's Attack Test).

FIRE

The protection provided by regular armor is reduced by half when it comes to fire, which will also destroy the material—as is the case with acid—if it is not fireproof.

GAS

Only armor that is completely airtight or that completely insulates its wearer can protect against these attacks.

HEAT AND COLD

Simple armor is usually inefficient when it comes to protecting from the heat and the cold. In fact, most types of armor tend to make the effects of extreme heat worse (especially metallic armor, if it is subjected to a radiating heat). Hydrating armor does, however, provide a certain amount of protection against dehydration.

MENTAL ATTACK

No type of armor can protect against this kind of attack!

NEURAL ATTACK

Armor cannot offer protection to weapons that directly inflict their damage to the nervous system (a neural dagger, for example).

POISON

Armor can completely protect its wearer from contact poisons if the area affected by the poison is completely covered by the armor.

RADIATION, ULTRAVIOLET RAYS, ETC.

Only shields and anti-radiation coatings (as well, it is rumored, as some natural surface armor) can protect a character from this type of damage.

SHOCK (RAYS THAT AFFECT THE NERVOUS SYSTEM)

Armor only provides half its protection level against stun rays.

SONIC ATTACK

Sonic weapons cause additional Shock Damage, and some can even affect the target directly. Therefore, the protection provided by any type of armor is reduced by half. A character dressed from head to toe in padded clothing will also see his base Damage level reduced by half.

Viruses, genetic agents, etc.: only completely insulated suits or armor can provide protection from this type of attack.

WOUNDS AND DISORIENTATION DUE TO EXPLOSIONS

If you want to make the Wounds suffered by a character directly exposed to the explosion's shock wave (in other words, the "blast," resulting from the increased air pressure) more realistic, you can consider that the Locations hit in

priority are the Head and the Body (you can request that the Player roll again for the Locations of his Wounds until a suitable result is obtained).

Following a Critical Wound to the Head, the character will have to successfully complete a Luck Test or he will automatically suffer an aftereffect such as "destroyed eardrum" (see the section on **Wounds and aftereffects**, page 200). This aftereffect will be unavoidable in the case of a Mortal Wound. An explosion can also cause serious damage to the lungs: following a Wound located on the Body, the character will have to successfully carry out a Luck Test, or suffer an aftereffect such as "perforated lung." Of course, if a character is protected in any way (airtight armor or vehicle, shelter, etc.) he can avoid these complications (or obtain a bonus for his Luck Test).

The other injuries are often due to the debris created by the explosion, which are projected and can damage the surrounding elements: this is what is called the "shrapnel effect."

Note: all of this only applies out of the water, where the shockwave mainly acts on the hollow organs. Under the water, the whole organism is affected. This results in damaged organs, fractures, etc. Inside a vehicle, Wounds are usually due to the collision with the walls or the equipment.

Explosions also create extremely violent Stunning Damage: you can consider that the effects of being Stunned (after a Failure on a Shock Resistance Test) will last twice as long. The victims of the shock caused by an explosion usually end up half-deaf and completely lost, with a stunned expression, and they are unable to do anything other than the simplest of actions.

DAMAGE THRESHOLDS

With this rule, the damage thresholds of creatures (and characters) are determined by their Scale, and they can also have Reinforced Thresholds. Likewise, the thresholds of vehicles (vessels, robots, drones, exo-armors, etc.) are determined by their Architecture.

Normally, with this rule, the thresholds of human beings are reduced by 5 points each. For Player Characters, this would mean a more deadly experience, so you can optionally keep the base thresholds for PCs.

Thresholds for human beings/Creatures at the H scale/Vehicles with a light or ultra-light Architecture.

THRESHOLD	SERIOUSNESS/SEVERITY
0	Light Wounds/Light Damage
5	Moderate Wounds/Moderate Damage
10	Serious Wounds/Serious Damage
15	Critical Wounds/Critical Damage
20	Mortal Wounds/Catastrophic Damage
25	Sudden Death/Limb Destroyed/Destruction

Thresholds for creatures at the V- Scale/Vehicles with a normal Architecture

THRESHOLD	SERIOUSNESS/SEVERITY
5	Light Wounds/Light Damage
10	Moderate Wounds/Moderate Damage
15	Serious Wounds/Serious Damage
20	Critical Wounds/Critical Damage
25	Mortal Wounds/Catastrophic Damage
30	Sudden Death/Limb Destroyed/Destruction

Thresholds for creatures at the V+ Scale/Vehicle with a heavy or ultra-heavy Architecture

THRESHOLD	SERIOUSNESS/SEVERITY
10	Light Wounds/Light Damage
15	Moderate Wounds/Moderate Damage
20	Serious Wounds/Serious Damage
25	Critical Wounds/Critical Damage
30	Mortal Wounds/Catastrophic Damage
35	Sudden Death/Limb Destroyed/Destruction

Thresholds for Vehicles with an ultra-heavy+ Architecture

THRESHOLD	SERIOUSNESS/SEVERITY
15	Light Wounds/Light Damage
20	Moderate Wounds/Moderate Damage
25	Serious Wounds/Serious Damage
30	Critical Wounds/Critical Damage
35	Mortal Wounds/Catastrophic Damage
40	Sudden Death/Limb Destroyed/Destruction

Reinforced thresholds

Every creature or human being with the characteristic Reinforced thresholds has thresholds of the next superior category.

EQUIPMENT

WEAR AND TEAR OF GEAR

As time goes by, equipment gets worn and damaged, it becomes less efficient, and breakdowns become more probable. The wear and tear of equipment is represented by the loss of Integrity points. These are the situations that can incur the temporary decrease of an object's Integrity:

Normal usage: all equipment becomes worn as it's used; this is what makes it important to take good care of it (a weapon should always be cleaned, for example). If you want to use this rule, then an object that is especially sensitive to wear, or which needs to be regularly serviced, loses 1 Integrity point after a certain number of uses. There is no need to be any more precise, especially as the time of usage required for the Integrity to decrease really depends on the nature and the solidity of the object. It's just a question of being consistent and finding a realistic balance. For example, firearms have a tendency to get clogged, and that could justify the loss of 1 Integrity point every two or three combats if not cleaned. If you don't want to manage all of this "in real time" during the game, you can always do it at the end of the session.

A lack of maintenance: maintaining and taking care of one's gear is a vital thing in the world of the Polaris RPG. The Players must be mindful that their character checks, cleans, and repairs their gear, even if this is done during the slow points of the adventure or the campaign. It is always an integral part of the setting. After all, this is one of the main points of concern for the vast majority of the population. Taking care of one's equipment takes a certain amount of time and usually requires some tools (although only a minimal amount). For example, the maintenance of a technological object can involve taking it apart to clean the circuitry, changing certain parts, updating the program that it requires to function, etc. Similarly, the maintenance of a weapon requires taking it apart completely, methodically cleaning each part, and lubricating them. If the GM notices that the characters are not able to take proper care of their gear, for one reason or another, she can reduce the Integrity of the objects by 1 point here or 2 points there.

Some inappropriate or really intensive conditions of use: using an object for an action for which it was not intended, exposing sensitive devices to dust, storing it in inappropriate conditions, using it very intensively by pushing it to the limits of its abilities... All of these cases are examples of use that can accelerate the rate at which the condition of an item will deteriorate. A GM who considers that a piece of equipment is being subjected to a difficult treatment shouldn't hesitate to decrease its Integrity by a few points (1 to 3 in general, depending on the situation, or even more if it seems appropriate).

Physical damage: this is the most extreme and quickest cause for the loss of Integrity. Of course, not all objects have the same level of solidity. A computer or a piece of delicate electronic equipment that falls on the ground will suffer far more damage than a weapon, for example. The only thing that can truly allow you to estimate the loss of Integrity is your common sense; the GM should apply more or less of a decrease depending on the situation. Generally speaking, minor damage should cause the loss of 5 Integrity points (or 1D10), medium damage should cause the loss of 10 Integrity points (or 2D10), and serious damage a loss of 15 points (or 3D10) or more depending on the situation. Sometimes there will be no possible doubt that a device will be completely destroyed (dropped from a great height, damaged by bullets, explosion, fire, acid, etc.).

Integrity points that have been temporarily lost can be retrieved by performing repairs.

PERMANENT LOSS OF INTEGRITY

Nothing lasts forever. All equipment gets damaged and becomes more fragile no matter how much care and maintenance it receives. And then one day, you'll need to replace it, either because it is worn out, or because it is technologically out-of-date. All of this can be translated in game terms as a permanent loss of Integrity that can never be retrieved, which will lower the object's maximum Integrity, in the following situations:

- Every time an object changes its general status (when it goes, for example, from "Good condition" to "Average condition"), it loses 1 Integrity point permanently.
- Every time an object loses 5 Integrity points in a single go, it permanently loses 1 Integrity point.
- Last but not least, all objects are subject to natural wear and tear. If you decide to use this rule, you should consider that at the end of each scenario (or on a regular basis, in the case of a campaign or a long scenario), all the delicate objects that have been used on a fairly normal basis or that have been used in very difficult conditions permanently lose 1 Integrity point.

Note: powered exo-armors (or mechanized armors) and vehicles use slightly different Integrity rules. For more information, see the chapters on Powered Exo-Armors and Submarines and Vehicles on pages 74 and 107 respectively.

DAMAGE TO SIMPLE ARMOR

Like all other pieces of gear, armor can be given a level of Integrity and be subject to wear and tear. The protection provided by a piece of armor decreases if its Integrity falls below certain levels:

6 to 10: the Protection level of the armor is decreased by a third. Furthermore, an insulated armor with an Integrity level that falls below 10 is no longer considered to be watertight or airtight (the problems that this may cause in any situation are left up to the judgment of the Gamemaster).
1 to 5: the Protection level of the armor is decreased by half.
0 and below: the armor is destroyed and can no longer be used.

The degradation of armor items usually takes place during a combat, because of the Damage inflicted (note that, as is the case with Physical Damage, the Damage caused to armor is Localized). You can consider that a piece of armor loses 1 Integrity point every time that it is hit by a Physical Damage level more than 5 points higher than its Protection level.

As usual, the Gamemaster is welcome to take into account the specifics of the situation, as different sources of Damage could possibly inflict different types of losses of Integrity. For example, if sharp or piercing weapons (bladed weapons, bullets, etc.) are capable of causing damage to all types of armor, the same is not true of blunt weapons (staffs, clubs, hammers, stunning ammunition, etc.), which will usually do very little harm to flexible types of armor (but can cause damage to rigid armor by denting or even cracking the solid parts).

Finally, destructive elements such as fire or acid can cause a more direct type of damage to armor parts. The pieces of armor that have been exposed to this type of damage can lose Integrity points at regular intervals, after a certain number of Combat Rounds, depending on the resistance of the materials that the armor is made of, and also on the intensity of the flames or the strength of the acid. Some especially corrosive (and, thankfully, very rare) acids can even destroy a suit of armor in just a few Combat Rounds.

DEPRECIATION OF PROGRAMS

Computer programs and securities lose 1 TL every 6 months because of the constant improvements of the devices.

INTEGRITY OF EXO-ARMOR PARTS

If you wish, you can use the Integrity rules to manage the general wear and tear of the various parts of an armor, just like other pieces of gear (see **Integrity of the Gear**, in section on Equipment on page 9):

The Structure, the Exoskeleton, and the Generator are each given a specific Integrity stat, since they each act as independent pieces of gear. As you would expect, low-quality or salvaged gear gets a fairly low Integrity level, just as well-kept equipment (and/or the newest technological update) may even have a level above 20. So, for example, it's entirely possible to find an armor equipped with a new generator (Generator Integrity: 20), but with a worn-out Exoskeleton (Integrity 15), and a fairly poor Structure (Integrity 10). Serious losses of Integrity result in less effective armor (see **Incident Effects and Integrity Loss**, page 80).

Each Auxiliary System and each piece of Weaponry has its own Integrity level. So they are treated like any piece of equipment, following the usual Integrity rules in the section on Gear.

Note: don't forget the difference between temporary Integrity, which can diminish as a result of Damages suffered, but can be repaired, and Maximum Integrity, which represents the wear and tear of the gear and for which there's no possible repair.

WEAR AND INTEGRITY LOSS FOR EXO-ARMORS

Like any gear, armor can lose Integrity points if not maintained correctly, or are used in ways for which they weren't designed. Don't hesitate to refer to the Gear chapter in the section **Wear and Tear of Gear** on page 208 for more information on the subject. When the GM feels that Integrity loss is inevitable, she can choose which element is affected (Structure, Exoskeleton, etc.) as a result of the situation, to be determined at random by a roll on the Incident Location table (see **Damage Management**, page 79).

TECHNOLOGICAL LEAPS AND TECHNOLOGICAL BREAKTHROUGHS

TECHNOLOGICAL LEAPS

A device is characterized by a base technological level (TL), the level at which it is normally built (TL base in the below table). If one wishes to build the same device by using a higher TL, the device will benefit from better materials, knowledge and processes, and thus will weigh less. On the opposite, if one wishes to build it with a lower TL, the device will weigh more.

Example: A Neutron cannon has a base TL of IV. If the current TL is III, its weight is twice the weight of the TL IV version. If the TL is II, its weight is ten times the weight of the TL IV version (assuming of course it is possible to build such a weapon). On the opposite, a TL V version of the same cannon weights about twenty percent less (x0.8), whereas a TL VI Azurean version weights one-third less (x0,67). Note: Trying to build a Genetician artifact below TL IV is more miraculous than anything else.

TECHNOLOGICAL BREAKTHROUGHS

The weight change due to technological leaps are the result of steady technological improvements, but not real breakthroughs. For example a typical TL II firearm is made of steel and plastic. At higher TLs, the firearm still looks like a firearm, but hyper and molecular versions of these materials are used for its construction. Thus even if there

TECHNOLOGICAL LEAPS						
TL BASE	II	III	IV	V	VI AZUR	VI GENE
II	x 1	x 0,60	x 0,45	x 0,35	x 0,30	x 0,255
III	x 3	x 1	x 0,75	x 0,58	x 0,50	x 0,43
IV	x 10	x 2	x 1	x 0,78	x 0,67	x 0,57
V	x 50	x 5	x 2	x 1	x 0,86	x 0,73
VI Azur	x 250	x 20	x 4	x 2	x 1	x 0,85
VI Gene	x 500	x 50	x 10	x 3	x 2	x 1

TECHNOLOGICAL BREAKTHROUGHS						
TL BASE	II	III	IV	V	VI AZUR	VI GENE
II	x 1	/ 3	/ 10	/ 50	/ 250	/ 500
III	-	x 1	/ 2	/ 5	/ 20	/ 50
IV	-	-	x 1	/ 2	/ 4	/ 10
V	-	-	-	x 1	/ 2	/ 3
VI Azur	-	-	-	-	x 1	/ 2
VI Gene	-	-	-	-	-	x 1

is a technological leap in term of materials, those are still "common" for their TL, because the goal is to improve weight without increasing the weapon's price and without radically changing the way it is handled. However, one may also wish to build a device with the latest "state-of-the-art not fully tested" technology, either to impress his peers or simply because this is the only technology that is available for that device. In that case, the weight change is more important.

Example: when following a leap path, a TL IV device built at TL VI (Azurean) weights one-third less (x0.67). If a breakthrough path is followed instead, the same weapon weigh is divided by four.

PRICE EVOLUTION

Using a better technology has a price. A typical TL III hyper version of a TL II material costs twenty-five times more. Thus, without any adjustment, a higher TL device would be impossible to sell. However, device manufacturers that follow a technological leap are smart enough to modify just enough of the device so that you get "more" of it (more disk capacity, more processing power, less weight, etc.) for exactly the same price. So, a 1 kg TL II device that costs 1,000 Sols also costs 1,000 Sols at TL III (but weight 0.6 kg and may have other improvements), and costs also 1.000 Sols at any other higher TL.

On the other hand, when a device is build using a breakthrough path, cost is not restrained. In fact, it would be utterly suspicious if one would sell you a breakthrough TL V device for the same price as a leap TL V device. There is no formula that can allow you to estimate the price of such a device, the GM is therefore encouraged to be "creative." As a good starting point, you may use the weight divider as a price multiplier. For example, a breakthrough TL VI (Azurean) version of a TL IV device weights three-quarter less. Its price is then multiplied by at least four.

EXO-ARMORS

WRESTLING PENALTY

The heaviest powered exo-armors were never really intended to engage in melee combat. Therefore, they suffer a penalty if the pilot wants to try to seize a target or if he wants to use the Martial arts (Wrestling) Skill:

- **Exo-2 and exo-3:** -3
- **Exo-4:** -5
- **Exo-5 and exo 6:** -7
- **Exo-omega:** -10 and higher...

PRONE EXO-ARMOR

If a category exo-1 or more armor is lying on the ground, in the open air, you will have to carry out an Armor maneuvering Test to be able to get up again, with the following penalties:

- **Exo-1:** +5
- **Exo-2:** +3
- **Exo-3:** +0
- **Exo-4:** -3
- **Exo-5:** -5
- **Exo-6:** -7
- **Exo-omega:** -10

Underwater, this only poses a problem if the armor is not equipped with fins or a propulsion system. Note that it's possible to fit armor with a system that allows it to find its balance more easily.

CHAPTER SEVEN

ADVENTURE

CHAPTER 7

HAVOC ON IRMINGER

What will YOU do when all hell breaks loose?

An introductory adventure for Polaris RPG - by Philippe Tessier & David Burckle



GM INTRODUCTION

The Player Characters are hired by services from the Cult of the Trident to negotiate the release of Oscar Pevler, a Cult operative captured by an obscure pirate group. The trade is supposed to happen in a small remote station to the east of what is left of Greenland. Of course, not everthing is going to happen as planned, because the "package" is not who he claims to be.

Although there actually is a Trident agent called Oscar Pevler who was infiltrating the Hegemony, he is actually dead, accidentally killed by Melane, the man who took his identity. The latter suffers from the Polaris effect, which he is unable to control, and Oscar wanted to take him to his leadership on Equinox before he could become unstable and dangerous.

Desperate, Melane encounters two pirates and introduces himself as a Trident operative. To serve their common interest, Hans and Gilion offer to sell him to the Trident and inform the Cult that they are detaining him. Since they want to raise the price, they also make an offer to the Hegemony but make sure to keep Melane in the dark about it.

PLAYER INTRODUCTION

Read this to your players before starting the adventure:

> *"Your contact at the Cult of the Trident on Equinox* (neutral capital of the Polaris setting) *has paid you 10,000 Sols to travel and recover "the merchandise," a person from the organization. During the transaction, you need to make sure that he actually is Oscar Pevler before concluding the trade. In order to do so, all you have to do is take a genetic sample from the individual, then scan the sample with the analyzer you have been provided (the only DNA recorded in the device is Oscar Pevler's). If he is an impostor, you need to head back to Equinox and return the funds to your contact, minus 2,000 Sols for your services."*

The adventure begins as the PCs approach the Irminger station. Feel free to tell the PCs what they know about the station during the Player Introduction, or just after they dock. You can have the PCs make Science and/or Geography tests to determined their level of knowledge about the station.

THE IRMINGER STATION

The Irminger Station is made of unremarkable, dilapidated modules. It is rather large and mostly used as a resting station for miners who work and spend most of their time a few miles to the west. The station counts about 50 permanent crew members, mostly technical and maintenance staff, in charge of its upkeep. It is composed of a central dome attached to several peripheral modules.

Irminger is a neutral station, unaffiliated to any faction, but its leaders have made a deal with the local pirates so that they can conduct their business and resupply. However, no weapon is allowed on the premises.

Whether they have their own vehicle or whether the Trident has provided one to them, the PCs are not allowed to dock directly to the Irminger station, because of quarantine and security measures. Their vessel must first join a cylindrical structure equipped with several docking airlocks, then wait for one of the station's shuttles to pick them up. This structure can accept up to four small submarines, and one is already docked when the PCs arrive.

After they arrive, the PCs can leave their vehicle and enter the cylindrical structure, a narrow space where, squeezing in tightly, only eight people could fit. There, each PC is examined by a pilot equipped with a scanner to detect potential concealed weapons (yes, explosives are weapons!). Now is not a good time to make a stupid joke or have a coughing fit

If the PCs do not make any fuss, the shuttle takes them directly to the station's unloading dome, where they are supposed to meet the pirates. The pilot, Arthur Raphaelo, a solid individual in his fifties, bald and with a beard, is rather jovial. If the PCs ask him questions about the pirates and the merchandise they have to sell, Arthur knows nothing and certainly doesn't want to know anything.

DOCKING

The PCs' shuttle docks at the end of the station, inside a dome-shaped hangar/workshop resting on a cylindrical base partially sunk into the seabed. In the middle of the hangar, a small single-seat vehicle floats on a pool, from which a tunnel provides access to the ocean. The hangar holds a repair workshop where several vehicles similar to the scooter are parked. Some kind of underwater buggy and two large exo-armors are in various states of repair. There are a few technicians in the hangar at all times.

As the PCs disembark, they notice that the station seems to be experiencing a few technical difficulties. Lights flicker from time to time, technicians complain about malfunctioning tools, etc. If asked, Arthur tells the characters that the station has had problems with its generator for several days. Resources may be scarce to perform suitable repairs.

As they walk across the hangar, a worker shouts "*Shit, take that away, TAKE THAT AWAY FROM ME!*"

The PCs see a worker wearing a miner's diving suit without its helmet, trying to remove the part covering his right arm. A tiny electronic female voice says in a jovial tone: "*Right arm's breach security system engaged, administrating topical anesthetic. Amputation in 10 seconds, 9 seconds,*" etc. The characters have exactly 9 seconds to act and prevent the unfortunate miner from painfully losing his arm then most probably bleeding to death.

PCs can carry out Mechanic Tests to deactivate the auto-destruction system or try to stabilize the victim with a First Aid Test.

Whatever happens to the miner, Arthur blurts "*Welcome to Iminger.*"

Next, Arthur takes them to the meeting place at the other end of the base, inside a warehouse. Check the station's description to tell them what they see along their way. Observant characters can notice a few oddities: strange temperature variations, fleeting electric arcs running along pipes, unidentifiable smells, strange discordant sounds (as if someone was tuning a radio), and echoing sounds (coming out of nowhere) in the gangways. In every module that the PCs travel through, someone's grumbling about a piece of equipment. When asked about it, Arthur attributes this to small technical issues that will soon be resolved, and complains about the lack of resources.

As they arrive at the other end of the station, the characters enter a room similar to a docking hangar, where dozens of crates, tools, spare parts, bags and various merchandise are stored. In the middle of the room, two men who look like pirates are standing next to an individual sitting on a chair, handcuffed and wearing a hood on his head.

NEGOTIATION

The two men standing near the prisoner are pirates, Hans and Gilion. These small-time thugs are not part of a pirate fellowship anymore and are trying to earn some cash by selling people. They know nothing about the man they recovered, except that he claims to be Oscar Peveler, a member of the Trident, and that he seems slightly ill.

Convinced that he is going to be placed into the care of Trident's agents, Melane manages to control himself. He is, however, increasingly weakened by his link with the Flux, and the Polaris effect is starting to manifest all over the station.

The pirates do not waste any time in introductions when the PCs arrive. They remove the hood from their prisoner's head and start the bidding. The Hegemonians, who are only a few hours away from the station, have offered 15,000 Sols. Melane, who thought that the deal was already sealed, starts to panic but still holds on to the hope that the members of the Trident are going to buy him back.

Characters with medical or psychological skills can easily detect that this man is utterly terrified and quite sick. From there on, the PCs can lead the transaction in any direction they want:

◊ Melane starts calming down if they seem reassuring by not performing the genetic test right away, and by attempting to buy him, for example.

◊ They can also elevate the situation to a conflict with tools recovered in the hangar. Beware that the pirates are vicious. They already have found blades to defend themselves, and one of them has a rivet gun that he will not hesitate to aim at a PC or Melane.

◊ They can make a counter-offer, but the pirates will want to meet the Hegemonians to get as many Sols as possible.

Whatever happens, things get real when the PCs start talking about a DNA test. At this point Melane breaks down under the pressure of the Polaris effect and starts fully channeling the Flux energy, which will eventually consume him entirely, with catastrophic results.

As a PC approaches him to perform the test, the room's lighting suddenly brightens then flickers, and electrical arcs start travelling along the hangar's walls. Melane's eyes roll back and literally start melting whilst one of the two pirates (Gilion) is suddenly vaporized right in front of the other protagonists. The room's temperature skyrockets and an inhuman sound comes out of Melane's mouth.

The second pirate tries to flee as soon as the phenomenon manifests. If the characters want to stop him, they have only two Rounds before the situation in the room becomes unbearable.

If they want to survive, they have no other choice but to head back to the hangar as fast as possible. All that is left of Melane is suffering and hatred against anyone left inside the room. His body is ablaze with the Flux energy, which is devouring him from inside. He can only stay here, used as an involuntary conduit for the devastating energy, until he is totally consumed and has completely destroyed the base (of which the duration is left to the GM's discretion). Only then will the phenomenon stop. He is unaffected by attacks, which may only accelerate the process. Touching him means an immediate and definitive death.

If the PCs succeed in calming Melane down and manage to somehow extract him from the station, he unleashes his power due to the stress once the group reaches their vehicle. It is very unlikely that the PCs would survive such an intense outbreak of the Flux.

ALL HELL BREAKS LOOSE

Under Melane's influence, the Flux is unleashed in the station. The PCs must not only escape from the uncontrollable effects released by Melane, but also find makeshift weapons to protect themselves from some of the station's inhabitants, who have been turned into raving lunatics by the Polaris effect (exposure started a few days ago for them, which is why the characters are spared). The description of the base includes information about what an be found in each room, what can be scavenged by the PCs, the phenomena they encounter and potential adversaries or dangers.

BRIEF DESCRIPTION OF THE BASE

◊ **17: STORAGE ROOM:** This is the room where Melane is burning up. Four Rounds after the events begin, this room is locked down and anyone who enters it will die instantly.

The access tubes: the tubes are constantly shaken and twisted, but none of them is breached. Sparks run up and down the pipes and electrical wires, but if the characters don't touch them, they will be fine. They will need to carry out Coordination Tests to move forward without falling.

Underground tunnels: The underground tunnels that run under the stations are probably the safest way to cross some of the rooms, provided the characters noticed them earlier. However, they are affected by a phenomenon connected to the Polaris effect: Nightmare. Each PC who enters them will be subject to terrible visions that may prevent them from moving forward. They must therefore carry out a Willpower Test every time they want to move. If a character fails, then he must leave the tunnel as quickly as possible and by the shortest route, followed by his imaginary monsters.

◊ **16: LABORATORY AND INFIRMARY:** This infirmary contains a treatment table, six medikits (for the needs of this adventure, each medikit can be used to reduce the severity of a wound by one level) and everything required to treat light or serious wounds. There is also a bulletproof hyperbaric chamber that can be used to save one of the characters, as it can withstand the pressure outside the station.

Phenomenon: The temperature in this room changes rapidly and it even varies in areas within the room. In some places, tiny patches of ice may form, whereas in other areas the metal can be white hot or papers can burst into flames. This is, however, more of a hindrance than a real danger, and the PCs cannot suffer more than 1 Damage Point because of this phenomenon.

◊ **14 AND 15: HYDROPONICS.** These two huge greenhouses are used for the base's hydroponic plantations. This is where they grow tomatoes, some fruit, beans, etc. The room is brightly lit by rows of neon lights.

Phenomenon: In here the presence of the Flux is very special, almost calm. The technicians who work here stand still, their gazes locked on the plants that curl their stems slowly, even gently around them before burrowing under their skin. At times, the atmosphere is disturbed by a thin grey fog in which one can see strange inhuman silhouettes. There are two dangers when moving through this room: the plants and the grey fog. The plants will try to get hold of the characters. During each Round, a character must carry out a Strength Test to see if he can cross one square of the room. If he fails, he can try again on the following Rounds, but with a cumulative penalty of -1 after each failure. A PC can help another if he succeeds at his own Test. In this case he carries out a Strength Test and gives a bonus to the person he helps, equal to his own Success Modifier. If a player has a penalty equal to his own Strength, he is captured and killed by the plants.

The second danger is the fog, which is a materialization of the Flux into this reality, a passage to the other dimension. For each square a character wants to cross, he must carry out a Luck Test to see if the next square ahead of him will be filled with this fog. If this is the case, then he can wait for one Round and roll his Luck Test again, try to go around it or go inside it. If he chooses the latter, the whole station disappears around him and he finds himself at the edge of the Flux itself. He still has a chance to turn around immediately, but if he doesn't, then he disappears into the Flux forever.

◊ **13: HANGAR/SECONDARY WORKSHOP WITH DIVING ARMOR:** This secondary hanger has an airlock that leads out into the ocean (two people can use the airlock at the same time and it takes 10 minutes between two activations of the airlock) and small workshops for carrying out repairs and maintenance on exo-armor. Four medium exo-armor suits are kept here. Four spearguns can also be found here (medium speargun) and one of the armor suits has a supercavitation pistol that can be dismantled. There will be three raging technicians in here when the PCs arrive.

Phenomenon: There are no visible phenomena affecting this room, but by paying close attention to this place, one can notice little electric arcs travelling along the metallic surfaces and over the armor suits. These suits may seem incredibly interesting as a means of escape, but they are in fact a trap. You can either let the PCs find that out for themselves or use the pirate. If you choose the latter, the PCs arrive just as he is getting into one of the suits and is about to attack them with it. Brighter arcs begin to cover the armor as its systems go mad, and then it activates its guillotine systems at the elbows and knees. These systems are designed to protect a diver if his suit is breached in the forearm or lower leg section. In this case, the poor pirate will have all four limbs amputated, this time with no warning at all. If a PC tries the armor on, he can carry out an Intelligence Test with a -2 penalty when the systems go haywire to see if he can detect the danger and eject before it's too late. If he fails the test, he can still carry out a Luck Test for each of the four systems. Every time he succeeds a Test the guillotine system doesn't activate. The PCs (his friends can help him) have 6 Rounds before he ends up in pieces.

◊ **11-12: WORKSHOPS/TECHNICAL LABS:** These small labs and workshops are nothing special, although the characters can find some tools there that can be used as weapons. However, if anyone thinks to rummage through the mess in here, they might find two fluid diving suits and enough fluid for both of them. This can provide an alternative escape route for two of the characters, if they are trained in the use of fluid, or if they are capable of resisting its use. These suits provide 3 points of protection against Physical Damage.

Phenomenon: These two rooms are subject to a curious phenomenon that prevents a person from entering if their body is not adapted to it. Until that adaptation is done, anyone who sets foot in there will have trouble standing up, find it hard to breathe, feel dizzy, feel nauseated, etc. To be able to enter this room characters must successfully complete an Adaptation test with a penalty of -8. This penalty is decreased by -1 for each attempt.

◊ **10: RELAXATION ROOM:** This big room contains several tables and a small bar. This is where the technicians come to play dice games, card games, read or have a drink.



Phenomenon: When the PCs enter this room it is completely empty. There are no chairs or tables left, and only the bar is still standing. In the center, a sphere of absolute darkness sucks in anything that enters the room. As long as the characters don't enter the room they are safe,. However, to cross it, they will need to keep as far from the sphere as possible by hugging the walls and carrying out a successful Strength Test. If a character fails the Test, he can try a Luck Test. If he succeeds, he resists the attraction. If he fails, he is annihilated by the sphere.

◊ **8 AND 9: DORMITORIES, REST ROOMS AND BATHROOMS:** These long modules are furnished with about 20 bunkbeds and a space for the toilets and washrooms. This is also where the crew members have their lockers where they keep all their personal belongings.

Phenomenon: When the PCs enter this room none of the 14 technicians are insane. They are all lying on their bunks with a strange shape floating above them, some kind of nightmarish creature that feeds on their mind. If the PCs take no action, then they have nothing to fear in here, but if anyone disturbs the feeding creature, they will suffer a devastating mental attack, which causes 6D6 Damage Points.

◊ **7: CAFETERIA/KITCHENS:** This circular room is used both as a cafeteria and a kitchen by the inhabitants of the station. There are always about 10 people in here, but only four of them will have survived and have gone insane. One of them is the cook and he is armed with a long knife (Damage 1D10). There are several kitchen knives to be found in here.

Phenomenon: Chaos has taken over in here. Tables, chairs and kitchen utensils are flying around the room, but they systematically avoid the insane crew members. Each PC must carry out a successful Coordination Test for each Round spent in this room or suffer 2D6 Damage Points after getting hit by a flying object.

◊ **5 AND 6: STORAGE ROOMS:** These two small storage areas are mainly used to store food and water. There is nobody in here and nothing that can be used as a weapon.

Phenomenon: Despite the chaos taking over the whole station, these two rooms are strangely calm. In fact, there is nothing to be feared inside, but anyone who wants to leave these rooms will have to succeed a Willpower test with a penalty of -2, or instead of leaving the room, they will find themselves entering it again.

◊ **4: MAIN CONTROL ROOM:** The main control room is a circular room where all the basic

control panels are located, as are the Soundscan stations, the energy controls, etc. The PCs will find two technicians here who have gone insane, and more importantly the commander of the base who has a weapon (a light pistol with a charger loaded with 15 bullets) and is pointing it at his men. The commander is also on the brink of madness and will not use his pistol, unless, in a last moment of clarity, he turns it against himself.

Phenomenon: strident sounds and strange flashes of light will hinder the concentration of anyone within this room (except for the insane technicians). All Actions will be carried out with a Difficulty Modifier of -2.

◊ 3: ENERGY STATION, OXYGEN FILTRATION SYSTEM, WATER PURIFIERS, ETC.: This huge room is the heart of the base. This is where all of the station's life support systems can be found. The floor is a wire grill with lots of cables and pipes running under the metal mesh and along the walls.

Phenomenon: The generator is overloaded by the Flux energy and bolts of energy are shooting through the room randomly, hitting anyone inside. Furthermore, strange, ghostly figures can be seen in there. These shapes are those of Flux creatures, but they cannot break through into our dimension, so they are harmless. As for the energy bolts, each PC will need to carry out a Luck Test for each Round spent in this room. If the Test is a failure, he will suffer an energy attack that inflicts 1D6 Damage Points + 1D6 per Failure Modifier.

◊ 2: SMALL WORKSHOPS: There is a technician enraged by the Polaris effect inside each of these workshops, as well as a coworker lying dead on the floor in a pool of their own blood. These rooms all have workbenches and small machine tools. Small tools can be scavenged to use as weapons.

Phenomenon: The structure of each module is deformed by the Polaris effect. The walls are twisting, the floor undulates but the modules do not rupture. It is, however, very hard to keep one's balance.

◊ 1: DOCKING HANGAR AND WORKSHOP: Here the PCs can pick up several tools that could be used as weapons, such as screwdrivers, wrenches, pipes, and battery packs to charge rivet guns. The machines under maintenance are unusable. Two persons can escape by using the small scooter in the pool. The shuttle that is currently docked can transport at most ten people.

If the PCs make it that far, they have to fight three enraged technicians armed with various tools. Three others lie on the floor, their skulls shattered. If he was saved in the adventure's first scene, the worker in the miner diving suit will get a grip on himself and help the player characters to escape.

Phenomenon: Pressure is utterly altered here, and the water level is rising pool to flood the room. After four Rounds, PCs have water up to their ankles and some of it starts flowing into the rest of the station. After six Rounds, hatches leading to rooms 2, 5 and 11 lock themselves. Two Rounds later, water rises to knee level. They have four more Rounds to board the shuttle before the water level prevents them from accessing it. Twenty Rounds after the beginning of the phenomenon, the room is completely flooded.

TO BE CONTINUED...

When they reach their vehicle, the sonar indicates a vessel is approaching. The Hegemony is joining the party and will want to know what has been going on. This could be the setting of a future adventure you would want the PCs to explore!

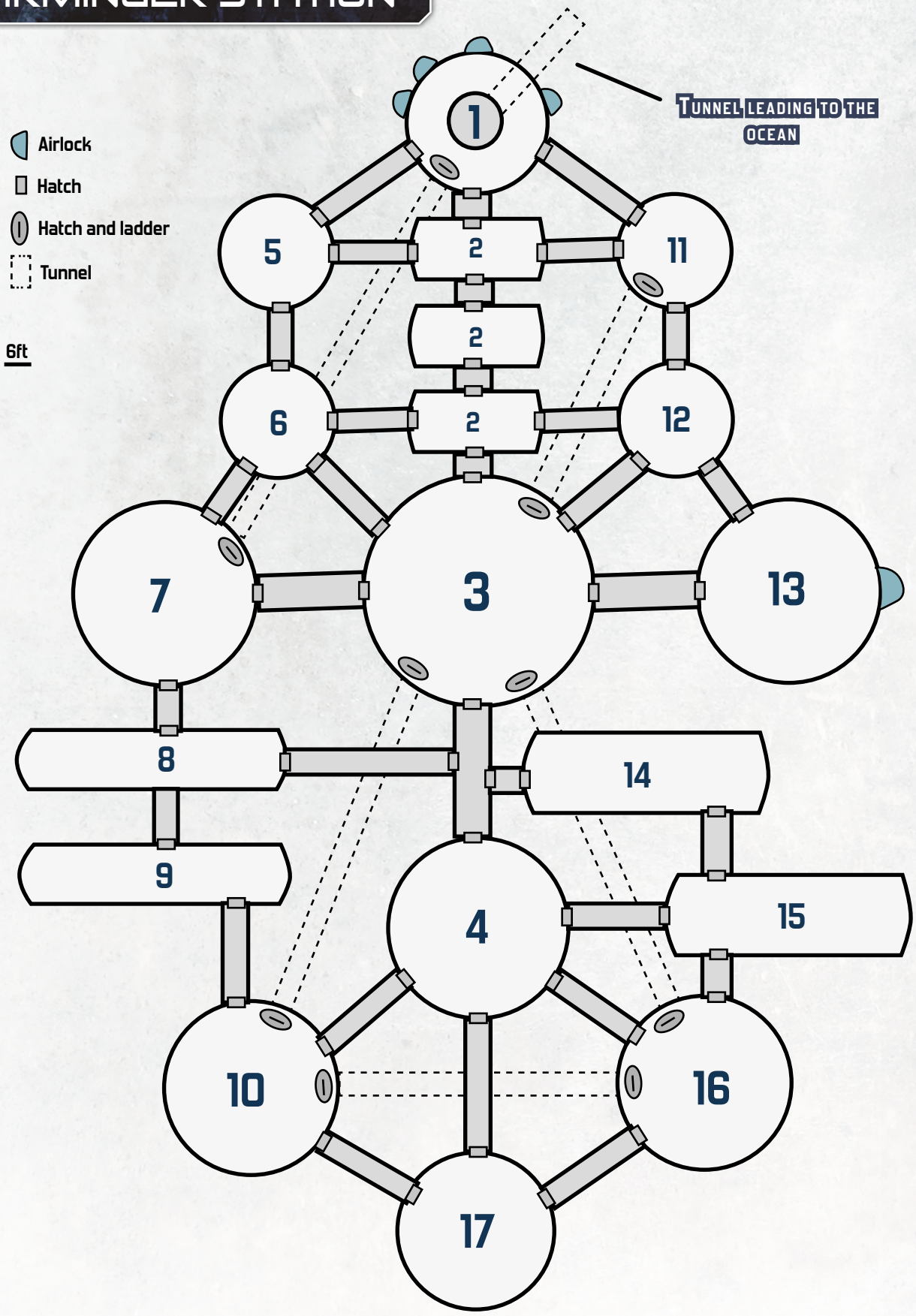
ARCHETYPES REQUIRED

Station personnel: use the **Technician** character (*CRB1* page 152), but once they are under the influence of the Flux, they will be immune to shocks and to the effects of wounds. They can only be taken out by a Mortal Wound.

Pirate (Hans): use the **Pirate** character (*CRB1* page 144). He has a light firearm. The PCs can easily form an alliance with Hans if it allows him to survive. If the PCs help him, he will not betray them.

IMPROVISED WEAPONS	Dam.	STR	Init.	Reach	Cost
Monkey Wrench and similar	1D10+5	9	-	-	80
Screwdriver and similar	1D10+1	-	-	-	20
Iron pipe and similar	1D10	-	-	+1	10

IRMINGER STATION



APPENDIX

ARMOR TYPE

ARMOR ATTRIBUTES			
Dam. Resistance		Speed	
Armor Rating (AMR)			
Exo-Strength			
Melee Dam. Modifier		Initiative Penalty	

DAMAGE	VEHICLE DAMAGE	INCIDENT MODIFIER	PERM. LOSS OF ITG (STRUCTURE)
Light (5)	□□□□	–	–
Moderate (10)	□□□□	+2	–
Serious (15)	□□□	+4	–
Critical (20)	□□	+6	1
Catastrophic (25)	□□	+8	1
Destruction (30)	Destruction	–	2

INCIDENT LOCATION		
1D10	LOCATION	ITG
1–2	Structure	
3–4	Exoskeleton	
5	Generator	
6–7	Auxiliary Systems	
8–9	Weaponry	
10	Pilot	

INCIDENT EFFECTS

COMPUTER		
EQUIPMENT TYPE		
	Weight	
MAX. SOFT. LVL	SYSTEMS MAN.	PROCESSING CAP.
GENERATION	EMP SHIELDING	INTEGRITY (ITG)
PROGRAMS		

ARMOR INFORMATION

CATEGORY: **TL:**

SIZE:

OPERATING DEPTH:

MAXIMUM DEPTH:

CRUSHING DEPTH:

AUTONOMY:

- Wrestling penalty:
- Prone armor:

***Notes*:**

AUXILIARY SYSTEMS				
NO.	EQUIPMENT	LEV.	DESCRIPTION	ITG
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				

WEAPONRY	DAM.	SHOCK	PEN	RANGE (+0/-5/-10/-15)	INIT	RATE OF FIRE	AMMO. (COST)	TL	ITG

VEHICLE NAME/TYPE

VEHICLE ATTRIBUTES			
Size (SIZ)		Maneuverability	
Dam. Resistance		Speed	
Armor Rating (AMR)		Move Points	

DAMAGE	VEHICLE DAMAGE	INCIDENT MODIFIER	PERM. LOSS OF ITG (STRUCTURE)
Light (5)	□□□□	–	–
Moderate (10)	□□□□	+2	–
Serious (15)	□□□	+4	–
Critical (20)	□□	+6	1
Catastrophic (25)	□□	+8	1
Destruction (30)	Destruction	–	2

INCIDENT LOCATION		
1D10	LOCATION	ITG
1–3	Structure	
4	Cockpit/Bridge	
5–6	Engine room	
7	Propulsion/Steering/Ballasts	
8	Weaponry	
9	Auxiliary systems	
10	Crew	

INCIDENT EFFECTS

COMPUTER		
EQUIPMENT TYPE		
	Weight	
MAX. SOFT. LVL	SYSTEMS MAN.	PROCESSING CAP.
GENERATION	EMP SHIELDING	INTEGRITY (ITG)
PROGRAMS		

VEHICLE INFORMATION

CATEGORY: TL:

LENGHT: DIAMETER:

OPERATING DEPTH:

MAXIMUM DEPTH:

CRUSHING DEPTH:

AUTONOMY:

• Crew: • Cargo:

• Passengers:

COMPARTMENTS		
□	□	□
□	□	□
□	□	□

AUXILIARY SYSTEMS				
NO.	EQUIPMENT	LEV.	DESCRIPTION	ITG
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				

WEAPONRY	DAM.	SHOCK	PEN	RANGE (+0/-5/-10/-15)	INIT	RATE OF FIRE	AMMO. (COST)	TL	ITG

CREATURE SHEETS

CREATURE:

	STR	CON	COO	ADA	PER	INT	WIL	PRE
Base								

SECONDARY ATTRIBUTES

Melee Damage Modifier		Reaction	
Damage Resistance			

SKILLS

INITIATIVE

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

ATTACK

LOCATIONS

SPECIAL

CREATURE (HUGE):

	STR	*SIZ*	COO	ADA	PER	INT	WIL	PRE
Base		*						

SECONDARY ATTRIBUTES

Melee Damage Modifier (H)		Reaction	
Melee Damage Modifier (V-)		Speed (Move Points)	
Damage Resistance (V-)			

SKILLS

ATTACK

LOCATIONS

SPECIAL

** Replaces Constitution at V- scale.*

NON-PLAYER CHARACTER SHEETS

NPC NAME					NOTES			
	STR	CON	COO	ADA	PER	INT	WIL	PRE
Base								
N.A.								

SECONDARY ATTRIBUTES			
Melee Damage Modifier		Reaction	
Damage Resistance			

SKILLS			

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

ADVANTAGES/DISADVANTAGES/IMPLANTS

GEAR

WEAPONS

WOUNDS	Head	Body	L. A.	R. A.	L. L.	R. L.
Light (5)	☐☐☐	☐☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐
Moderate (10)	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐
Serious (15)	☐☐	☐☐☐	☐☐	☐☐	☐☐	☐☐
Critical (20)	☐☐	☐☐	☐☐	☐☐	☐☐	☐☐
Mortal (25)	☐	☐☐	☐	☐	☐	☐
Death/Limb Destroyed	Death	Death	☐	☐	☐	☐

NPC NAME					NOTES			
	STR	CON	COO	ADA	PER	INT	WIL	PRE
Base								
N.A.								

SECONDARY ATTRIBUTES			
Melee Damage Modifier		Reaction	
Damage Resistance			

SKILLS			

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

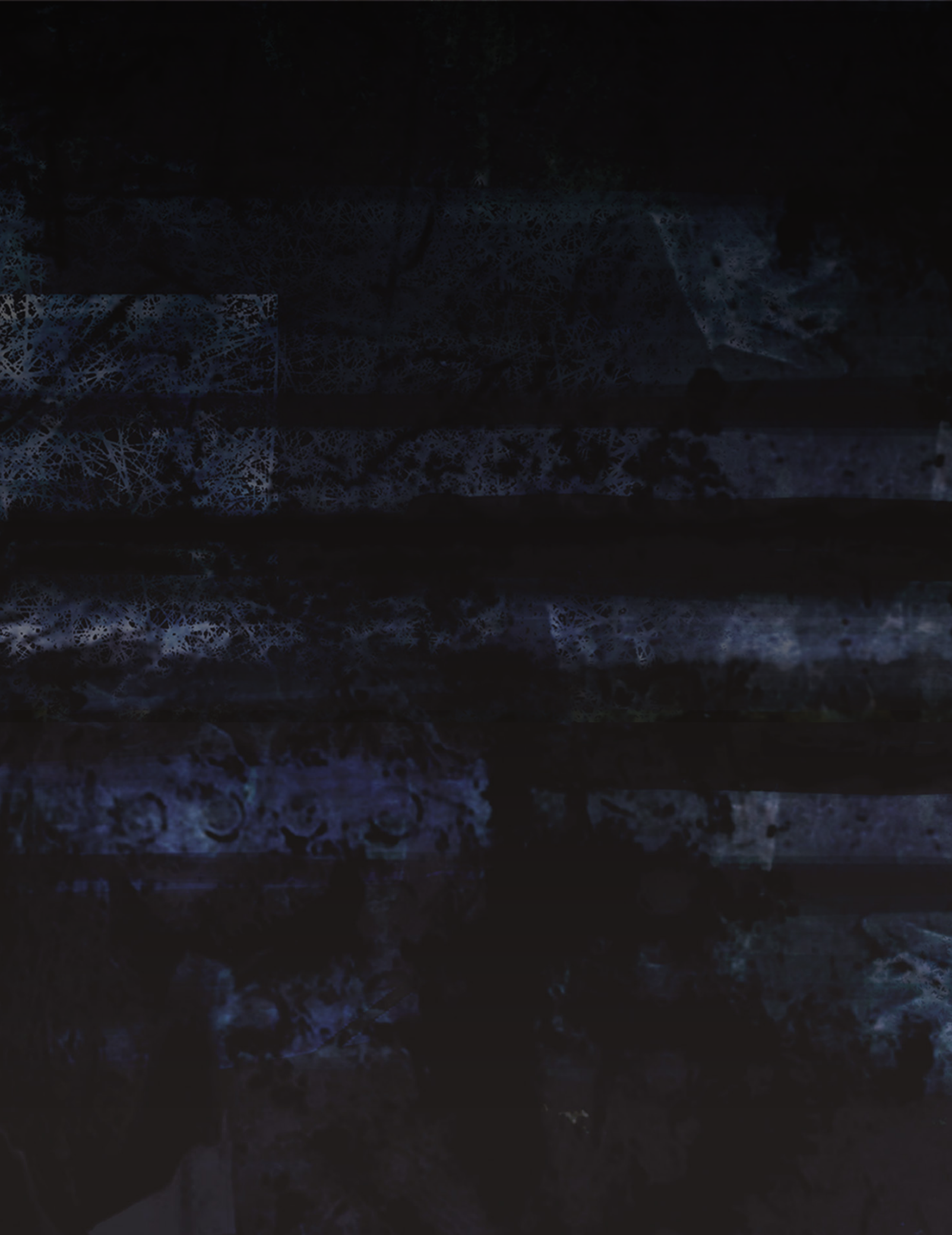
ADVANTAGES/DISADVANTAGES/IMPLANTS

GEAR

WEAPONS

WOUNDS	Head	Body	L. A.	R. A.	L. L.	R. L.
Light (5)	☐☐☐	☐☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐
Moderate (10)	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐	☐☐☐
Serious (15)	☐☐	☐☐☐	☐☐	☐☐	☐☐	☐☐
Critical (20)	☐☐	☐☐	☐☐	☐☐	☐☐	☐☐
Mortal (25)	☐	☐☐	☐	☐	☐	☐
Death/Limb Destroyed	Death	Death	☐	☐	☐	☐


END

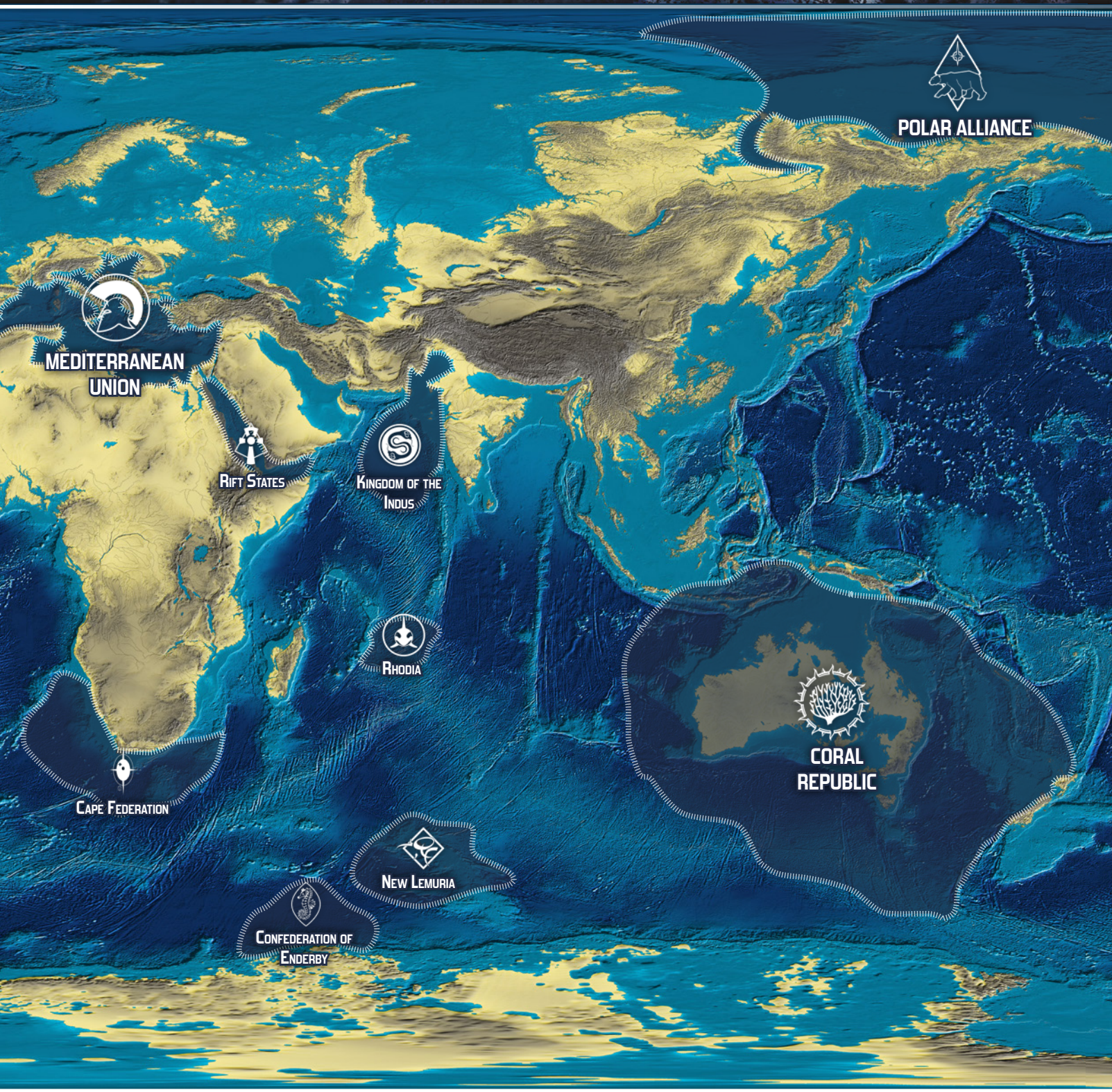


THE WORLD OF THE DEEP -

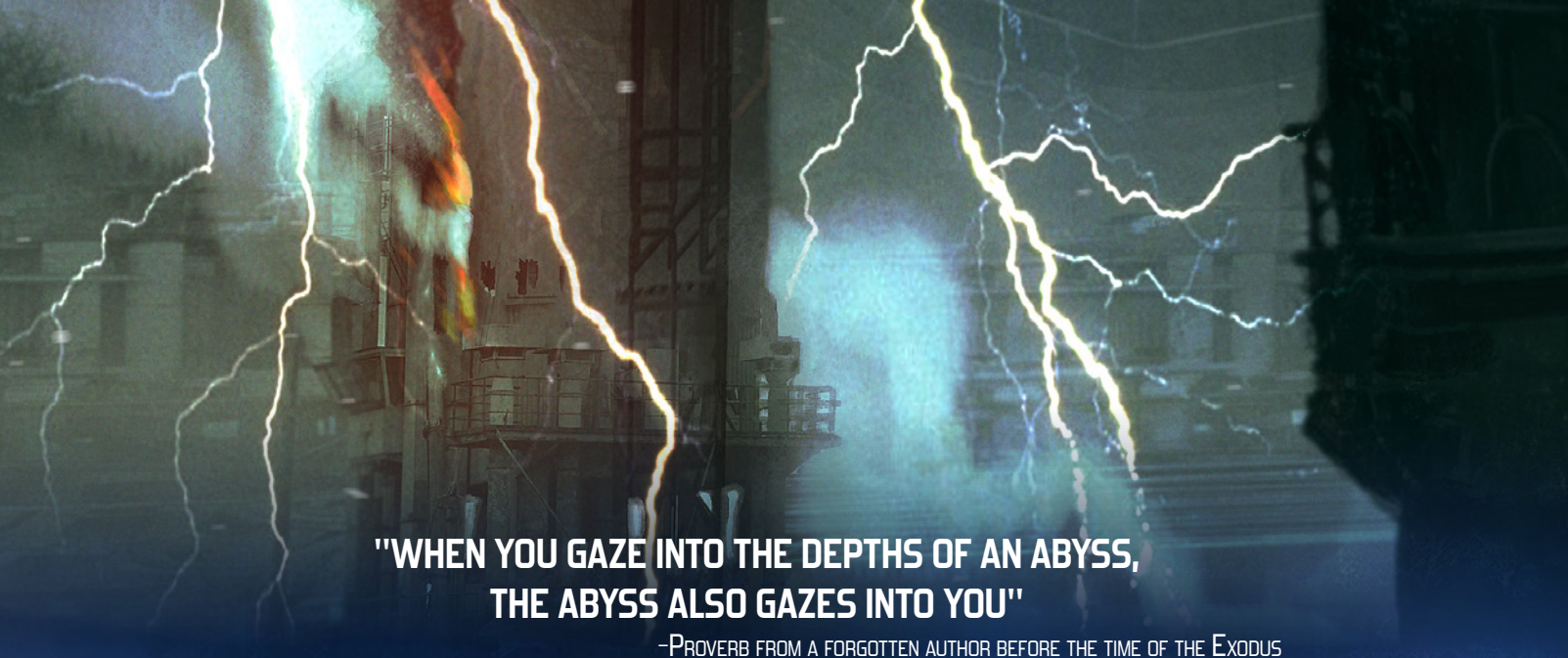


ZONES OF INFLU

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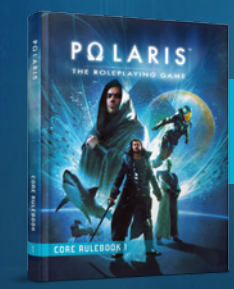
"WHEN YOU GAZE INTO THE DEPTHS OF AN ABYSS, THE ABYSS ALSO GAZES INTO YOU"

-Proverb from a forgotten author before the time of the Exodus

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