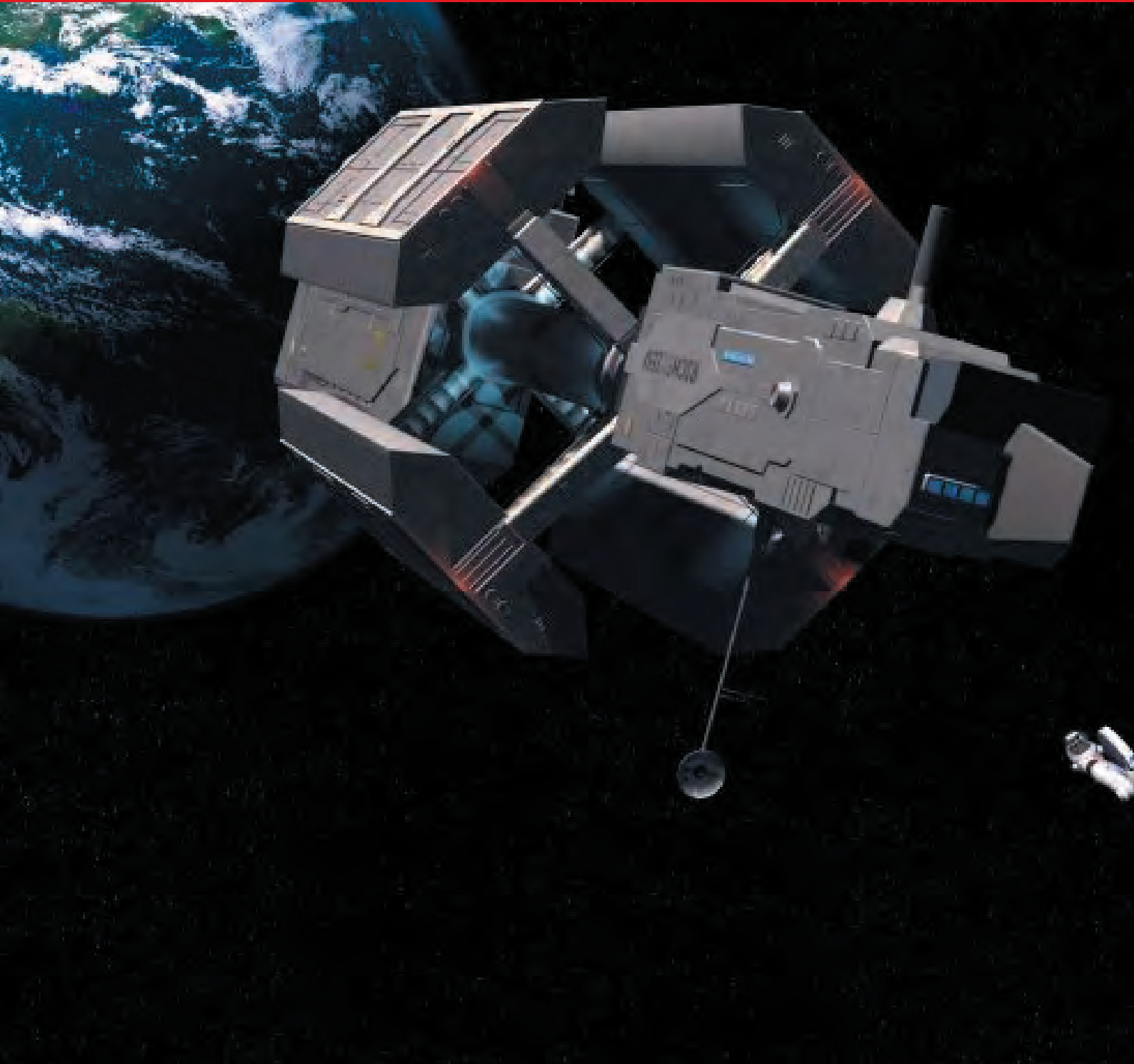


MILLENNIUM'S END ENGINE RULES

Chris Parke



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2300AD—MILLENNIUM'S END GAME SYSTEM

A Resource for Millennium's End

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Special Thanks to Charles Ryan for the **Millennium's End** system and to the GDW team for the 2300AD universe.

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INTRODUCTION

2300AD and Millennium's End are two of my favorite role playing games. The background for 2300AD is inspiring, while the game system for Millennium's End is the best I've ever played with. Obviously it was time for a merger to create the best of both worlds, and here it is.

The first step was to recreate the character generation rules using the Millennium's End system. With these rules, almost any character that could be generated with the 2300AD system can also be created. The addition of new skills to cover the technologies of the year 2300 naturally followed. As a bonus, the Millennium's End rules on Languages mean that having characters speaking more than one language is no longer a matter of luck—or being an Academic.

All of the weapons included within the 2300AD basic rules have been converted to the Millennium's End system. If there is sufficient demand, then others may follow.

Enjoying the BlackEagle campaign's in Millennium's End, it was a very easy step to move to running a similarly styled campaign with the characters working for Rebco SAR. Details on this company and how it works have been included.

Good luck and welcome to the world of 2300AD.

CHARACTER GENERATION

Before play can begin, each player must create a character. Character creation usually takes about an hour, maybe more if there are many players. Because of its relative complexity—in terms of both game mechanics and typical adventure subjects—**2300AD** is best played as a long term campaign game, so you don't want to take the generation process too lightly. On the other hand, a strong character concept can take a long time to fully develop, so you don't want to get bogged down in minutiae at this stage. As your character is played, many small details of their personality will emerge on their own.

Concept

The first step in the generation process is concept. Character concept is two-fold: it defines both your character's personality and their abilities. Personality and background are important—ultimately, it is your character's personality that will make them engaging and fun to play. But personality can emerge on its' own, as your character is played. The character creation process you are about to go through focuses on the other side of character concept: abilities.

The information you are about to put on paper is simply a representation—and a shallow one at that—of the abilities of the imaginary character you are developing. Nevertheless, you cannot proceed with developing your character's Attributes and skills without some rough mental picture on which to base your decisions. So before you put pencil to paper, ask yourself a few questions about your character. Are they cerebral, or action-oriented? What kinds of activities do they find interesting, and what are they good at? What kind of background brought these skills about? Has your character traveled much? Have they had much education? How about military experience? A professional background? The answers to these questions will guide you in making basic decisions on your character's abilities, strengths, and weaknesses as you generate the paper representation of your character concept.

You don't have to stop with those relatively utilitarian queries. Developing a rough idea of your character's personality as you bring their paper representation into being adds depth and sophistication to the result. Is your character outgoing or reserved? Foolhardy or calculating? What were the major influences on their life? What were their formative experiences? What do they do for fun? What are your character's goals and desires? And what could happen during the upcoming campaign to make this a truly successful character for you? There's no need to kill yourself over these questions if the answers don't come easily. But if you think about these and other issues as you put your character together, you can't go far wrong.

Don't create your character in a vacuum. You will want a group of characters that is pretty well-rounded. As you build your character concept, talk with your GM and the other players, so that you put together a group that will work well as a whole.

THE CHARACTER SHEET

You will want to obtain a Character Sheet—a form or piece of paper on which to record character information. The one at the end of this

guide has spaces for all of the information you will need during play, in a logical and easy-to-use format.

You may print a copy or photocopy it, or make your own if you prefer. Later, you might want some sort of notebook or folder, to keep track of the notes, equipment lists, character information, and other bits of essential ruffraff that will inevitably build up during a lengthy campaign. Having obtained a character sheet (or at least a clean sheet of paper), fill it in as you move through the character creation steps described in this guide.

Attributes

When you know more or less what you want in your character the next step is to define the Attributes and get them down on paper. This is often referred to as 'rolling up' the character, because the Attributes are determined in part by rolling dice. These Attributes are the most rudimentary representations of your character, describing their most fundamental physical and mental capabilities. With the exception of the character's personality and background, every other aspect of the character is in some way dependent on them. And although Skills are the primary means of determining what your character can and cannot do, rolls against Attribute levels are sometimes made during play.

There are ten Attributes; Intelligence, Sensibility, Agility, Coordination, Constitution, Strength, Personality, Appearance, Bravado, and Willpower.

Intelligence

This attribute represents the intellectual capabilities of the character. It includes learning ability, abstract and mathematical reasoning, and tactical and strategic logic. It is not a measure of creativity or thoughtful-ness. A character's intelligence level affects their talent for skills in the Academic, Medical, and Scientific skill groups (talent levels, skills, and skill groups are explained later). During play, rolls against intelligence are made when circumstances in the game world might present a character with an idea not obvious to the player, or when the character is attempting to make a connection that the player cannot. A successful roll allows the GM to provide additional clues or other ideas.

Sensibility

Sensibility is your character's 'common sense,' perceptiveness and short term memory (absent-mindedness being one sign of low sensibility). Sensibility levels affect talents for Creative, Domestic and Technical, Medical, Natural, and Reflexive skills, and Sensibility also directly affects perception. Sensibility rolls might be made when a character attempts to remember something, or when the GM thinks a character's actions defy common sense. Success allows forgotten information to be remembered, or for the GM to point out a more sensible approach to the player.

Agility

Agility is a combination of reflexes, grace, and balance. Skills in the Physical and Reflexive skill groups are affected by this attribute, as is a character's initiative response in combat. Agility rolls might be used

when a character is attempting a tricky maneuver (like crawling across a fallen log over a raging river), or reacting to a physically unpredictable situation (like trying to stand in a wildly careening vehicle).

Coordination

This attribute governs your character's eye-hand coordination and manual dexterity. It affects the Creative, Domestic/Technical, and Medical skill groups. Coordination rolls are made whenever a character attempts an action that tests eye-hand coordination, but which does not fall under a specific skill.

Constitution

Constitution represents your character's health, endurance, and brawn. It affects their weight and size (although this is mostly up to you), ability to recover from bodily damage, and talents for Domestic/Technical and Physical skills. Rolls against Constitution are made when a character's health is tested.

Strength

Strength refers to your character's muscle power. It affects talents for Physical skills and determines the damage done in hand-to-hand combat. Strength rolls are made when a character attempts feats of strength.

Personality

This attribute measures people's initial reaction to your character—the type of first impression they tend to make. It can be an important attribute if your character deals with people a lot, through the government, business, or on the street. However this attribute has no bearing on the kind of person the character really is—a low score does not mean your character is shallow or dull. Personality affects skills in the Social skill group. A personality roll might be made in a social situation, in which a character would like to impress or capture the attention of another.

Appearance

The appearance attribute measures how strangers react to your character on basis of looks, physical features, and bearing. Appearance rolls are made to measure another's reaction to a character based solely on these aspects.

Bravado

This attribute represents your character's capacity for putting up a front, lying straightfaced, and effectively intimidating others. It affects Social skills. Rolls are made when a character tries to mix with an unfamiliar crowd.

Willpower

Willpower measures your character's self-control, and the ability of his or her rational mind to control the irrational. Willpower affects talent for skills in the Academic and Social skill groups. Rolls are made when attempting to improve skills through practice or study, to resist mind—or personality—altering effects of drugs or alcohol, to avoid

panic when drowning, and to push to physical and mental extremes.

Homeworld

There are two broad categories of homeworlds – Core and Frontier. The two Core worlds are the center and hubs of human civilization. People from the Core will generally have had better access to educational facilities and be better versed in urban situations. Frontier worlds are those worlds on the edge of explored space. Characters from the Frontier generally have had more exposure to the survival type of activities encountered on these more primitive worlds.

A character's homeworld also determines what gravity type the character developed in. For the purposes of character generation, gravity is split into four types: high (1.4G or more), normal (0.8 to 1.3G), low (0.4 to 0.8G) and zero-G (less than 0.4G). A character from the Core will be from either normal gravity (Earth or Tirane) or zero-G (one of the many outposts, space stations and other facilities throughout the two solar systems). A character from the Frontier could come from any of the four categories. The homeworld gravity type will have an effect on the character's base Strength, Agility, Coordination, Constitution and their body mass/size. When operating in a gravitation environment outside of what they consider normal, a character's performance may also be affected.

The inhabited worlds of 2300AD are listed on the Earth's Colonies chart on page 86 of the Players Handbook. The player may either choose their homeworld, or roll randomly.

Rolling the Attributes

Determining your character's Attribute levels is a two-part process. As mentioned above, it involves both decision-making on your part (the allocation of points), and dice rolling to randomize the result. Every character is allowed twenty-five Attribute points. Assign these points to the Attributes, distributing them in whole numbers and giving each Attribute at least one and no more than four points. The more points you give an attribute, the higher its level is likely to be, and high numbers represent strong Attributes.

Record character information in pencil or another erasable form, especially at this point. The Attribute points are temporary (you won't need to keep them once Attributes are determined), and some of your character's Attribute levels may change later. Once you have allocated all

| Attribute Bases | | | | |
|---------------------|------|-----------------------|-------|--------|
| Zero Gravity | | Normal Gravity | | |
| | Male | Female | Male | Female |
| Int | 20 | 20 | Int | 20 |
| Sens | 20 | 20 | Sens | 20 |
| Agil | 25 | 30 | Agil | 15 |
| Coord | 30 | 35 | Coord | 20 |
| Con | 10 | 10 | Con | 20 |
| Str | 15 | 5 | Str | 25 |
| Pers | 20 | 20 | Pers | 20 |
| App | 20 | 20 | App | 20 |
| Brav | 20 | 20 | Brav | 20 |
| Will | 20 | 20 | Will | 20 |
| Low Gravity | | High Gravity | | |
| | Male | Female | Male | Female |
| Int | 20 | 20 | Int | 20 |
| Sens | 20 | 20 | Sens | 20 |
| Agil | 20 | 25 | Agil | 10 |
| Coord | 25 | 30 | Coord | 10 |
| Con | 15 | 15 | Con | 25 |
| Str | 20 | 10 | Str | 35 |
| Pers | 20 | 20 | Pers | 20 |
| App | 20 | 20 | App | 20 |
| Brav | 20 | 20 | Brav | 20 |
| Will | 20 | 20 | Will | 20 |

twenty-five Attribute points, roll one d10 for each point given to an attribute, and multiply the total by two. In other words, if you assigned a given attribute two points, roll two dice, add the resulting numbers, and multiply the total by two. **The number of dice allotted to each Attribute is also the minimum number any roll for that Attribute can be.** For example, where four attribute points are assigned for Intelligence, any 1s, 2s, or 3s that are rolled for Intelligence are treated instead as 4s. Add these results to the appropriate Attribute Base levels (listed on the Base Attributes Table to the left) and record the total. This number is the Attribute level. Once you have determined all ten Attribute levels, discard the Attribute points, as they are no longer needed. The higher an Attribute level, the better the character will be with that quality. Attributes range in level from twenty to one-hundred (actually, a couple can be as low as nine or as high as 115, but those extremes are very rare). Numbers in the mid-to upper forties are average, and most deviation is within about twenty points—from the upper twenties to the upper sixties. If after making all of your rolls you are not happy with your character's Attribute levels, erase the lot and roll them all over again.

Attribute-affecting Skills

Some skills improve Attribute levels. Keep this in mind when buying skills for your character (the last major step in character creation). There are two categories of data which depend on Attribute Levels: Talent Bases and Secondary Attributes (both will be explained a little further on). Talent Bases are determined from your character's original Attribute levels, and never change. Secondary Attributes, on the other hand, may change whenever the Attributes do. Furthermore, some skills directly improve Secondary Attributes, without changing the Attribute levels. Skills which improve Attributes or Secondary Attributes are Athletics/Bodybuilding (which improves the Attribute Strength and affects weight), Athletics/Gymnastics (which improves Agility), Perception (improves the Secondary Attribute of the same name), and Athletics/Run (improves the Secondary Attribute Endurance).

Background and Personal Information

Directly above the Attributes are spaces for information concerning the background of your character. Some of this data, such as your character's, weight and education level, has direct bearing on game mechanics. The rest adds depth to your character, and although its exact importance will vary from campaign to campaign and character to character, it always helps give basis to the selection of your character's skills. Race, nationality, hair, eye and skin color, and identifying marks (such as scars or birthmarks) are largely up to you, subject only to your character concept. You should already have decided on your character's gender, when you generated Attribute levels. Age is also up to you, within certain restrictions. The older your character is, the more skilled they will probably be (see Skills, below). But for every two years of age over thirty, subtract one point from both Constitution and Agility Attribute Levels (your character's Talent Bases, to be determined in a minute, are based on their original Attribute Levels—so don't forget your original Constitution and Agility levels if you change them due to age). Also, make certain that your character is old enough to

John wants to create a new 2300AD Character. He has a vague idea that's he's discussed with his GM: A Rebco SAR Operative named Pierre Hussein—self reliant, smart and combat experienced. John puts forward his initial character concept. Pierre is a former French Space Marine, having cut his teeth during the German War of Reunification and later on Aurore. He's well traveled, smart, and cautious.

An excellent soldier, he's joining Rebco SAR to use his skills in a higher paid, more independent job.

With his background, Pierre's character will emphasize his personable nature, sensibility and strength, while his skills will cover combat and survival in hostile environments.

With Pierre's concept in mind, John starts to put his character onto paper. He decides that Pierre is from the Core, from Nouvelle Provence on Tirane. Tirane is a normal gravity world, so John next allocates his twenty-five attribute points as follows: Four points each for Strength and Sensibility, three each for Intelligence, Constitution, Bravado and Personality, two for Coordination and one each for Appearance, Agility and Willpower.

Next he rolls the dice. He starts with Intelligence, rolling three dice and getting a six, a two and an eight. The two is rounded up to three (as he allocated three points to Intelligence) for a total of 17. He doubles this (getting 34) and adds it to the 20 on the base attribute table. Pierre's Intelligence is 54. John then repeats the process for Sensibility, rolling four dice this time. This time the results total 25. Pierre's Sensibility is 70 ($((25 \times 2) + 20 = 70)$). John continues with Pierre's Attributes getting the following results: Intelligence 54; Sensibility 70; Agility 33; Coordination 52; Constitution 54; Strength 69; Personality

Continued on page 15

| Character Height Table | | |
|------------------------------------|------|--------|
| Total of Strength and Constitution | Male | Female |
| 40 | 162 | 152 |
| 50 | 165 | 155 |
| 60 | 168 | 158 |
| 70 | 171 | 161 |
| 80 | 174 | 164 |
| 90 | 177 | 167 |
| 100 | 180 | 170 |
| 110 | 183 | 173 |
| 120 | 186 | 176 |
| 130 | 189 | 179 |
| 140 | 192 | 182 |
| 150 | 195 | 185 |
| 160 | 198 | 188 |
| 170 | 201 | 191 |
| 180 | 204 | 194 |
| 190 | 207 | 197 |
| 200 | 210 | 200 |
| 210 | 213 | 203 |

account for their levels of education and work experience (below)—a character with a Ph.D. should not be nineteen years old, nor should someone with Special Forces experience be twenty-one.

Broad guidelines cover the relationship of weight and height to one another and to your character’s Strength and Constitution levels. **Add your character’s Strength and Constitution levels and consult the character height table. Add the height modifier for their homeworld. This is their height in cm,** although with the GM’s consent, characters should feel free to adjust this by +/- 5cm. Cross-reference your height by the sum of the characters Strength and Constitution on the Weight and Height table for your homeworlds gravity. The result is the recommended weight for a fairly trim character. Some variation will of course occur, so feel free to deviate from the recommendations, especially if your character is overweight. Because of their greater mass, heavier characters may have lower Mass Factors (covered below), giving them a slight advantage when it comes to absorbing bodily damage.

Use d% to determine whether your character is right-handed, left-handed, or ambidextrous. A roll of ninety or less indicates right-handedness, a result between ninety-one and ninety-nine indicates left-handedness and a double zero results means your character is ambidextrous. There is a penalty for using an off-hand.

Starting money is equal to Lv1000 multiplied by your characters age minus 18.

Secondary Attributes and Talent Bases

If you haven’t done so already, record your character’s Attribute levels on the front of your character sheet, in the gray area to the upper left. The next step is to determine the Secondary Attributes and Talent Bases, which are derived directly from the Attributes. The

| Weight Table | | | | | | | | | | | |
|--------------|--|----|-----|-----|-----|-----|-----|-----|-----|-----|------|
| Height (cm) | Total of Characters Strength and Constitution Attribute Levels | | | | | | | | | | |
| | 40- | 55 | 70 | 85 | 100 | 115 | 130 | 145 | 160 | 175 | 190+ |
| | Weight (kg) | | | | | | | | | | |
| 150 | 35 | 36 | 38 | 40 | 43 | 46 | 50 | 54 | 61 | 66 | 72 |
| 155 | 36 | 38 | 40 | 43 | 46 | 50 | 54 | 61 | 66 | 72 | 79 |
| 160 | 38 | 40 | 43 | 46 | 50 | 54 | 61 | 66 | 72 | 79 | 87 |
| 165 | 40 | 43 | 46 | 50 | 54 | 61 | 66 | 72 | 79 | 87 | 95 |
| 170 | 43 | 46 | 50 | 54 | 61 | 66 | 72 | 79 | 87 | 95 | 102 |
| 175 | 46 | 50 | 54 | 61 | 66 | 72 | 79 | 87 | 95 | 102 | 108 |
| 180 | 50 | 54 | 61 | 66 | 72 | 79 | 87 | 95 | 102 | 108 | 113 |
| 185 | 54 | 61 | 66 | 72 | 79 | 87 | 95 | 102 | 108 | 113 | 118 |
| 190 | 61 | 66 | 72 | 79 | 87 | 95 | 102 | 108 | 113 | 118 | 123 |
| 195 | 66 | 72 | 79 | 87 | 95 | 102 | 108 | 113 | 118 | 123 | 128 |
| 200 | 72 | 79 | 87 | 95 | 102 | 108 | 113 | 118 | 123 | 128 | 133 |
| 205 | 79 | 87 | 95 | 102 | 108 | 113 | 118 | 123 | 128 | 133 | 138 |
| 210 | 87 | 95 | 102 | 108 | 113 | 118 | 123 | 128 | 133 | 138 | 143 |

Secondary Attributes are a handful of miscellaneous numbers used to abbreviate some game mechanics. Talent Bases are skill roll bonuses that reflect a character's aptitudes in different skill groups.

Secondary Attribute Information

There are six Secondary Attributes, listed to the immediate right of the Attributes on the character sheet. Use the Secondary Attributes Table (located below) to determine your character's Secondary Attributes. Reference each Secondary Attribute (listed at the top of the table) by the relevant Attribute's level (mentioned below the Secondary Attribute).

The first Secondary Attribute, **Perception**, measures your character's awareness of the world around them, and is based on Sensibility. Perception is used just like a skill—your character's Perception level equals their percent chance of success (unmodified), so high scores are good. Perception is used any time the GM would like to determine whether your character notices something subtle in their environment, which could go unnoticed. A complete explanation of the Perception score can be found in the description of the skill of the same name. You can boost your character's Perception score substantially through the purchase of this skill.

Base Speed reflects your character's agility in a combat or athletic situation. It is used in determining initiative—which combatant can capitalize the most on the actions of others during combat. Base Speed is derived from Agility, with typical scores in the low to mid 'teens. Quick and agile characters have high Base Speeds.

Endurance and **Recovery Modifier** are both derived from your character's Constitution level. Endurance is used in determining the effects of fatigue, and the time a character can continue running or performing heavy labor.

The **Recovery Modifier** affects your character's rate of recovery from wounds or illness. As with Base Speed, high scores are better than low.

Your character's **Damage Rating** is a measure of the damage they can inflict due to physical strength. The Damage Rating is based on Strength, and is generally between three and six. Again, higher scores are better.

Mass Factor differs from the other Secondary Attributes

| Homeworld Gravity Height Modifier Table | |
|---|-------|
| ZeroG | +15cm |
| LowG | +5cm |
| Normal | +0cm |
| HighG | -15cm |

| Homeworld Gravity Weight Modifier Table | |
|---|-------|
| ZeroG | -15kg |
| LowG | -10kg |
| Normal | 0kg |
| HighG | +15kg |

| Secondary Attributes Table | | | | | |
|----------------------------|-------------|------------|--------------|--------------|-------------|
| Attribute Level | Perception | Base Speed | Recovery | Endurance | Base Damage |
| Based On | Sensibility | Agility | Constitution | Constitution | Strength |
| 01-20 | 20 | 9 | 0 | 4 | 2 |
| 21-25 | 23 | 10 | 2 | 5 | 3 |
| 26-30 | 26 | 11 | 4 | 6 | 3 |
| 31-35 | 29 | 12 | 4 | 7 | 4 |
| 36-40 | 32 | 13 | 6 | 8 | 4 |
| 41-45 | 35 | 14 | 6 | 9 | 5 |
| 46-50 | 38 | 14 | 8 | 10 | 5 |
| 51-55 | 41 | 15 | 8 | 11 | 5 |
| 56-60 | 44 | 15 | 10 | 12 | 6 |
| 61-65 | 47 | 16 | 10 | 12 | 6 |
| 66-70 | 50 | 17 | 12 | 13 | 6 |
| 71-75 | 53 | 18 | 12 | 13 | 6 |
| 76-80 | 56 | 19 | 14 | 14 | 6 |
| 81-85 | 59 | 20 | 14 | 14 | 7 |
| 86-90 | 62 | 21 | 16 | 15 | 7 |
| 91-95 | 65 | 22 | 16 | 15 | 7 |
| 96-100 | 68 | 23 | 18 | 16 | 7 |
| 100+ | 71 | 24 | 20 | 16 | 7 |

| Mass Factor Table | |
|-------------------|-------------|
| Mass (kg) | Mass Factor |
| 32-33 | 2.1 |
| 34-35 | 2.0 |
| 36-37 | 1.9 |
| 38-39 | 1.8 |
| 40-42 | 1.7 |
| 43-45 | 1.6 |
| 46-49 | 1.5 |
| 50-53 | 1.4 |
| 54-58 | 1.3 |
| 59-64 | 1.2 |
| 65-71 | 1.1 |
| 72-80 | 1.0 |
| 81-92 | 0.9 |
| 93-108 | 0.8 |
| 109-124 | 0.7 |
| 125+ | 0.6 |

in several ways. First, it is not determined from an Attribute level, but from your character's weight (so it's found not on the Secondary Attribute Table but on the Mass Factor Table to the right). Mass Factor affects the severity of damage a character sustains. A score of one point zero is typical, and lower scores are good.

Remember that some Secondary Attributes are affected by Skills which improve them either directly or by improving the Attribute levels on which they are based (see Attribute-Affecting Skills, above).

Talent Bases

In *2300AD*, every skill is categorized into one of nine different skill groups. Each skill group has a Talent Base, which reflects your character's aptitude for skills in that group. When you make skill rolls, you will add the appropriate Talent Base, which is a small bonus of up to ten points, to your character's skill level. There are nine Talent Bases. They cover the Academic, Creative, Domestic/Technical, Medical, Natural, Physical, Reflexive, Scientific, and Social skill groups. Each is determined by a brief formula, which averages certain Attribute levels and divides the result by ten. Check the Talent Base Table for the exact formulas. As mentioned above, the purchase of some skills will improve Attribute levels, and age can also have an effect. Use the original Attribute levels for determining your character's Talent Bases, even if you have changed them due to age or skills. Talent Bases never change during play, no matter what happens to your character's Attribute levels.

Although determined by the Attributes, the Talent Bases are recorded in the Skills section of the Character Sheet. Record each Talent Base level to the right of the skill group heading, in the white box.

Skills

The Skill section keeps track of everything your character knows how to do. In determining the skills your character possesses, you will probably want to understand what each skill covers. The *Millennium's End* Book Two has descriptions of individual skills. This section will cover the process of defining your characters initial skills. Skill

| Talent Base Table | |
|-------------------|--|
| Academic | (Int + Wil) / 20 |
| Social | (Per + Bra) / 20 |
| Scientific | (Int) / 10 |
| Creative | (Int + Cor) / 20 |
| Medical | (Int + Sen + Cor) / 30 |
| Natural | (Sen + Wil) / 20 |
| Reflexive | (Agl + Cor) / 20 |
| Physical | (Agl + Str + Con + Wil) / 40 |
| Dom./Tech. | (Sen + Cor + Con) / 30 |

selection is the longest part of character generation, and it's probably also the most important. In play, the vast majority of the rolls you make will be against your character's skills. These skills will improve over the course of your campaign, and new skills can be added, but your initial choice will have a major impact on the things your character can do and how well they can do them.

Skill Points

Every character is allotted a certain number of points with which the player will build their skills. All of these points must be spent during the creation of the character. During play, skills can only be advanced through experience or practice. A character's skills represent the sum total of all they have learned during life up to the point at which

the campaign begins—through formal education, vocational training, military service, and life’s experiences in general. The number of skill points with which you may buy your character’s skills is derived from two variables: age and attributes.

To determine the number of skill points your character receives, use the following formula:

$$(7 \times (\text{Int} + \text{Wil})) + \frac{(\text{Int} + \text{Sen}) \times (\text{Age} - 15)}{3}$$

The total, which can vary widely but averages around 1000, is the number of points available for the purchase of skills.

Buying Skills

Skills are rated in increments of one, from level 1 on up past 100, with high numbers indicating high degrees of competence. Unmodified, a character’s percent chance to succeed in a task is equal to his skill level plus the appropriate Talent Base. Of course, many skill rolls will be made with modifiers, based on the difficulty of the task and the conditions of the attempt.

Subskills are specializations within a particular skill. Every subskill modifies a specific parent skill—some skills have many subskills, while others have few or none. Like their parents, subskills are ranked in increments of one starting at level one and going up without ceiling. The only restriction to a subskill’s level is that it may not exceed half the level of its parent skill. When a subskill is used, its level is added to that of its parent, with the roll being made against the total. The advantage to using subskills is that they allow a high degree of competence, while not costing much to purchase or to advance during play. On the other hand, subskills apply to a much narrower set of tasks than skills, so they aren’t as useful.

There is no ceiling to the level your character may eventually attain in any skill. There are restrictions during character creation, however when buying skills, the first twenty five levels cost one skill point per level. From level twenty-six to level forty, the cost is two points per level. From level forty one to level fifty-five, the cost is three points per level. Starting skill levels above fifty-five are not allowed. The scale for buying subskills is the same, except that they have a maximum initial level of twenty-seven (since they can’t exceed half the level of their parents). The Skill Cost Table on the next page lists costs for skill levels according to the above formula. In general, a character may be considered familiar with a skill if they have a level of 20 or greater. A level of 40 or more is considered competent, while a character with a level of 70 or higher is something of an expert. These standards can be applied to a skill by itself, or to the total of a skill and subskill. In other words, if a character has a level fifty in the skill Engineering, they are fairly competent in all aspects of engineering. If they also have a level of twenty-five in the Electrical subskill (a skill/subskill total of seventy-five), then the character is an electrical engineering expert. They are still just competent in, for example, mechanical engineering. These distinctions are not important to game roles, but should help give you a feel for the skill system.

52; Appearance 38; Bravado 56 and Will 40.

John has now outlined his character’s basic qualities. Looking down the Attribute levels, John can see that his character is bright, and has a lot of common sense, that he’s got reasonable hand-eye coordination and comes across as personable. On the other hand, he’s not fast, nor particularly good looking.

John moves on to fill in Pierre’s background information. He already knows that he is male, and he chooses an age of 27, enough to cover eight years of military experience, and to allow for some time spent on the street.

Pierre’s Strength and Constitution add up to 123, and he’s from a normal gravity world, so his height is about 186cm. John cross references this on the Weight Table and gets a weight of between 87 and 95kg. He chooses 90kg.

He next rolls percentile dice with a role of 91 indicating that Pierre is left handed.

Pierre is 27, so he has Lv 9000 to start off with.

John goes on to work out the remaining details of his character. He knows that Pierre is French. He envisages Pierre with a head of black hair, slightly receding, and dark skin, the result of his Arabic genetic heritage. He chooses the current date as his character’s birthday, and decides to move on, letting other details work themselves out through the rest of the character generation process and during play.

John next determines Pierre’s Secondary Attributes by consulting the Secondary Attributes Table. With a Sensibility level of 70, he determines that Pierre’s natural Perception score is 50. With his agility of just 33, Pierre’s Base Speed is only 12. John continues with this process and ends up with the following results:

Perception 50; Base Speed 12; Endurance 11; Re-

Continued on page 16

| Skill Cost Table | | |
|------------------|------------------|-------|
| Level | Skill Point Cost | Ratio |
| 10 | 10 | 1:1 |
| 15 | 15 | 1:1 |
| 20 | 20 | 1:1 |
| 25 | 25 | 1:1 |
| 30 | 35 | 2:1 |
| 35 | 45 | 2:1 |
| 40 | 55 | 2:1 |
| 45 | 70 | 3:1 |
| 50 | 85 | 3:1 |
| 55 | 100 | 3:1 |
| 60 | 120 | 4:1 |
| 65 | 140 | 4:1 |
| 70 | 160 | 4:1 |
| 75 | 185 | 5:1 |
| 80 | 210 | 5:1 |
| 85 | 235 | 5:1 |
| 90 | 260 | 5:1 |
| 95 | 285 | 5:1 |
| 100 | 310 | 5:1 |

covery 8; and a Damage Rating of 6. He looks up Pierre's Weight on the Mass Factor Table, getting a Mass Factor of 0.9.

John next turns his attention to Pierre's Talent Bases. He starts with Academic Skills. The formulae on the Talent Base Table is $(Int+Will)/20$. This gives Pierre an Academic Talent Base of 4 $((54+40)/20=4)$. Continuing for the other Talent Bases gives these results:

Academic 4; Creative 5; Domestic/Technical 5; Medical 5; Natural 5; Physical 4; Reflexive 4; Scientific 5 and Social 5.

John now tallies Pierre's skill points. Pierre is twenty seven. His Intelligence is 54, his Willpower is 40 and his Sensibility is 70. He therefore has 1154 skill points. $(7 \times 94) + ((124 \times (27-18))/3)$.

Continued on page 17

When buying skills, you will need to start by buying a number of skill packages (below). Finally, check or write down all additional desired skills on your character sheet or a piece of scratch paper, and go back and divvy up your remaining skill points amongst them.

The Skills box on the character sheet lists most of the skills and subskills available. Occasional blank spaces provide room for writing in skills and subskills not printed on the sheet. There are three spaces adjacent to every skill and subskill listing. Write the skill level you have purchased in the space to the immediate right of each listing. When you're done purchasing skills, go back and determine the actual roll required, and write it in the space to the left of the skill listing. For skills, the roll is simply the skill level plus the Talent Base (listed in the gray bar at the top of each skill group). For subskills, add the subskill level to the roll for the parent skill. The third space, to the far right, is for recording skill uses, needed for advancing your character's skills over the course of the game.

Skills Packages

There are certain skills which any character living in contemporary society should have. In addition, a character may have undergone a training regimen or other program that will have provided them with certain skills. Listed on pages 18 to 37 are several Skill Packages—bundles of skills that reflect specific packages of training or knowledge. Skill Packages are offered at reduced prices (listed with the packages as 'Package Cost'), but you only get the cheap price when you buy a Package in its entirety.

Of course, you can always go back and use left-over skill points to increase individual skills that were bought in a Package.

Many of the Skill Packages overlap with one another. When that's the case, buy the package with the highest levels of the overlapping skills first. When you buy the second Package, count the listed skill level for the overlapping skill as skill points, and use those points to increase the level of the skill. Keep in mind, however, that the maximum skill levels quoted above still apply—any skill levels over fifty-five are lost. So buying too many overlapping packages may not be to your advantage, even with the 'package deal' discounts. Buy as many Skill Packages for your character as you like, within the limits of your total skill points. Keep in mind though that the age of your character will also have some bearing on which skill packages you should buy. A twenty-two year old is unlikely to have been a member of the Special Forces or to have a Medical Ph.D.. Also note that many packages require that another package has already been purchased.

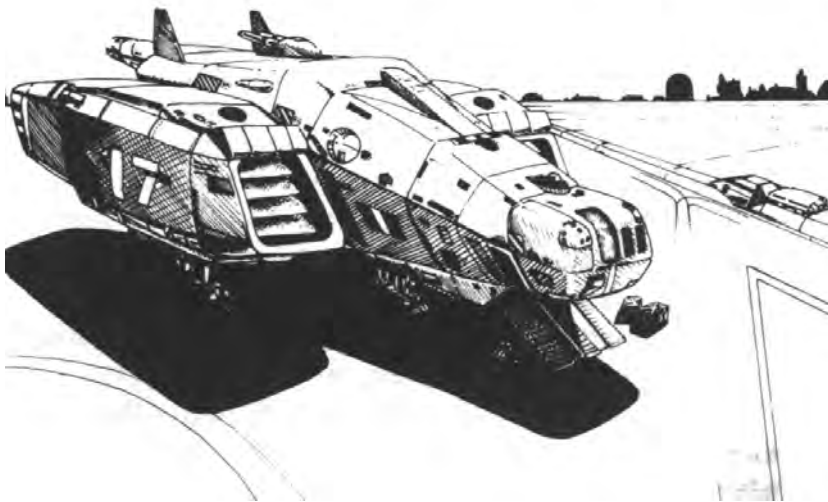
Before you get started on the skill packages however, you must buy either a Basic or Advanced Education package. Note that the Basic Education packages differ depending upon whether your character is from the Core or the Frontier. The Advanced Education package is normally only available to those with a Core homeworld, although exceptions can be made with the GM's approval.

Once you have purchased as many packages as you desire, use your remaining skill points to purchase additional skills or to increase the levels of package skills.

Weapons, Vehicles and Possessions

The remaining boxes on your character sheet are for recording information on your character's equipment, including game stats on weapons and sights. The use of these sections is optional—but filling them out ahead of time will prevent having to search through the book during play.

The Possessions box, on the back of your character sheet, simply provides space to list your character's equipment. Write each item you do buy, its location, and any notes you may want to make in the Possessions Box. Use the small check-boxes to indicate which pieces of gear are carried at any given time. If you don't have enough space for all of your character's possessions, or simply don't like the format on the character sheet, feel free to keep track of possessions on a separate sheet of paper. Once you've equipped your character, copy information on weapons and vehicles into the appropriate boxes on your character sheet. Most of the data in these boxes comes straight from the tables, with a few exceptions. When detailing your character's weapons write the subskill roll in the 'Skill' column, then add it to the weapon's Accuracy (the next column to the right), and record the result in the shaded 'Roll' column. Whenever your character uses a weapon, roll against that total, rather than the subskill listed in the Skills area. The Inherent Accuracy and remaining data in the Weapons box comes straight from the Weapons Table.



Before purchasing individual skills, John has a look at the skill packages. He knows that he has to keep points in reserve for the Rebco SAR Basic Training (145 points) and for a Core Basic Education (225 points). He also knows that Pierre was a French Space Navy Marine. He buys the Space Marine package (270 points) and the Marine Special Forces package (305 points).

Some of these skill packages overlap each other. He writes down onto his character sheet the skills that do not overlap or duplicate each other. For the Aim skill, however, he treats the 30 levels listed on the Rebco SAR Training package as points to add to the 52 levels in Aim he already has (From the Basic Education, Space Marines and Space Marines Special Forces packages). This brings his Aim skill up from 52 to 55 (as starting character cannot have a skill level higher than 55, so the remaining points are lost). He does the same for the Military Science and Unarmed Hand-to-Hand skills. To finish his character he buys the Rebco SAR training package (145 points). Pierre is left with 434 points to round off his character. An unarmed combat package would be a good idea, so Pierre takes a Self Defense Judo package (205 points). With the remaining 229 points John increases the skills that he wants Pierre to have that are not already covered, and throws in some hobby skills as well (Gambling and Athletics).

Pierre's character generation is now complete, although it may take several game sessions for his personality to fully emerge. Meanwhile, equipment, weapons and vehicles are purchased to finish off the character generation process. Pierre is a new employee in the service of Rebco SAR, so he starts on the ex-British colony of Wellon on Tirane.

Skill Packages

Educational Packages

All characters must take one of the following three educational packages. The basic education packages represent a high school or equivalent level of education. If your character has little or no higher education, then you should take one of these. The Core Worlds basic education is normally only available to residents of Earth or Tirane, although the GM could make an exception for characters from Frontier worlds living in the colony capital or some other large city.

The Advanced Education package represents a generic University level degree. It only shows a group of core skills, and as stated, characters must also invest further skill points to represent their major. The Advanced Education package is normally only available to Core residents, although with GM approval, a Frontier character could take it.

| Basic Education - Core Worlds | |
|-------------------------------|-----|
| Geography | 20 |
| <i>Homeworld</i> | 10 |
| History | 20 |
| Literature | 10 |
| Mathematics | 30 |
| <i>Native Language</i> | 50 |
| <i>Regional Dialect</i> | 25 |
| Aim | 20 |
| Diplomacy | 20 |
| Computer Science | 20 |
| Research | 15 |
| Drive | 30 |
| Automobile | 15 |
| Medicine | 10 |
| Swim | 20 |
| | |
| Total Value | 360 |
| Package Cost | 225 |

Although many in the Core Worlds go on to receive an Advanced Education, not all are so lucky. However, even those should still have received enough education to cover the above basic package.

| Basic Education - Frontier Worlds | |
|---|-----|
| Geography | 20 |
| <i>Homeworld</i> | 10 |
| Mathematics | 30 |
| <i>Native Language</i> | 50 |
| <i>Regional Dialect</i> | 25 |
| Aim | 20 |
| Smallarm | 10 |
| Diplomacy | 10 |
| Drive | 30 |
| Automobile or ACV | 15 |
| Ride | 15 |
| Medicine | 15 |
| Swim | 20 |
| Survival | 20 |
| Farming or Heavy Equipment Operations or Fishing or Forestry | 25 |
| | |
| Total Value | 360 |
| Package Cost | 225 |

Certain Frontier worlds may have conditions that mean that the character should substitute the Drive skills with Boating or some other type of transportation skill.

| Advanced Education | |
|-------------------------------------|-----|
| Anthropology, Biology or Psychology | 30 |
| Art, Music or Philosophy | 30 |
| Geography | 20 |
| <i>Homeworld</i> | 10 |
| History | 20 |
| Research | 20 |
| Writing | 10 |
| Literature | 20 |
| Mathematics | 45 |
| <i>Native Language</i> | 50 |
| <i>Regional Dialect</i> | 25 |
| Computer Science | 30 |
| Aim | 20 |
| Diplomacy | 20 |
| Drive | 30 |
| Automobile | 15 |
| Medicine | 10 |
| Swim | 20 |
| Total Value | 505 |
| Package Cost | 355 |

In addition to the skills listed above, extra skill points must be spent to bring one Academic, Creative, Medical or Scientific skill to level 40 (the major) with a subskill at level 20.

Military Skill Packages

For most nations of Earth, the military has been an honored career choice since the beginnings of history. (In many, in fact, it is still a requirement that their citizens spend some portion of their lives as members of a military organization.) In 2300 AD, the military is still a viable option for many young people. Although there are no major human conflicts, a number of colony worlds require an occasional demonstration of force, and there is an ongoing war with the alien Kafers on the French Arm.

| Army | |
|-----------------------|-----|
| Aim | 25 |
| Automatic | 5 |
| Longarm | 10 |
| Drive | 20 |
| Tracked <i>or</i> ACV | 10 |
| Automobile | 10 |
| Military Science | 25 |
| Infantry Tactics | 10 |
| Medicine | 10 |
| Hiding | 10 |
| Navigation | 10 |
| Survival | 10 |
| Armed HTH | 15 |
| Thrust | 5 |
| Unarmed HTH | 20 |
| Takedown | 5 |
| Grapple | 10 |
| Total Value | 210 |
| Package Cost | 190 |

The Army normally operates only on the surface of worlds. Other skills commonly acquired during army service include *Artillery, Demolitions, Gunnery, General Mechanics, Forward Observer, Climbing, and Aim/Guided Weapons*.

The colonial militia's are under-trained and under-equipped compared to the regular army. Their main advantage is their local experience of the conditions of their Homeworld. Other skills commonly acquired during army service include *Artillery, Demolitions, General Mechanics, Forward Observer, Climbing, and Aim/Guided Weapons*.

| Army Combat Walker | |
|--------------------------------|----|
| Military Science/Armor Tactics | 5 |
| General Mechanics | 10 |
| Combat Walker | 40 |
| Navigation | 10 |
| Land | 5 |
| Total Value | 85 |
| Package Cost | 80 |

Combat Walkers like the French BH-21 and the German Kampfanzug-7 (Kz-7) are used by many nations as shock troops. Requires the **Army** package as a prerequisite.

| Colonial Militia | |
|------------------|-----|
| Aim | 20 |
| Longarm | 5 |
| Automatic | 5 |
| Military Science | 20 |
| Infantry Tactics | 10 |
| Navigation | 10 |
| Land | 5 |
| Medicine | 10 |
| Survival | 20 |
| Hiding | 10 |
| Concealment | 5 |
| Creeping | 5 |
| Geography | 10 |
| Local | 5 |
| Armed HTH | 10 |
| Thrust | 5 |
| Total Value | 155 |
| Package Cost | 140 |

| Army Special Forces | |
|---------------------|-----|
| Military Science | 20 |
| Hardware | 5 |
| Infantry Tactics | 5 |
| General Mechanics | 15 |
| Medicine | 15 |
| Emergency Medicine | 5 |
| Aim | 20 |
| Autofire | 5 |
| Longarm | 5 |
| Smallarm | 10 |
| Demolitions | 25 |
| Military | 10 |
| Forward Observer | 20 |
| Hiding | 25 |
| Concealment | 15 |
| Creeping | 10 |
| Navigation | 15 |
| Land | 10 |
| Survival | 25 |
| Armed HTH | 10 |
| Swing | 5 |
| Thrust | 5 |
| Climbing | 20 |
| Unarmed HTH | 15 |
| Block | 10 |
| Takedown | 5 |
| Grapple | 5 |
| Kick | 10 |
| Punch | 5 |
| Parachuting | 30 |
| HALO | 15 |
| Total Value | 460 |
| Package Cost | 415 |

This skill package represents the cutting edge of an Army's forces such as Russian Spetznaz, the US Green Berets, the Argentine Fuerza Especial Del Comando, or the French Parachute Commandos. These forces are highly trained in reconnaissance, direct action and counter-terrorism. Requires the **Army** package as a prerequisite.

| Marines | |
|------------------|-----|
| Military Science | 30 |
| Infantry Tactics | 10 |
| Zero-G Tactics | 10 |
| Medicine | 10 |
| Aim | 30 |
| Autofire | 5 |
| Longarm | 15 |
| Smallarm | 15 |
| Hiding | 10 |
| Navigation | 10 |
| Survival | 10 |
| Armed HTH | 10 |
| Unarmed HTH | 20 |
| Takedown | 5 |
| Grapple | 10 |
| Parachuting | 30 |
| HALO | 15 |
| Pressure Suit | 30 |
| Total Value | 295 |
| Package Cost | 270 |

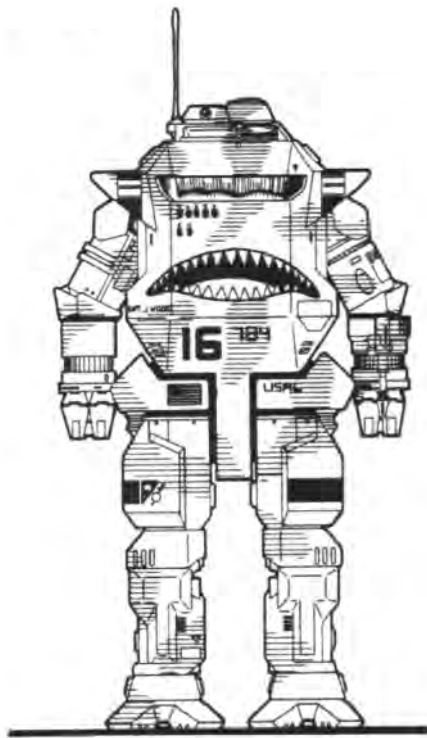
The Marines are Space Navy troops carried on starships. They are well trained in Zero and LowG operations, and are also often the first soldiers in place when there is trouble on the Frontier worlds. Many are also used as backup personnel on board Navy starships, acting as gunners and security forces.

Many Marine forces regard themselves as better trained and superior in performance to their Army equivalents. Certainly there is normally a higher level of moral in Marine forces. Typical Marine forces include the US Marine Corps, the French Foreign Legion, the British Royal Space Commandos, and the Brazilian Espaço Fuzileiros.

Other skills commonly acquired in the Marines include *Demolitions*, *Gunnery/Beam Weapons*, *General Mechanics*, *Forward Observer* and *Aim/Guided Weapons*.

| Marines Combat Walker | |
|--------------------------------|----|
| Military Science/Armor Tactics | 5 |
| Zero-G Tactics | 5 |
| General Mechanics | 10 |
| Combat Walker | 40 |
| Navigation | 10 |
| Space | 5 |
| Land | 5 |
| Total Value | 95 |
| Package Cost | 85 |

Like the Army, many Marine forces use specially adapted Combat Walkers as assault troops. Requires the **Marines** package as a prerequisite.



| Space Marine Special Forces | |
|-----------------------------|-----|
| Military Science | 10 |
| Hardware | 5 |
| Infantry Tactics | 5 |
| Zero-G Tactics | 5 |
| Medicine | 10 |
| Emergency Medicine | 10 |
| Aim | 20 |
| Autofire | 5 |
| Longarm | 5 |
| Smallarm | 10 |
| Demolitions | 30 |
| Military | 10 |
| Forward Observer | 25 |
| Hiding | 10 |
| Concealment | 10 |
| Creeping | 10 |
| Navigation | 25 |
| Land | 10 |
| Survival | 15 |
| Armed HTH/Thrust | 5 |
| Climbing | 10 |
| Unarmed HTH | 15 |
| Takedown | 5 |
| Grapple | 5 |
| Parachuting | 30 |
| HALO | 15 |
| Pressure Suit | 10 |
| Total Value | 335 |
| Package Cost | 305 |

Like the Army, most Marine forces maintain a group of highly trained Special Forces to carry out the most difficult and dangerous tasks. Typical missions include raids, anti-piracy actions and counter-terrorism. Requires the **Marine** package as a prerequisite.

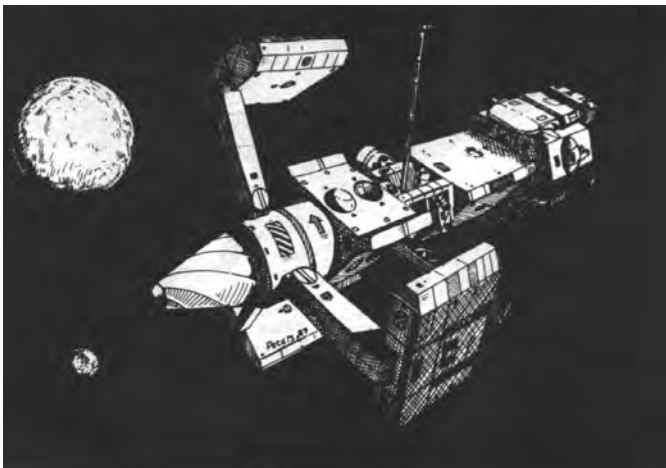
Examples of Marine Special Forces include the British Special Aerospace Service, the French Force Spéciale De l'Espace De Commando, and the Azanian Unit-42.

| Space Navy Crew | |
|--------------------|-----|
| Aim | 20 |
| Smallarm | 10 |
| Unarmed HTH | 20 |
| Punch | 10 |
| Computer Science | 35 |
| System Operations | 35 |
| Sensors | 15 |
| RC Operations | 35 |
| Gunnery | 35 |
| Beam Weapons | 15 |
| Engineering | 20 |
| Nuclear | 10 |
| General Mechanics | 25 |
| Jets | 5 |
| Stutterwarp | 10 |
| Mechanical Systems | 5 |
| Medicine | 10 |
| Electrics | 25 |
| Electronics | 10 |
| Wiring | 5 |
| Pressure Suit | 30 |
| Total Value | 420 |
| Package Cost | 380 |

| Colonial Space Militia Crew | |
|-----------------------------|-----|
| Aim | 20 |
| Smallarm | 10 |
| Unarmed HTH | 20 |
| Punch | 10 |
| Computer Science | 25 |
| System Operations | 25 |
| Sensors | 10 |
| Gunnery | 30 |
| Beam Weapons | 15 |
| Engineering | 20 |
| General Mechanics | 25 |
| Jets | 5 |
| Stutterwarp | 10 |
| Mechanical Systems | 5 |
| Medicine | 10 |
| Electrics | 20 |
| Electronics | 10 |
| Wiring | 5 |
| Pressure Suit | 30 |
| Total Value | 315 |
| Package Cost | 285 |

This package represents basic skills learnt by most members on spacecraft of a military nature. Gunners, pilots, remote pilots, engineers, medics, navigators, and computer operators are required on all military vessels. Any specialization chosen should have additional skill points spent upon it.

Most colonies that do not have a full time Space Navy presence will run a Militia Space Navy made up of a few freighters carrying out semi regular patrols to deter pirates and smugglers. Most crew roles seen on the regular navy are also required in the Militia, although as missiles and drones are rare, the *RC Operations* skill is almost never acquired.



| Space Navy Pilot | |
|-------------------|-----|
| Military Science | 30 |
| Space Tactics | 15 |
| Aim | 20 |
| Longarm | 10 |
| Smallarm | 10 |
| Unarmed HTH | 20 |
| Punch | 10 |
| Computer Science | 20 |
| System Operations | 25 |
| Sensors | 10 |
| RC Operations | 10 |
| Gunnery | 20 |
| Beam Weapons | 10 |
| Engineering | 10 |
| Nuclear | 5 |
| Navigation | 35 |
| Space | 10 |
| Medicine | 10 |
| Electrics | 15 |
| Electronics | 5 |
| Pilot | 40 |
| Orbital Craft | 10 |
| Starship | 10 |
| Pressure Suit | 30 |
| Leadership | 20 |
| | |
| Total Value | 510 |
| Package Cost | 460 |

This skill package represents a pilot within one of the many space navies. Pilots control the starships and smallcraft (such as ground to orbital shuttles and fighters). Depending upon the characters chosen specialisation, the level of skill in Orbital Craft or Starship could go up further. Requires either the **Advanced Education** or **Space Navy Crew** or **Colonial Space Militia** packages as a prerequisite.

| Surface Navy | |
|--------------------------------|-----|
| Boating | 30 |
| Powerboat | 5 |
| ACV | 5 |
| Shipping <i>or</i> Submersible | 5 |
| Military Science | 15 |
| Naval Tactics | 5 |
| General Mechanics | 20 |
| Mechanical Systems | 10 |
| Electrics | 20 |
| Electronics | 10 |
| Medicine | 10 |
| Navigation | 20 |
| Sea or Underwater | 10 |
| Aim | 10 |
| Autofire | 5 |
| Smallarm | 5 |
| System Operations | 40 |
| Naval Weapons | 20 |
| Gunnery | 30 |
| Guns | 10 |
| Artillery | 25 |
| Swim | 10 |
| Survival | 10 |
| | |
| Total Value | 355 |
| Package Cost | 320 |

Concerned with operations on the oceans of the worlds, sea military personnel use a variety of skills. Their duties involve the operations of water vehicles, most of which are of hydrofoil design, requiring very specialized skills for operation. Other skills commonly acquired in the Surface Navy include *General Mechanics/Internal Combustion Engines, Metal Working* and *System Operations/Sensors*.

| Surface Navy Diver | |
|----------------------------|-----|
| Boating | 10 |
| Submersible | 10 |
| Military Science | 20 |
| Naval Tactics | 10 |
| Infantry Tactics | 15 |
| General Mechanics | 5 |
| Internal Combustion Engine | 10 |
| Medicine | 10 |
| Emergency Medicine | 10 |
| Navigation | 15 |
| Sea | 5 |
| Underwater | 15 |
| Aim | 25 |
| Longarm | 15 |
| Autofire | 10 |
| Demolitions | 30 |
| Military | 15 |
| Construction | 5 |
| EOD | 10 |
| Swim | 45 |
| SCUBA | 20 |
| Mixed | 10 |
| Survival | 15 |
| Total Value | 365 |
| Package Cost | 330 |



Surface Navy diving teams carry out a variety of missions including reconnaissance, underwater construction and demolitions and commando type raids. Requires the **Surface Navy** package as a prerequisite.

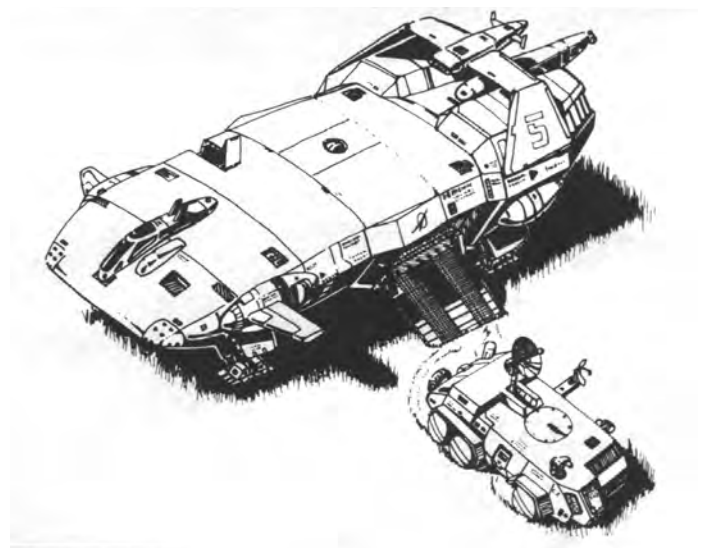
| Interface Pilot | |
|------------------------------------|-----|
| Aim | 20 |
| Smallarm | 10 |
| Military Science | 45 |
| Aerial Tactics | 20 |
| Space Tactics | 10 |
| Navigation | 40 |
| Air | 20 |
| Electrics | 10 |
| System Operations | 40 |
| Aircraft Weapons | 20 |
| Sensors | 20 |
| Gunnery | 20 |
| Survival | 10 |
| Hiding | 10 |
| Pilot | 50 |
| Instrument | 15 |
| Small Jet or VTOL or Orbital Craft | 25 |
| Pressure Suit | 15 |
| | |
| Total Value | 490 |
| Package Cost | 445 |

The interface military are responsible for operations between a world's surface and low orbit. The pilots of the interface military service may operate any flying craft from orbital shuttles craft to high performance interceptors or aerospace fighter craft capable of attacking orbiting spacecraft. Requires the **Advanced Education** package as a prerequisite.

| Interface Crew | |
|-------------------|-----|
| Aim | 20 |
| Smallarm | 10 |
| Navigation | 20 |
| Air | 10 |
| Electrics | 35 |
| Electronics | 15 |
| System Operations | 40 |
| Sensors | 20 |
| RC Operations | 40 |
| General Mechanics | 45 |
| Jet | 20 |
| Medicine | 10 |
| Gunnery | 25 |
| Guns | 10 |
| Missiles | 10 |
| Pressure Suit | 10 |
| | |
| Total Value | 405 |
| Package Cost | 365 |

Interface military crew are responsible for many different tasks from repairs on vehicles to the operations of sensors or acting as weapon systems operators.

Other skills commonly acquired include *Military Science/Aerial Tactics* or *Space Tactics*, *Heavy Equipment Operations*, *Aim/Longarm* or *Automatic*, *Medicine/Emergency Medicine*, *Metal Working*, *Survival* and *Parachute*.



Exploratory Skill Packages

Much of the impetus for mankind to go to the stars was from the simple desire to know what secrets lie hidden beyond Earth and its solar system. The people in whom this desire is strongest take exploratory careers. In expanding the realm of humanity's knowledge, they also open new worlds for exploration and, occasionally, meet a sapient alien race.

| Scout | |
|----------------------------|----|
| Aim | 25 |
| Longarm | 5 |
| Smallarm | 5 |
| Unarmed HTH | 20 |
| Punch | 10 |
| Takedown | 10 |
| General Mechanics | 25 |
| Internal Combustion Engine | 5 |
| Jet | 5 |
| Stutterwarp Drive | 5 |
| Electrics | 20 |
| Electronics | 10 |
| Pressure Suit | 35 |
| Survival | 40 |
| Navigation | 40 |
| Space | 20 |
| Land | 10 |
| Sea | 10 |
| Air | 10 |
| Biology | 30 |
| Geology | 30 |
| Astronomy | 25 |
| Physics | 25 |
| History | 25 |
| Hiding | 20 |
| Concealment | 5 |
| Creeping | 5 |
| Drive | 20 |
| Tracked | 5 |
| Boating | 20 |
| ACV | 5 |
| System Operations | 35 |
| Sensors | 15 |

| | |
|--------------------|-----|
| Gunnery | 20 |
| Beam Weapons | 10 |
| Pilot | 35 |
| Orbital Craft | 10 |
| Starship | 15 |
| Medicine | 25 |
| Emergency Medicine | 10 |
| Anthropology | 20 |
| Psychology | 20 |
| Swim | 25 |
| Tracking | 15 |
| Engineering | 20 |
| Nuclear | 10 |
| Total Value | 880 |
| Package Cost | 795 |

Initial survey of a system is done by scouts. These scouts use their ships and ships' sensors to detect the large scale characteristics of systems and worlds. Mapping and stargazing are their specialties, breaking new ground for exploratory teams and settlers. Scouts have often also been the first to contact new alien races. Requires the **Advanced Education** package as a prerequisite.

Just about any other kind of skill could be useful to a Scout, who are required to operate a long way from civilization.



| Contact | |
|----------------------------|-----|
| Aim | 15 |
| Smallarm | 5 |
| Unarmed HTH | 20 |
| Punch | 10 |
| Takedown | 10 |
| Survival | 20 |
| Anthropology | 45 |
| <i>Specialized Culture</i> | 20 |
| Psychology | 30 |
| Computer Science | 25 |
| Pressure Suit | 20 |
| Biology | 20 |
| Xenobiology | 10 |
| Chemistry | 30 |
| Geology | 30 |
| <i>Extra Language</i> | 40 |
| <i>Language Dialect</i> | 20 |
| Drive | 20 |
| Automobile | 10 |
| Tracked | 5 |
| Research | 30 |
| Writing | 30 |
| Medicine | 20 |
| Emergency Medicine | 10 |
| Navigation | 20 |
| Land | 10 |
| Diplomacy | 35 |
| Persuasion | 15 |
| Total Value | 655 |
| Package Cost | 590 |

Contact teams are sent to worlds which are particularly interesting as determined by a scout team. Contact personnel are well versed in various scientific areas such as biology, chemistry, linguistics, and anthropology. However, these skills are put to use in the field on an unknown world far away from the academic life of a business or university. Requires the **Advanced Education** package as a prerequisite.

Frontier World Packages

Colony worlds make up a new frontier for humanity, and like the frontiers of the past, when it was Earth's continents that were being explored, they demand a tough breed of people to tame them. Such people are likely to be fiercely individualistic, this being the motivation that has driven them from the "overly civilized" Core worlds.

Note: A character need not have been born on a Frontier world to follow a Frontier World Career.

| Asteroid Belt Miner | |
|----------------------------|-----|
| P-Suit | 40 |
| Geology | 40 |
| Pilot | 20 |
| Orbital Craft | 10 |
| Demolitions | 35 |
| Construction | 15 |
| Business | 20 |
| Heavy Equipment Operations | 20 |
| Electrics | 10 |
| Electronics | 5 |
| Navigation | 10 |
| Space | 5 |
| Medicine | 10 |
| Gambling | 25 |
| Cooking | 10 |
| Total Value | 315 |
| Package Cost | 285 |

Belters are headstrong and independent. They move around star systems asteroid belts, looking for valuable minerals—and hoping for the big Tantalum strike that will make them rich. Other commonly acquired skills by belters include *Music*, *System Operations/Sensors* and *Unarmed HTH*.

| Colonist | |
|---|-----|
| Aim | 10 |
| Smallarm | 10 |
| Unarmed HTH | 20 |
| Punch | 10 |
| Takedown | 5 |
| Drive | 10 |
| Automobile | 10 |
| Tracked | 10 |
| Boating | 25 |
| ACV <i>or</i> Powerboat | 10 |
| Survival | 20 |
| Medicine | 10 |
| Emergency Medicine | 10 |
| Pressure Suit | 10 |
| Farming <i>or</i> Heavy Equipment Operations <i>or</i> Fishing <i>or</i> Forestry | 35 |
| Geology | 20 |
| Meteorology | 20 |
| Navigation | 25 |
| Land | 5 |
| General Mechanics | 25 |
| Internal Combustion Engine | 10 |
| Carpentry | 10 |
| Riding | 10 |
| Total Value | 340 |
| Package Cost | 310 |

Life as a colonist on the Frontier is in many ways like that of a pioneer in the New World. Luxuries are comparatively few, and one must rely heavily on one's own skills to make a home in a new found environment.

| Troubleshooter | |
|------------------|-----|
| Aim | 10 |
| Smallarm | 10 |
| Longarm | 10 |
| Unarmed HTH | 30 |
| Punch | 10 |
| Takedown | 10 |
| Grapple | 10 |
| Drive | 25 |
| Automobile | 10 |
| Survival | 30 |
| Pressure Suit | 25 |
| Hiding | 25 |
| Creeping | 10 |
| Shadowing | 10 |
| Military Science | 10 |
| Infantry Tactics | 5 |
| Police Science | 30 |
| Procedure | 10 |
| Research | 25 |
| Writing | 10 |
| Photography | 20 |
| Still | 10 |
| Electrics | 20 |
| Electronics | 10 |
| Medicine | 10 |
| Tracking | 20 |
| Acting | 20 |
| Diplomacy | 30 |
| Coercion | 10 |
| Lying | 10 |
| Persuasion | 10 |
| Total Value | 505 |
| Package Cost | 455 |

Many corporations have interests on the frontier worlds. However, keeping in touch with them involves direct contact, which is quite unpalatable to an executive used to his metro-office complex lifestyle on Earth. Troubleshooters are employed to bridge this gap-to investigate problems on the Frontier worlds and report back to corporation headquarters.

| Rebco SAR Basic Training | |
|-----------------------------|-----|
| Aim | 30 |
| Autofire | 10 |
| Longarm | 10 |
| Smallarm | 15 |
| Military Science | 20 |
| Infantry Tactics | 10 |
| Unarmed HTH | 30 |
| Punch | 10 |
| Diplomacy | 10 |
| Medicine/Emergency Medicine | 5 |
| Total Value | 160 |
| Package Cost | 145 |

In 2257, the Rebco corporation created a specialist group dedicated to providing short-term security forces to the colony worlds. This ranged from uniformed guards for corporations, to mercenary troops for small colonial governments, to rescue operations. Rebco located their new organization's offices in Wellon, on Tirane, and they called it 'Rebco Search and Rescue'. Since then, Rebco SAR (as it has become known) has expanded from providing security forces to matching persons seeking employment with employers looking for experienced personnel. Missions for Rebco SAR can include anything which might be dreamed up. If there is money to be made, Rebco SAR will most likely be willing to get involved, although its coordinators pride themselves upon their honest reputation and will avoid overtly criminal activities.

All new Rebco SAR employees must go through a six week training course held at a company facility on Tirane which familiarizes them with the company and its resources. It ensures that all employees, regardless of their backgrounds have the basic skills necessary for survival and success.

The Basic Training course teaches the basics of shooting skills, hand-to-hand combat and small scale infantry tactics. Other course covering basic surveillance, investigations and survival are also available.

Core World Careers

Life on a Core world is very different from that on a Frontier world. Computer technology is a daily fact in the lives of Core world inhabitants. At birth, they are entered into computer files. If they make a purchase, funds are exchanged by computer. When they marry, it is entered into the files in order to keep track of the effects on their bank accounts and their benefits when they retire. Only the very, very rich or the very criminal escape this codification. This type of environment gives rise to a very different set of skills from those learned by Frontiersmen. Most Core world careers involve providing some sort of service to the community at large.

Note: A character need not be from a Core world in order to be trained in a Core World Career, but they must, at least, be from a very large center of population, such as the capitol of a long-standing colony.

| Administrator | |
|----------------------------|-----|
| Writing | 30 |
| Technical | 10 |
| Business | 40 |
| Finance | 10 |
| Management | 10 |
| Marketing | 10 |
| Law | 20 |
| Civil/Business | 5 |
| International/Interstellar | 5 |
| Economics | 20 |
| Macro <i>or</i> Micro | 10 |
| Research | 35 |
| Diplomacy | 35 |
| Persuasion | 15 |
| Coercion | 15 |
| Lying | 5 |
| Computer Science | 35 |
| Applications | 5 |
| Total Value | 365 |
| Package Cost | 330 |

A government or corporate administrator leads a very cerebral life, usually in the Core or in the bigger cities on the Frontier. Their jobs range from information gathering and dissemination to business forecasting to product management.

Requires the **Advanced Education** package as a prerequisite.

| Lawyer | |
|------------------|-----|
| Business | 20 |
| Finance | 5 |
| Managing | 10 |
| Law | 50 |
| <i>Specialty</i> | 25 |
| Research | 25 |
| Computer Science | 20 |
| Applications | 10 |
| Psychology | 20 |
| Diplomacy | 40 |
| Coercion | 20 |
| Lying | 15 |
| Persuasion | 10 |
| Oratory | 30 |
| Total Value | 345 |
| Package Cost | 315 |

Requires the **Advanced Education** package as a prerequisite.

| Independent Trader | |
|--------------------|-----|
| Business | 40 |
| Finance | 10 |
| Marketing | 20 |
| Economics | 20 |
| Law | 15 |
| Civil/Business | 5 |
| Research | 15 |
| Computer Science | 20 |
| Applications | 10 |
| Diplomacy | 30 |
| Persuasion | 15 |
| Total Value | 220 |
| Package Cost | 200 |

An independent trader either uses his own ship, or rents space on other ships, for mercantile activities. The merchant's goals are to purchase strange, exotic materials on the fringes of human space for sale to the excitement hungry masses at the Core.

| Computer Programmer | |
|---------------------|-----|
| Business | 20 |
| Finance | 10 |
| Writing | 10 |
| Technical | 5 |
| Research | 10 |
| Computer Science | 40 |
| Programming | 20 |
| Security | 5 |
| Applications | 10 |
| Mathematics | 20 |
| Total Value | 165 |
| Package Cost | 150 |

Although computer programming is largely an automated process, an expert will get better results and faster. Requires the **Advanced Education** package as a prerequisite. See also the Hacker package in the Extra-Legal careers section for an alternative.

| Journalist | |
|------------------|-----|
| Research | 35 |
| Writing | 15 |
| Photography | 20 |
| Video | 10 |
| Still | 10 |
| Electrics | 15 |
| Computer Science | 25 |
| Applications | 10 |
| Security | 5 |
| Diplomacy | 30 |
| Persuasion | 15 |
| Psychology | 10 |
| Total Value | 215 |
| Package Cost | 195 |

Journalism has become much more sophisticated—imagers are shoulder mounted and microphones can be concealed for either cosmetic or fraudulent purposes. However, the journalist's function remains virtually unchanged—report (or if need be create) the news. Broadcasting firms and foundations employ large numbers of journalists to bring in exotic news from human space.

Requires the **Advanced Education** package as a prerequisite.

| Doctor | |
|--------------------|-----|
| Research | 15 |
| Medicine | 50 |
| Emergency Medicine | 20 |
| General Practice | 25 |
| Pharmacy | 50 |
| Surgery | 50 |
| Biology | 20 |
| Total Value | 335 |
| Package Cost | 305 |

Although automeds can provide most medical care and attention, they work a lot better with a trained medical operator, and an automed is not always available. Requires the **Advanced Education** package as a prerequisite.

| Field Agent | |
|------------------------|-----|
| Business | 10 |
| Foreign Language Group | 30 |
| Regional Dialect | 15 |
| Law | 10 |
| Military Science | 10 |
| Hardware | 5 |
| Police Science | 10 |
| Research | 15 |
| Sociology | 20 |
| Photography | 20 |
| Electrics | 10 |
| Medicine | 10 |
| Aim | 15 |
| Longarm | 5 |
| Smallarm | 5 |
| Hiding | 20 |
| Shadowing | 10 |
| Unarmed HTH | 15 |
| Takedown | 5 |
| Grapple | 5 |
| Survival | 10 |
| Computer Science | 15 |
| Security | 10 |
| Forensics | 20 |
| Psychology | 20 |
| Acting | 20 |
| Diplomacy | 40 |
| Coercion | 10 |
| Lying | 15 |
| Persuasion | 20 |
| Total Value | 445 |
| Package Cost | 400 |

| Law Enforcement | |
|----------------------|-----|
| Geography/Local Area | 10 |
| Law | 15 |
| Criminal | 5 |
| Police Science | 30 |
| Procedure | 10 |
| Medicine | 10 |
| Aim | 20 |
| Smallarm | 10 |
| Armed HTH | 20 |
| Swing | 10 |
| Unarmed HTH | 20 |
| Grapple | 10 |
| Takedown | 10 |
| Drive | 35 |
| Automobile | 10 |
| Computer Science | 10 |
| Applications | 5 |
| Forensics | 10 |
| Diplomacy | 20 |
| Persuasion | 5 |
| Hiding | 10 |
| Shadowing | 5 |
| Total Value | 305 |
| Package Cost | 275 |

Keeping the peace, whether in the Core or on the Frontier, requires a special type of law enforcement agent. Law enforcement officials are trained to handle dangerous situations using a mixture of psychology and weaponry.

For particularly nasty business, governments and corporations alike employ field agents. These are spies and information/disinformation experts used to enhance their employer's standing, often at the expense of their competitors.

Requires either the **Advanced Education** package or any **Military** or **Law Enforcement** package as a prerequisite.

| Law Enforcement - SWAT | |
|------------------------|-----|
| Military Science | 10 |
| Police Science/Tactics | 15 |
| Aim | 35 |
| Longarm | 15 |
| Smallarm | 10 |
| Hiding | 10 |
| Creeping | 10 |
| Climbing | 30 |
| Rappelling | 10 |
| Total Value | 160 |
| Package Cost | 145 |

Almost all Police departments maintain a unit of personnel who receive additional training to deal with special situations (serving of high risk warrants being the most common mission). Almost every department has a different name for their unit (Special Weapons and Tactics, Emergency Service Unit, Special Response Unit, Critical Response Team, etc.), but the training, equipment, and missions are quite similar. Requires the **Law Enforcement** package as a prerequisite.

| Law Enforcement - Detective | |
|-----------------------------|-----|
| Research | 25 |
| Law | 10 |
| Criminal | 5 |
| Police Science/Procedure | 5 |
| Computer Science | 15 |
| Applications | 5 |
| Forensics | 25 |
| Psychology | 20 |
| Diplomacy | 25 |
| Coercion | 5 |
| Persuasion | 10 |
| Total Value | 160 |
| Package Cost | 145 |

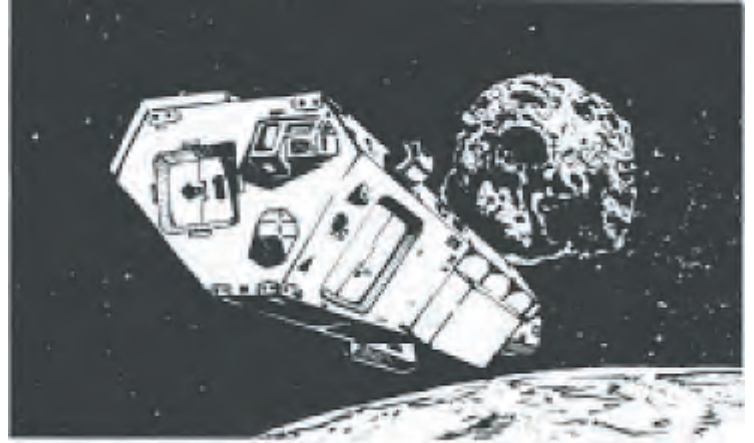
The investigative branch of most law enforcement departments, detectives investigate crimes, deciding what laws were violated and make recommendations for prosecution. They spend a lot of time talking to suspects and witnesses, trying to build the best case they can. Requires the **Law Enforcement** package as a prerequisite.



Ship Crew Packages

Spacecraft travel routinely between stars in the year 2300. Because there is a great deal of time involved in space travel, most crews on starships learn to serve many different functions.

| Starship Crew | |
|-------------------|-----|
| Pilot | 10 |
| Starship | 5 |
| Orbital Craft | 5 |
| General Mechanics | 30 |
| Stutterwarp | 15 |
| Jet | 5 |
| Computer Science | 20 |
| Unarmed HTH | 20 |
| Punch | 10 |
| Takedown | 5 |
| Grapple | 5 |
| Survival | 20 |
| Pressure Suit | 35 |
| Aim | 20 |
| Smallarm | 10 |
| Language - French | 20 |
| French (Starship) | 10 |
| Diplomacy | 20 |
| Persuasion | 10 |
| System Operations | 25 |
| Sensors | 10 |
| Gunnery | 10 |
| Beam Weapons | 5 |
| Navigation | 10 |
| Space | 5 |
| Medicine | 10 |
| Total Value | 365 |
| Package Cost | 330 |



Most commercial starships are lightly crewed, so any crew member must be capable of filling any other job on the ship. Most crew members also have a speciality into which the character should invest more skill points. **Note** that the French Language skill would only be gained by non-French speakers. The package cost to native French speakers is 305 points

Other commonly acquired skills include *Business*, extra languages, *Cooking*, *Music*, *Heavy Equipment Operations* and *Gambling*.

Extralegal Skill Packages

The age old problems of crime still trouble humanity, even among the stars. Hackers are almost exclusively a product of the Core, while the Frontier tends to have more issues with Pirates and the Core is rarely bothered by them. However, Outlaws can be found almost anywhere.

| Outlaw | |
|----------------------------|-----|
| Aim | 20 |
| Smallarm | 10 |
| Unarmed HTH | 35 |
| Punch | 15 |
| Kick | 10 |
| Armed HTH | 20 |
| Thrust | 5 |
| Computer Science | 20 |
| Security | 5 |
| Business | 25 |
| Electrics | 30 |
| Electronics | 15 |
| Miniature Mechanics | 30 |
| Locksmith | 15 |
| Hiding | 20 |
| Creeping | 5 |
| Shadowing | 5 |
| Drive | 25 |
| Automobile | 5 |
| Sleight of Hand | 35 |
| Pick Pocket <i>or</i> Scam | 15 |
| Acting | 20 |
| Con | 5 |
| Diplomacy | 25 |
| Lying | 10 |
| | |
| Total Value | 455 |
| Package Cost | 410 |

Wherever there are laws to define ownership, there are those who try to circumvent them, by burglary, swindling embezzlement, fraud or other means.

| Pirate/Smuggler | |
|--|-----|
| Aim | 25 |
| Smallarm | 10 |
| Longarm | 10 |
| Automatic | 5 |
| Unarmed HTH | 25 |
| Punch | 5 |
| Kick | 5 |
| Grapple | 5 |
| Armed HTH | 20 |
| Thrust | 5 |
| Business | 20 |
| Military Science | 10 |
| Infantry Tactics <i>or</i> ZeroG Tactics | 5 |
| Space Tactics | 5 |
| Gunnery | 10 |
| Beam Weapons | 5 |
| System Operations | 20 |
| Sensors | 5 |
| RC Operations | 10 |
| Pressure Suit | 35 |
| Medicine | 10 |
| Navigation | 10 |
| Space | 5 |
| Pilot | 15 |
| Orbital Craft | 5 |
| Starship | 5 |
| Acting | 25 |
| Diplomacy | 25 |
| Coercion | 10 |
| | |
| Total Value | 360 |
| Package Cost | 325 |

Pirates and smugglers flourish wherever the forces of law and order are weak. Hijacking and smuggling among the stars can have very rich rewards, but the risks are great as well. The Frontier, where many worlds are without a naval presence suffers the most.

| Computer Hacker | |
|------------------------|-----|
| Computer Science | 50 |
| Security | 25 |
| Programming | 5 |
| Applications | 10 |
| Business | 25 |
| Finance | 10 |
| Diplomacy | 25 |
| Persuasion | 5 |
| Research | 40 |
| Acting | 25 |
| Con | 10 |
| Total Value | 280 |
| Package Cost | 255 |

Hackers (or Crackers as they are sometimes known) specialise in breaking into computer systems and making use of the information found within. Some make a living from this, while others only do it for fun. The Diplomacy skills are used for what is known as Social Engineering, where the Hacker convinces someone to give up their information to access a system without them even knowing it. A common ploy is to pose over a communications link as an angry superior from another office demanding access passwords.

Martial Arts Skill Packages

The following packages cover a number of different martial arts styles. Almost all of these packages represent a Black-Belt level of competence. However, most characters are not full-time athletes training for the ring. Training to defend yourself on the off-chance that you lose your machinegun isn't that high a priority—so they need something that is easily learned and executed, broad in scope and high-percentile in all it's techniques. The following styles are most likely to be practised (based on their availability & practicality).

| Kempo | |
|------------------|-----|
| Martial Arts | 40 |
| Kempo | 20 |
| Unarmed HtH | 40 |
| Upper Body Block | 20 |
| Lower Body Block | 10 |
| Dodge | 15 |
| Grapple | 10 |
| Kick | 10 |
| Punch | 20 |
| Takedown | 10 |
| | |
| Total Value | 225 |
| Package Cost | 205 |

Kempo (also spelled kenpo) is an eclectic art originally developed from traditional Okinawan kempo and karate-do styles. Kempo styles share a flexible and more pragmatic approach to fighting than the Eastern striking arts from which they are derived, usually with more emphasis on streetfighting and self-defence than the tournament style point sparring of traditional karate.

| Judo (Self-defence) | |
|---------------------|-----|
| Martial Arts | 40 |
| Judo | 20 |
| Unarmed HtH | 40 |
| Upper Body Block | 15 |
| Lower Body Block | 5 |
| Dodge | 10 |
| Grapple | 20 |
| Pain Hold | 15 |
| Punch | 10 |
| Takedown | 20 |
| | |
| Total Value | 225 |
| Package Cost | 205 |

This style of Judo is adapted for self-defence situations in which rules are not a factor. Many law enforcement and military bodies are trained in these techniques.



| Praktisches Kämpfensystem (PK) | |
|--------------------------------|-----|
| Martial Arts | 40 |
| Praktisches Kämpfensystem | 20 |
| Unarmed HtH | 40 |
| Upper Body Block | 20 |
| Lower Body Block | 10 |
| Dodge | 10 |
| Grapple | 15 |
| Kick | 10 |
| Punch | 20 |
| Takedown | 15 |
| Armed HtH | 15 |
| Parry | 5 |
| Grapple | 5 |
| Swing | 5 |
| Thrust | 5 |
| Total Value | 265 |
| Package Cost | 240 |

Praktisches Kämpfensystem (or PK as it is known outside of German speaking regions) is a well-rounded hybrid system with an approach of 'whatever works'. Originally formulated by the Barbarian army, it has been adopted by many other fighting forces.

| Boxing | |
|------------------|-----|
| Martial Arts | 40 |
| Boxing | 20 |
| Unarmed HtH | 40 |
| Upper Body Block | 20 |
| Dodge | 15 |
| Grapple | 5 |
| Punch | 20 |
| Total Value | 190 |
| Package Cost | 175 |

Undeniably still the most popular martial art in the western world, the 'sweet science' emphasises footwork and rapid handspeed, and is among the most effective of styles for developing upper body striking ability and defence.

| Kickboxing | |
|------------------|-----|
| Martial Arts | 40 |
| Kickboxing | 20 |
| Unarmed HtH | 40 |
| Upper Body Block | 20 |
| Lower Body Block | 20 |
| Dodge | 20 |
| Kick | 20 |
| Punch | 20 |
| Total Value | 230 |
| Package Cost | 210 |

Kickboxing is a striking sport derived from traditional Thai kickboxing or Muay Thai, and is essentially western boxing with the allowance kicks.

| Tae Kwon Do | |
|------------------|-----|
| Martial Arts | 40 |
| Tae Kwon Do | 20 |
| Unarmed HtH | 40 |
| Upper Body Block | 18 |
| Lower Body Block | 16 |
| Dodge | 20 |
| Grapple | 5 |
| Kick | 20 |
| Punch | 16 |
| Total Value | 260 |
| Package Cost | 235 |

The Korean martial art of Tae Kwon Do is still one of the most popular striking forms in the world, and has a presence in almost every country as both a sport and self-defence style. Tae Kwon Do is characterised by powerful, explosive strikes with the hands and feet, and utilises power-generating entry techniques such as flying and spinning kicks and leap-in punches.

NEW SKILLS

Skills represent the things a character can do and how well they can do them. Every skill covers a broad range of possible tasks, and the full list of skills allows any character to attempt almost any conceivable action. A character has a defined level in every skill, which determines their percentage chance of success when the skill is used. Subskills—specializations within broader skills—increase that chance of success, but they apply to a narrower set of tasks and can't always be used.

2300AD:MEE uses the same skills system as *Millennium's End*. However, some extra skills are required to cover the knowledge and technologies of the year 2300, and these are covered below.

Where a skill or subskill is described differently from those within the *Millennium's End* rules, this skill/subskill replaces the original.

Skill Descriptions

Skills are organized into Skill Groups which correspond to the Talent Bases. On the next few pages are a list of skills, followed by their descriptions. Skills are defined under the ambiguous and sometimes overlapping headings of 'knowledge' and 'action' skills. Knowledge skills are those whose rolls generally allow a character to know something. When a knowledge skill is failed, the character will not have the knowledge needed. If it is badly failed (by thirty or so points), the GM may decide to feed the character some false information. Action skills are skills whose rolls generally allow a character to do something. The results of failed action skills vary from skill to skill and with the magnitude of the failure, as laid out in the skill descriptions. Many skills represent a combination of both knowledge and action.

Every skill listed below has a brief description that tells what knowledge and capabilities the skill imparts. Listed alongside is the performance time, or the average time required to perform the skill. Performance time is generally instantaneous for most knowledge skills and some action skills, and it may vary with others. As stated above, under roll interpretation, a borderline roll may be interpreted by the GM to mean that an unusual amount of time was required to complete the task—in the case of knowledge skills, the character had to think for a while before coming up with the solution.

Converting 2300AD Tasks

2300AD divided tasks into five levels of difficulty—Simple, Routine, Difficult, Formidable and Impossible. To run these tasks with the *Millennium's End* game system, assign penalty modifiers as below to skill rolls depending upon the task difficulty.

| Task Difficulty | Modifier |
|-----------------|--------------|
| Simple | +10% |
| Routine | No modifier |
| Difficult | -20% |
| Formidable | -35% |
| Impossible | -50% or more |

Academic Skills

Academic skills are knowledge skills that cover non-scientific subjects of a scholarly nature. Performance time is generally instantaneous—a character either knows something or doesn't. A failed roll means that the character has no knowledge pertaining to the question or situation at hand, or (if the roll is a near miss) only partial information.

History

History is the study of past events and people, and how they affected one another and the present. Any period or culture not represented below may be adopted as a subskill for History.

Performance Time: N/A
Subskills: Atomic Era
Modern
Any specific culture

Atomic Era—This is the study of the 20th and 21st Centuries, including the devastating Twilight War that almost destroyed mankind.

Modern—This is the study of history since the age of starflight began.

Languages

This skill covers a characters ability to speak another language than their own. Several new languages are covered below, all are alien tongues. In addition, at the start of 2300 no one has been able to properly translate the Kafers language as none have been captured. Characters from a spacefaring background should have picked up some levels in French/French(Starship). Other very common tongues are German, Spanish, Portuguese, Japanese, English and Mandarin. Colonies tend to very rapidly acquire their own dialect of their homelands language which includes lots of slang, jargon and so forth.

Sung—The Sung language presents many problems to human speakers as some of the sounds extend into the ultra sonic range. Most Sung dealing with humans will therefore speak either Mandarin or French-Canadian.

Eber—The different Eber worlds speak dialects of the same basic language. The Eber language does not appear designed for the rapid communication of ideas due to its extremely ceremonial nature. Expect to spend a long time asking and answering even the simplest of questions.

Kafer—The Kafers language seems to consist of shouts and grunts. It is however as capable of conveying messages as subtle as any human language. It is difficult for a human to pronounce as they lack the mandibles and other aspects of the Kafer mouth.

Military Science

This skill represents a knowledge of the military and military resources, strategy and tactics. A character may use this skill to exercise or recognize military tactics and strategy, and identify and understand military equipment, practices and personnel.

Performance Time: N/A
Subskills: Space Tactics
ZeroG Tactics

ZeroG Tactics—This subskill covers small scale military operations in a Low or ZeroG environment such as may be found on board starships, space stations and asteroid mining camps.

Space Tactics—This subskill gives an understanding of the tactics used in space combat, from the placement of drones and submunitions to the deployment of fighters, screening forces and point defense groups.

Domestic/Technical Skills

These are skills covering a wide range of tasks, particularly blue-collar tasks requiring a person to work with their hands or body. Many of these skills require the use of tools. If tools are lacking, the GM must determine whether a task can be completed, wholly or partially. Impromptu tools might suffice, but may require that the skill roll be made with negative modifiers.

Combat Walker

This skill covers the use of a power assisted combat walker. It includes the knowledge of how to use the walker within tight confines and in Low/Zero-G.

Performance Time: N/A
Subskills: None

General Mechanics

This basic skill covers the ability to repair and construct mechanical devices. The broad range of devices falling under this skill includes anything from Rube Goldberg contraptions to monstrosly complex rocket motors. This skill allows characters to assemble mechanical devices from component parts (the design and construction of which may require additional skills, such as Engineering and Metalworking), diagnose and repair disabled devices, and perform preventative maintenance. Rolls should be made once per broken component, unless the repair of a single component requires extensive work in several distinct stages. For example, the repair of a broken clutch might first require the removal of the transaxle. In this case the GM might require three successful rolls—one to remove the transaxle and associated items, another to repair and replace the clutch and a third to put it all back together. A successful roll indicates that the character has repaired or constructed a mechanical component. Failed rolls indicate that the character cannot repair the component. Badly failed rolls may indicate that the component has been further damaged as a result of the repair attempt, or that the character has managed to wound themselves in the process. Note that the use of this skill assumes that a suitable selection of tools and parts for the task are available. Occasionally, specialized tools are required, without which a task would be extremely

Performance Time: varies
Subskills: Internal combustion engine
Stutterwarp
Drives

difficult or even impossible. The GM must decide how tool availability modifies a task attempt.

Internal Combustion Engines—This subskills specializes in engines of the type used in cars, trucks, boats, many aircraft and even some spacecraft. Characters may use this subskill to repair all sorts of internal combustion engines, including diesel, gasoline, propane, MHD and fuelcell.

Stutterwarp Drive—This subskill covers the repair and maintenance of a starships stutterwarp drive. A successful roll against this skill can be used to delay stutterwarp discharge by up to 24 hours.

Gunnery

This skill covers the operation of large (normally) vehicle mounted weapons, such as autocannons, tank guns, large anti-tank guided missiles and spacecraft energy weapons.

Performance Time: varies
Subskills: Beam weapons

Beam Weapons—This subskill covers the operation of ship mounted energy weapons such as lasers and particle accelerators. These are normally placed in moveable turrets, although some (especially in small craft) are mounted integrally to the ship, requiring the ship to orientate itself towards the target.

System Operations

This skill involves the use of specialized equipment in various situations. It represents a familiarity with the nature of the system and the kinds of tasks commonly performed with it.

Performance Time: 60 turns
Subskills: Sensors

Sensors—This subskill covers the operation of a wide range of sensors, from Radar and Ladar to passive arrays, infrared telescopes and neutrino detectors.

Pressure Suit

The skill covers the safe use of a pressure suit, necessary for human survival in conditions of vacuum or other hazardous environments.

Performance Time: N/A
Subskills: none

Natural Skills

These are skills that have to do with the outdoors. Most are highly dependent on intuition and common sense.

Navigation

The navigation skill is used when a character needs to get from their current location to a distant one and is not familiar with the route. Require just one Navigation roll for short trips, but up to one per hour for longer trips, especially in rough terrain, or with few distance landmarks. Failure indicates that the character becomes lost. Decide how lost the character is—and what can be done about it—based upon the severity of the failure. Even the most critical road navigation failure can be rectified by finding someone to give directions—although substantial time may be lost. Becoming lost in the wilderness may be another story altogether. Allow a +30 modifier for rolls made with the aid of a satellite navigation device (or other computation assistance) where available.

Performance Time: N/A
Subskills: Space

Space—This subskill covers navigation through space, including the use of a wide range of computational assistance. Normally only one roll is required for each leg of an interstellar or interplanetary journey.

Reflexive Skills

These are action skills that rely on a character's physical reflexes and quick thinking.

Drive

This skill is a character's ability to operate surface vehicles. Do not require a roll under normal circumstances unless the operator is unfamiliar with the vehicle type, or if they attempt to push the vehicle's performance thresholds.

Performance Time: N/A
Subskills: ACV
Automobile
Tracked
Truck

ACV—This subskill covers the use of hovercraft and other air cushion vehicles.

Pilot

Pilot skill measures a character's ability to operate any type of flying vehicle. Do not require rolls unless the operator is unfamiliar with the vehicle type, or if they are attempting something difficult or challenging. A failed roll may result in a crash, or simply in a 'pucker' moment.

Performance Time: N/A
Subskills: LTA
Orbital craft
Starship

LTA—This subskill covers the operation of a lighter-than-air craft such as a Zeppelin or Dirigible. These craft are commonly found on frontier worlds where they are used as heavy lift cargo craft.

Orbital Craft—This is the ability to control any aircraft capable of reaching orbit and returning to the ground.

Ornithider—This is the ability to control an ornithider, a one man semi-powered ultralight glider.

Starship—The subskill covers the use of any spacecraft powered by a Stutterwarp drive.

Scientific Skills

Scientific skills are those that fall under the hard sciences. Like Academic skills, they are generally knowledge skills.

Astronomy

This skill is the study of the universe. Characters with this skill will have knowledge of how stars and planets are created, the forces that control them and the way they affect each other. A subskill may be taken in any area of specialty.

Performance Time: N/A
Subskills: Any
specialty

Biology

This is the study of life. Characters with this knowledge skill knows about life on planets and how it works.

Performance Time: N/A
Subskills: Xenobiology

Xenobiology—This subskill is the study of the biology of other planets.

Engineering

The Engineering skill covers the practice of engineering—the design of the physical systems that support society. This skill can be used to design sturdy and efficient mechanical, structural, chemical and electrical systems for almost any application. Having this skill allows a character to understand the physical forces at work of any such system. Complicated engineering problems typically involve many Engineering rolls, and the design of an entire system or project may require rolls against other skills, such as Mathematics as well. It should be noted that the Engineering skill and subskills are all of a significantly more practical bent than the hard science skills. Thus the Engineering/Chemical skill is different from the Chemistry skill in that it focuses on real life uses for chemicals.

Performance Time: N/A
Subskills: Starship
Stutterwarp

Starship—This subskill covers the design of starships, and other related systems.

Stutterwarp—This subskill relates to the design of Stutterwarp drives.

Complete Skill List

| | | | |
|---|--|--|---|
| <p>Academic skills</p> <p>Anthropology Archaeology <i>Specific Culture</i></p> <p>Business Finance Management</p> <p>Marketing</p> <p>Economics Macro Micro</p> <p>Geography <i>Specific Region</i></p> <p>History Ancient European Military Atomic Era^N Modern^M <i>Specific Period/Culture</i></p> <p>Language <i>Regional Variant</i> Eber^N Kafer^N Sung^N</p> <p>Law Civil/Business Criminal International Military <i>Specific Country</i></p> <p>Literature <i>Specific Culture</i> <i>Specific Period</i></p> <p>Military Science Aerial Tactics Armor Tactics Hardware Infantry Tactics Naval Tactics Space Tactics^N Strategy ZeroG Tactics^N</p> <p>Philosophy Buddhism Christianity Enlightenment Hinduism Islam</p> | <p>Judaism Modern Post-Revolution Shinto Taoism</p> <p>Police Science Procedure Tactics</p> <p>Psychology Deviant Psychoanalysis</p> <p>Research</p> <p>Sociology Criminology Group Dynamics</p> <p>Writing Entertainment Journalism Poetry Technical</p> <p>Creative skills</p> <p>Architecture</p> <p>Art Drafting Drawing Graphic Design Painting Sculpture</p> <p>Art Appreciation Ancient Modern Renaissance <i>Specific Period/Style</i></p> <p>Combat Walker^N</p> <p>Cooking <i>Specific Culture</i></p> <p>Dance <i>Specific Style</i></p> <p>Make-Up Disguise Theatrical</p> <p>Music Brass Composition Conducting Keyboard Percussion Singing</p> | <p>Strings Wind</p> <p>Photography Editing Film Still</p> <p>Domestic / Technical skills</p> <p>Artillery Howitzer Mortar Rocket Grenade Lnchr</p> <p>Carpentry Construction Woodworking</p> <p>Demolition Construction EOD Military</p> <p>Electrics Electronics Wiring</p> <p>Forward Observer</p> <p>General Mechanics Intl Comb Engine^M Jet Mech Systems Stutterwarp Drive^N</p> <p>Gunnery Gun Missile Beam Weapons^N</p> <p>Heavy Equip Ops <i>Specific Equipment</i></p> <p>Metal Working Casting Forging Milling Welding</p> <p>Mini Mechanics Clockworking Gunsmithing Locksmithing</p> <p>Pressure Suit^N</p> <p>RC Operations</p> <p>System Operations ECM</p> | <p>Missiles Sensors^N Strategic Weapons <i>Specific Equipment</i></p> <p>Medical skills</p> <p>Dentistry</p> <p>Medicine Emergency Med General Practice Forensic Pathology <i>Specialty</i> Veterinary</p> <p>Pharmacy</p> <p>Surgery</p> <p>Natural skills</p> <p>Farming Horticulture Agriculture</p> <p>Fishing Net Rod & Reel Aquaculture</p> <p>Foraging Arctic Equatorial Temperate</p> <p>Hiding Concealment Creeping Shadowing</p> <p>Meteorology</p> <p>Navigation Air Land Sea Space^N Underwater</p> <p>Perception</p> <p>Survival Arctic Aquatic Desert Temperate Tropical</p> <p>Tracking</p> |
|---|--|--|---|

| | | |
|-------------------------|----------------------------|--------------------------|
| Physical skills | Drive | Computer Science |
| Armed Hand-To-Hand | ACV ^M | Applications |
| Block/Parry | Automobile | Programming |
| Swing | Semi-truck | Security |
| Thrust | Tracked | Engineering |
| Athletics | Parachute | Aeronautical |
| Body building | Freefall | Chemical |
| Gymnastics | High Altitude | Civil |
| Jumping | Static Line | Computer |
| Running | Pilot | Electrical |
| Climbing | Glider | Hydro |
| Assisted | Helicopter | Mechanical |
| Free | Instruments | Nuclear |
| Rappelling | Large Jet | Spacecraft ^N |
| Martial Arts | Large Prop | Stutterwarp ^N |
| <i>Specific Kata</i> | LTA ^N | Experimentation |
| Swim | Orbital Craft ^N | Forensics |
| Free | Ornithider ^N | Criminalistics |
| Mix | Small Jet | Analysis |
| SCUBA | Small Prop | Geology |
| Unarmed HTH | Starship ^N | Paleontology |
| UB/LB Block | VTOL | Mathematics |
| Takedown | Ride | Algebra |
| Dodge | Equestrian | Calculus |
| Grapple | <i>Specific Animal</i> | Geometry |
| Kick | Rowing | Statistics |
| Punch | Single | Physics |
| | Crew | Nuclear |
| Reflexive skills | Sailing | Social skills |
| Aim | Sailboard | Acting |
| Autofire | Sail Boat | Con |
| Longarm | Skating | Impersonation |
| Guided Weapon | Ice | Animal Training |
| Rocket | Wheeled | <i>Specific Animal</i> |
| Smallarm | Ski | Diplomacy |
| Throw | Alpine | Coercion |
| Exotic | Cross Country | Lying |
| Boarding | Water | Persuasion |
| Skateboard | Sleight of Hand | Seduction |
| Snowboard | Pick Pocket | Gambling |
| Surfing | Scam | Card |
| Boating | Scientific skills | Dice |
| Air Boat | Astronomy ^N | Event |
| Powerboat | Biology | Table |
| Ship | Botany | Leadership |
| Submersible | Microbiology | Oratory |
| Cycle | Xenobiology ^N | |
| Bicycle | Zoology | |
| Jet Ski | Chemistry | |
| Motorcycle | Inorganic | |
| Snowmobile | Organic | |

M—Skill changed for 2300

N—New skill for 2300

WEAPONS

Sometimes the worlds of 2300 can be violent places. When that is the case, firearms become one of the most prized items possessed by your characters. Listed in this chapter is a sampling of the many weapons manufactured by various companies as well as statistics for the rugged weapons used by the alien Kafers.

Rifles

There are three general types of rifles in use in the 24th century: conventional rifles, binary propellant rifles, and Gauss rifles.

Conventional rifles fire fixed cartridge rounds which consist of a bullet embedded in a solid rectangular block of propellant. The bullet is generally constructed of a dense metallic core and a nonmetallic composite sheath. The bullet itself is smaller than the caliber of the rifle and is encased in a low friction ablative sabot. The bore of the rifle constricts toward the muzzle and the sabot abrades away as the round approaches the muzzle. The remains of the sabot fall away from the round as it emerges from the barrel. Virtually all civilian rifles are conventional rifles, but they have mostly been replaced in military service by Gauss and binary propellant rifles.

Binary propellant rifles fire a bullet identical in design to that fired from a conventional rifle, but there is no propellant directly associated with the round. Much of the bulk of the propellant in a conventional round is a stabilizer which makes the ammunition safe to store and use in the field. The binary propellant rifle eliminated this bulk and instead uses two gasses (a variety of types are used) which separately are stable but, when combined, are volatile. Stored apart they are safe, and are not combined until injected into the ignition chamber.

Gauss rifles are linear magnetic accelerators which fire fin stabilized flechettes. Usually the magazine for the Gauss rifle also contains a battery pack which powers the gun.

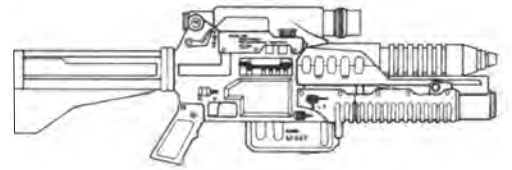
Virtually all rifles incorporate optic sights to assist in aimed fire. Also, as muzzle velocities have increased, weapons have incorporated more elaborate recoil absorbing features, such as telescoping stocks. Most combat weapons capable of automatic fire have gyrostabilization to assist the soldier in keeping the weapon on target. Most long-range rifles also have a gunner-activated laser range finder.

GIAT

Groupement Industriel des Armements Terrestres, France

FAM-90 (Fusil Automatique Magnetique-2290)

The standard infantry weapon of first-line French Infantry, the FAM-90 is among the most up-to-date Gauss weapons in service. It incorporates variable projectile velocity keyed to the fire selector. Single shots are fired at high velocity for aimed fire accuracy while the velocity is much lower for bursts, giving the rifle excellent controllability on automatic fire. The optical sights provide excellent low-light performance and incorporate a low power laser range finder for aimed fire. The inclusion of an HR-17 30mm grenade launcher below the barrel completes the weapon system.



| | |
|----------|--|
| Caliber | 4.5x20mm fletcherette |
| Length | 76cm |
| Weight | 4.5kg (empty) |
| Magazine | 60 (with internal power cell) — 0.3 kg |
| Reload | 3 turns |

| Weapon | Subskill Used | Speed | IA | Recoil | Fire rate | Hands req'd | Eff range | Action | Price |
|--------|---------------|-------|----|-----------|-----------|-------------|-----------|--------|--------|
| FAM-90 | Longarm/Auto | 11 | 27 | -16/-24/- | 4/5 | 2S | 650 | auto/5 | Lv 490 |

FTE-10 (Fusil Fusil Tiraleur d'Elite 10)

The standard French sniper rifle in squad service. Generally each squad carries one heavy sniper rifle such as this for long-range aimed fire. The FTE-10 is a very low noise weapon and difficult to locate, which makes it an excellent harassment fire weapon without violating the squads concealment. In addition to attacks on enemy unit commanders and key gunners, the FTE-10 is also used to destroy exposed antennae and can penetrate light armor at reasonable ranges.

Due to its great physical length, the FTE-10 (called the M-10) is nicknamed the 'Kentucky long rifle' among American soldiers. Soldiers assigned to carry the M-10 often do so under protest.



| | |
|----------|---|
| Caliber | 10x37mm fletcherette |
| Length | 184cm |
| Weight | 12.5kg (empty) |
| Magazine | 10 — 2.0kg Seperate 30 shot power cell — 0.2kg |
| Reload | 5 turns |

| Weapon | Subskill Used | Speed | IA | Recoil | Fire rate | Hands req'd | Eff range | Action | Price |
|--------|---------------|-------|----|--------|-----------|-------------|-----------|--------|---------|
| FTE-10 | Longarm | 15 | 32 | -50 | 1 | 2B | 1200 | auto | Lv 3450 |

Sergetov

Sergetov Heavy Industries, Russia

AS-89 (Avtomat Sergetov 2289)

The standard Russian infantry weapon, the AS-89 incorporates a reliable optic sight with moderate-to-good low-light performance and an integral 30mm G-2 grenade launcher built into the stock above the barrel.

The AS-89 found a home for a time in the hands of hired mercenaries of the French Arm. In fact, this weapon of choice became the trademark of men who were for hire, and as such is an institute in and of itself.



| | |
|----------|--|
| Caliber | 4.54x21mm fletcherette |
| Length | 73cm |
| Weight | 4.0kg (empty) |
| Magazine | 60 (with integral power cell) — 0.3 kg |
| Reload | 3 turns |

| Weapon | Subskill Used | Speed | IA | Recoil | Fire rate | Hands req'd | Eff range | Action | Price |
|--------|---------------|-------|----|-----------|-----------|-------------|-----------|--------|--------|
| AS-89 | Longarm/Auto | 11 | 29 | -16/-/-30 | 4/10 | 2S | 600 | auto | Lv 420 |

DWG

Deutches Waffenfabrik Gruppe GMBh, Germany

Sk-19 (Sturmkarbiner-19)

Now the standard service weapon of the German Army, the SK-19 uses a reliable binary propellant system for fixed cartridges and has an integral 30mm grenade launcher fitted to the stock below the barrel. The binary propellant system includes a muzzle velocity governor similar to that of the French FAM-90. When on the burst setting, the muzzle velocity is considerably reduced giving an extremely controllable autofire weapon. The resulting combination of a high rate of fire, ease of control, the punch of the 9mm APHE round and the option of 30mm grenade fire makes the Sk-19 one of the most devastating close combat assault weapons in service anywhere.



| | |
|----------|--|
| Caliber | 9x12mm APHE |
| Length | 75cm |
| Weight | 4.0kg (empty) |
| Magazine | 50 (with integral propellant gas bottle). — 0.5kg Separately loaded catalyst bottle has charge for 600 shots or 200 bursts — 0.1 kg |
| Reload | 2 turns |

| Weapon | Subskill Used | Speed | IA | Recoil | Fire rate | Hands req'd | Eff range | Action | Price |
|--------|---------------|-------|----|-----------|-----------|-------------|-----------|--------|--------|
| SK-19 | Longarm/Auto | 11 | 21 | -19/-34/- | 4/5 | 2S | 450 | auto/5 | Lv 440 |

Sg-77 (Sturmgewehr-2277)

(Also Type-79)

Now replaced by more modern types of weapons in Germany's arsenal, the SG-77 was widely exported and is still to be found in both private hands and in many smaller armed forces and colonial militias. The SG-77 was produced under license in Japan as the Type-79 assault rifle and remains Japan's standard service weapon.



| | |
|----------|---------------|
| Caliber | 5.5x40mm |
| Length | 75cm |
| Weight | 3.0kg (empty) |
| Magazine | 40 — 0.3kg |
| Reload | 3 turns |

| Weapon | Subskill Used | Speed | IA | Recoil | Fire rate | Hands req'd | Eff range | Action | Price |
|--------|---------------|-------|----|-----------|-----------|-------------|-----------|--------|--------|
| SG-77 | Longarm/Auto | 7 | 23 | -17/-/-31 | 4/10 | 2S | 450 | auto | Lv 440 |

Wu-Beijing

Wu-Beijing Weapons Corporation, Manchuria

Type-81A Storm Gun

Shortly before the Central Asian War there was a flurry of interest in man-portable heavy calibre 'storm guns', mostly bought on by Manchuria's adoption of the Type-81. The storm gun was intended to provide light anti-vehicle and anti-bunker fire and the exploding round was expected to give a good area fire capability. In service however, the weapon was disappointing and there is no replacement for it on the horizon for when it reaches the end of its service life, and military interest in this type of weapon has largely dried up.

One particularly troublesome aspect of early versions of the weapon was the exposed recoil cylinder of the telescoping shock absorbing stock. In the field, sand and grit tended to cling to the lubricants of the cylinder and foul it to the point that Manchurian troops (those who did not simply discard the weapon) were often forced to brace the stock against a convenient tree or rock when firing. After the Central Asian War, most Type-81's (designated Type-81A) were fitted with a flexible fabric stock cover to prevent this.



| | |
|----------|--|
| Caliber | 20x30mm APHE |
| Length | 163cm |
| Weight | 12.0kg (empty) |
| Magazine | 10 — 2.0kg Separately loaded gas bottle with charge for 100 shots — 2.0kg |
| Reload | 5 turns |

| Weapon | Subskill Used | Speed | IA | Recoil | Fire rate | Hands req'd | Eff range | Action | Price |
|----------|---------------|-------|----|--------|-----------|-------------|-----------|--------|--------|
| Type-81A | Longarm | 15 | 27 | -50 | 1 | 2B | 700 | auto | Lv 520 |

Type-49 Assault Rifle

Almost uniquely among modern military firearms, the Type-49 uses a trigger-magazine-barrel design, rather than the more efficient 'bullpup' layout. This results in a longer rifle with no gain in effective barrel length, a shortcoming the Type-49 dealt with by shortening the barrel to carbine length and fitting the weapon with a folding stock. With the stock folded, the weapon is very handy, but aimed fire is effectively impossible.



| | |
|----------|--|
| Caliber | 7.5x32mm |
| Length | 86cm 58cm with folded stock |
| Weight | 3.0kg (empty) |
| Magazine | 25 — 0.4kg 32 — 0.5kg 50 — 0.7kg |
| Reload | 2 turns |

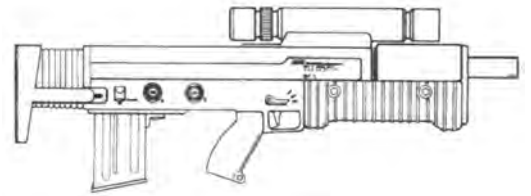
| Weapon | Subskill Used | Speed | IA | Recoil | Fire rate | Hands req'd | Eff range | Action | Price |
|------------------------|---------------|-------|----|-----------|-----------|-------------|-----------|--------|--------|
| Type-49 | Longarm/Auto | 9 | 24 | -19/-/-36 | 4/10 | 2S | 600 | auto | Lv 210 |
| Type-49 (stock folded) | Longarm/Auto | 7 | 19 | -25/-/-42 | 4/10 | 2S | 50 | auto | |

Ramirez-Abbruggo

Ramirez-Abbruggo ABN, Brazil

BF-1

The first mass-produced binary propellant rifle, the BF-1 has now been replaced in Brazilian service by more modern designs. Even when first introduced, the weapons performance was considered disappointing and it remains widely used only because it was produced in large numbers. While the weapon was initially quite expensive to produce, surplus models are now fairly inexpensive.



| | |
|----------|---|
| Caliber | 7.5x11mm |
| Length | 81cm |
| Weight | 3.5kg (empty) |
| Magazine | 40 — 0.3kg Separately loaded gas bottle with 200 charges — 0.3kg |
| Reload | 3 turns |

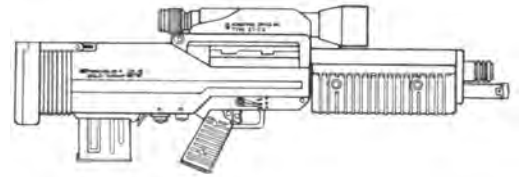
| Weapon | Subskill Used | Speed | IA | Recoil | Fire rate | Hands req'd | Eff range | Action | Price |
|--------|---------------|-------|----|-----------|-----------|-------------|-----------|--------|--------|
| BF-1 | Longarm/Auto | 9 | 27 | -16/-/-30 | 4/10 | 2S | 650 | auto | Lv 200 |

Traylor

Traylor Arms North America Inc, USA

M-2 Assault Rifle

The Traylor Arms M-2 'nine-forty-four' was one of the most popular weapons of its day in US service and is still a favorite among paramilitary organizations on the fringes of human space. Simple and reliable, the M-2 was the first mass-produced weapon to use the 9mm APHE round, and formed the basis of the M-5 that partially replaced it in US Service.



| | |
|----------|---------------|
| Caliber | 9x44mm APHE |
| Length | 79cm |
| Weight | 3.0kg (empty) |
| Magazine | 30 — 0.4kg |
| Reload | 3 turns |

| Weapon | Subskill Used | Speed | IA | Recoil | Fire rate | Hands req'd | Eff range | Action | Price |
|--------|---------------|-------|----|-----------|-----------|-------------|-----------|--------|--------|
| M-2 | Longarm/Auto | 9 | 28 | -16/-/-30 | 4/10 | 2S | 450 | auto | Lv 260 |

Stracher

Stracher Jägerwaffen AG, Austrovenia

SS-7 (Scharfschutzen Model 7)

The Stracher SS-7 is the only mass-produced air rifle currently in use as a hunting weapon (although a variety of low-power air rifles are used for recreational target shooting). The weapon is powered by compressed air from a central reservoir, which holds sufficient pressure for 20 shots at high pressure and thirty more at low pressure. The weapon can also be charged by hand, but only to a low pressure level.



| | |
|----------|----------------------------------|
| Caliber | 4mm fletchette |
| Length | 72cm |
| Weight | 1.0kg (empty) |
| Magazine | 20 — 0.1kg Air bottle — 0.5kg |
| Reload | 3 turns |

| Weapon | Subskill Used | Speed | IA | Recoil | Fire rate | Hands req'd | Eff range | Action | Price |
|----------------------|---------------|-------|----|--------|-----------|-------------|-----------|--------|--------|
| SS-7 (High pressure) | Longarm | 2 | 24 | -17 | 4 | 2S | 400 | auto | Lv 140 |
| SS-7 (Low Pressure) | Longarm | 2 | 24 | -16 | 4 | 2S | 200 | | |

Giscard

Charles Giscard , France

FC-68 (Fusil Chasseur 2268)

The FC-68 was designed with the frontier colonist in mind, and is widely used by French civilians on a variety of worlds. It combines a bullpup configuration (giving it a distinctly military look—one of its strongest selling points) with full automatic fire.

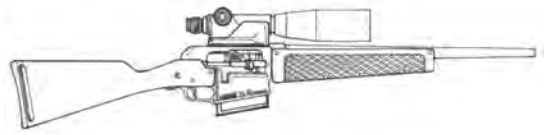


| | |
|----------|---------------|
| Caliber | 5x15mm |
| Length | 75cm |
| Weight | 1.0kg (empty) |
| Magazine | 70 — 0.3kg |
| Reload | 3 turns |

| Weapon | Subskill Used | Speed | IA | Recoil | Fire rate | Hands req'd | Eff range | Action | Price |
|--------|---------------|-------|----|-----------|-----------|-------------|-----------|--------|--------|
| FC-68 | Longarm/Auto | 3 | 18 | -18/-/-23 | 4/10 | 2S | 450 | auto | Lv 240 |

FC-70 (Fusil Chasseur 2270)

The FC-70 was designed to make use of the large quantities of 7.5mm surplus ammunition available on the open market, and its low firing cost has made it (and other similarly designed rifles) very popular. It is widely used as both a target rifle and for medium-sized game hunting.



| | |
|----------|---------------|
| Caliber | 7.5x40mm |
| Length | 102cm |
| Weight | 3.0kg (empty) |
| Magazine | 5 — 0.2kg |
| Reload | 2 turns |

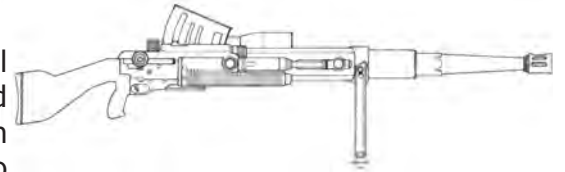
| Weapon | Subskill Used | Speed | IA | Recoil | Fire rate | Hands req'd | Eff range | Action | Price |
|--------|---------------|-------|----|--------|-----------|-------------|-----------|--------|--------|
| FC-70 | Longarm | 9 | 27 | -30 | 2 | 2S | 700 | auto | Lv 220 |

Rockwell

Rockwell Arms Ltd, United Kingdom

Twelve-Eighty-One Magnum

Deservedly enjoying a reputation as the most powerful sporting rifle in known space, the 12-81 can only be fired from a rest with the integral bipod extended, and even then the provision of an in-stock shock absorber is necessary to avoid injuring the firer. The rifle was originally conceived to provide a weapon with a high first-round killing capability against the giant lizards of Wolf-424B-1, but has since enjoyed wide use in the armed forces of many countries as a long range sniper rifle and for disposing of unexploded ordinance.



Caliber 12x81mm

Length 144cm

Weight 14kg (empty)

Magazine 6 — 0.5kg

Reload 5 turns

| Weapon | Subskill Used | Speed | IA | Recoil | Fire rate | Hands req'd | Eff range | Action | Price |
|--------------|---------------|-------|----|--------|-----------|-------------|-----------|--------|---------|
| 12-81 Magnum | Longarm | 15 | 32 | NA | 1/3 | 2B | 1100 | auto | Lv 1400 |

Shotguns

Shotguns are popular hunting and sporting weapons around the world, but they also have their uses in police and military situations. Shotguns for these situations are usually designed with one of two basic action styles—repeating ‘pump-action’ or semi-automatic. Double-barreled shotguns have also been used, but in general these are too slow to reload for combat purposes.

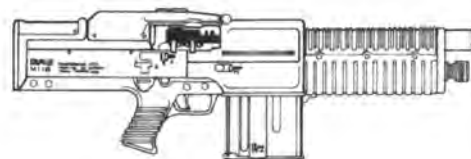
The main advantages of shotguns are their versatility and short-range firepower. Shotguns can fire multiple projectiles of various sizes, creating a lethal pattern, which will increase chances of hitting target, or single large projectile, powerful enough to drop down a large bear, or incapacitate a human being protected by all but the heaviest body armor. Shotguns can also fire special purpose ammunition, such as door buster slugs, and even high explosive and incendiary rounds, as well as less lethal ammunition, useful for riot control and other police operations.

DunArmCo

DunArmCo Ltd, Australia

Model 118 Close Assault Gun (CAG)

The DunArmCo Model 118 combat shotgun was first produced at the request of the Australian Defense Force which was after an urban combat weapon that was compact and able to fire a variety of rounds. The Model 118 was bought into service in 2287 and is well regarded as rugged and reliable. It is often deployed by security personnel on ADF spacecraft, and has also been adopted by a number of other militaries.



| | |
|----------|-----------------|
| Caliber | 18x60mm various |
| Length | 68cm |
| Weight | 4.0kg (empty) |
| Magazine | 10 — 0.5kg |
| Reload | 2 turns |

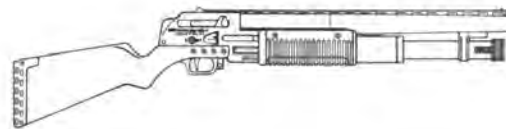
| Weapon | Subskill Used | Speed | IA | Recoil | Fire rate | Hands req'd | Eff range | Action | Price |
|---------------|---------------|-------|----|--------|-----------|-------------|-----------|--------|--------|
| Model 118 CAG | Longarm/Auto | 10 | 11 | -18 | 4/5 | 2S | 90 | auto | Lv 300 |

Traylor

Traylor Arms North America Inc, USA

Model 10 Riot Gun

The Model 10 Riot gun is typical of a number of pump action shotguns that can be found across human space. It is particularly popular with law enforcement and militias due to its ability to have the choke altered to change the spread of the shot.



Caliber 18x60mm various

Length 96cm

Weight 3.0kg (empty)

Magazine 8 tube

Reload 1 per turn

| Weapon | Subskill Used | Speed | IA | Recoil | Fire rate | Hands req'd | Eff range | Action | Price |
|----------|---------------|-------|----|--------|-----------|-------------|-----------|--------|--------|
| Model 10 | Longarm | 13 | 16 | -18 | 1 | 2S | 100 | auto | Lv 300 |

Handguns

The principal types of handguns are revolvers and automatics. Revolvers are fed from a revolving cylinder, while automatics are clip-fed. Automatics are more efficient, but revolvers are safer. (A revolver is carried with the firing pin resting on an empty chamber, which is not possible for an automatic unless the pistol is carried without a round in the chamber, in which case, it must have the slide worked to chamber a round from the magazine before firing.)

All handguns listed below conventional fixed cartridge ammunition. Although some experimental work has been done with binary propellant and Gauss pistols, the expense was not deemed worth the results, and no large-scale production has been undertaken. Referees are free to include a few limited issue (expensive) binary or Gauss pistols.

Because of their short range and limited stopping power, pistols are not generally issued to combat troops. Officers often carry a pistol as a badge of rank more than an actual weapon; a combat rifle is generally carried as well. Some troops buy heavy pistols and value them for their handiness at close range, their low bulk often enabling the firer to get off the critical first round.

Arno

Arno Arms Co ABM, Brazil

Five-Fifteen

The Arno Five-Fifteen is the standard sidearm of the Brazilian military. It has also been extensively exported, and can be found in the hands of civilians, law enforcement personnel and several foreign militaries.



Caliber 5x15mm

Length 24cm

Weight 1.0kg (empty)

Magazine 14 — 0.1kg

Reload 1 turn

| Weapon | Subskill Used | Speed | IA | Recoil | Fire rate | Hands req'd | Eff range | Action | Price |
|--------------|---------------|-------|----|--------|-----------|-------------|-----------|--------|--------|
| Five-Fifteen | Smallarm | 2 | 10 | -18 | 4 | 1 | 45 | auto | Lv 130 |

Hancock

Hancock Arms Inc, USA

Nine-Twenty-Three Enforcer

The Nine-Twenty-Three is typical of many police revolvers still in service. Police forces value revolvers for their reliability and low weight (enabling the user to normally get off the first shot). The Nine-Twenty-Three can found across human space.



| | |
|----------|--------------------|
| Caliber | 9x23mm |
| Length | 21cm |
| Weight | 0.5kg (empty) |
| Magazine | 6 cylinder — 0.1kg |
| Reload | 4 turns |

| Weapon | Subskill Used | Speed | IA | Recoil | Fire rate | Hands req'd | Eff range | Action | Price |
|-------------------|---------------|-------|----|--------|-----------|-------------|-----------|----------|--------|
| Nine-Twenty-Three | Smallarm | 1 | 7 | -22 | 3 | 1 | 40 | revolver | Lv 170 |

Traylor

Traylor Arms North America Inc, USA

Model 57 Chip Traylor Special

The Model 57 was one of the first designs put into production by Chip Traylor, the founder of Traylor Arms. Initially intended for the civilian market, it was adopted by the US Space Force (as the M-57) in 2265, and by all other branches shortly after. With 35 years of service, the pistol has almost become an institution of the US military, and many former members carry a Model 57 as their personal piece.



| | |
|----------|---------------|
| Caliber | 9x24mm |
| Length | 20 cm |
| Weight | 0.6kg (empty) |
| Magazine | 10 — 0.1kg |
| Reload | 1 turn |

| Weapon | Subskill Used | Speed | IA | Recoil | Fire rate | Hands req'd | Eff range | Action | Price |
|----------|---------------|-------|----|--------|-----------|-------------|-----------|--------|--------|
| Model 57 | Smallarm | 1 | 8 | -24 | 4 | 1 | 60 | auto | Lv 150 |

Stracher

Stracher Jägerwaffen AG, Austrovenia

P-11m (Pistole 11mm Magnum)

The Austrovenian firm Stracher has a reputation of making the biggest, most powerful, or some other superlative of any weapon they design. The P-11m is no exception, firing the large 11x35mm round, and necessitating a sophisticated recoil system to prevent the pistol from being completely uncontrollable.

Despite the high recoil, the P-11m is ergonomically designed, sitting comfortably in the hand of the firer. It also has one of the longest ranges of any current pistol, making it a popular backup for heavy weapon crews.



| | |
|----------|---------------|
| Caliber | 11x35mm |
| Length | 35cm |
| Weight | 1.5kg (empty) |
| Magazine | 7 — 0.2kg |
| Reload | 2 turns |

| Weapon | Subskill Used | Speed | IA | Recoil | Fire rate | Hands req'd | Eff range | Action | Price |
|--------|---------------|-------|----|--------|-----------|-------------|-----------|--------|--------|
| P-11m | Smallarm | 3 | 10 | -25 | 3 | 1 | 75 | auto | Lv 350 |

Autoguns

Autoguns are a category of crew-served light automatic weapons fed from large capacity drums or flexible cassettes, and fired from mounts. They are similar to rifles but heavier construction enables them to sustain a higher rate of fire over time.

The following examples of autoguns are generally representative of the various types in service.

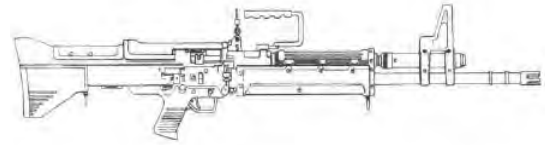
DWG

Deutes Waffenfabrik Gruppe GMBh, Germany

MG-7 Macshingewher Model 7)

The MG-7 is a contemporary of the SG-77, firing the same ammunition, and even capable of using the SG-77's magazines in emergencies (although this is rarely used as the chances of a jam are significantly raised). Like the SG-77, it was also adopted by the Japanese military as the Type-80.

It is now being replaced in Germany service by a new binary propellant machinegun, the MG-9 firing the same 9mm APHE round as the Sk-19.



| | |
|----------|---|
| Caliber | 5.5x40mm |
| Length | 107cm |
| Weight | 4.0kg (empty) |
| Magazine | 75 drum — 0.6kg 200 cassette — 1.0kg |
| Reload | 3 turns — drum 4 turns — cassette |

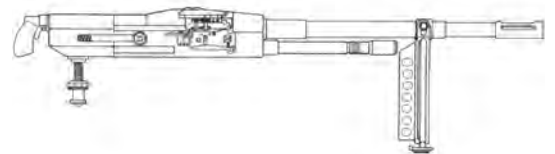
| Weapon | Subskill Used | Speed | IA | Recoil | Fire rate | Hands req'd | Eff range | Action | Price |
|--------|---------------|-------|----|--------|-----------|-------------|-----------|--------|--------|
| MG-7 | Auto | 12 | 26 | -/-/27 | 20 | 2B | 600 | auto | Lv 870 |

DunArmCo

DunArmCo Ltd, Australia

Mini-12

The DunArmCo Mini-12 Heavy Machinegun is a common heavy support weapon. It is designed to be fired from a fixed vehicle or tripod mount, although in emergencies it can also be fired from the built in bipod at the cost of vastly reduced accuracy. DunArmCo has aggressively marketed the Mini-12 with the result that it can be found almost anywhere in human space.



| | |
|----------|----------------------|
| Caliber | 12x95mm |
| Length | 144cm |
| Weight | 24kg (empty) |
| Magazine | 100 cassette — 7.0kg |
| Reload | 5 turns |

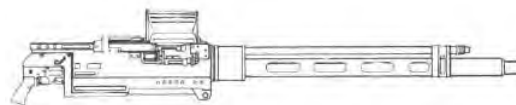
| Weapon | Subskill Used | Speed | IA | Recoil | Fire rate | Hands req'd | Eff range | Action | Price |
|----------------------|---------------|-------|----|--------|-----------|-------------|-----------|--------|--------|
| Mini-12 Bipod | Auto | 16 | 17 | -/-/48 | 8 | 2B | 700 | auto | Lv 870 |
| Mini-12 Tripod/Fixed | Auto | 16 | 17 | -/-/32 | 8 | 2T | 1100 | auto | |

Kurita

Kurita Manufacturing Co. Ltd, Japan

Type 12 Autocannon

The Type 12 Autocannon is normally only found fixed to armored cars, APC's and the like. However, it is also available as a fixed mount for bunkers, ships and other situations where heavy firepower is needed.



| | |
|----------|------------------|
| Caliber | 25x161mm APHE |
| Length | 190cm |
| Weight | 600kg (on mount) |
| Magazine | 50 drum — 15kg |
| Reload | 5 turns |

| Weapon | Subskill Used | Speed | IA | Recoil | Fire rate | Hands req'd | Eff range | Action | Price |
|--------------------|---------------|-------|----|---------|-----------|-------------|-----------|--------|---------|
| Type 12 Autocannon | Auto | 17 | 20 | -/-/-40 | 6 | 2T | 1000 | auto | Lv 1000 |

Sergetov

Sergetov Heavy Industries, Russia

Ruchnoy Pulemyot Sergetov (Type RPS)

The Type RPS is the standard light support weapon used by Russian forces to provide extra firepower to a member of each fireteam. It can be fed from either 75 round drums, or from a 200 round cassette for more sustained firepower. Like most Russian weapons, the RPS has reputation of reliability no matter what the conditions, but also for poor ergonomics—it is easy for the user to burn themselves on the exposed barrel. It is due for replacement in Russian service by a similarly styled Gauss equivalent.



| | |
|----------|---|
| Caliber | 5.5x40mm |
| Length | 104cm |
| Weight | 3.8kg (empty) |
| Magazine | 75 drum — 0.6kg 200 cassette — 1.0kg |
| Reload | 3 turns |

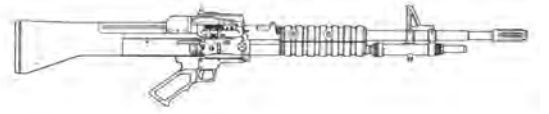
| Weapon | Subskill Used | Speed | IA | Recoil | Fire rate | Hands req'd | Eff range | Action | Price |
|----------|---------------|-------|----|-----------|-----------|-------------|-----------|--------|--------|
| Type RPS | Longarm/Auto | 11 | 27 | -21/-/-30 | 4/14 | 2S | 500 | auto | Lv 750 |

Wu-Beijing

Wu-Beijing Weapons Corporation, Manchuria

Type 381 Machinegun

The Type-381 Machinegun is the standard medium support weapon of the Manchurian Army. It can be either fired from a bipod, or a fixed mount tripod for sustained fire. The Type-381 performed adequately in the Central Asian war and there are no current plans for it to be replaced.



| | |
|----------|----------------------|
| Caliber | 7.5x32mm |
| Length | 122cm |
| Weight | 7.0kg (empty) |
| Magazine | 150 cassette — 2.0kg |
| Reload | 4 turns |

| Weapon | Subskill Used | Speed | IA | Recoil | Fire rate | Hands req'd | Eff range | Action | Price |
|-------------------|---------------|-------|----|--------|-----------|-------------|-----------|--------|--------|
| Type-381 (Bipod) | Auto | 13 | 27 | -/-/30 | 20 | 2B | 700 | auto | Lv 870 |
| Type-381 (Tripod) | Auto | 13 | 27 | -/-/28 | 20 | 2T | 1000 | auto | |

Lasers

Lasers emit beams of coherent light which can cause damage to a target. A kilogram of TNT produces five million joules of energy (five megajoules). Since one watt for one second equals one joule, a one-second, five-megawatt beam produces the energy equivalent of one kilogram of TNT.

In combat it is very difficult to maintain a laser on a target for one second, and in any event, a five-megawatt beam lasting one second requires more power than a man can carry with him. However, a short-duration, high-energy beam produces such a rapid temperature change in a target's surface that it explosively vaporizes, causing shock damage to the target.

Lasers are powered by high-efficiency liquid metallic suspension (LMS) battery packs. Since a battery's discharge rate is insufficient to directly power a strong beam, the battery 'pumps' a fast-discharge homopolar generator, which comprises most of the laser mechanism. The generator stores energy in a rapidly spinning flywheel (about 50,000 rpm) until it has enough for a pulse.

Lasers are generally referred to by their output power (in megawatts) and their pulse duration (in hundredths of a second). Thus a 40-01 laser would have an output of 40 megawatts for one one-hundredth of a second. Actual beam energy is a function of the power output multiplied by the pulse duration. Since one watt for one second produces one joule, a 40-megawatt pulse for one one-hundredth of a second would produce four-tenths of a megajoule.

Although lasers seem like an ideal weapon, they do have some disadvantages. They have a visual signature (caused by a rapid burst of ionized oxygen), a low rate of fire and small magazine capacity. It is for these reasons that many militaries only use them for specialized tasks. Others however (especially the Latin American nations) have adopted lasers as their primary infantry weapon.

Mueller-Riveria

Mueller-Riveria SPa, Argentina

P-3 (Pistole-3)

The P-3 is a very handy lightweight laser. The combination of a low power output and the high discharge rate of the Quinn seven-megajoule FDLMS power cell makes for a high cyclic rate of fire and a reasonable area fire capability.

The pistol's power cell is worn on the belt and connected to the pistol by means of a 50-gauge teleflex photonic link cable

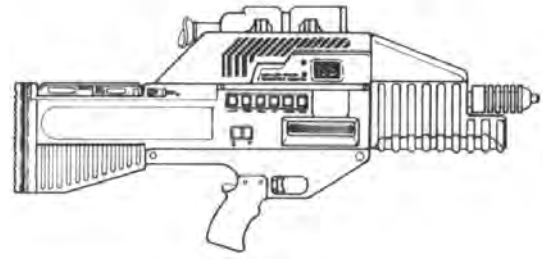


| | |
|----------|-----------------------|
| Power | 20-01 Megawatts |
| Length | 27cm |
| Weight | 1.0kg |
| Magazine | 35 pulse cell — 1.0kg |
| Reload | 3 turns |

| Weapon | Subskill Used | Speed | IA | Recoil | Fire rate | Hands req'd | Eff range | Action | Price |
|-----------|---------------|-------|----|--------|-----------|-------------|-----------|--------|--------|
| Pistole-3 | Smallarm | 2 | 16 | -5/-/- | 2 | 1 | 150 | energy | Lv 750 |

F-7 (Fusile-7)

The F-7 was one of the first practical handheld laser weapons and the first to use the now-standard 0.01 second pulse. Although superseded by more modern types in the armed forces of the major powers, it remains in widespread use by secondline troops.



| | |
|----------|-----------------------|
| Power | 30-01 Megawatts |
| Length | 76cm |
| Weight | 2.0kg |
| Magazine | 16 pulse cell — 1.0kg |
| Reload | 2 turns |

| Weapon | Subskill Used | Speed | IA | Recoil | Fire rate | Hands req'd | Eff range | Action | Price |
|----------|---------------|-------|----|--------|-----------|-------------|-----------|--------|--------|
| Fusile-7 | Longarm | 6 | 37 | -5/-/- | 1 | 2S | 1000 | energy | Lv 760 |

F-19 (Fusile-19)

The Mueller-Rivera F-19 is the current service laser with Argentine troops and is widely exported as well. It pioneered the use of the Quinn Optronics fast-discharge seven-megajoule LMS cell and is a powerful, accurate, and efficient weapon.



| | |
|----------|-----------------------|
| Power | 70-01 Megawatts |
| Length | 69cm |
| Weight | 1.5kg |
| Magazine | 10 pulse cell — 1.0kg |
| Reload | 2 turns |

| Weapon | Subskill Used | Speed | IA | Recoil | Fire rate | Hands req'd | Eff range | Action | Price |
|-----------|---------------|-------|----|--------|-----------|-------------|-----------|--------|--------|
| Fusile-19 | Longarm | 5 | 35 | -5/-/- | 1 | 2S | 1200 | energy | Lv 730 |

Rorttmann

Rorttmann AG, Germany

LK-1 (Laserkarbiner-1), Also LK-1fKz

A very modern and deadly assault weapon, the LK-1 uses the now-popular combination of a 30mm grenade launcher for area fire and a precision weapon for aimed fire. The 35-01 power laser is optimized for maximum damage consistent with a reasonable power cell duration.

The LK-1fKz (Laserkarbine fur Kampfanzug) is a variant of the LK-1 mounted in the right arm of the Kz-7 Combat Walker. The laser operates off the walker's own power supply, with each pulse reducing the walker's remaining power duration by about 2 minutes.



| | |
|----------|---|
| Power | 35-01 Megawatts |
| Length | 65cm |
| Weight | 2.5kg |
| Magazine | 20 pulse cell — 1.0kg Walker power supply (LK-1fKz) |
| Reload | 2 turns (LK-1) NA (LK-1fKz) |

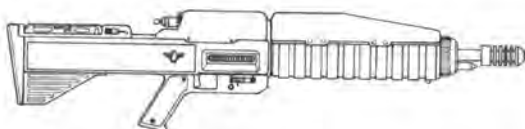
| Weapon | Subskill Used | Speed | IA | Recoil | Fire rate | Hands req'd | Eff range | Action | Price |
|---------|---------------|-------|----|--------|-----------|-------------|-----------|--------|--------|
| LK-1 | Longarm | 9 | 36 | -5/-/- | 1 | 2S | 1000 | energy | Lv 850 |
| LK-1fKz | Longarm | NA | 40 | -/-/- | 1 | 1 | 1000 | energy | NA |

Gonzalves-Brazilia

Gonzalves-Brazilia AMN, Brazil

Luce-3

Gonzalves-Brazilia were one of the first company's to produce an effective man portable laser weapon, and the Luce-3 is one of the oldest laser weapons still in service. The Luce-3 was a fairly clumsy and inefficient design which remains in use primarily because very large numbers were produced. Captured Luce-3s, for example, are the main sniping weapon used by the armed forces of the Incan Republic.



| | |
|----------|----------------------|
| Power | 45-02 Megawatts |
| Length | 95cm |
| Weight | 4.0kg |
| Magazine | 5 pulse cell — 1.0kg |
| Reload | 3 turns |

| Weapon | Subskill Used | Speed | IA | Recoil | Fire rate | Hands req'd | Eff range | Action | Price |
|--------|---------------|-------|----|--------|-----------|-------------|-----------|--------|--------|
| Luce-3 | Longarm | 11 | 31 | -5/-/- | 1 | 2S | 1000 | energy | Lv 620 |

Luce-7B

The Luce-7B replaced the Luce-4 in Brazilian service. Although lower powered than most laser rifles, it has enough punch to deal with most targets, and an integral 30mm GB-30B grenade launcher gives it a good area fire capability.



| | |
|----------|-----------------------|
| Power | 40-01 Megawatts |
| Length | 69cm |
| Weight | 3.0kg |
| Magazine | 12 pulse cell — 1.0kg |
| Reload | 3 turns |

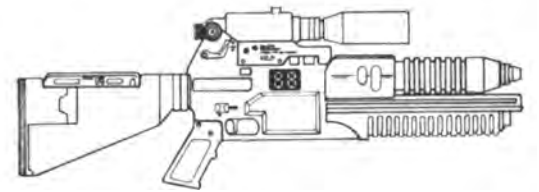
| Weapon | Subskill Used | Speed | IA | Recoil | Fire rate | Hands req'd | Eff range | Action | Price |
|---------|---------------|-------|----|--------|-----------|-------------|-----------|--------|--------|
| Luce-7B | Longarm | 9 | 36 | -5/-/- | 1 | 2S | 1000 | energy | Lv 720 |

Belnikarpov

Belnikarpov Industrial Fabricators, Russia

SVB (Snapperskaya Vintokva Belnikarpov)

Although the Belnikarpov is the highest energy man-portable laser in service with any army, more modern designs produce the same damage at lower power levels. Nevertheless, the SVB remains effective and is the standard service laser in use by the RFSFR, where it serves as the squad sniper weapon. The SVB was one of the few Russian weapons to gain the respect of all opposition troops during the Central Asian War.



| | |
|----------|----------------------|
| Power | 80-01 Megawatts |
| Length | 83cm |
| Weight | 2.0kg |
| Magazine | 6 pulse cell — 1.0kg |
| Reload | 3 turns |

| Weapon | Subskill Used | Speed | IA | Recoil | Fire rate | Hands req'd | Eff range | Action | Price |
|--------|---------------|-------|----|--------|-----------|-------------|-----------|--------|--------|
| SVB | Longarm | 9 | 36 | -5/-/- | 1/2 | 2S | 1400 | energy | Lv 730 |

Plasma Guns

Plasma guns contain a laser ignition system in the weapon which super-heats a hydrogen fuel pellet to a plasma state. The plasma is contained in the ignition chamber briefly and then allowed to escape through a magnetically focused field along the weapon's barrel. The high velocity plasma bolt is initially about two millimeters in diameter but tends to begin to dissipate at once. Dissipation is minimized by having the bolt ride a 'tunnel' of heated air generated by a laser beam from the weapon. Because the plasma bolt rides a laser beam to its target, plasma guns are also sometimes referred to as plasers.

The ammunition for the weapon consists of photonic core plaser cells, each containing a fast discharge battery to pump the weapon's laser ignition and pathfinder beam, and the fuel pellet for the plasma bolt. After firing, the spent cells are ejected and are not reusable. Some care must be exercised in the selection of the location of the plasma gunner as the ejected cells are extremely hot, with semi molten centers, and can cause minor burn injuries to other troops in the way.

Darlan

Darlan Optophysique, France

CLP-1A (Cannon Legere Pyrotechnique-1A)

The first field-mounted plasma gun to enter service, the CLP-1A incorporates a complex cruciform mount to allow more stable, accurate and rapid fire for a weapon of this type. Because it is virtually immobile on the battlefield, it has been withdrawn from front-line service, but can often be found in fixed locations. Many CLP-1As have been exported, often as light vehicle armament upgrades.



| | |
|----------|-----------------|
| Caliber | 35x152mm 175 MW |
| Length | 274cm |
| Weight | 344.0kg (empty) |
| Magazine | 10 — 35.0kg |
| Reload | 10 turns |

| Weapon | Subskill Used | Speed | IA | Recoil | Fire rate | Hands req'd | Eff range | Action | Price |
|--------|---------------|-------|----|--------|-----------|-------------|-----------|--------|---------|
| CLP-1A | Gunnery/Gun | 22 | 30 | NA | 1/7 | NA | 1550 | auto | Lv 9300 |

Jaschonek

Jaschonek Fabrikant AG, Germany

A-9 Sturmgewehr

The A-9 is the most recent man-portable plasma gun to enter service, and differs from previous designs in its intended use as an assault rifle instead of a squad support weapon. While not seriously considered as an SK-19 replacement, the A-9 is issued on an experimental basis to back up the SK-19 when a weapon with greater penetration is required.



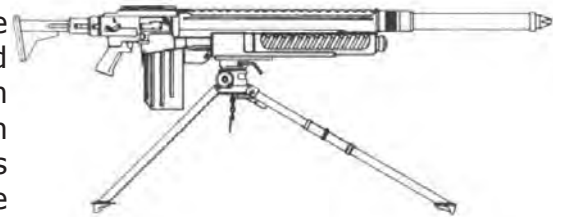
| | |
|----------|---------------------------------|
| Caliber | 10x70mm 5 MW |
| Length | 83cm |
| Weight | 4.5kg (empty) |
| Magazine | 6 cell cylinder — 0.3kg each |
| Reload | 2 turns per cell |

| Weapon | Subskill Used | Speed | IA | Recoil | Fire rate | Hands req'd | Eff range | Action | Price |
|-----------------|---------------|-------|----|--------|-----------|-------------|-----------|--------|---------|
| A-9 Sturmgewehr | Longarm | 9 | 18 | NA | 1/2 | 2S | 900 | auto | Lv 1600 |

A-4fKz Sturmgewehr (Also A-4T)

The A-4 is a very high energy plasma gun integral to the Kz-7 Combat Walker. The main gun mechanism is mounted in the chest of the walker, and the weapon itself fires from over the right shoulder. The walker must be stationary when firing due to the high recoil. The high capacity magazine is reloaded from a port on the front of the walker, and can be reloaded by the operator.

The A-4T is a modification of the A-4 to become a crew served, tripod-mounted regular infantry version. The A-4T proved very effective in the German War of Reunification and has since become standard issue.



| | |
|----------|--|
| Caliber | 20x107mm 30 MW |
| Length | 166cm (A-4T) |
| Weight | 20kg (empty) (A-4T) |
| Magazine | 5 — 5.0kg (A-4T) Individual cell — 1.0kg |
| Reload | 5 turns (A-4T) 3 turns per cell (A-4fKz) |

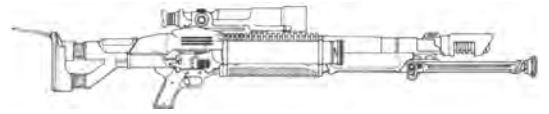
| Weapon | Subskill Used | Speed | IA | Recoil | Fire rate | Hands req'd | Eff range | Action | Price |
|--------------------|---------------|-------|----|--------|-----------|-------------|-----------|--------|---------|
| A-4fKz Sturmgewehr | Longarm | 12 | 19 | NA | 1/4 | NA | 1500 | auto | NA |
| A-4T Sturmgewehr | Longarm | 9 | 19 | NA | 1/4 | 2T | 1500 | auto | Lv 6500 |

Kurita

Kurita Manufacturing Co. Ltd, Japan

Type-21F

The Type-21F is the classic second-generation man-portable plasma gun, incorporating more punch in a very efficient design. It is the standard squad heavy support weapon with the Japanese Army and will probably continue in the role for the foreseeable future. The Type-21F has been extensively exported and serves in many other armies. Sumatro-Fabrique recently concluded a license production agreement with Kurita for equipping the Indonesian Army with the weapon.



| | |
|----------|------------------|
| Caliber | 12x121mm 15 MW |
| Length | 121cm |
| Weight | 9.0kg (empty) |
| Magazine | 4 tube — 1.6kg |
| Reload | 2 turns per cell |

| Weapon | Subskill Used | Speed | IA | Recoil | Fire rate | Hands req'd | Eff range | Action | Price |
|----------|---------------|-------|----|--------|-----------|-------------|-----------|--------|---------|
| Type-21F | Longarm | 14 | 34 | NA | 1/3 | 2B | 1000 | auto | Lv 1400 |

Quinn-Darlan

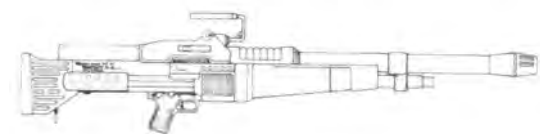
Quinn-Darlan Joint Venture Company, USA and France

Mk 2-A2 PGMP (Plasma Gun, Man-Portable)

Also Ak-4A1 PGCW (Plasma Gun, Combat Walker)

The result of a joint venture by Quinn Optronics, Inc. and Darlan Optophysique, the Mk 2-A2 is the heaviest of the man-portable plasma weapons now in service. Used by both countries as a heavy point fire weapon against hard targets at the squad level, the impact of the plasma bolt can cause considerable concussion and fragmentation effects.

The Mk 4-A1 is a variant for use in the BH-21 combat walker. It is mounted in the left arm of the suit, which must be extended and locked to fire. The internal drum magazine is extended around the outer bicep of the walker and is protected by its armored shell. It is not possible for the occupant of the walker to reload the magazine.



| | |
|----------|--------------------------------------|
| Caliber | 17x91mm 20 MW |
| Length | 166cm (Mk 2-A2) |
| Weight | 12.0kg (empty) (Mk 2-A2) |
| Magazine | 10 — 8.0kg (Mk 2-A2) 30 (Mk 4-A1) |
| Reload | 2 turns per cell |

| Weapon | Subskill Used | Speed | IA | Recoil | Fire rate | Hands req'd | Eff range | Action | Price |
|---------|---------------|-------|----|--------|-----------|-------------|-----------|--------|---------|
| Mk 2-A2 | Longarm | 15 | 24 | NA | 1/3 | NA | 1200 | auto | NA |
| Mk 4-A1 | Longarm | 18 | 24 | NA | 1/3 | 2B | 1200 | auto | Lv 1400 |

Wu-Beijing

Wu-Beijing Weapons Corporation, Manchuria

Type 1 High Energy Assault Gun

The first man-portable plasma gun to see service was the Manchurian Type 1, which received its baptism of fire in the Central Asian War. Although outclassed by many new types, it remains a formidable weapon and has been extensively exported.



| | |
|----------|------------------|
| Caliber | 12x120mm 10 MW |
| Length | 137cm |
| Weight | 12.0kg (empty) |
| Magazine | 4 tube — 1.6kg |
| Reload | 2 turns per cell |

| Weapon | Subskill Used | Speed | IA | Recoil | Fire rate | Hands req'd | Eff range | Action | Price |
|--------|---------------|-------|----|--------|-----------|-------------|-----------|--------|---------|
| Type-1 | Longarm | 14 | 20 | NA | 1/3 | 2B | 750 | auto | Lv 1300 |

Sonic Stunners

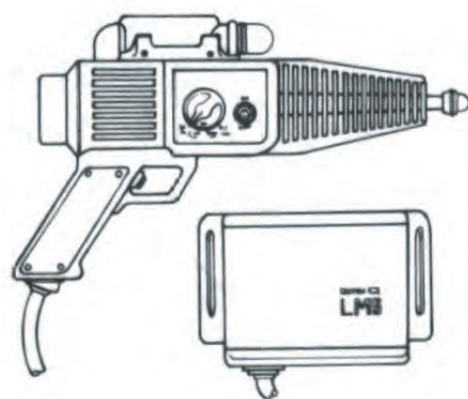
Sonic stunners project focused sound energy, usually in the ultrahigh frequency range, with sufficient energy to stun the target. They are only effective in atmospheres and against targets not wearing heavy armor (particularly airtight armored helmets). As a result of these limitations and the fact that the sonic bursts merely stun an opponent, they are of limited combat value. However, they are highly effective, nonlethal control weapons and are used extensively by police and security forces.

Brandt

Brandt Audionique, France

AS-3

The AS-3 is a typical sonic stunner pistol. It is commonly found wherever non-lethal force is required. It is also surprisingly popular with the criminal fraternity, as using one during a crime can reduce charges from attempted murder to assault.



| | |
|----------|------------------------------|
| Length | 47cm |
| Weight | 2.0kg (empty) |
| Magazine | 5MW 40 pulse cell — 0.8kg |
| Reload | 3 turns |

| Weapon | Subskill Used | Speed | IA | Recoil | Fire rate | Hands req'd | Eff range | Action | Price |
|--------|---------------|-------|----|--------|-----------|-------------|-----------|--------|--------|
| AS-3 | Smallarm | 5 | 10 | -5/-/- | 1 | 1 | 40 | energy | Lv 140 |

Quinn Optronics

Quinn Optronics Inc, USA

Restraint Carbine

The restraint carbine is the AS-3's bigger brother. It is capable of stunning over a larger distance and of inflicting a nastier jolt.



| | |
|----------|-------------------------------|
| Length | 73cm |
| Weight | 4.0kg (empty) |
| Magazine | 10MW 15 pulse cell — 0.8kg |
| Reload | 3 turns |

| Weapon | Subskill Used | Speed | IA | Recoil | Fire rate | Hands req'd | Eff range | Action | Price |
|-------------------|---------------|-------|----|--------|-----------|-------------|-----------|--------|--------|
| Restraint Carbine | Longarm | 10 | 14 | -5/-/- | 1 | 2S | 60 | energy | Lv 150 |

Wu-Beijing

Wu-Beijing Weapons Corporation, Manchuria

Hand Stunner

The Wu-Beijing Hand Stunner is a self-defense weapon designed to be small enough to be carried around in a purse or jacket pocket. Although it is highly unlikely to actually knock out an assailant, it will deliver a very nasty shock to their system, usually sufficient to enable the owner to escape to safety. As the hand stunner has no barrel to direct the sound energy, it spreads out in a 60° arc in the direction fired in. This enables it to strike multiple targets, however it also means that the energy dissipates rapidly, hence the very low effective range.

This low power and range makes the hand stunner legal to own almost everywhere, even where local laws prohibit other weapons.

| | |
|----------|---|
| Length | 5cm |
| Weight | 0.1kg (empty) |
| Magazine | Rechargeable 0.5MW integral battery with 2 pulses |
| Reload | NA |

| Weapon | Subskill Used | Speed | IA | Recoil | Fire rate | Hands req'd | Eff range | Action | Price |
|--------------|---------------|-------|----|--------|-----------|-------------|-----------|--------|-------|
| Hand Stunner | Smallarm | 0 | 5 | -/-/- | 1 | 1 | 2 | energy | Lv 20 |

Grenade Launchers

A variety of 30mm grenade launchers are mounted integrally to combat rifles, all of which have roughly similar performance. In addition, a few older magazine loaded grenade launchers are also available, although they are seldom used by first-line troops.

Note that grenade launchers use the Aim/Longarm subskill when fired directly, but the Artillery/Grenade Launcher subskill when fired indirectly. However, with advances in fuzing techniques, indirect fire is not commonly required. Instead laser range finders feed the range to the grenades, which are then fuzed to detonate after a set number of rotations of the grenade. This enables grenades to explode right over a foxhole or other uncovered location.

Generic

Made by many manufacturers

Combat Rifle Integral Grenade Launchers

Any one of a number of integral grenade launchers.

| | |
|----------|---------------------|
| Caliber | 30x80mm various |
| Magazine | 3 tube — 0.4kg each |
| Reload | 2 turns per round |

| Weapon | Subskill Used | Speed | IA | Recoil | Fire rate | Hands req'd | Eff range | Action | Price |
|-------------------|----------------------|--------|----|--------|-----------|-------------|-----------|--------|-------|
| 30m Grenade Lnchr | Longarm ¹ | Weapon | 8 | NA | 1/4 | 2S | 500 | auto | NA |

Jaschonek

Jaschonek Fabrikant AG, Germany

GW-12 (Granatenwerfer-12)

The GW-12 is typical of several magazine fed grenade launchers.



| | |
|----------|-----------------|
| Caliber | 30x80mm various |
| Length | 75cm |
| Weight | 3.0kg (empty) |
| Magazine | 6 — 2.5kg |
| Reload | 2 turns |

| Weapon | Subskill Used | Speed | IA | Recoil | Fire rate | Hands req'd | Eff range | Action | Price |
|--------|----------------------|-------|----|--------|-----------|-------------|-----------|--------|--------|
| GW-12 | Longarm ¹ | 9 | 26 | NA | 1/2 | 2S | 500 | auto | Lv 230 |

Ammunition Delivered Damage Table

| Name | Ammunition | Type | 0-10m | 11-30m | 31-100m | 101-200m | 201-300m | 301-500m | 501-750m | 751-1000m | 1000m+ | NOTES |
|--------------|---------------------|---------------|-------|--------|---------|----------|----------|----------|----------|-----------|--------|-------------|
| 4mm | 4mm Fletchette | Fletchette | 9 | 9 | 8 | 8 | 8 | 7 | - | - | - | Hi-Pressure |
| | | Fletchette | 7 | 7 | 6 | 6 | - | - | - | - | - | Lo-Pressure |
| 4.5mm Gauss | 4.5x20mm Gauss | Fletchette AP | 17 | 17 | 16 | 16 | 15 | 15 | 14 | 13 | 11 | |
| | | Fletchette AP | 12 | 12 | 11 | 11 | 11 | 10 | 9 | 8 | 6 | Auto Fire |
| 4.54mm Gauss | 4.54x21mm Gauss | Fletchette AP | 16 | 16 | 15 | 14 | 14 | 13 | 12 | 10 | 9 | |
| 5x15mm | 5x15mm | Ball | 9 | 9 | 8 | 8 | 8 | - | - | - | - | |
| 5.5x40mm | 5.5x40mm | Ball | 17 | 17 | 16 | 15 | 15 | 14 | 13 | 11 | 9 | |
| 7.5x11mm | 7.5x11mm Brazilian | Ball | 18 | 18 | 17 | 16 | 16 | 15 | 14 | 13 | 11 | BP round |
| 7.5x32mm | 7.5x32mm Manchurian | Ball | 18 | 18 | 17 | 16 | 15 | 15 | 14 | 12 | 10 | |
| 7.5x40mm | 7.5x40mm Sport | Ball | 19 | 19 | 18 | 17 | 16 | 16 | 14 | 12 | 10 | |
| 9mm APHE | 9mm APHE | Hollowpoint | 28 | 28 | 28 | 26 | 26 | 25 | 23 | 21 | 20 | A |
| 9x23mm | 9x23mm | Ball | 15 | 15 | 14 | 14 | 13 | - | - | - | - | |
| 9x24mm | 9x24mm | Ball | 16 | 16 | 15 | 14 | 13 | - | - | - | - | |
| 10mm Gauss | 10x37mm Gauss | Fletchette AP | 51 | 51 | 50 | 48 | 48 | 48 | 45 | 40 | 38 | |
| 11x35mm | 11x35mm Magnum | Hollowpoint | 21 | 20 | 19 | 19 | - | - | - | - | - | |
| 12x81mm | 12x81mm Magnum | Hollowpoint | 48 | 48 | 47 | 47 | 45 | 42 | 40 | 37 | 35 | |
| 12x95mm | 12x95mm Auto | Ball | 45 | 45 | 45 | 44 | 44 | 42 | 40 | 38 | 36 | |
| | | AP | 36 | 36 | 36 | 33 | 33 | 30 | 28 | 26 | 25 | |
| 20x31mm | 20x31mm APHE | Hollowpoint | 48 | 48 | 48 | 46 | 46 | 44 | 40 | 37 | 37 | A |
| 25x161mm | 25x161mm | HE | 68 | 68 | 68 | 68 | 67 | 67 | 65 | 64 | 60 | A, B |
| | | AP | 50 | 50 | 50 | 50 | 48 | 45 | 41 | 37 | 33 | |
| 20-01 Laser | 20MW Pulse | Energy | 17 | 17 | 17 | 17 | 17 | 16 | 14 | 12 | 10 | C |
| 30-01 Laser | 30MW Pulse | Energy | 20 | 20 | 20 | 20 | 20 | 18 | 16 | 14 | 11 | C |
| 35-01 Laser | 35MW Pulse | Energy | 21 | 21 | 21 | 21 | 20 | 19 | 17 | 14 | 12 | C |
| 40-01 Laser | 40MW Pulse | Energy | 22 | 22 | 22 | 21 | 20 | 19 | 18 | 15 | 12 | C |
| 45-02 Laser | 45MW Pulse | Energy | 20 | 20 | 20 | 19 | 18 | 17 | 15 | 11 | 9 | C |
| 70-01 Laser | 70MW Pulse | Energy | 29 | 29 | 29 | 28 | 28 | 25 | 22 | 20 | 16 | C |
| 80-01 Laser | 80MW Pulse | Energy | 30 | 30 | 29 | 28 | 27 | 25 | 21 | 19 | 15 | C |
| 5MW Plasma | 5MW Plasma Bolt | Energy | 30 | 30 | 30 | 28 | 25 | 20 | 17 | 12 | 7 | B, D |
| 10MW Plasma | 10MW Plasma Bolt | Energy | 37 | 37 | 37 | 35 | 33 | 28 | 25 | 19 | 12 | B, D |
| 15MW Plasma | 15MW Plasma Bolt | Energy | 44 | 44 | 44 | 42 | 39 | 34 | 30 | 24 | 18 | B, D |
| 20MW Plasma | 20MW Plasma Bolt | Energy | 51 | 51 | 51 | 48 | 45 | 40 | 35 | 30 | 25 | B, D |
| 30MW Plasma | 30MW Plasma Bolt | Energy | 65 | 65 | 65 | 60 | 55 | 50 | 45 | 40 | 35 | B, D |
| 175MW Plasma | 175MW Plasma Bolt | Energy | 200 | 200 | 200 | 190 | 175 | 150 | 130 | 110 | 85 | B, D |
| 5-01 Stun | 5MW Stun Pulse | Stun | 16 | 15 | 10 | - | - | - | - | - | - | E |
| 10-01 Stun | 10MW Stun Pulse | Stun | 19 | 18 | 14 | - | - | - | - | - | - | E |
| 0.5-01 Stun | 0.5MW Stun Pulse | Stun | 9 | - | - | - | - | - | - | - | - | E, F |

A This weapons wounding comes mostly from the HE content.

B This weapon also does fragmentation damage. See the explosive weapons table.

C Laser weapons are treated as hollowpoint for the purposes of armor penetration, however their damage type is converted to burn, not impact if the CN of the armor is high enough.

D For armor penetration, treat all plasma bolts as AP.

E All stun weapons do Concussion damage type. No matter where the hit was scored, also apply 1/2 the damage to the head (location 1). All AV on the head is doubled against stun weapons.

F Listed DD is for 1 meter range. DD halves for each meter of distance covered. ie 4 at 2 meters, 2 at 3 meters and 1 at 4 meters.

Explosive Projectiles

| Projectile | Direct Hit DD | Concussive Damage Rating | Fragment DD | Fragment Eff. Range | Min/Max Range(m) | Mass | Frag to hit modifier |
|--------------------|----------------------|--------------------------|-------------|---------------------|------------------|------|----------------------|
| 30mm HE Grenade | 28 | 4 | 12 | 7 | 15/500 | 0.4 | -15 |
| 30mm HEAP Grenade | 38 ¹ | 3 | 3 | 2 | 15/500 | 0.4 | 0 |
| HE Hand Grenade | NA | 10 | 14 | 15 | NA | 0.3 | -15 |
| Concussion Grenade | NA | 10 | 0 | 0 | NA | 0.3 | 0 |
| 5MW Plasma Bolt | Special ² | 12 | 15 | 5 | 5/1200 | 0.3 | 0 |
| 10MW Plasma Bolt | Special ² | 16 | 20 | 10 | 5/1500 | 0.4 | 0 |
| 15MW Plasma Bolt | Special ² | 20 | 22 | 15 | 5/1750 | 0.4 | 0 |
| 20MW Plasma Bolt | Special ² | 24 | 24 | 18 | 5/1750 | 0.8 | 0 |
| 30MW Plasma Bolt | Special ² | 28 | 29 | 30 | 10/1750 | 1.0 | -5 |
| 175MW Plasma Bolt | Special ² | 40 | 29 | 45 | 20/1750 | 3.5 | -25 |
| 25x161mm APHE | Special ³ | 2 | 8 | 5 | 5/1500 | 0.25 | +10 |

1 Treat as AP for armor penetration if a direct hit is scored.

2 All plasma bolt direct hits should be treated as AP for armor penetration if a direct hit is scored.

3 This weapon has a variable DD as well as creating fragmentation damage.

Kafer Weapons

Along the French Arm, humans are at war with the alien Kafers. The Kafers use a number of different weapons, better covered in the Kafer Dawn supplement.

Listed below are *Millennium's End* system statistics for a number of Kafer weapons and their ammunition.

| Weapon | Skill | IA | Speed | ROF | Recoil | Range | Weight | Hands | Type | Ammunition | Capacity | Notes |
|----------------|-------|----|-------|------|-----------|-------|--------|-------|--------|-------------|--|-------|
| Horse Pistol | S | 7 | 1 | 3 | -28/-/- | 80 | 1.3 | 1 | Auto | 14.1x31mm | 6cyl - 0.2kg | |
| Thud Gun | L/A | 17 | 11 | 4/10 | -30/-/-44 | 400 | 5.3 | 2S | Auto | 12.1x31mm | 66B - 2kg | |
| Zip Gun | L/A | 18 | 12 | 4/13 | -33/-/-48 | 500 | 10.1 | 2M | Auto | 12.1x31mm | 99B - 2kg 132B - 3kg | |
| Donderbus | L/A | 13 | 9 | 2 | -45/-/- | 100 | 4.5 | 2S | Auto | 19x58mm | 8B - 0.8kg | |
| Flashlight | L | 32 | 10 | 1 | -5/-/- | 1100 | 5 | 2S | Energy | 75-01MW | 12C - 1.8kg | |
| Tripple Zipper | A | 26 | 14 | 25 | -/-/-48 | 500 | 23 | 2T | Auto | 12.1x31mm | 900 - 27kg 1200 - 35kg 3600 - 94kg | |
| Autocannon | A | 28 | 15 | 2 | -65/-/- | 1000 | NA | Fixed | Auto | 22.2x134mm | 20 - 33kg | |
| Beamer | L | 24 | 15 | 1/4 | NA | 1750 | NA | Fixed | Energy | 40MW Plasma | 100 - 25kg | |

Ammunition Delivered Damage Table

| Name | Ammunition | Type | 0-10m | 11-30m | 31-100m | 101-200m | 201-300m | 301-500m | 501-750m | 751-1000m | 1000m+ | NOTES |
|-------------|------------------|----------------|-------|--------|---------|----------|----------|----------|----------|-----------|--------|-------|
| 12.1mm | 12.1x31mm | APHE | 29 | 29 | 29 | 28 | 26 | 25 | 20 | 18 | 15 | A |
| | | Ball | 21 | 21 | 20 | 19 | 18 | 16 | 14 | 12 | 10 | |
| 14mm | 14.1x31mm | HP | 18 | 18 | 16 | 14 | - | - | - | - | - | |
| 22.2mm | 22.2x134mm | HE | 44 | 44 | 44 | 42 | 40 | 37 | 33 | 29 | 25 | A, B |
| 19x58mm | 19x68mm | Buckshot (6) | 16 | 13 | 10 | 6 | - | - | - | - | - | |
| | | Stingball (10) | 7 | 6 | 2 | - | - | - | - | - | - | |
| | | Slug (Ball) | 21 | 21 | 20 | 18 | 15 | - | - | - | - | |
| 75-01 Laser | 75MW Pulse | Energy | 30 | 30 | 29 | 28 | 27 | 25 | 21 | 19 | 15 | C |
| 40MW Plasma | 40MW Plasma Bolt | Energy | 70 | 70 | 70 | 65 | 60 | 55 | 50 | 45 | 50 | B, D |

A This rounds wounding comes mostly from the HE content.

B This round also does fragmentation damage. See the Explosive Projectiles table.

C Laser weapons are treated as hollowpoint for the purposes of armor penetration, however their damage type is converted to burn, not impact if the CN of the armor is high enough.

D For armor penetration, treat all plasma bolts as AP.

Explosive Projectiles

| Projectile | Direct Hit DD | Concussive Damage Rating | Fragment DD | Fragment Eff. Range | Min/Max Range(m) | Mass | Frag to hit modifier |
|--------------------------|----------------------|--------------------------|-------------|---------------------|------------------|------|----------------------|
| Rifle Grenade HE | 32 ¹ | 6 | 15 | 7 | 10/150 | 1.25 | -15 |
| Rifle Grenade HEAP | 28 ² | 4 | 10 | 2 | 10/150 | 1.25 | +5 |
| Rifle grenade Incendiary | 15 ³ | 7 | 18 | 15 | 10/150 | 1.25 | 0 |
| 22.1x134mm HE | Special ⁴ | 2 | 8 | 5 | 5/1500 | 0.25 | +10 |
| 40MW Plasma Bolt | Special ⁴ | 32 | 30 | 30 | 20/1700 | 0.20 | -5 |

1 Treat as Hollowpoint for armor penetration if a direct hit is scored.

2 Treat as AP for armor penetration if a direct hit is scored.

3 This weapon also creates smoke, covering an area up to 15 x 45m (over a period of 15 turns)

4 This weapon has a variable DD as well as creating fragmentation damage.

Body Armor

In some occupations, body armor will be useful at times. The following examples of body armor are available for characters who expect to need it in their line of work.

| Body Armor Ratings | | | | | | | |
|---------------------------------------|----------------|---------------|----|----|------------|-----------|-------------|
| Item | Speed Modifier | Zones Covered | AV | CN | Armor Type | Cost (Lv) | Weight (kg) |
| Vests and Jackets | | | | | | | |
| Inertial Armor Street Jacket | 6 | 3-16, 19 | 14 | 8 | Flexible | 150 | 4.0 kg |
| Inertial Armor Suitvest (Concealed) | 2 | 3-8 | 14 | 8 | Flexible | 120 | 1.2 kg |
| Vedette Half Armor | 6 | 3-4, 6-7 | 22 | 18 | Flexible | 200 | 2.0 kg |
| Assault Breastplate | 9 | 3-11 | 26 | 15 | Rigid | 450 | 8.0 kg |
| Assault Leggings | 3 | 16-21 | 18 | 10 | Flexible | 250 | 6.0 kg |
| Assault Arm Protectors | 3 | 12-15 | 18 | 10 | Flexible | 100 | 4.0 kg |
| Combat Vest, | 7 | 3-11 | 18 | 10 | Flexible | 200 | 2.0 kg |
| Combat Leggings | 3 | 16-21 | 15 | 8 | Flexible | 100 | 6.0 kg |
| Combat Arm Protectors | 3 | 12-15 | 15 | 8 | Flexible | 50 | 4.0 kg |
| Search Suit | 10 | 3-21 | 32 | 20 | Rigid | 600 | 11.0 kg |
| Pressure Suit | 10 | 3-11 | 12 | 4 | Flexible | 900 | 13.0 kg |
| | | 12-21 | 7 | 3 | Flexible | | |
| | | 22-25 | 2 | 1 | Flexible | | |
| Combat Pressure Suit | 11 | 3-11 | 18 | 8 | Rigid | 1800 | 15.0 kg |
| | | 12-21 | 14 | 8 | Flexible | | |
| | | 22-25 | 4 | 2 | Flexible | | |
| Shields | | | | | | | |
| Ballistic Blanket | - | | 12 | 8 | Flexible | 200 | 16.0 kg |
| Ballistic Clipboard | - | | 15 | 6 | Rigid | 30 | 1.0 kg |
| Ballistic Shield, Large | - | | 20 | 6 | Rigid | 600 | 14.00 kg |
| Ballistic Shield, Medium | - | | 20 | 6 | Rigid | 500 | 9.50 kg |
| Ballistic Shield, Small | - | | 20 | 6 | Rigid | 400 | 2.50 kg |
| Helmets | | | | | | | |
| Helmet | - | 1 | 18 | 6 | Rigid | 50 | 1.0 kg |
| Combat Helmet | - | 1 | 24 | 7 | Rigid | 120 | 1.5 kg |
| Assault Helmet (with face mask) | - | 1 | 24 | 7 | Rigid | 200 | 1.8 kg |
| | | 2 | 15 | 6 | Rigid | | |
| Mine Clearance Helmet (face plate) | - | 1 | 30 | 10 | Rigid | 250 | 2.0 kg |
| | | 2 | 15 | 6 | Rigid | | |
| Pressure Suit Helmet | - | 1,2 | 15 | 6 | Rigid | 100 | 2.0 kg |
| Combat Pressure Suit Helmet | 1 | 1,2 | 24 | 7 | Rigid | 200 | 2.0 kg |
| Motorcycle or Flight Helmet | - | 1 | 6 | 2 | Rigid | 50 | 1.5 kg |
| Other Armor | | | | | | | |
| Heavy Denim Jacket | - | 3-8, 12-15 | 1 | 1 | flexible | 10 | 1.00 kg |
| Heavy Leather Jacket | - | 3-8, 12-15 | 2 | 2 | flexible | 25 | 2.50 kg |

Combat Walkers

Powered Combat Armor or Combat Walkers are articulated powered exoskeleton machines with a tough armored covering.

The first Combat Walker, the French BH-21, was built in the middle of the 23rd century. Since that time, a number of other types have been created, but the BH-21 and the German Kz-7 remain the most common types seen.

Combat Walkers can come in many shapes, but on average they all stand about three meters tall.

Brandt Hausmann

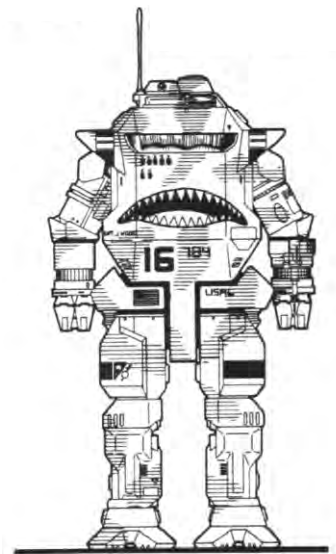
Brandt Hausmann, a division of Automates Schneider, France

BH-21

The BH-21 Combat Walker is a French-made suit of powered combat armor, first produced late in the Central Asian War. It was used by French peacekeeping forces in Central Asia after the war, fighting Iranian-backed guerrillas in that region.

There are three different models of the BH-21. The basic model has powerful motors in the limbs that are slaved to the pilots movements, an internal monitor that can provide up at a 360° view of the surrounding area, sensors effective out to 6 kilometers, heavy filters to provide clean air to the operator, and an arm mounted plasma gun. The BH-21B is simply a normal BH-21 with airtanks added for use in noxious environments, while the BH-21C has airtanks for vacuum and adds a jet pack for use in Zero-G environments and a slightly heavier layer of armor.

Large scale production during the Central Asian War, and the subsequent disposal of many as surplus makes the BH-21 far and away the most commonly encountered combat walker in human space. It has now been replaced in first line French service by the much improved BH-25, but can still be found with militia, reserve and second line units.



| | |
|--------------|--|
| Mass | BH-21A 380kg BH-21B 400kg BH-21C 415kg |
| Walk | 1.0m per turn |
| Trot | 2.0m per turn |
| Fly (BH-21C) | 2.5m per turn |
| Power | Internal rechargeable power cell (24 hours duration) |
| Sensors | 6 kilometers |
| Cost | BH-21A Lv 17,000 BH-21B Lv 17,500 BH-21C Lv 19,000 |

| Model | Speed Modifier | Armor Type | AV Zone 1-2 | | AV Zone 3-11 | | AV Zone 16-21 | | AV Zone 22, 23 | | AV Zone 24, 25 | |
|--------|----------------|------------|-------------|----|--------------|----|---------------|----|----------------|----|----------------|----|
| | | | CN | | CN | | CN | | CN | | CN | |
| BH-21A | 10 | Rigid | 45 | 15 | 80 | 25 | 60 | 20 | 45 | 15 | 45 | 15 |
| BH-21B | 10 | Rigid | 45 | 15 | 80 | 25 | 60 | 20 | 45 | 15 | 45 | 15 |
| BH-21C | 10 | Rigid | 47 | 15 | 82 | 25 | 62 | 20 | 47 | 15 | 47 | 15 |

Jaschonek

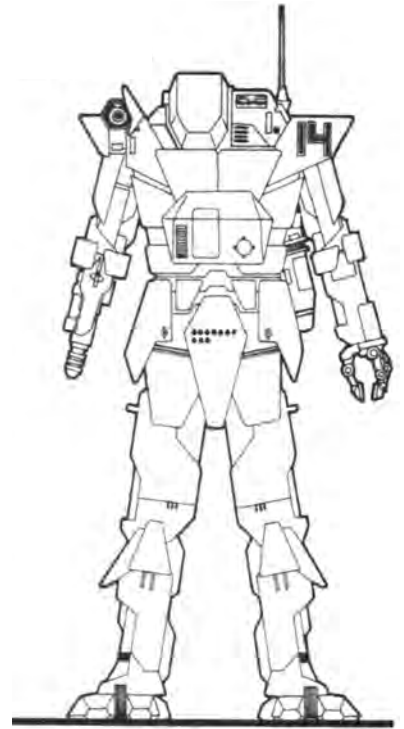
Jaschonek Fabrikant AG, Germany

Kz-7 (Kampfanzug-7) Combat Walker

The Kz-7 Combat Walker was developed by Germany towards the end of the War of German Reunification in preparation for an invasion of France. The invasion of course, never came. France sued for peace and accepted the reunification of the previously separate German states. Intended as a response to the BH-21, the Kz-7 was made lighter, stronger and more flexible (using more advanced material technologies). It is actually possible to crawl in a Kz-7, something that is impossible in a BH-21.

The Kz-7's plasma gun was mounted on the walker's shoulder in order to have its considerable recoil nearer the suits center of balance. As well, an extra armament in the form of the LK-1fKz laser was included in the suit's right arm. The laser is used against soft targets, saving the plasma gun for other walkers and armored vehicles.

There is currently only one model of Kz-7, and given the emphasis on mobility, it is unlikely that any variants will be created with the bulky equipment needed for operations in space.



| | |
|---------|--|
| Mass | 455kg |
| Crawl | 0.25m per turn |
| Walk | 1.0m per turn |
| Trot | 2.0m per turn |
| Run | 3.5m per turn |
| Power | Internal rechargeable power cell (18 hours duration) |
| Sensors | 8 kilometers |
| Cost | Lv 33,000 |

| Model | Speed Modifier | Armor Type | AV Zone 1-2 | | AV Zone 3-11 | | AV Zone 16-21 | | AV Zone 22, 23 | | AV Zone 24, 25 | |
|-------|----------------|------------|-------------|----|--------------|----|---------------|----|----------------|----|----------------|----|
| | | | | CN | | CN | | CN | | CN | | CN |
| Kz-7 | 9 | Rigid | 60 | 20 | 100 | 30 | 80 | 25 | 60 | 20 | 60 | 20 |

NEW COMBAT RULES

Combat in 2300—MEE is played using the standard *Millennium's End* combat rules, but with the following additions.

New Damage Type—Energy Weapons

Lasers damage their target in a different manner to that of bullets. A short-duration, high-energy beam produces such a rapid temperature change in a target's surface that it explosively vaporizes, causing shock damage to the target. Effectively this becomes Hydro Shock damage. **However, hits from a laser are treated the same as hits from Anti-Personnel rounds—that is AV values are doubled.** This is due to the vaporized armor acting as a barrier to further damage. In addition, laser damage is never converted to Impact damage. Instead, treat converted laser damage as Burn damage.

Plasma weapons are also energy weapons, but the focused **plasma bolts are treated as armor piercing rounds—that is AV values are halved.**

New Weapons—Sonic Stunners

Sonic Stunners use a high frequency sound energy blast to knock out or subdue a target. They are only effective in atmospheres (with lower pressure atmosphere's reducing their delivered energy), and armor is very efficient at stopping the blast. Sonic Stunners deliver Concussive Damage, much like that of an explosion. **Whenever a hit from a Sonic Stunner strikes any part of the target, apply the Delivered Damage to that location, and half the Delivered Damage is also applied to the Head (location 1)**—except where the head is the location hit. All armor values are doubled against Sonic stunner damage.

The Kafers

The Kafers (*German Käfer = Bug*) are bipedal, humanoid creatures approximately two meters tall. They have a vaguely insectoid appearance, due mostly to the large carapace on their backs, the bristly, hair-like projections on their forearms and lower legs, and their vertical mouths, which consist of a complicated arrangement of mouthparts between two large, powerful mandibles. The carapace protects the Kafer's torso as flexible armor (AV 10, CN 8), but only from rear attacks.

The average Kafer is stronger than the average human, but when not subject to danger (or an adrenaline buzz), considerably less intelligent. Once combat begins, Kafer intelligence levels jumps by as much as 40 points or more. When running Kafers in combat, use the lower listed intelligence for 5-10 turns, then switch to the greater number. While the lower number is in effect, Kafers should be considered Green NPCs—when they become intelligent, however, they should be considered Veteran NPCs, and Kafer officers should be considered Elite.

When combat occurs, the referee should stress the confused way that Kafers mill about for the first several rounds, their officers prodding and beating them. Once the Kafer intelligence mechanism takes effect,

however, the referee should stress the almost supernatural cleverness of the response. Kafers will disappear into any available cover and will use every trick conceivable in counterattacking. (Effectively, their skill in Military Science/Infantry Tactics jumps to 50/25).

Kafers have been engaged in a violent relentless struggle with humanity since 2297. This makes them the most likely alien that PC's will find themselves in combat with. On pages 88 to 89 is a Trauma Level chart for wounds inflicted upon Kafers. Kafers seem to be better able to take pain than humans, and the charts impairment and shock levels reflect this.

Combat Walkers

Powered Combat Armor or Combat Walkers are articulated powered exoskeleton machines with a tough armored covering.

The first Combat Walker, the French BH-21, was built in the middle of the 23rd century. Since that time, a number of other types have been created, but the BH-21 and the German Kz-7 remain the most common types seen.

Combat Walkers can come in many shapes, but on average they all stand about three meters tall.

Whenever a penetrating hit is scored upon a Combat Walker, the GM should check to see if the occupant is hit. All spare space in a Combat Walker is taken up with engines, fuel, weapons, ammunition, sensors and the mechanical components that move the arms and legs. Any hit that does not hit the occupant will almost certainly damage one of these components at the GM's discretion.

Healing

2300 medical science is considerably better than its 20th century equivalent. Replacement organs and limbs can be vat grown, while inherited diseases are largely extinct. The greatest advance in medicine has been the automed-computerized automated medical treatment. Automated tests determine precise results to a battery of standardized tests, while expert systems analyze the results and produce high reliability diagnoses. Chemical or pharmaceutical treatment can be administered automatically and without attendance. Life support is also an automatic function. The automed can handle most nonsurgical treatments and many surgical ones (setting some broken bones, removing dead tissue). A skilled operator can manage resuscitation and most major treatments with an automed.

As a result, the Heal Rate where an automed or other 24th century medical assistance has improved significantly. The Heal Rate chart below shows the time to recover from trauma levels where this assistance is present, otherwise use the standard Heal Rates.

| Automed Trauma Recovery Rate | | | | | | | | | | | | | | | | | | |
|------------------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| Trauma Level | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 |
| Heal Rate | 24 | 12 | 12 | 12 | 15 | 15 | 15 | 18 | 18 | 21 | 21 | 24 | 26 | 30 | 33 | 36 | 38 | 42 |

| Trauma Level | 19 | 20 | 21 | 22 | 23 | 24 | 25 |
|--------------|----|----|----|----|----|----|-----|
| Heal Rate | 45 | 51 | 57 | 63 | 72 | 84 | 102 |

Kafer Trauma Table

Trauma Level

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|----|----|----|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|---|---|---|---|---|---|----|----|----|

Decline Rate

| | | | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|--|--|
| | | | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|--|--|

| Damage Type | STM | BLM | Impairment Level | | | | | | | | | | | |
|-------------|-----|-----|------------------|---|---|----|----|----|----|----|----|----|----|----|
| Concussive | +10 | -15 | 1 | 1 | 2 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 11 |
| Impact | +4 | -5 | 1 | 1 | 2 | 2 | 3 | 4 | 5 | 6 | 8 | 10 | 12 | 14 |
| Puncture | +1 | -2 | 1 | 2 | 3 | 4 | 5 | 6 | 8 | 10 | 12 | 14 | 16 | 18 |
| Cut | — | — | 1 | 3 | 5 | 7 | 9 | 11 | 13 | 15 | 17 | 19 | 21 | 23 |
| Burn | -2 | -8 | 2 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 19 | 21 | 23 | 25 |
| Hyd. Shock | +2 | +4 | 3 | 6 | 9 | 12 | 15 | 17 | 19 | 21 | 23 | 25 | 27 | 29 |

| Body Zone | | Trauma Mod | Secondary Effects | | | | | | | | | | | |
|---------------|-------------|------------|-------------------|--|--|--|-----|-----|-----|-----|-------------|----------|-----|-------------|
| 1 | Head | 1.6 | | | | | +80 | +70 | +60 | +50 | +40 | +30 | +20 | +15 |
| | | | | | | | | | 60 | 50 | 40 | 30 | 25 | 20 B |
| 2 | Face/neck | 1.4 | | | | | | +80 | +70 | +60 | +50 | +40 | +30 | +25 |
| | | | | | | | | | | | | 60 | 40 | 20 |
| 3, 6 | Shoulders | 1.0 | | | | | | | | | | +80 | +70 | +60 |
| | | | | | | | | | | | | B | | 60 |
| 4, 7 | Torso | 1.4 | | | | | | | | +80 | +70 | +65 | +60 | +55 |
| | | | | | | | | | | 60 | 40 B | 30 | 23 | 18 |
| 5, 8 | Vitals | 1.6 | | | | | +80 | +70 | +65 | +60 | +55 | +50 | +45 | +40 |
| | | | | | | | | | | 60 | 40 | 30 | 23 | 18 |
| 9, 11 | Hips | 1.0 | | | | | | | | | | | | |
| 10 | Groin | 1.2 | | | | | | | | | | +80 | +70 | +65 |
| | | | | | | | | | | | | | | 60 |
| 12, 14 | Upper arms | 0.8 | | | | | | | | | | | | 60 |
| | | | | | | | | | | | | | | 45 B |
| 13, 15 | Forearms | 0.8 | | | | | | | | | | | | |
| | | | | | | | | | | | | | | 60 B |
| 16, 19 | Thighs | 0.8 | | | | | | | | | | | | 60 |
| 17, 20 | Knees | 1.0 | | | | | | | | | | | | |
| | | | | | | | | | | | | | | B |
| 18, 21 | Calves | 0.8 | | | | | | | | | | | | 60 |
| | | | | | | | | | | | | | | 45 B |
| 22-25 | Hands, feet | 0.6 | | | | | | | | | | | | |
| | | | | | | | | | | | B | 60 | 50 | 40 |

Kafer Trauma Table

| | | | | | | | | | | | | |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|

| | | | | | | | | | | | | |
|----|----|----|----|----|----|----|----|---|---|---|---|---|
| 40 | 34 | 30 | 26 | 22 | 18 | 14 | 10 | 8 | 6 | 4 | 2 | 1 |
|----|----|----|----|----|----|----|----|---|---|---|---|---|

Impairment Level

| | | | | | | | | | | | | |
|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 13 | 15 | 17 | 19 | 21 | 24 | 27 | 30 | 34 | 38 | 42 | 46 | 50 |
| 16 | 18 | 20 | 22 | 25 | 28 | 31 | 34 | 37 | 40 | 43 | 46 | 50 |
| 20 | 22 | 25 | 28 | 31 | 34 | 37 | 39 | 41 | 43 | 45 | 47 | 50 |
| 25 | 27 | 29 | 31 | 33 | 35 | 37 | 39 | 41 | 43 | 45 | 48 | 50 |
| 27 | 29 | 31 | 33 | 36 | 38 | 40 | 42 | 44 | 46 | 48 | 49 | 50 |
| 31 | 33 | 35 | 37 | 39 | 41 | 43 | 45 | 46 | 47 | 48 | 49 | 50 |

Secondary Effects

Imp.Effect

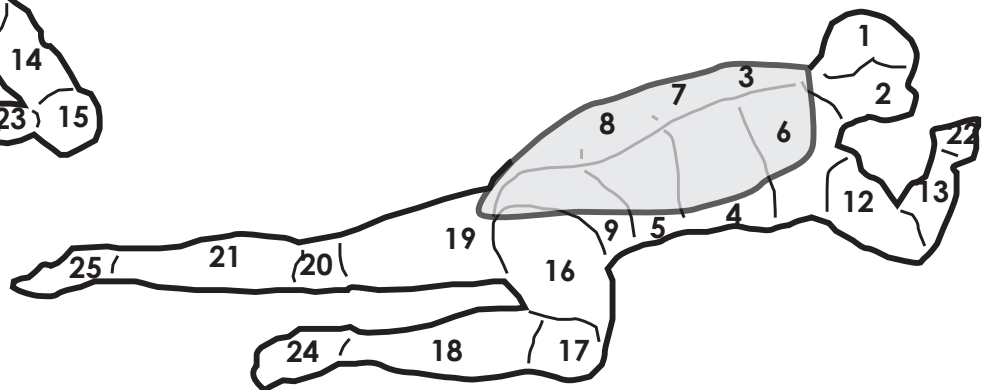
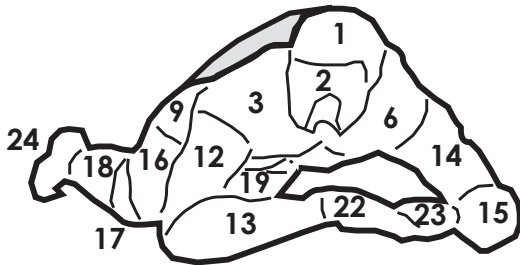
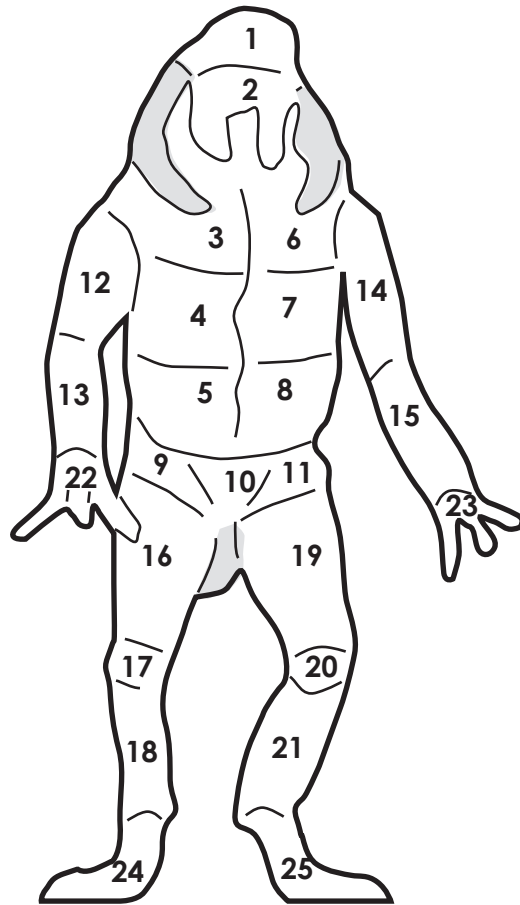
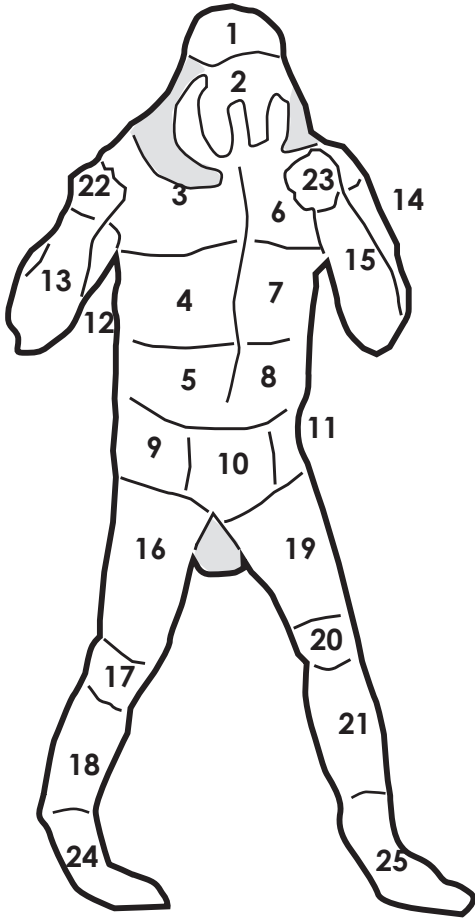
| | | | | | | | | | | | | | |
|-----|-----|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|---------------------------|
| +10 | +5 | 0 | -5 | -10 | -15 | -20 | -25 | -30 | -35 | -40 | -50 | -60 | ½ all |
| 18 | 16 | 14 | 12 | 10E | 8 | 6 | 5 | 4 | 4S | 3 | 3 | 3 | ½ all |
| +20 | +15 | +10 | +5 | 0 | -5 | -10 | -15 | | | | | | ½ all |
| 8 | 4 | 2B/E | 1 | 1 | 1 | 1 | 1I | | | | | | |
| +55 | +50 | +45 | +40 | +40 | +35 | +35 | +30 | +25 | +25 | +20 | +20 | +15 | ½ all physical |
| 45 | 35 | 30 | 25 | 20 | 16 | 13 | 10 | 7 | 5S | 3E | 2 | 1 | ½ all physical |
| +50 | +45 | +40 | +40 | +35 | +35 | +30 | +30 | +25 | +25 | +20 | +20 | +15 | all physical |
| 15 | 12 | 10 | 8E | 6 | 4 | 3 | 2 | 2 | 1S | 1 | 1 | 1 | |
| +35 | +35 | +30 | +30 | +25 | +25 | +20 | +20 | +15 | +10 | +10 | +5 | +5 | all physical |
| 15E | 12 | 10 | 8 | 6 | 4 | 3 | 2 | 2 | 1S | 1 | 1 | 1 | legs |
| +80 | +70 | +65 | +60 | +55 | +50 | +45 | +40 | +40 | +35 | +35 | +30 | +30 | legs |
| 60 | 45B | 35 | 30 | 25 | 20 | 16 | 13 | 10 | 7S | 5 | 3 | 2 | |
| +55 | +50 | +45 | +40 | +40 | +35 | +35 | +30 | +30 | +25 | +25 | +20 | +20 | legs |
| 45 | 35 | 30 | 25E | 20 | 16 | 13 | 10 | 7 | 5S | 3 | 2 | 1 | leading/following arm |
| +80 | +70 | +65 | +60 | +55 | +50 | +45 | +45 | +40 | | | | | leading/following arm |
| 35 | 26 | 18 | 12 | 8 | 4 | 2 | 1 | 1M | | | | | arm |
| 40 | +80 | +75 | +70 | +65 | +60 | | | | | | | | leading/following arm |
| | 24 | 16 | 8 | 4 | 2M | | | | | | | | arm |
| 60B | +80 | +75 | +70 | +65 | +65 | +60 | +60 | +55 | +55 | | | | legs |
| | 45 | 35 | 25 | 18 | 12 | 8 | 2 | 1 | 1M | | | | |
| +80 | +75 | +70 | +65 | +60 | +55 | +50 | | | | | | | legs |
| 45 | 32 | 16 | 8 | 4 | 2 | 1M | | | | | | | legs |
| +80 | +75 | +70 | +65 | +60 | +55 | +50 | +45 | | | | | | legs |
| 35 | 26 | 18 | 12 | 8 | 4 | 2 | 1M | | | | | | |
| 20 | 10 | +80 | +70 | | | | | | | | | | leading/following arm/leg |
| | | 5 | 2M | | | | | | | | | | |

| Kafer Soldiers | | | | | | | | | |
|---------------------|---------------|---------------|---------------|---------------|---------------|---------------|----------|----------|--|
| | Grunt | Grunt | Grunt | Veteran | Sniper | Officer | | | |
| Height | 205cm | 198cm | 210cm | 200cm | 202cm | 195cm | | | |
| Weight | 120kg | 118kg | 130kg | 120kg | 115kg | 125kg | | | |
| Int | 15/40 | 13/42 | 12/44 | 25/47 | 33/55 | 40/60 | | | |
| Sen | 18/35 | 16/39 | 15/41 | 28/49 | 36/48 | 42/45 | | | |
| Agl | 53 | 43 | 68 | 47 | 73 | 59 | | | |
| Cor | 42 | 52 | 48 | 62 | 54 | 44 | | | |
| Con | 62 | 68 | 72 | 84 | 70 | 82 | | | |
| Str | 115 | 123 | 108 | 98 | 117 | 121 | | | |
| Wil | 68 | 77 | 59 | 60 | 62 | 85 | | | |
| Perception | 20/32 | 20/35 | 20/35 | 26/38 | 32/38 | 35 | | | |
| Base Speed | 15 | 14 | 17 | 14 | 18 | 15 | | | |
| Dam. Factor | 8 | 8 | 7 | 7 | 8 | 8 | | | |
| Mass Factor | 0.7 | 0.7 | 0.6 | 0.7 | 0.7 | 0.6 | | | |
| Skill Rolls: | | | | | | | | | |
| Aim | 40 | 48 | 40 | 51 | 55 | 53 | | | |
| Autofire | 50 | 68 | 60 | 75 | 65 | 73 | | | |
| Longarm | 55 | 63 | 50 | 82 | 85 | 78 | | | |
| Smallarm | 60 | 72 | 60 | 80 | 75 | 79 | | | |
| Drive | 52 | 36 | 45 | 40 | 32 | 35 | | | |
| Tracked | 78 | 54 | 65 | 50 | 48 | 40 | | | |
| Unarmed HtH | 48 | 39 | 45 | 50 | 54 | 45 | | | |
| Kick | 68 | 53 | 65 | 60 | 66 | 65 | | | |
| Grapple | 72 | 48 | 45 | 60 | 54 | 55 | | | |
| Punch | 72 | 57 | 67 | 75 | 81 | 67 | | | |
| Armed HtH | 42 | 45 | 40 | 55 | 43 | 50 | | | |
| Thrust | 52 | 65 | 55 | 80 | 48 | 75 | | | |
| Swing | 47 | 50 | 48 | 65 | 48 | 70 | | | |
| Weapons: | | | | | | | | | |
| Weapons | speed/roll | speed/roll | speed/roll | speed/roll | speed/roll | speed/roll | DF/DD | dam.type | |
| T-Knife | 13/ 60 | 12/ 73 | 15/ 63 | 12/ 88 | 16/ 56 | 13/ 83 | 3.0 | Impale | |
| Horse Pistol | — | — | — | — | — | 14/ 86 | variable | Hyd Shk | |
| Thud Gun | 4/ 72 | 3/ 80 | 6/ 67 | 3/ 97 | — | — | variable | Hyd Shk | |
| (auto) | 4/ 67 | 3/ 85 | 6/ 77 | 3/ 92 | — | — | variable | Hyd Shk | |
| Flashlight | — | — | — | — | 8/ 115 | — | variable | Hyd Shk | |
| Donderbus | — | — | — | — | — | 6/ 91 | variable | Hyd Shk | |

Kafers

This shows a typical horde of Kafers. The further you go from left to right, the more capable they become. The different Intelligence, Sensibility and Perception figures are for when the Kafer is 'stupid' and when it is 'aroused'. As can be seen, the more experienced Kafers have relatively little difference between the two.

Print onto A4 paper. Do **not** resize when printing.



Gray areas are the Kafer's carapace. This natural armor gives an AV of 10 and a CN of 8 when struck.

REBCO SAR

In the year 2244, two financial institutions on Earth, the Rawal Pindi Trading Company of Pakistan and the National Express Bank of America, merged their holdings in an attempt to ride out a rough period in their histories. They became Rebcos. The majority of Rebcos' business involves financial services on Earth, but in 2257, the corporation created a splinter group dedicated to providing short-term security forces to organizations on colony worlds. This ranged from close protection (body guard) units for celebrities and politicians to uniformed guards for corporations, to mercenary troops for small colonial governments, to rescue operations. Rebcos located their new organization's offices in Wellon, on Tirane, and they called it 'Rebcos Search and Rescue,' or, more succinctly, 'Rebcos SAR.' Since then, Rebcos SAR has expanded from providing security forces to matching persons seeking employment with employers looking for experienced personnel.

Missions for Rebcos SAR can include anything that may be dreamed of. If there is money to be made, Rebcos SAR will most likely be willing to get involved, although its coordinators pride themselves upon their honest reputation and will avoid overtly criminal activities. It is of course the missions that make news headlines across the Core that have made the company famous, like the rescue of actress Selina Scar when her VTOL was shot down over Aureore, or the destruction of a Provolution base asteroid in the Kwantung system.

ORGANIZATION

Rebcos SAR has grown to become a large corporation with not only hundreds of front line operatives, but also a large logistical and legal support system. Assignments are handled by operatives working in small groups called a Task Force. A Task Force contains anything from three to 100 people, and is headed by a Task Force Leader. Larger mercenary forces (of over 100 employees) are broken down into several Task Forces, each responsible for a certain aspect of the mercenary groups operations (i.e the Medical Task Force, the Recon Task Force, or the Transport Task Force). Task Forces are more or less autonomous, handling their assignments with some support from the company, but with little outside interference. Rebcos SAR believes strongly in the qualifications of its personnel, and for this reason, it has only a minimal centralized command system.

Rebcos SAR has eleven regional offices, three on Earth, two on Tirane and the remainder on six colonies spread among all three colonial arms. Each office is headed up by a Senior Task Force Leader, who is always a veteran operative. From each office operate a number of Task Forces, generally no less than two or more than thirty—if more than thirty are required then it's time to open a new branch office. Each office has one or more legal advisors, who assist in the preparation of contracts and in any legal difficulties, and, depending on the size of the office, one or more representatives from the Administrative and Logistics branches of the company.

Operational Task Forces are simply organized. They contain several operatives, one of whom acts as the Task Force Leader. The leader

is responsible for the success of the mission and the safety of the operatives. They are also paid more than other team members. Their authority, however, is not definitive. Task Forces are encouraged to be democratic in nature and to work well as a single organism. Those that do are kept together indefinitely. Those which are disharmonious are usually broken up, with their members distributed into other cells. Individuals which are consistently unable to work with others have no place in Rebco SAR.

Normally a Task Force elects its own leader, however from time to time—especially during large mercenary force deployments—leaders are imposed upon a Task Force by either the company or the employer.

The office's Senior Task Force Leader has veto power, and changes in leadership aren't normally made during the course of an assignment except under emergency conditions. Outside of these restrictions, each Task Force can handle its leadership as it sees fit.

Rebco SAR is organized into four Branches: Operations, Administration, Legal, and Logistics. All Task Force members are part of the Operations Branch.

Operations Branch

As mentioned above, the Operations Branch handles all Rebco SAR assignments, and is in fact the entire company's reason for existence and the other branches exist to support it.

Most Rebco SAR offices have between ten and fifty operations employees, in Task Forces of three to six personnel each. Additional personnel for large mercenary type operations are usually hired for the duration of the mission only.

Additionally, every office except for the corporate headquarters in Victoria, Wellon is headed by a veteran of the Operations Branch. The organization of the Operations Branch, and its activities, are expanded on below.

Administrative Branch

The Administrative Branch is responsible for the day-to-day running

Task Force Naming

Each Task Force is given a separate identifying number to distinguish it from the others based on the year it was formed, the order and the location. For example, the third Wellon formed team of 2300 is designated WTF2300.003. This WTF designation has given rise to the nickname for all Wellon teams of 'The Confused' or—in an obscure cultural reference—the Keanu's.

What kind of person works for Rebco SAR?

Rebco SAR employs almost 1500 people from its eleven offices on eight worlds. These operatives, organized into Task Forces have a broad range of skills and come from a wide variety of backgrounds. A recent study by the company's Administrative Branch found the following trends:

—Rebco SAR operatives are savvy: 58% speak two or more languages. Almost two-thirds have a college degree, a very high percentage considering that over 50% come from Frontier worlds and almost all have had some college education. Most say they are well informed about current events.

—Rebco SAR operatives are high-speed: 45% have had SWAT or military Special Operations training or experience. 17% have advanced degrees. More than 80% have some form of military or law enforcement experience, and of those that didn't, most have a high degree of competence in one or more critical skills.

—Rebco SAR operatives are hip: 71% are under the age of thirty, and 90% are younger than forty. Most

rank the high-profile lifestyle as one of their favorite aspects of the job. Almost all say they take great pride in their professionalism.

—Rebco SAR operatives are resourceful: 97% of veteran operatives can recount a moment when they faced grave danger alone, or when their assignment or life depended on sound, split-second decisions.

But in some ways, Rebco SAR employees just can't be cubbyholed. For example, operatives come from a staggering variety of back grounds. In one Task Force, a retired DGSE agent might work side-by-side with an anarchistic former-asteroid miner. A computer hacker fresh off the streets of Victoria might work with a combat veteran of Aurore or Joi. Rebco SAR include soldiers and cops, medics, pilots and investigators, people with computer and covert skills, regardless of their history. They all have one thing in common though: Rebco SAR operatives are all clever, independent, resourceful and reliable.

of the company, and handles such items as clerical support, office management (although the office head is always a member of the Operations Branch), payroll, and medical and other benefits. The Administrative Branch is also the backbone of the corporate structure, providing communications between offices and branches, and handling corporate affairs.

Every Rebco SAR office has an administrative staff, generally two or three people in the smaller offices, to six or eight people in the larger ones.

Legal Branch

Just as Rebco SAR has a reputation as hiring only the best and most able personnel as operatives, the company is also known for its powerful legal support. This is critical in a business which frequently brings its employees into potential conflict with the law. Rebco SAR provides unconditional legal support for its operatives who get into trouble in the line of duty.

Most frequently, Rebco SAR lawyers are called upon to assist in the writing of contracts for assignments, or advising operatives on the legal issues involved in an assignment. Every Rebco SAR office has at least one legal counsel on staff, hired from the very best the region has to offer.

Logistics Branch

Supporting a mercenary company at the far end of a star arm is a major undertaking. This is why the most important branch for field operations is the Logistics Branch, which provides equipment and support. Logistics is capable of obtaining almost any piece of equipment an operative might need, usually quickly and at below retail cost. (Usually at a discount of 15-30%). Although Task Force members are encouraged to purchase their equipment, Logistics sometimes lends expensive or unusual equipment.

From each office, the Logistics Branch also provides forensic support, including photographic, ballistic, and materials analysis, fingerprint and genetic identification, criminal files and databases, and intelligence bulletins. Both forensic and equipment support is limited, and is given according to availability, need, and seniority. Each office has one or two Logistics coordinators to handle equipment and forensics requests.

To get mercenary groups to where they're needed and to support them in the field, the company owns a Metal class transporter and a modified Marseilles class passenger liner. These are generally booked out months—sometimes years—in advance, but if they're going in the same direction as a non-mercenary Task Force and have free space, then cheap fares (50% of the standard commercial rate) are available.

CARRYING OUT CONTRACTS

Rebco SAR takes on all sorts of jobs on a no questions-asked basis. Many of these jobs are for governments, large corporations, foundations, or other organizations, but there are also jobs for private citizens. The assignments range from investigating robberies, murders,

and missing persons, to carrying out specialized paramilitary activities such as extractions, search-and-rescue operations, and difficult reconnaissance's. Illegal activities are not out of the question, but are undertaken with caution. Rebcos SAR generally maintains a good relationship with the Wellonese government, and has powerful legal resources, but the company is not omnipotent, and operatives are not above the law. There are only two definitive guidelines: No freelance terrorism—there are of course organizations that do—and does not carry out gratuitous assassinations on Tirane or Earth. Beyond this, assignments are contracted at the discretion of the Task Forces that will be carrying them out.

The contract process is as follows: A client contacts a local office (of course on many worlds this may not be particularly local to them) and is connected with the Office Leader. The Office Leader gets a feel for the nature of the assignment, then decides who should handle the assignment based on each Task Force's schedule, experience, seniority, and the types of skills the operatives have. The members of the selected Task Force, and—usually—the office legal advisor, then meet with the client and get the specifics of the operation. They decide whether or not to accept the assignment, and if they do, they work out the contract. It is entirely up to them to set up the fee and any other parameters, such as a time limit or reduced fee for partial completion. Written contracts are required for all assignments. As assignments frequently involve goals or activities of questionable legality, however, these contracts are often vague in content and are almost never made public. Rebcos SAR has only had to take clients to court over contractual disputes on a few occasions—in general, the company's reputation, and the mere fact that a written contract exists, keeps troublesome clients in line. On average, contract fees run about Lv300 to Lv500 per day per operative in the Task Force—so a Task Force with four members taking on a job expected to last three days might set the price around Lv3,600. Of course, rates vary according to the level of danger, chance of failure, and the legality of the assignment. In addition, tasks that require significant travel—interstellar for example—may have very different rates for time spent traveling and time spent on the mission. Fees are generally paid half in advance, and half after completion.

Once a contract has been arranged, the Task Force gets to work. From this point they are on their own—the team does not answer to anyone except the client, unless they really mess things up. Logistics support, including transportation, specialized equipment and weapons, and forensics analysis is available, but is limited. Logistics resources are allocated based on need and seniority, but sometimes even high-seniority cells cannot get all the support they may desire. Rebcos SAR maintains, and demands from its employees, a high reputation for successful contract completion. Task Forces are expected to complete assignments even when they run into difficult or unexpected snags—when they spring for the best, clients demand results, so operatives must take their obligation seriously. Occasionally it becomes clear that a client deceived or withheld valuable information from the company while setting up a contract. Only in these cases is an unsuccessful completion acceptable.

Upon completion of the assignment, the balance of the fee is collected. The entire fee is paid directly to the company, which keeps forty

percent of it. The remainder is divided into shares—one per operative, with an extra share for the Task Force leader. The company credits the accounts of the operatives in the appropriate amounts, making the usual withdrawals for income taxes, and other payroll deductions. Employees may specify which currency they want to be paid in, although most take either the French Livre or the Wellonese Pound Sterling.

Benefits and Lifestyle

In addition to logistic support, the company also offers any other form of assistance an employee may require in connection with their duties. All medical expenses incurred by an operative which have anything to do with an assignment are paid in full. The same goes for legal expenses, should an operative get into trouble with the law. These benefits are offered unconditionally, but the company does not look kindly on abuses, and any operative who incurs frequent or expensive legal or medical bills due to negligence will not remain an employee for long.

Most Rebco SAR employees work only thirty or forty weeks a year. Even so, the average Task Force member makes over Lv80,000 a year. Operatives are often in the news, and perhaps for this reason, many of them seem to enjoy high-profile lifestyles. Despite the frequently light workload, employees are often on short call, and can generally expect less than twenty-four hours notice prior to a new assignment. Although the offices are regionally located, operatives are often called upon to travel and given the nature of interstellar travel this can mean months at a time away from home. For this and many other reasons, few operatives have families, and most, while enjoying their jobs, stay at them for five or fewer years.

It was supposed to be an easy operation. Body guard to Selina Scar, famous throughout human space as she went on her morale boosting trip to Aurore. So here we are crouching next to a fire by the ruins of her shot down VTOL. Selina's unconscious and her automed is running out of juice. Oh, and the Kafer patrol over the next ridge just turned our way. Just another day in the life of a Rebco SAR Task Force I guess. I slip the safety off my AS-89. Time to party.

Rebco Search and Rescue hires only the best. The Wellon based company employs almost 1500 people from its eleven offices on eight worlds. These operatives, organized into Task Forces have a broad range of skills and come from a wide variety of backgrounds and are sent out on almost any mission imaginable—so long as it makes money.

The Millennium's End Engine rules provide all the information needed to run a 2300AD game using the award winning Millennium's End game system.