

GURPS Perry Rhodan

An Unofficial Sourcebook by Robert C. Prätzler 2006

PROLOGUE	5
INTRODUCTION	7
AUTHOR'S NOTE ON TRANSLATIONS	7
1. CHARACTER RACES	7
GM'S SECRET INFORMATION:	7
THE RACES OF THE RHODANVERSE	7
<i>Terrans</i>	7
<i>Antis (Baálols)</i>	7
<i>Aras</i>	8
<i>Arkonids (active/Neo-Arkonids)</i>	9
<i>Arkonids (degenerated)</i>	10
<i>Epsalians</i>	10
<i>Extra-Heavies</i>	11
<i>Ferrons</i>	12
<i>Mouse-Beavers (llts) [NPC only]</i>	12
<i>Swoons</i>	13
<i>Martians</i>	13
<i>Topsiders</i>	14
<i>Zalitians</i>	14
<i>Jumpers (Mehandor)</i>	15
2. CHARACTERS	15
DISADVANTAGES	15
<i>Prohibited disadvantages</i>	16
<i>Uncommon/rare disadvantages</i>	16
<i>Addiction: Fictitious games</i>	16
MILITARY RANK	16
SOCIAL STATUS	16
STARTING POINT TOTALS.....	17
CURRENCY AND STARTING WEALTH	17
ADVANTAGES.....	18
<i>Legal Enforcement Powers</i>	18
<i>Extremely Hazardous Duty</i>	18
NEW ADVANTAGES	18
<i>Cell-showered (10 points) [NPC only]</i>	18
<i>Cell activator (27 points) [NPC only]</i>	18
<i>Mental stabilization</i>	19
<i>Ship Patrons</i>	19
PATRONS AND ENEMIES.....	19
LANGUAGES	20
SKILL SPECIALIZATIONS	20
NEW SKILLS.....	22
CONVERSION OF CHARACTER TEMPLATES FROM GURPS TRAVELLER.....	22
CONVERSION OF JOBS FROM GURPS TRAVELLER	23
3. EQUIPMENT	23
TL AND GENERAL ASPECTS	23
IMPLANTS.....	23
ARMOR	24
FORCE SCREENS	24
<i>Special "point attack" rule</i>	25
<i>Deflector shields</i>	25
<i>Force shields</i>	25
ENERGY WEAPONS.....	25
<i>Blasters</i>	25
<i>Impulse weapons</i>	26
<i>Disintegrators</i>	26
<i>Paralysis guns</i>	26

<i>Thermal guns</i>	26
<i>Shockers</i>	27
LOW-TECH WEAPONS	27
HAND WEAPONS	27
MISCELLANEOUS EQUIPMENT.....	27
4. PSIONICS.....	28
UNUSUAL BACKGROUND.....	28
GENERAL LIMITATIONS.....	29
<i>Teleport powers</i>	29
<i>TK powers</i>	29
<i>Antipsi powers</i>	29
RACIAL LIMITATIONS.....	29
SPECIAL POWERS	30
5. MARTIAL ARTS RULES.....	30
TRADITIONAL DAGOR (8/22 POINTS).....	31
MODERN MILITARY DAGOR (6 POINTS).....	31
6. SAMPLE CHARACTERS	32
7. SPACESHIPS AND SPACE TRAVEL.....	32
SPACESHIP TYPES.....	32
FTL TRAVEL.....	33
<i>Astrogation and programming</i>	34
<i>The actual transition</i>	34
<i>Risks</i>	35
<i>Effects of transitions on the crew</i>	36
<i>Emergency transition</i>	37
<i>Very short transitions</i>	37
STL TRAVEL.....	37
CONTRA-GRAVITY AND ARTIFICIAL GRAVITY	37
COMPUTERS	37
POWER PLANTS.....	37
STARSHIP WEAPONS.....	38
STARSHIP PROTECTION.....	38
SCANNERS.....	38
COMMUNICATIONS	38
TRANSMITTERS.....	38
CONVERSION OF MODULAR STARSHIP CONSTRUCTION RULES FROM GURPS TRAVELLER	39
<i>General</i>	39
<i>Modules</i>	41
<i>Weapons</i>	42
<i>Communicator ranges</i>	45
<i>Computers and software</i>	45
SAMPLE SPACESHIPS	45
<i>Space-Jet (civilian version)</i>	45
<i>Space-Jet (Solar Fleet auxiliary craft version)</i>	46
<i>Tadpole (civilian version)</i>	46
<i>Very Small Springer ship</i>	47
<i>Small Springer ship</i>	48
<i>Tadpole (Solar Fleet auxiliary craft version)</i>	48
<i>CITY Class light cruiser (Solar Fleet)</i>	49
<i>COUNTRY Class light cruiser (Solar Fleet)</i>	49
<i>COUNTRY Class light cruiser – special “CALIFORNIA” variant (Solar Fleet)</i>	50
<i>Fighter (Solar Fleet)</i>	50
SPACE COMBAT RULES CONVERSION	51
<i>Time and Distance</i>	51
<i>Range modifiers</i>	51
<i>Weapons table</i>	51
<i>Special Weapons</i>	52
<i>Rate of Fire</i>	53

<i>Size modifiers</i>	53
<i>Starship defense</i>	54
<i>Force Screens</i>	54
<i>Damage table</i>	55

Prologue

Dear roleplaying fans,

After some discussion on the website of the Perry Rhodan series (<http://www.perry-rhodan.net>), I have decided to provide a simple GURPS sourcebook for this series. However, as I have repeatedly said, I do not want to compete with the official Rhodan roleplaying game (<http://www.dorifer.com>). Therefore, this is an unofficial fan project that is limited to the absolutely necessary basics, and it is not comparable to any true GURPS worldbook. Especially, it does not include any typical background information as this should be available elsewhere on the Internet, e.g. via the Perrypedia (<http://www.perrypedia.proc.org>). Furthermore, this is not an official GURPS project, and GURPS and all related rules are trademarks of Steve Jackson Games (<http://www.sjgames.com>). And of course, the Perry Rhodan series and all its contents are trademarks of VPM KG in Germany.

To avoid any true competition for the official roleplaying game, I have deliberately chosen a very different setting, i.e. instead of the present of the Rhodan series, this book uses the year 2100 AD as its starting point. Furthermore, this book will only be available in English, because GURPS is an American game, and most of the required books are not available in a German translation anyway.

It may appear strange that a German writes a book in English only, and please excuse any mistakes. Nevertheless, I have explained my reasons and hope that you understand them.

All GURPS rules referred to in this worldbook are those of the 3rd Edition. You should also have access to GURPS Space and GURPS Uplift, as well as GURPS Supers for some of the mutant powers. As I do not own GURPS Psionics myself, the psionics rules are those from the 3rd Edition of the Basic Set. However, GURPS Martial Arts will be recommended if you want to use the special rules for Dagor. Finally, GURPS Traveller will be used for some of the spaceship rules.

Please note that this is work in progress and will be updated continuously. Especially, the spaceship rules are yet incomplete, as well as the rank and status tables and the characters section.

And now it is time to enter the Rhodanverse. Have fun in a period when men were men, aliens were aliens, and light green uniforms were worn by proud officers of the Solar Fleet that defended mankind against a hostile universe ;-)).

Best regards

Robert Prätzler, Aalen, Germany, December 2005

<http://www.omnirole.de>

What's new in version 1.1 of February 2006?

- Character Templates
- Ship Patron Advantage
- Updated skill specializations
- Updated point attack rule
- Additional information about spacecraft
- Starship construction rules
- Space combat rules

Introduction

This worldbook will not repeat detailed descriptions of the background, but focuses on the rules and technical aspects. For background information, please refer to the Rhodan series (no. 1 to 150, as well as the hardcover books).

Author's Note on Translations

I must admit that I do not like all the “official” English translations used in the US version of the Rhodan series. Thus, I have used my own translations where I thought them to be better, e.g. for the race of the “Jumpers”. Their name is derived from the fact that they jump from star to star (German: “Springer”, “springen”). Thus, a translation as “Springers” is not suitable. Similar adjustments have been made in other areas.

1. Character Races

GM's secret information:

It is worthwhile to know that all major humanoid races of the Milky Way are closely related. Actually, they are all descended from First Mankind, the Lemurs, whose Star Empire was destroyed about 52,000 years ago. However, this fact is unknown in the current period. The Arkonids believe that they evolved in the Arkon System, and that they are unrelated to the Terrans or the Ferrons. The common ancestors will only be discovered in the 25th century when Rhodan confronts the Masters of the Island, rulers of the Andromeda galaxy. While it is known that Arkonids and Terrans are able to have children with each other (most prominent example is the son of Rhodan and Thora, Thomas Cardif), the important anatomical differences (especially the fact that Arkonids have a breastplate instead of ribs) leads to different conclusions in present day science.

Nevertheless, it is known that the Aras and Jumpers are descendents of the Arkonids. Concerning the Antis, a similar origin is believed, but this will be proven wrong within the next ten years when the Akonians (ancestors of the Arkonids) will be discovered near the center of the Milky Way.

The races of the Rhodanverse

Terrans

Terrans are the descendents of modern day humans. They are considered the average race in game terms. Therefore, use unmodified human stats for Terran characters. Nevertheless, please keep in mind that the average citizen of the early 22nd century is healthier, better educated and in general more tolerant than a 20th century human.

It costs 0 points to create a Terran character.

Antis (Baálols)

The exact origin of the humanoid Antis is unknown. They are believed to be descendents of early Arkonid colonists, but are quite secretive to outsiders. Antis have copper-red hair and a light brown skin, but their anatomy otherwise resembles that of Arkonids, including the breastplate.

All Antis are powerful psionics, and actually the name “Antis” is derived from the term “Anti-mutants” because they are able to neutralize the psionic powers of other characters. However, as opposed to Terran mutants, their powers are limited to only some groups. The Antis call themselves Baálols and have established a mystic cult, the Baálol cult, in which most of them are priests. Intelligence agencies of the Solar Empire believe that the cult is only a cover to hide their political ambitions of taking over the power in the Arkon Empire.

Advantages and Disadvantages

The main difference to Terrans in game terms is the fact that all Antis have psionic powers. However, they may only select the following psionic powers: Telepathy, Antipsi, Force Screen Intensification, ESP. Antis do not require any unusual background to acquire these powers or train in respective skills. They must assign a minimum a 100 points to these powers and related skills, with a minimum power level of 5 in Antipsi and in Force Screen Intensification. Furthermore, Antis are Proud (-1 point).

An Anti character costs 99 points, which makes this race almost inaccessible for PCs except in a rather cinematic campaign. Furthermore, due to the psionic abilities, the GM may prohibit Anti characters.

New psionic power: Force Screen Intensification (3 points per level)

All Antis possess a special and unique psionic power which allows them to improve the capacity of force screens, reaching fantastic DR levels. For game purposes, this power costs 1 fatigue per 10 seconds of use. On a successful skill roll, the DR of a force screen is multiplied by $(\text{Power}/5+1)$, rounded down to even numbers. However, the power has a special drawback: The psionic modification of the force screen changes its structure, so that it now protects either against energy attacks only, or against all attacks except energy attacks (choice of the character). Switching protection type takes one second and a successful skill roll.

Characters with power levels of 10 or less may only improve personal force screens. A backpack screen requires at least power level 11, whereas larger screens (vehicular or even spaceship force screens) are left for the GM’s judgment.

Typical advantages

Alertness, charisma, clerical investment, danger sense, empathy, strong will, voice

Typical disadvantages

Intolerance, fanaticism (Baalol cult), megalomania, overconfidence, sadism

Uncommon or rare disadvantages

Berserk, dwarfism, dyslexic, fat, gigantism, gullibility, honesty, shyness, stuttering, truthfulness

Aras

The Aras, also called the Galactic Medics, are descendents of the Arkonids whose homeworld is the planet Aralon in the Kesnar system, 38 light years from Arkon. Actually, to be more exact, they are descended from early Mehandor. The Aras have been subject to physical and mental mutation, but also genetic engineering, resulting in an average height of 6’ 10” with a weight of about 140 lbs. Skin and hair are almost colorless, the eyes are as red as those of Arkonids.

Until the appearance of the Terrans, the Aras had established a monopoly for medicine and drugs in the Milky Way, resulting in lots of conflict with the Terrans. While the Aras are genial doctors and biologists with an excellent level of know-how, they are also rather ambitious and jealous of competition, and tend to ignore any kind of laws or ethic rules to reach their goals. Several cases are known in which they created diseases only to be able to sell the cure at a tremendous price.

Advantages and Disadvantages

Aras are larger than average humans (size at least 6 feet 5 inches), but also of lighter build. This results in lower strength (ST-2, -15 points). However, due to the genetic modifications of their brains over countless generations, Aras have higher intelligence (IQ+2, 20 points). They are Proud (-1 point), Imaginative (-1 point) and Attentive (-1). The total cost is 2 points.

Typical advantages

Eidetic memory, empathy, immunity to disease, language talent, rapid healing, reputation (as healers or scientists), wealth

Typical disadvantages

Absent-mindedness, cowardice, greed, jealousy, megalomania, pacifism (self-defense only), sadism

Uncommon or rare disadvantages

Any kind of physical disadvantages except skinny, berserk, dyslexia, gluttony, gullibility, honesty, laziness

Arkonids (active/Neo-Arkonids)

Arkonids are actually quite similar to Terrans, but there are some important differences. Especially, they do not have ribs, but instead, they have a bone breastplate. Furthermore, they had red eyes (like albinos) and white hair, and tend to have a light skin color as well. Many of the races of the Milky Way, especially the Mehandor and the Aras, are descended from the Arkonids whose Great Empire has dominated the galaxy for more than 18,000 years.

The three Arkon planets (Arkon I, the crystal world, Arkon II, the world of trade, and Arkon III, the world of war) were moved to the same orbit in the great days of the Empire, and they are located in the M13 cluster, some 34,000 light years from Earth. Nowadays, most Arkonids have degenerated, and they prefer decadent hobbies and leisure activities. However, there also are the so-called Neo-Arkonids who are descended from the crew of a generation starship (put into deep-sleep) that was discovered about 60 years ago.

Arkonids tend to be rather arrogant, especially if they are of noble birth, and tradition and etiquette are of the utmost importance for them. Terrans are seen as an upstart race, and the fact that the current emperor, Atlan Gonozal VIII., more and more uses Terran assistance to rule the Great Empire is despised by traditionalists.

Advantages and Disadvantages

Arkonids have Charisma/1 (5 points). Their physical stats are almost the same as those of Terrans. Although they have red eyes and pale color (similar to albinos), this is not albinism in the meaning of the GURPS rules. Indeed, due to the hotter white sun of the Arkon system, Arkonids are even used to higher temperatures and stronger UV radiation levels, but this is not important in game terms. However, Arkonids are Chauvinistic (-1 point) and Proud (-1 point). This is mainly caused by the fact

that the Great Empire has more than 15,000 years of history and is the largest power in the known galaxy. The total point cost is 3 points.

Typical advantages

Charisma, attractive appearance (any level), voice, status, wealth.

Special advantage: Extra-Sense (70 points)

Noble or otherwise outstanding Arkonids (typically of status 1 and better or military officers) may have an active Extra-Sense. The Extra-Sense may be described as a special subconscious mind of the Arkonid that assists him in several ways. Typically, the Extra-Sense will “talk” in the mind of the Arkonid, sometimes even in a sarcastic manner. “Fool! You should know better than trust that Mehandor.” In game terms, treat the Extra-Sense as a combination of the following advantages: Common Sense (10 points), Danger Sense (15 points), Eidetic Memory/1 (30 points), Intuition (15 points), Lightning Calculator (5 points), Mind Shield/5 (10 points). The power of the Mind Shield may be increased for additional points. However, the character is not allowed to raise the respective skill above IQ level unless he has the unusual background: Psionic Training. The special effect of the Extra-Sense’s sometimes annoying comments is reflected as a disadvantage worth (-5) points.

In view of the high point cost, player characters are unlikely to have the Extra-Sense advantage. Actually, it is limited to leading Arkonids in this historical period, so this adequately reflects the reality of the Rhodaverse.

Typical disadvantages

Bully, fanaticism (Great Empire), gluttony, intolerance (-10), laziness, lecherousness, overconfidence, overweight

Uncommon or rare disadvantages

Berserk, bloodlust, dyslexia, dwarfism, gigantism, gullibility, miserliness, pacifism, stuttering

Arkonids (degenerated)

Degenerated Arkonids are weaker than Terrans (ST-1, -10 points, and HT-1, -10 points), and they have lost the Charisma advantage. Furthermore, they may not have an Extra Sense. Otherwise, use the rules for active Arkonids. The resulting point cost is -20 points.

Typical advantages

Charisma, attractive appearance (any level), voice, status, wealth.

Typical disadvantages

Addiction (drugs or dreamgames), gluttony, intolerance (-10), laziness, lecherousness, overconfidence, overweight, weak will

Uncommon or rare disadvantages

Berserk, bloodlust, dyslexia, dwarfism, gigantism, pacifism, stuttering

Epsalians

The Epsalians are the Terran physical equivalent of the Extra-Heavies. They are genetically modified descendents of colonists that settled the planet of Epsal in the Vono-System (13,844 light years from earth) in the early 21st century. Epsalians are adapted to a gravity of 2.1g and they are of almost square builds (size and shoulder width of about 5' 3") with an average weight of 400 lbs. To avoid that their muscles weaken under Terran conditions, Epsalians must use a gravitator that simulates their home gravity. The excellent reflexes of Epsalians have made them first choice as spaceship pilots.

Advantages and Disadvantages

Epsalians are much stronger than Terrans (Increased Strength/5, 250 points) and they have sturdy bodies with HT+2 (20 points). The higher density of the body tissue provides some protection especially in close combat (DR 5, PD 1; 45 points). They are also used to a home gravity of 2.1 g with a grav tolerance threshold of 0.5 g (10 points). Finally, Epsalians have Increased Speed/1 (25 points). However, they are slightly unattractive (-5 points).

The total point cost of 345 points makes Epsalians almost impossible as player characters, except in a campaign with very high point totals such as e.g. a cinematic or martial arts campaign. If a GM wants to allow Epsalians as PCs, he might consider modifying the 40-points-limit for disadvantages for these characters.

Typical advantages and disadvantages/rare or uncommon disadvantages

Generally speaking, use the rules for Terrans concerning typical and uncommon advantages and disadvantages.

Note:

I consider the Gurps Space rules for heavy worlders to be illogical. With an ST bonus of +4, a heavy worlder weighing 300 lbs. would be unable to move on his home planet at a gravity of 2 g. Thus, I have completely ignored the game stats of the heavy worlders for the purpose of this worldbook.

Extra-Heavies

The Extra-Heavies are environmentally adapted descendents of Mehandor that have settled on planets with high gravity, such as Paricza (27,738 light years from Terra). They are also called the Galactic Mercenaries because they sell the service of their heavily armed fleets to everyone who is willing to pay the price. Their main customers are the Mehandor, whom they supported during their initial clashes with the Terrans.

Due to the environmental adaptation, Extra-Heavies are of almost square builds, with an average size and shoulder width of 5' to 6'. The average body weight of 600 lbs is mainly caused by the well-developed muscles and bones. Their skin color is light green. Similar to the Mehandor, the Extra-Heavies are known for a rough sense of humor, but their mentality is more combat-oriented. Most of them are used to a gravity of 2.1 g, but there are also branches that inhabit 3-g-worlds. Under normal gravity, they are required to wear a micro-gravitator to avoid negative long-term consequences for their muscles.

Advantages and Disadvantages

Extra-Heavies are much stronger than Terrans (Increased Strength/5, 250 points) and they have sturdy bodies with HT+2 (20 points). The higher density of the body tissue provides some protection especially in close combat (DR 5, PD 1; 45 points). They are also used to a home gravity of 2.1 g with tolerance thresholds of 0.5 g (10 points). However, Extra-Heavies are considered slightly unattractive (-5 points) due to their skin color and body layout.

The total point cost of 320 points makes Extra-Heavies almost impossible as player characters, except in a campaign with very high point totals such as e.g. a cinematic or martial arts campaign. If a GM wants to allow Extra-Heavies as PCs, he might consider modifying the 40-points-limit for disadvantages for these characters.

Typical advantages

Combat reflexes, high pain threshold, lightning calculator, mathematical ability, patron (clan), strong will, toughness, wealth

Typical disadvantages

Bad temper, bloodlust, code of honor, gluttony, greed, impulsiveness, jealousy, miserliness, on the edge, overconfidence

Uncommon or rare disadvantages

Combat paralysis, cowardice, dwarfism, dyslexia, gigantism, gullibility, pacifism, stuttering

Ferrons

Ferrons are one of the first races that were encountered by the Terrans. They are the natives of the planet Ferrol in the Vega System (27 light years from earth). Ferrons are smaller than Terrans (average height of 5'), but of heavier builds due to the higher gravity of 1.4g. They are also used to higher temperatures as Vega is much hotter than Sol. Unfortunately; the Ferrons are unable to grasp the concept of hyperspace or five-dimensional mathematics. Consequently, their technology never evolved past STL travel, and they must use FTL drives purchased from other races.

Advantages and Disadvantages

Ferrons are Dull (-1 points), but they have ST+3 (30 points) and HT+1 (10 points). They are not allowed to learn Hyperspace Physics or any similar skills (-5 points). Total point cost of Ferrons is 34 points.

Typical advantages and disadvantages/rare or uncommon disadvantages

Generally speaking, use the rules for Terrans concerning typical and uncommon advantages and disadvantages.

Mouse-Beavers (Ilts) [NPC only]

The Mouse-Beavers (or Ilts) are a non-humanoid race that resembles upright walking mice with a flat beaver's tail that are about 3' 5" tall and whose body is covered with a reddish-brown fur coat. They have a large tooth and evolved on the planet Tramp, 2,438 light years from Earth. Unfortunately, their homeworld was destroyed in 2045 and only 28 Ilts could be saved by the most famous member of the race, Gucky.

All Ilts have strong psionic talents, especially in the field of telekinesis. Some of them furthermore are telepaths or teleporters. The race lived peacefully in total harmony with nature and never developed any kind of technology, weapons or space travel. They are vegetarians and well-known for the fact that they love to play, especially using their TK powers, and including a strong practical joker trait. Mouse-beavers have an expected lifespan of about 500 years.

Advantages and Disadvantages

Ilts are weaker than Terrans, meaning that they have ST-5 (-40 points) and Reduced Hit Points (HT 10/6; -20 points). However, they are more agile with DX+2 (20 points) and have Extended Lifespan/2 (10 points). They are Distractible (-1 point), Nosy (-1 point) and Congenial (-1 point). Finally, all Ilts have telekinetic powers (TK power/12; Telekinesis-[IQ]; total cost 64 points). They are also allowed to purchase Telepathy powers and skills as well as Autoteleport and Exoteleport powers.

Due to the fact that the race is almost extinct, PC Ilts will be rather unlikely and require GM's permission in any case. It costs 31 points to create an Ilt.

Typical advantages

Alertness, animal empathy, rapid healing

Typical disadvantages

Compulsive behavior (practical joker), gluttony, impulsiveness, kleptomania, overconfidence, pacifism, sense of duty, weak will

Uncommon or rare disadvantages

Any physical disadvantages except overweight/fat, bad temper, berserk, bloodlust, bully, fanaticism, greed, intolerance, miserliness, paranoia, sadism

Swoons

Swoons, whose home world Swofon is 992 light years from Earth and only has a gravity of one quarter of that of Earth, resemble intelligent cucumbers with two pairs of arms. They have an average size of 1 foot and are very dexterous. The ability to see in microscopic dimensions has turned them into the most gifted technicians for miniature applications of any kind. They are faithful allies of the Terrans since first contact was made.

Swoon PCs can be very interesting, but also challenging because they will need some protection against high gravity even on Earth, and will have trouble buying equipment or simply avoiding that someone steps on them.

Advantages and Disadvantages

Swoons have Inconvenient Size (1 foot tall; -15 points), ST-8 (-70 points) and Reduced Hit Points (HT 10/2; -40 points). However, they are much quicker than Terrans with DX+5 (60 points) and Increased Speed/3 (special effect: does not affect Move; 45 points). Swoons have two additional arms (20 points). Their eyes have Microscopic Vision/10 (40 points).

Swoons will be exceptional player characters that suffer from many small (and larger) inconveniences due to their body size. Nevertheless, they may be an interesting challenge for experienced roleplayers, except in combat-oriented campaigns. It costs 40 points to be a Swoon.

Martians

Mars is among the first planets that were settled by Terrans. In the Rhodanverse, Mars has an atmosphere that is thinner than on Earth, but still breathable (comparable to high altitude mountain regions). Nevertheless, the colonists were put through an environmental adaptation program which mainly resulted in increased lung capacity. Martians are easily recognizable due to their large thorax.

Advantages and Disadvantages

Martians are a bit weaker than Terrans because of the lower home gravity (ST-1, -10 points). However, they have better endurance (HT+1, 10 points) and Breath Holding/5 (10 points). Thus, a Martian character costs 10 points.

Typical advantages and disadvantages/rare or uncommon disadvantages

Generally speaking, use the rules for Terrans concerning typical and uncommon advantages and disadvantages.

Topsiders

The Topsiders are oxygen-breathing lizardmen whose homeworld is located about 800 light years from Terra. They are in average 6' tall and have a flat, hairless skull with two mobile eyeballs at its sides. Both arms end in six-fingered hand. In addition to their powerful legs, a strong tail supports their body that is covered with brownish scales.

The Topsiders were among the first races encountered by the Terrans, and suffered terrible defeats against them. Nowadays, they are considered a minor galactic power. Officially, their planet is part of the Great Empire of Arkon, but de facto they are independent.

Advantages and Disadvantages

Topsiders are Staid (-1 point) and Callous (-6 points). They are Cold-Blooded (-5 points) with Nictitating Membrane/1 (15 points), ST+2 (20 points) and HT+2 (20 points). Their eye location gives them Peripheral Vision (15 points), and their body is covered with scales (DR 1; 4 points). Topsiders have Claws (15 points) and a tail that can be used to attack as well (Striker, reach 1, 5 points). This adds up to a point cost of 82 points.

Typical advantages

Alertness, combat reflexes, toughness

Typical disadvantages

Bad temper, bloodlust, color blindness, jealousy, impulsiveness, overconfidence, poverty, sadism, stubbornness, weak will

Uncommon or rare disadvantages

Combat paralysis, cowardice, dwarfism, eunuch, gigantism, pacifism

Zalitians

The planet Zalit orbits the star Voga, about one parsec away from Arkon. The planet is one of the first Arkonid colonies ever established. However, its inhabitants, the Zalitians, have changed over generations so that they now have dark skins and hair with a greenish color. Also, as opposed to most Arkonids, Zalitians have not been subject to any degeneration so that they continue to be active and intelligent people.

Advantages and Disadvantages

Physically and mentally, Zalitians are similar enough to Terrans that their stats are not modified in any way. This results in a cost of 0 points.

Typical advantages

[to be completed]

Typical disadvantages

[to be completed]

Uncommon or rare disadvantages

[to be completed]

Please note that Zalitians, being only Arkon colonists, are not allowed to undergo the special awakening process of the Ark Summia that is required for an active Extra-Sense. Therefore, they are not allowed to purchase this advantage although they are closely related to the Arkonids.

Jumpers (Mehandor)

The Jumpers, also called the Galactic Traders, are descendents of the Arkonids that mainly live on board their tube-shaped spaceships. However, they also have settled various planets, mainly as shipyards.

For more than 8,000 years, the Mehandor owned the Galactic trade monopoly, resulting in conflicts with the Terrans upon their appearance on the galactic stage. Average Mehandor are 6' 3" tall and of strong build. Most of them have long hair and beards, and they are well known for their rough sense of humor and the ability to sell cheap goods for the highest price. They mainly live on board their spaceships in clans that are ruled by a patriarch. Large clans may own hundreds of ships, while poor ones may only have a rusty wreck.

While Mehandor are fierce competitors among themselves, they will quickly ally if outside threats appear. Sometimes, they will hold large gatherings of all clans, mostly on the planet Archetz in the Rusuma system, not far from Arkon.

Advantages and Disadvantages

Mehandor are stronger and more robust than Terrans (ST+2, 20 points, and HT+1, 10 points). Their point cost is 30 points.

Typical advantages

Lightning calculator, mathematical ability, patron (clan), strong will, wealth

Typical disadvantages

Bad temper, gluttony, greed, jealousy, miserliness, overconfidence

Uncommon or rare disadvantages

Berserk, bloodlust, dwarfism, dyslexia, gigantism, gullibility, pacifism, stuttering

2. Characters

Disadvantages

In a culture of TL 12 or even TL 13, many disadvantages are considered highly unusual among the civilized races. Severe physical or mental handicaps are very rare because the level of available medical care for every citizen allows to cure them at an early stage. Similarly, the social developments in starfaring civilizations have eliminated many social disadvantages from the past. Consequently, the GURPS disadvantages in the following lists should only be allowed with a very good explanation, or even an unusual background (GM's discretion). They might be possible e.g. for primitive characters. Especially characters with one or several of the "prohibited" disadvantages will be extremely rare. Also, such characters will normally not be allowed to join the armed forces, secret service, etc.

Prohibited disadvantages

One arm, one eye, one hand, one leg, lame

Uncommon/rare disadvantages

Albinism, alcoholism, bad sight, blindness, deafness, epilepsy, hard of hearing, hemophilia, illiterate, kleptomania, mute, phobias (severe), poverty (poor or dead broke levels), pyromania, split personality.

Addiction: Fictitious games

Many Arkonids, especially of higher status, are addicted to so-called fictitious games. They will spend endless hours in front of their vidscreens and adore the newest creations of famous composers, or will create new patterns themselves. This has severe effects on their lives.

For game purposes, use the rules for a Dreamgames addiction (GURPS Cyberpunk, page 67). This is a -15-point-disadvantage. Please note that only degenerated Arkonids should have this disadvantage, and it is not encouraged for player characters.

Military rank

The following list contains the GURPS military rank equivalent of ranks in the Solar Fleet.

<u>Rank level</u>	<u>Rank</u>
8	Marshal (sometimes called Solar Marshal, highest flag rank)
7	Admirals (flag rank)
6	Colonel (commander of a capital warship)
5	Lieutenant Colonel (commander of medium warship)
4	Major/Captain (commander of smaller warship)
3	Lieutenant
2	high level NCO
1	NCO / Ensign
0	enlisted (Spaceman)

Social status

This table is for social status in the Solar Empire in GURPS terms.

<u>Status</u>	<u>Description</u>
7	Administrator (of the Solar Empire, i.e. Perry Rhodan)
6	Governor, Senator, Planetary head of government
5	Corporate head, high level flag officer
4	Who is who
3	Large city mayor, flag officer

2	Mayor
1	Doctor, military officer
0	Ordinary citizen
-1	Poor
-2	Hunted criminal

Starting point totals

The starting point value of player characters depends on the campaign setting and personal preferences. In the following, some recommendations are given.

100 points – citizens of the future

With 100 points, it is possible to create characters that have seen a fair amount of training and experience. However, they will not be former special agents, high level officers or similar to other characters of the Rhodan series. Skills, attributes and resources will be rather limited, meaning that high level adventures will not be advisable.

150 points – extraordinary people (recommended)

With an extra 50 points, characters will be able to have better training than average, or better resources. While still insufficient for special agents of the Solar Defense or high level fleet officers, they should be able to match more interesting challenges.

200 points – specialists or cinematic campaign

At 200 points, a character reaches the border for a junior special agent, weaker mutant or similar figure. This should be enough to recreate typical Rhodan series adventures and to put them through good challenges, without having demi-gods as player characters.

Attributes

We strongly recommend that a maximum of 120 points is spent on basic attributes. In a universe with energy weapons, body attributes are far less important than training and resources.

Disadvantages

The maximum for disadvantages is (-40) points. This does not include compulsory disadvantages, such as e.g. duty in a military campaign or a common enemy of all characters that is imposed by the GM.

Skills

Due to the existence of hypnotic training and other modern means of education, the limit of character points that may be spent on skills is increased to age x 4 points.

Currency and starting wealth

The currency of the Solar Empire is the Solar. One Solar consists of 100 Soli. In the Great Empire of Arkon, the currency is called the Chronner. For game terms, consider both currencies to have roughly the same value.

Starting wealth for newly created characters is 1,000 \$. Convert all equipment prices from other GURPS books into Solar by dividing them by 10, as the Solar still has a very high purchase value.

Normally, 80% of the starting money should be tied up in permanent investments such as an apartment, furniture, etc. However, the GM may allow exceptions.

Advantages

Legal Enforcement Powers

The 15 point type of this advantage is suitable for top agents of the Solar Defense. Lower level field agents should have 10 points of Legal Enforcement Powers. However, neither of them may kill with relative impunity.

Extremely Hazardous Duty

This disadvantage that was first introduced in GURPS Special Ops is suitable for top agents of the Solar Defense or for members of Special Forces.

New advantages

Cell-showered (10 points) [NPC only]

The character has been subject to a special treatment in the Physiotron device on the planet Wanderer. Such a cell shower can only be granted by decision of the entity IT and is usually limited to people whose abilities are vital for the survival of humanity, such as most mutants, as well as Perry Rhodan himself. The cell shower causes all aging of the character to stop for 62 years. However, after that period, he must immediately receive a new treatment, or will age rapidly within 62 hours until reaching his true age. A cell shower does not provide any additional powers such as protection against poisons, diseases or injuries.

In game terms, this is the unaging advantage combined with a special drawback worth (-5) points. A player character may not purchase this advantage. It is included in the sourcebook to allow the introduction of characters from the Rhodan series into the campaign.

Cell activator (27 points) [NPC only]

A cell activator is a high-tech device of unknown TL. It resembles an egg of about 5 cm diameter and is worn on a chain.

As long as the activator is worn by its bearer, he does not age (unaging, 15 points). Furthermore, the activator provides immunity to poisons (15 points) and to diseases (10 points) and improves the healing of the character's body (regular regeneration, 25 points). As a special effect, please note that the immunity to poisons is not total. A character may still be knocked out or paralyzed by some poisons, but he will overcome the effects earlier, and he will never be in danger of dying from a poison.

A cell activator may be stolen or even destroyed by sufficient force (it is immune to ordinary damage, treat as being DR 50 against all attacks except energy attacks, and 1 HP, cannot be repaired). It is unknown what happens when an activator is destroyed, but probably this will cause a terrible explosion (total value of disadvantages: -60%).

The only known cell activator is owned by Mascaren Atlan Gonozal VII, the Emperor of the Great Empire of Arkon. According to rumors, this activator will not work on any other person because it was tuned to match Atlan's individual body signs by IT.

Consequently, no player character may have this advantage.

Mental stabilization

Mental stabilization is a special medical treatment which includes neural surgery. Its purpose is to protect someone against psionic powers that affect the mind, i.e. especially all kinds of telepathy. The procedure is especially used for special agents, but also common with high level members of society that want to be protected against psionics.

For game purposes, treat a mental stabilization as a Mind Shield than can never be turned off and without any skill. Typical power levels are in a range of 5 to 15.

Ship Patrons

As outlined in GURPS Traveller, characters may be defined as owners of an FTL capable spaceship. The base value of a spaceship is 10 points. For this amount, an unarmed ship with a maximum displacement of 1,000 spaces, a level/1 transition drive, 50 spaces of cargo hold and an acceleration (empty) of up to 250 miles/sec² may be selected. The following modifiers are applicable:

- each further level of transition drive + 4 points
- each 50 spaces of cargo hold up to 500 spaces + 1 point
- each 500 spaces of cargo hold exceeding 500 spaces + 2 points
- displacement increased to maximum 10,000 spaces + 10 points (includes 500 spaces of cargo hold)
- per acceleration increase by 25 miles/sec² + 1.5 points
- one very small turret with weapons + 5 points
- one small turret with weapons + 10 points
- bank loan: You have to pay back a bank loan, and if you do not make the payments, the bank will likely try to take the ship away. [to be completed]
- ship is old and unreliable: A critical part breaks down and must be replaced on a roll of 6 or less (-10% cost) or 9 or less (-20% cost). Rolls are made once per month of operations, or per stress event. Stress events are defined as jumps over more than 75% of the maximum range of the transition drive.

Patrons and enemies

Solar Defense

The Solar Defense is the main intelligence and counter-intelligence agency of the Solar Empire. Headed by Solar Marshal Allan D. Mercant, it is currently considered to be the leading secret service in the Milky Way. The Solar Defense is a 30 point patron (powerful interstellar organisation). Normally, it can only be taken as a patron if the character also accepts a related duty.

Sentenza

The Sentenza is the mafia or yakuza equivalent of the Great Empire. With a tradition of thousands of years, and lots of secret rituals and resources, it is a pretty powerful organisation that can easily take over a minor planet. Treat it as a 30 point patron in game terms. Usually, the Sentenza will require something in exchange for its services, i.e. the character should also take a related duty disadvantage. Sentenza membership also qualifies as a potentially dangerous secret (worth -20 points, resulting in arrest or similar punishment).

IT

The mysterious entity IT inhabits the artificial planet Wanderer and does not have a physical body. It is believed that IT is the product of an entire race leaving the level of physical existence and becoming a mere spirit. IT is the source of immortality via the Physiotrone, and also provided Atlan with his cell activator. Furthermore, the technology level of IT is impressive (e.g. two fictitious transmitters were given to Rhodan by IT). In GURPS terminology, IT has access to TL16 technology.

It is highly unlikely that a beginning player character will have IT as a patron (or an enemy). IT is a 25 point patron (very powerful individual with access to extraordinary power), and will never appear more often than on 6 or less.

Languages

Interkosmo (Satron) (mental/easy)

This is the galactic universal language whose main words are derived from the Arkonidian language. All characters must have it at least at IQ level.

Topsido (mental/easy)

This is the native language of the lizard-like Topsiders and rarely learned by other races due to the small importance of the Topsiders.

Arkonidian (mental/average, defaults to Ancient Arkonidian-6)

This is the language of the Empire of Arkon. Many Terrans with spacefaring experience will have at least basic knowledge of Arkonidian.

Ancient Arkonidian (mental/hard, defaults to Arkonidian-6)

This ancient version of Arkonidian was used in the early days of the Great Empire, i.e. about 15,000 years ago. Many ancient documents will be in this language. Nowadays, it is only used for ceremonial and traditional purposes.

Terran languages

On earth, most languages from the past continue to exist. Especially English is very important as it is the main language of the Solar Empire. However, the importance of Interkosmo is growing and scientists expect it to become the Empire's main languages within a century or two. Exotic languages such as Japanese, Malay or Arabic may be useful for players out in the Milky Way if they want to exchange some words without being understood by other races. However, the existence of automatic translators makes this benefit usually a rather short-lived one.

Skill specializations

In the following, the most important skill specializations for the Rhodanverse are given.

Beam Weapons

Refer to equipment section.

Gunner

Beam Weapons (covers impulse cannon, thermal cannon, disintegrator and paralysis gun)
Tractor Beams
Gravitic Bombs
Torpedo Launchers

Armoury

Rifles & Handguns (this is a rather rare specialization)
Beam Weapons
Spaceship Weaponry
Vehicle Weaponry
Artillery
Force Screens

Mechanic

Robotics
Fusion Reactors
Impulse Drive
Transition Drive
Gravitics
Electric Motors

Electronics Operation

Communications
Computers
Force Screens
Matter Transmitters (Akonians and unusual background only!)
Medical
Security Systems
Sensors

Astrogation

Transition Drive (FTL)
STL Flights
(specializations default to each other at -4)

Engineer

Robotics
Transition Drive
Impulse Drive
Gravitics
Electrical Work
Fusion Reactors

Driving

Cars
Tracked Vehicles

Piloting

Small/Large Helicopters

Grav Belt
Fighter spacecraft (maximum displacement 100 tons)
Small spacecraft (maximum displacement 10,000 tons)
Spacecraft (maximum displacement 5 million tons)
Large Spacecraft (displacement exceeds 5 million tons)
Contragravity Craft
Small/Large Jets

New skills

Autohypnosis (GURPS Uplift)

This skill is especially common with high-level secret agents of the Solar Defense or members of the Mutant Corps.

Hyperspace physics (GURPS Uplift)

Modern hyperspace physics is based on the science of the Arkonids. It mainly focuses on the fifth dimension and is especially important to be able to understand the working principles of e.g. transition drives, force screens and certain weapons systems.

Xenology (GURPS Uplift)

This skill is especially widespread among Aras, but also taught on earth.

Conversion of Character Templates from GURPS Traveller

Most of the character templates from GURPS Traveller will also work in the Rhodanverse. In the following, some comments about necessary modifications will be made. In general, for all military or similar templates, replace guns skills with beam weapon skills because non-beam weapons are rather rare in those service branches.

Army	Armies are not that important in the Rhodanverse. The navy and related services templates cover the largest portion of most armed forces. Therefore, these careers are rather rare.
Army(aviation)	This career does not exist in the Rhodanverse.
Barbarian	These are rather rare, but are acceptable generally speaking. They might be lost Arkon colonists that have fallen back in technology, or simply primitive aliens from a newly discovered world. This template is not suitable for Terrans or their descendants (with the exception of primitive people on earth – you might play of the last Amazon Indians...))
Belters	This is a rare character in the Rhodanverse. Remove the advantages 3D Spatial Sense, G-Experience and Improved G-Tolerance (due to the different spaceship tech development, these advantages do not exist in the known Rhodanverse).
Bounty Hunter	Please note that bounty hunters cannot have legal enforcement powers in the Solar Empire. In the Arkon Empire, this is different. Also, this is a rather rare career in the Solar Empire.
Corsair	Corsairs are rare in this period. Remove 3D Spatial Sense and G-Experience from the template, and change the enemy to Solar Empire or Arkon Empire (with the same point value).
Engineer	Remove G-Experience and change the mechanic skills as follows: mechanic(jump drive) becomes mechanic(transition drive),

	mechanic(manuever drive) becomes mechanic(impulse drive) and mechanic(power reactor) becomes mechanic(fusion reactors).
Law Enforcer	Remove the shield(riot shield) skill. Such shields are no more in use in the Rhodanverse.
Marine(enlisted)	Remove 3D Spatial Sense, Acceleration Tolerance, G-Experience and Improved G-Tolerance from the template.
Marine(officer)	see above
Marine Spec. Ops	see above
Martial Artist	This is a rare career, but if you want to pursue it, have a look at the special Dagor rules.
Medical Doctor	This is the most popular career for Aras.
Medical Technician	Also a suitable choice for Aras, especially if they did not qualify as doctors for whatever reason.
Merchant	Remove Claim to Hospitality(trade guild) because such guilds do not exist in the Rhodanverse. This template is very suitable for Mehandor, who might have Claim to Hospitality(Clan).
Navy(enlisted)	Remove 3D Spatial Sense, Acceleration Tolerance, G-Experience and Improved G-Tolerance from the template. Change the mechanic skills as for the engineer template.
Navy(officer)	see above
Navy Aviation (officer)	see above
Scientist	With a medical focus, or one on bioscience or genetics, this career is very suitable for Aras.
Scout	Remove 3D Spatial Sense, Claim to Hospitality(Scout), G-Experience and Improved G-Tolerance from the template. Also, there is no formal scout service in the Rhodanverse, so that the character will either be a freelance explorer, or be a former employee of a megacorporation.
Undercover Agent	Most agents will belong to the Solar Defense (or the Arkonid secret service).

Conversion of Jobs from GURPS Traveller

All jobs in GURPS Traveller are also acceptable for the Rhodanverse.

3. Equipment

TL and general aspects

The general TL in the Rhodanverse is TL 13. However, there are deviations concerning certain pieces of equipment, as well as special rules to reflect the reality of the series. These will be described in more detail in the following.

The medical TL can be treated as TL 12.

Implants

Implants and cybertech of any kind are extremely uncommon in the Rhodanverse. The state-of-the art medical technology could easily build them, but as regeneration treatments are widespread, and most people do not want to become partially robotic, implants are almost unknown. The only exceptions concern some special agents who receive implants for their missions, and people who for some reason are unable to receive successful regeneration treatment. All characters with obvious implants must

take a compulsory -2-reaction from almost everyone (-10 points). Furthermore, any implants require an unusual background cost of 25 points.

Armor

Due to the fact that force screens are the main form of military and personal protection for more than 20,000 years, the development of personal body armor was never a priority issue in the Rhodanverse. Consequently, many of the high tech armors in GURPS Ultra-Tech do not exist although the technology should in theory be easily able to produce them. Only the following armor types of TL8 and above are available for characters.

Monocrys

Use standard stats.

Energy Cloth

Armor stats are changed to PD 3 and DR 25.

VaccSuits

Use standard rules for the TL.

Battlesuit

The battlesuit of the Solar Fleet is based on Arkonid designs with some improvements. It is used mainly for ground combat in hostile environments, but also for all kinds of hazardous missions in which mere spacesuits appear to be insufficient. For game purposes, the rules for cybersuits may be used with the following deviations: Battlesuits do not have any laser sensors, camouflage functions or neutrino communicators. However, they do include a standard communicator (range of 1,000 miles) and an FTL communicator (range of one light second) as well as a force screen, a deflector shield and a contragrav backpack. Furthermore, the armor stats are changed to PD 5 and DR 50. A typical battlesuit will provide breathing air for at least eight days.

Force Screens

Force screens are the most usual form of protection in the Rhodanverse. They are used in portable versions, but also protect vehicles, fixed installations and spaceships.

Please note that force screens do not stop teleporters or transmitters. However, they protect against all types of attacks, including beams, solid objects and slow-moving attacks.

Use the Ultra-Tech rules for TL 13 force screens, but modify DR as follows:

- Personal Force Screen: DR 120
- Backpack Force Screen: DR 300

In the Rhodanverse, force screens do not suffer any DR reduction from weapons.

I am aware of the fact that the description of force screens in the Rhodan series often mentions that they can only be penetrated when they are overloaded (or by “point attacks”, see below). Nevertheless, I wanted to modify as few GURPS rules as possible to keep the game easily playable. Consequently, the rules from GURPS Ultra-Tech were not modified.

Special “point attack” rule

Force screens, especially the heavier variants, provide a high level of protection against most handheld energy weapons. Therefore, it is a common tactic in the Rhodanverse that several attackers concentrate their attacks in one point of the screen. This is called a “point attack”. For game purposes, a point attack requires that the attackers are able to communicate (any possible means) and make their attacks with -4. Also, the shots must be fired simultaneously, i.e. they may not be fired by the same character using a weapon with a RoF greater than 1. A point attack means that the damage from all participating shots (whose attackers made their die roll) is added into one amount before applying the force screen rules from Ultra-Tech (i.e. concerning penetration and overload). If more than three characters want to make a point attack, apply an additional -2 penalty for every further character.

If a point attack results in successful penetration of a force screen, add the damage from all individual attacks until the screen’s DR has been surpassed, and treat the respective and each following attack as affecting the protected target.

Example:

Three characters are trying a point attack against a robot protected with a DR 400 force screen. They are firing with thermal pistols. Each character attacks with weapon skill-4. They all succeed, and the individual damage rolls produce results of 85, 90 and 75. Normally, none of the hits would have affected the force screen at all, because the individual damage was less than half its DR (200). However, as this is a point attack, the damage is added to 250. As this is more than half the screen’s DR, it is shifted by one energy level.

In the next turn, two other characters join the attack. The attacks of all characters are now made at weapon skill-8. They all succeed with damage roll results of 100, 100, 120, 100 and 80 (total 500). This means that the screen is shifted by two energy levels. Furthermore, 20 points of the fourth attack (100 plus 100 plus 120 plus 100 is 420, DR is 400) as well as the entire fifth attack penetrate the screen and affect the robot.

Deflector shields

In the Rhodanverse, a deflector is not a protective device, but is used to render someone invisible. This invisibility includes the UV and IR spectrum. However, the character still may be detected by sounds or by energy scanners or mass scanners. Please note furthermore that the current technology does not allow two characters that are using deflectors to see each other!

Force shields

Besides the fact that they are never called “deflectors” (see above), use the standard Ultra-Tech rules for force shields.

Energy weapons

Blasters

Use the Ultra-Tech rules for these weapons. Hotshotting is possible. The game stats are as in Ultra-Tech with the following deviations:

<u>Weapon</u>	<u>Damage</u>
Pistol	9d
Heavy Pistol	14d
Rifle	18d
Heavy Rifle	9d x 3

Impulse weapons

These weapons fire so-called impulse beams which cause any matter that they hit to enter a nuclear fusion process. This powerful, often really deadly effect makes them a standard military weapon and also highly effective against robots. Impulse beams are invisible in a vacuum. However, in an atmosphere, they affect the molecules of the air, resulting in a visible flash of light and a loud sound.

Use the Ultra-Tech rules for pulsar weapons to reflect the special effects caused by impulse weapons. The game stats are as in Ultra-Tech with the following deviations:

<u>Weapon</u>	<u>Damage</u>	<u>Weight</u>
Pistol	3d x 10(2)	6
Rifle	4d x 10(2)	13

The pistol otherwise has the stats of the standard pulsar, the rifle those of the assault pulsar.

Disintegrators

Use the general Ultra-Tech rules for disintegrators. However, Rhodanverse disintegrators do fire a continuous beam, so that they are not able to bypass obstacles.

Paralysis guns

The standard non-lethal weapon in the Rhodanverse is the paralysis gun. They fire almost invisible energy beams which can only be detected via a light blur in the air. Paralysis beams affect the peripheral neural system, so that a person that is hit is unable to move, but can still breathe, see, hear and think. Characters with a high body weight are difficult to paralyze: The effective HT of a character is increased by 1 for each full 250 lbs of body weight. Furthermore, the duration of the paralysis is reduced by 10% for each full 250 lbs. If a HT roll is made with more than 10 points below the required number, the paralysis gun does not have any effect at all, including disorientation.

An important point is that in the Rhodanverse, paralysis guns affect living matter only. Therefore, the rules for hits on electronic equipment as found in Ultra-Tech are not used. Force screens are highly effective against paralysis guns, i.e. they stop them completely. However, the “sealed armor rule” from Ultra-Tech does not apply in the Rhodanverse as well, i.e. any kind of armor is useless against paralysis guns. Otherwise, use the standard rules. The game stats are as in Ultra-Tech with the following deviations:

<u>Weapon</u>	<u>Weight</u>	<u>Shots</u>
Pistol	2.5	30/C
Rifle	7.5	25/C

All ranges are doubled.

Thermal guns

Thermal guns fire beams similar to lasers. However, they use the invisible infrared spectrum, resulting in an ultra-hot energy beam that is visible and audible in an atmosphere. Use the Ultra-Tech rules for X-ray-lasers. Hotshotting is possible. The game stats are as in Ultra-Tech with the following deviations:

<u>Weapon</u>	<u>Damage</u>	<u>Shots</u>
Pistol	4d(2)	20/C
Carbine	3d(2)	200/D

Rifle

4d(2)

300/D

Shockers

Shockers are a rather cheap non-lethal weapon system. They are widespread also as private self-defense weapons and legal almost everywhere. However, they do not work in a vacuum.

In general, use the Ultra-Tech rules for electrolasers. However, these weapons may neither be hotshotted nor can they cause any lethal effects. The game stats are as in Ultra-Tech, but the number of shots is 40/C for a pistol and 30/C for a rifle.

Low-tech weapons

Several low-tech weapons are still in use in the Rhodanverse. They are especially preferred by secret agents in situations where energy weapons cannot or should not be used. Mainly, the following weapons from GURPS Ultra-Tech are available:

- Gauss needlers
- Gyrocs
- Needlers
- Ordinary slugthrowers (SMG, automatic rifles, hunting rifles, shotguns, etc.)

Treat all these weapons as being effectively produced at TL9.

Hand weapons

Vibroblades

Use the standard rules in Ultra-Tech.

Monoblades

Use the standard rules in Ultra-Tech.

Please note that force swords or sonic blades are unknown in the Rhodanverse. The same applies for other Ultra-Tech hand weapons such as neurolashes. However, stun wands do exist and are a common weapon of Terran police forces.

Miscellaneous equipment

Generally speaking, all devices of TL8 to TL13 as listed in GURPS Ultratech is available in the Rhodanverse. However, in the following, exceptions as well as rules deviations are described.

TL9

Braintaping is unknown in the Rhodanverse.

TL10

Neutrino communicators and receivers are not used because state-of-the-art technology is based on FTL communicators (Hypercoms).

Also, the fusion flight pack is unavailable. The same applies for robofac or minifac as well as for anti-agathics. Concerning the latter, the Aras did develop a powerful anti-agathic serum which was able to increase human lifespan tremendously (Rhodan encountered a human from the 16th century who had been kidnapped by the Aras). However, the production secret is thought as having been lost.

The biohound and intruder suit are also unavailable (but refer to the deflector section). Concerning medical technology, brainburn, torpine and neural inhibitors also do not exist.

TL11

Instaskill is unknown. Instead, hypnotic training is widespread. The viral solvent also is unavailable, but other powerful acids do exist, most of them the products of animals with very alien biochemistry. Biosuits and survival foam have never been developed in the Rhodanverse, and the hypnagogic projector is also not in use. However, a special hypnotic raygun replaces it (no rules yet!).

TL12

Gravity ripple communications are unknown. This also applies for portable force beamers (although tractor/pressor beams are widespread, especially on board spaceships) and second skin.

TL13

There is no living metal technology, no energy webs and no chrysalis machine.

4. Psionics

Psionic powers play an important role in the early novels of the Rhodanverse, and without the support of his corps of mutants, Rhodan probably would never have succeeded in unifying earth and defending it against several alien invasions, let alone solving the Galactic Riddle and gaining immortality from IT. Nevertheless, psionic powers are rare. Most of the Terran mutants are descendents of victims of the atomic bombs that were dropped on Hiroshima and Nagasaki, or of other nuclear disasters. Among other races, psionics are even rarer, with the notable exception of certain races such as the Ilts and Antis who have widespread specific psionic powers.

Unusual background

All psionic character must purchase an unusual background unless they belong to a special race such as the Antis or the Mouse-Beavers. The following unusual background rules apply for the Rhodanverse:

Latent powers (10 points)

The character is not yet aware that he has psionic powers. He may have powers from up to three power groups, but is not allowed to have a higher level than 1. Furthermore, the character may not have any psionic training (i.e. any points allocated to psionic skills). Later in the game, the character may increase his powers and learn psionic skills with earned character points. However, the GM may rule that first an “activation event” must happen to make him aware of the powers.

Weak mutant (20 points)

The character may only have powers from one power group with a maximum beginning power level of 5 per power (may be raised later). Alternatively, he may have powers from one group with a maximum level of 10, provided that he accepts a limitation that results in at least a 50% cost reduction.

Psionic training (10 points)

Only characters with this unusual background may have any psionic skills when they are created. Characters without this advantage will be limited to self-study also later in the game, unless they pay the point cost with earned points.

Mutant (50 points)

The character may have psionic powers from a single group at any level, or from two groups either up to level 10, or level 20 if he accepts a limitation as for the weak mutant unusual background.

Extraordinary mutant (100 points)

The character may have any psionic power at any level. He must only observe racial and general limitations.

General limitations

Teleport powers

In the Rhodanverse, autoteleport and exoteleport are separate psionic powers. Each of them costs 3 points per power level. A psionic with autoteleport is normally able to carry weight (including other living beings) up to the amount mentioned in the TK table.

TK powers

In the Rhodanverse, pyrokinesis and cryokinesis are not related to TK powers, but part of a separate psionic power group. The cost for this special group that only includes pyrokinesis and cryokinesis is 3 points per power level. General TK powers (telekinesis, levitation and PK shield) still cost 5 points per power level.

Antipsi powers

Antipsi powers may only be purchased at normal cost by Antis in the Rhodanverse. Other races require an additional unusual background: antipsi at a cost of 10 points besides the unusual background: mutant.

Psionic resistance is unknown and therefore may not be purchased by any character. The only available antipsi power in these rules is the psi static power.

Racial limitations

Depending on the character race, certain additional restrictions apply for psionic powers.

Terrans

Terrans are not subject to any special limitations. This also applies to Martians.

Arkonids and related races, including Aras, Zalitians, Mehendor and Extra-Heavies, as well as Epsalians

These races must pay an additional 15 points for the unusual background: psionic because psionic powers are rather rarely encountered among them.

Antis, Mouse-Beavers

As mentioned in the racial description, Antis and Mouse-Beavers must observe special psionics rules.

Topsiders, Swoon

Psionics are extremely rare among these races. The unusual background cost is raised by 25 points.

Special powers

In addition to psionic powers, various powers from GURPS Supers are encountered in the Rhodaverse. The following lists cover these powers and assign them to power groups.

a) Improved Vision

Infravision, Microscopic Vision, Penetrating Vision, Spectrum Vision, Telescopic Vision

b) Improved Hearing

Parabolic Hearing, Ultrahearing

c) Nature powers

Speak with Animals, Speak with Fish, Speak with Plants

d) No power group, treat as separate powers

Flexibility, Gills, Perfect Balance

To purchase any of these powers from a single group, the unusual background cost is 25 points, with the same modifications as described for psionics. Please note that if a character wants to have these powers **and** psionics, he must pay the unusual background cost **twice**. If a character wants access to all of the groups, increase the point cost to 50 points.

5. Martial arts rules

Dagor (Arkonid for all-combat) is a traditional Arkonid philosophy and also the major Arkonid martial art. Dagor is perfectly capable to match will all major Terran martial arts, including exotic ones such as Shaolin Kung fu or Ninjutsu.

However, nowadays the secrets of the Dagor masters have almost been lost. Only some surviving experts pass the knowledge on from generation to generation. This makes it difficult to be a true Dagor master (especially in the cinematic style). The GM may require up to 20 points unusual background, and may restrict access to this style to Arkonid nobles. Atlan, the Arkonid emperor, is believed to be a Dagor master, but his exact level of knowledge is unknown.

Students of Dagor (Dagoristas) study ancient as well as modern hand-to-hand weapons, with a focus on swords and similar weapons. They also train in the use of modern technology, such as monoblades, force shields, etc. Furthermore, in a cinematic campaign, Dagoristas have access to certain cinematic skills which are based on mental powers. In combination with the Extra-Sense advantage, a Dagor master can be an incredibly powerful foe or ally.

There are four main levels of advancement in Dagor. These are the following:

- Adept (student) - (Arkonid word: Hertaso)

- Master - (Arkonid word: Laktrote) – black belt equivalent
- Grand Master - (Arkonid word: Tai-Laktrote) – equivalent to 5th dan in Karate
- Supreme Master - (Arkonid word: Thi-Laktrote) – no Terran equivalent, very rare rank

Traditional Dagor (8/22 points)

Primary skills

Judo, karate, broadsword, meditation

Secondary skills

Acrobatics, body language, breath control, fast-draw(broadsword), , philosophy(Dagor), shield, and any two of the following: bow, fencing, shortsword, spear, staff, whip

Optional skills

Jumping, history(Arkon), literature(Arkon), stealth, throwing, all weapons not taken as secondary skills

Maneuvers

Arm lock, back kick, elbow strike, feint, ground fighting, hit location(broadsword), hook kick, spin kick

Cinematic skills

Blind fighting, body control, breaking blow, mental strength, power blow, pressure points, zen archery. Many Dagor masters will have the Weapons Master advantage.

Cinematic maneuvers

Enhanced parry(broadsword), roll with blow

Modern military Dagor (6 points)

This is a modern version of Arkonid Dagor. Most mystical elements have been removed, and the style concentrates in unarmed combat as well as some forms of armed combat. This style is also suitable for a “realistic” Perry Rhodan campaign, and may be known by Arkonids, but also by Terrans, especially if they are or were members of the armed forces or a secret service.

Primary skills

Judo, karate, broadsword

Secondary skills

Acrobatics, meditation, any two of the following: fencing, shield, shortsword, staff

Optional skills

Remaining weapons skills not taken as secondary skills

Maneuvers

Arm lock, back kick, elbow strike, hook kick, spin kick

Cinematic skills

none

Cinematic maneuvers

none

6. Sample characters

[To be completed]

7. Spaceships and space travel

Author's notes: Unfortunately, the early Perry Rhodan novels are full of contradictory information on the capabilities and equipment of spaceships. There is not any clear statement on weapon ranges (several thousand miles, or several million miles), on the FTL jump range of starships, their acceleration, not to mention matters such as the impact of stellar bodies on FTL jumps. Some weapons (e.g. neutron cannons) are even only mentioned in one or two novels, then they disappear from the Rhodanverse. When the publisher Agema presented a Rhodan space combat game in the early 1990s, they did not mention any actual distances...Apparently, they did have a good reason.

Therefore, for the purpose of these rules, I have made assumptions based on information in the novels, and on logic and playability. Yes, this means that there will be deviations from some of the novels, but there was no other possibility.

I also cannot resist to play with a comment in GURPS Traveller according to which the space combat rules would work well in worlds with multi-gee-ships...well, apparently they thought that 6 gees acceleration is fast ;-)) and never heard of the Rhodanverse with its 50,000 gees spaceship drives...

Spaceship types

The following table presents a brief overview of the most important ships of the Solar Fleet.

<u>Ship class</u>	<u>Description</u>	<u>Displacement in cf</u>
Fighter	small STL attack craft, crew of one	5,000
Destroyer	small STL attack craft, crew of three	12,500
Space-Jet	small flying saucer 30 mtrs. diam. and 18 mtrs. greatest height	200,000
Tadpole	Globe, 60 meters diameter	4 million

CITY class	Light cruiser, 100 meters diam.	19 million
COUNTRY class	Light cruiser, 100 meters diam.	19 million
TERRA class	Heavy cruiser, 200 meters diam.	150 million
SOLAR class	Battlecruiser, 500 meters diam.	2,375 million
STARDUST class	Battleship, 800 meters diam.	10 billion
EMPIRE class	Superbattleship, 1,500 meters diam.	65 billion

The Mehandor and the Extra-Heavies mainly use tube-shaped starships. For Mehandor freighters, typical lengths of the ships are in a range of 120 meters up to 800 meters, with a diameter equal to about one fifth of the length. The warships of the Extra-Heavies tend to be thinner than Mehandor vessels (diameter of about one sixth to one eighth of length). They also will be heavily armed.

The fleet of the Great Empire uses the same basic designs (i.e. globe-shaped starships) as the Terrans, who actually copied this design. However, Arkonid ships tend to be less advanced than Terran ships, and most of them are crewed by robots because of the lack of active Arkonids that could serve as crew.

The Topsiders' starships are rocket-shaped with added fins and rings. Usually, they are rather small in displacement and their technology level is behind the galactic standard.

FTL travel

FTL travel in this era of the Rhodanverse is made by transitions. Transitions are jumps through hyperspace. Briefly, they require a ship to accelerate close to lightspeed and to activate the transition drive. The ship then dematerializes and instantly reappears in another place in the universe. This process is painful for the travelers and may even cause them to become unconscious. The level of pain depends on the transition distance, and experienced space travelers also will get more used to transitions.

The transition drive is very reliable, provided that some basic requirements are respected. Especially, transitions at low speeds (less than about 0.95 lightspeed) are energy consuming and can be very dangerous, sometimes resulting in damage or even destruction or disappearance of the ship. Furthermore, transitions need proper course programming (astrogation). A ship that jumps without a programmed course, or one with errors, might reappear in an unknown place of the Milky Way. If this happens, it must try to determine its position or will be lost forever.

Transitions should never be made in the gravity well caused by planets, stars or other stellar bodies. If they are nevertheless attempted, ships may be damaged or destroyed, and even planetary orbits could be disrupted or geological activity on the surface be induced.

It is possible to make very short transitions (with a range of a light second and above), and this is a common tactical maneuver during space combat. However, careful programming is required to avoid negative effects such as arriving in the wrong position.

An emergency lever in most starships allows making an immediate random transition, provided that there is sufficient energy in the capacitors. However, such a transition is dangerous because it is made in a random direction and with a random range. Typically, the emergency lever is only used by ships that would otherwise risk destruction in combat.

The maximum transition in one jump depends on the quality of the drive. Warships and well-equipped freighters are able to cover several thousand light years with a single jump, whereas smaller or older vessels will be limited to about one thousand or even fewer light years. The smallest known transition-capable craft, the space-jet, can jump about 500 light years in its most popular configuration. It should also be noted that the transition pain for the crew increases with larger distances, and they also require more time for astrogation to avoid potential deviations (1% deviation on a 1,000 light years jump is equal to 10 light years!).

Astrogation and programming

Every transition requires route programming in advance. This is the job of the ship's astrogator, using the ship's astrogational database and computer. While a transition itself is instantaneous, the route programming is a rather complex and time consuming task. The base time for the task is 1 hour per 1,000 light years of distance (minimum one hour) divided by the level of the astrogation software that is used. Furthermore, each full 3 points by which the roll is made reduce the time by 10%.

Incomplete data is assumed unless the ship has access to a full astrogational database for the respective area. This is available for all major star systems and considered to be part of the basic astrogation package. However, for minor star systems, such data must either be purchased separately (average cost of 1,000 \$ per system) and might not be available at all. Alternatively, if FTL com contact can be established with the destination system, this also counts as sufficient data for the programming. Similarly, sufficient data concerning the starting point may be collected using shipboard sensors. This requires a successful astronomy roll and one hour of work.

Fully missing data means that a ship does not have any information at all. For the starting point, this applies after a random jump or failed jump, unless the ship was able to determine its location (either by establishing contact with at least two FTL beacons, or by a successful astronomy roll and one hour of work, with penalties decided by the master). For the destination point, fully missing data applies for systems that are not in the ship's database at all. In such case, the best an astrogator can achieve is to change the data to incomplete via a successful astronomy roll and six hours of work.

Apply the following modifiers:

- fully missing position data for either starting point or destination: -10 and multiply calculation time x 5
- fully missing position data for both starting point and destination: calculation is impossible, i.e. determine direction and distance randomly
- incomplete position data for starting point or destination: -5 and double calculation time for each incomplete set

The roll is made in secret by the master. A failure means that the astrogator's calculations were not correct, causing deviations or even worse consequences. Therefore, standard practice requires making a second calculation (half base time) and comparing the results. If substantial deviations are discovered, a third calculation is made for verification.

The actual transition

The actual transition is a very energy consuming action because the whole ship must be dematerialised and rematerialised. The energy requirement depends on the ship displacement and the transition distance. The relationship between distances and energy consumption is not linear. The following formula can be used for the basic energy requirement per ton of ship displacement:

$$\text{Required Jump Energy Points} = (\lg(\text{jump distance in light days}) + 1)^2$$

lg means that the logarithm based on 10 is used. To convert light years to light days, multiply by 365. The minimum energy requirement is 1 Jump Energy Point per ton of displacement.

The energy banks of a standard transition drive can store enough Jump Energy Points for one maximum range transition.

[to be completed]

Minimum velocity:

Generally speaking, it is neither possible nor recommended to attempt a transition regardless of a ship's current velocity. Instead, a transition is easier, i.e. uses less energy and is less risky, the faster a vessel is moving in normal space. The following formula simulates this. Multiply the base energy requirement from above with the resulting modifier.

$$\text{Modifier} = (187.500/v)^2. \text{ Insert the velocity } V \text{ in miles per second.}$$

In the following, some sample modifiers have been calculated.

<u>Speed miles/sec</u>	<u>Speed per round</u>	<u>Modifier</u>	<u>Note</u>
187,500	84	1	light speed
150,000	68	2	
100,000	45	4	
75,000	34	6	
50,000	23	14	
25,000	11	56	
10,000	4	352	
5,000	2	1,406	

Risks

Although transitions are a well-known travel method, some risks are involved that can range from deviations in the jump distance over damage to the FTL drive to finally even the destruction of the ship.

Each transition requires a roll with 3D. If the total result is less than or equal to 18, and is not a critical failure, the transition succeeds without any problems. The following modifiers are applied to the die roll:

Modifier for entry velocity

If the entry velocity is less than 0.95 times lightspeed, apply a modifier of -1. Further -1 are added per full 0.05 time lightspeed of lower velocity. For example, a transition with an entry velocity of 0.75 times lightspeed is made with a -5 modifier.

Modifier for astrogation errors

If the astrogation roll failed (see above), apply the amount by which it was failed as a modifier.

Modifiers for close objects (gravity effects)

It is very dangerous to attempt a transition inside strong gravity fields. Therefore, ships usually observe a minimum distance to planets and stars and try to avoid transitions inside a solar system at all.

The following table lists the modifiers on the transition success roll depending on the distance to a planet or star.

<u>Distance in world diameters</u>	<u>Modifier</u>
200	0
190	-1
180	-2
170	-3
160	-4
150	-5
100	-10
75	-12
50	-15
48	-16
46	-17
44	-18
42	-19
40	-20

etc.

All distances are given as multiples of the diameter of the respective object (planet or star). Please note that often the star is much more important than the planet.

Example: We assume a planet with 7,500 miles diameter that orbits its sun (900,000 miles diameter) in a distance of 95 million miles. A safe transition distance from the planet (200 diameters) would be calculated as follows: $200 \times 7,500 = 1.5$ million miles. However, the star requires a distance of $900,000 \times 200 = 180$ million miles! As the planetary orbit already is 95 million miles away, the ship must travel a further 85 million miles (and not only 1.5 million) for a safe transition.

Reduction of modifiers by additional effort during astrogation programming

It is possible to reduce the risks from a transition by making a more sophisticated astrogation programming. In game terms, this is translated as follows: Each -1 modifier accepted by the astrogator on his astrogation roll results in a +1 modifier on the transition roll, provided that the astrogation roll was a success.

Failure consequences

If a transition failed, add 3D to the amount by which the roll was failed and refer to the following table for the consequences. If the roll was a critical failure, add another 3D.

<u>Total roll</u>	<u>Effects</u>
1 to 4	Deviation of 2D-7%.
5 to 8	Misjump: Multiply the covered distance by 1D/1D (limited to maximum of drive)...
9 to 12	Misjump (see above). Furthermore, all persons on board lose 1D fatigue.
13 to 16	Extreme misjump (see above, but also in random direction). Furthermore, all persons on board lose 1D fatigue.
17 to 20	Hull damage: Ship loses 2D x 10 % of its hit points. The ship jumps unless the damage destroys it. Furthermore, misjump with fatigue loss as above.
21 to 24	Failed jump and damage to transition drive (disabled until repair, requires spare parts). Furthermore, all persons on board lose 1D fatigue
25 to 28	Failed jump and damage to transition drive (disabled until repair, requires spare parts). Furthermore, all persons on board lose 2D fatigue
29 to 32	The transition drive is destroyed. The ship does not jump at all!
33 to 36	The transition drive is destroyed. Furthermore, the transition ends inside the gravity field of a planet, a sun or another stellar body selected by the master
37 and more	The ship is completely destroyed and its parts dissipate in hyperspace.

Minimum deviation

Transitions will generally be made with some deviations. Therefore, any transition is made with a deviation of (1D-3) per mille of the transition distance. However, this is usually reflected in the safety margin during the astrogation procedure and thus will not cause any risk for the ship.

Effects of transitions on the crew

One of the main drawbacks of the transition drive consists of the fact that the dematerialisation and subsequent rematerialisation are rather painful. Especially untrained people will even lose consciousness due to this so-called transition shock.

Every traveler must roll vs. HT. The following modifiers are applicable:

- + 1 for pilot (any spaceship type)-12, +1 for each full 3 skill levels above
- (10 –number of minutes since last transition), if negative modifier
- 1 per full 500 light years of transition distance
- + strong will / - weak will

A successful roll still costs 1 fatigue per 2,000 light years of transition distance (or fraction thereof, e.g. 2 fatigue for 3,000 light years). This fatigue loss is reduced by 1 for each full three points by which the HT roll has been made. If the roll failed, the following table lists the suffered effect(s):

Roll failed by	Effect
1 to 3	unconscious for 1D combat rounds, additional fatigue loss 1
4 to 6	unconscious for 1D minutes, additional fatigue loss 1D-2 (minimum 1)
7 to 9	unconscious for 3D minutes, additional fatigue loss 1D
10 to 15	unconscious for 5D minutes, additional fatigue loss 2D-3 (minimum 1)
more than 15	unconscious for 10D minutes, additional fatigue loss 2D-1, loss of one Hit Point

Emergency transition

All starships with a transition drive have a special sealed lever in the main bridge, called the emergency transition lever. If this lever is pulled, the ship immediately makes an emergency transition. This is typically used by fleeing starships if they lack the time for proper astrogation calculations.

An **emergency transition** causes the ship to make a transition over

3D x 5 % of the maximum jump range

in a randomly determined direction. The transition requires energy as usual. If the stored energy is not sufficient for the rolled distance, the transition is made over the maximum distance that is possible with the available energy. Normally the first action of a crew after an emergency transition will be to determine its location – and this may be difficult if the ship moved away from mapped space...

Very short transitions

[to be completed]

STL travel

The standard STL drive in the Rhodaverse is the impulse drive, a very advanced reactionless drive that is capable to reach accelerations of even 625 miles/sec², or over 100,000 gees). Most warships have a maximum acceleration in the range of 300 to 400 miles/sec². Merchant vessels will be slower.

Contra-gravity and artificial gravity

Both contra-gravity and artificial gravity are well developed in the Rhodaverse. All starships have artificial gravity on board, and contra-gravity generators allow them to fly easily in planetary atmospheres and to neutralize strong gravity on a planetary surface. Furthermore, contra-gravity is used to absorb acceleration and deceleration effects on spaceships and their crew.

Computers

The state-of-the-art computer is a positronic computer. Sufficiently large or sophisticated positronics (like the Robot Regent of Arkon) are considered AIs, but most computers on board of starships remain mere calculation and data storage devices.

Power plants

Starships use advanced nuclear fusion plants to generate power. For game purposes, most ships' plants are able to operate for several years without need to refuel.

Starship weapons

Starship weapons are similar to the technology that is used for hand weapons. The most widespread weapons are disintegrators, impulse cannons, thermal cannons and paralysis guns. Tractor/pressor beams (combined version) are also in use on most larger vessels. Warships furthermore can fire gravitic bombs, either as missile warheads or in the form of energy spirals via special launchers.

While missiles are rather rarely used against other warships, they are a standard weapon against planets or fixed defense installations. The standard warhead is a fusion bomb in a range of several hundred megatons or even gigatons. The largest known fusion bombs in this period have a power of some five hundred gigatons.

The most powerful known weapon is the Arkon bomb. It is normally fired as a missile and is capable to destroy a whole planet by triggering a chain reaction of its elements. As soon as this reaction has been active for a while, no known force in the galaxy is able to save the planet. However, due to its horrible effects, the Arkon bomb is only rarely used. There will not be any rules for Arkon bombs in this sourcebook.

Gravitic bombs may also be used as warheads. A gravitic bomb creates five-dimensional shockwaves which are able to remove a vessel or other target from normal space, resulting in its destruction for game purposes.

Starship protection

Powerful force screens are the main defense of starships. Furthermore, larger warships will be armored, but the armor is only a last ditch defense and not capable to stop really powerful energy weapons.

Scanners

All starships are equipped with active and passive scanners that can detect energy activity, masses or all kinds of radiation. Warships and well-equipped private vessels will also have FTL scanners. Furthermore, structure scanners in the sensor suites are capable of picking up the shockwaves that are caused by starships when they use their transition drives, or by transmitters.

The structure compensator is a special cloaking device that prevents the creation of transition shockwaves. It was invented by the Mehandor in the 1980s and is installed in all Terran starships. Until the Columbus Case (2044 AD), it was one of the main pillars for hiding the existence of the Solar Empire from the powers of the Milky Way.

Communications

At least one low range FTL communicator (hyper communicator or hypercom) is installed on all starships. While private vessels' hypercoms will be limited to about 100 light years of range, warship hypercoms can broadcast focused signals with a range of several thousand light years under good conditions. Large star clusters or exotic conditions (black holes, giant stars, etc.) can reduce ranges or even make FTL communications impossible.

Transmitters

In the Rhodanverse, the term transmitter is used to describe teleportation devices. However, in the time of this game setting, transmitters are almost unknown to the major galactic races. The discovery of the Akonians in the early 22nd century is going to change this because they have replaced spaceships with transmitters, but as they have not been encountered yet, no rules are necessary for game purposes.

As an exception, the planet Ferrol is noteworthy for its cage transmitter network. However, this was provided as a gift by IT and is quite unique. Nevertheless, the Terrans did acquire the construction secret in the early 20th century, and they are able to produce cage transmitters. For example, a transmitter line connects the moon with the earth. Nevertheless, transmitters remain rare as they are expensive to produce and maintain, and they are never sold to individuals.

Furthermore, the Solar Fleet has obtained a fictitious transmitter from IT. This is a unique device that cannot be repaired or replaced, and it is currently installed on board the flagship DRUSUS. A fictitious transmitter is a teleportation device that can send and receive objects from anywhere within range. In view of the fact that the players are unlikely to ever have access to it, however, we are not going to provide any rules for this device also.

Note: In the Atlan books (hard cover no.14) it is mentioned that the Arkonid Empire does have a large stock of ancient transmitters as well as the construction plans, and that transmitters had been prohibited by an emperor several thousand years ago. Still, these transmitters are almost only used for official purposes of the Empire and they are not available for private use. Consequently, all transmitters are left at the master's discretion for their game treatment.

Conversion of Modular Starship Construction Rules from GURPS Traveller

[To be completed]

In the following, some guidelines for conversion of the modular starship construction rules from GURPS Traveller to the Rhodanverse will be given.

General

Use the TL12 modules from the GURPS Traveller rules only, unless building ships that are behind the galactic tech level (e.g. Topsider ships).

Meson screen modules and nuclear damper modules do not exist in the Rhodanverse. Jump drive modules are called transition drive modules. Maneuver drive modules are called impulse drive modules. Furthermore, force screen modules are available (stats as for meson screen modules).

As in GURPS Traveller, modules, including weapons, sensors, communicators, etc. are defined as incorporating sufficient fusion reactors to operate them.

Contragrav generators are included in the impulse drive modules for game purposes.

Divide all costs by 10 to convert them to Solar (\$). If amounts are given in Solar in this book, they must not be divided any more.

The rules are intended for construction of starships with a displacement up to about 50,000 spaces. For larger vessels, some portions, especially the weapons section, will have to be extended or modified. Please note that this will mean that the largest spaceship covered by these rules is the light cruiser.

But I want to use battleships! Well, first, this is a roleplaying game, not a wargame. Player characters are extremely unlikely to ever have access to larger warships. No government can tolerate individuals flying around with such powerful ships, the equivalent of 20th century cruisers or even battleships.

Furthermore, the master may still use them. For the purpose of this basic sourcebook, do not bother with rules at all. Assume that the force screens of a larger warship (even a heavy cruiser) are sufficient to block all attacks from smaller vessels (unless they are extremely lucky), and that its weapons are capable to either destroy or at least disable any smaller ship easily. For example, in the first battle of Vega in 1975, Perry Rhodan used a tadpole-type Arkonid spacecraft, the GOOD HOPE, to fight against standard Topsider ships, with great success. Suddenly, a former Arkonid battleship (20 million spaces) appeared and fired a single shot, turning the GOOD HOPE into a tumbling wreck – and it had only been a grazing shot...

Hull Design

Use the GURPS Traveller rules for TL12 hulls. However, for streamlined hulls, the hull cost is only increased by 10%. Furthermore, the internal spaces of a streamlined hull amount to 0.95 x hull displacement. Most vessels in the Rhodanverse are streamlined (the typical shape is a globe).

Surface Area

In the following, we have calculated the surface area values for typical spaceships as encountered in the Rhodanverse.

<u>Type</u>	<u>Hull Tonnage</u>	<u>Volume (cf)</u>	<u>Surface Area</u>
Fighter	10	5,000	2,000
Destroyer	25	12,500	3,500
Space-Jet:	400	200,000	16,500
Tadpole	8,000	4,000,000	120,000
CITY/COUNTRY CLASS	38,000	19,000,000	350,000
TERRA CLASS	300,000	150,000,000	1,365,000
SOLAR CLASS	4.75 million	2,375,000,000	8,610,000
STARDUST CLASS	20 million	10,000,000,000	22,445,000
EMPIRE CLASS	130 million	65,000,000,000	78,177,000

Armor

The DR of a spaceship is calculated using the following formula:

$$DR = \text{armor mass} \times 100,000 / \text{surface area}$$

In the Rhodanverse, armor is not very important because most energy weapons effectively can only be stopped by force screens. Especially, disintegrators completely ignore armor, and they are a fairly widespread weapons system.

Armor costs 0.05 M\$ per ton of armor mass.

Force Screens

For the DR of a spaceship force screen, the formula is as follows:

$$DR = \text{number of modules} \times 1 \text{ million} / \text{surface area}$$

Always use the surface area of a globe shaped ship for this calculation because spaceship force screens are projected as spheres.

Please note that special rules apply for force screens. Details can be found in the Space Combat section of this book.

Sealing

The GURPS Traveller rules are unchanged.

Sensor Masking

The GURPS Traveller rules are unchanged.

Modules

Bridge modules

The GURPS Traveller rules are unchanged.

Cockpit modules

The GURPS Traveller rules are unchanged.

Engineering module

The GURPS Traveller rules are unchanged.

Fuel processor modules

This module does not exist in the Rhodaverse.

Hold modules

The GURPS Traveller rules are unchanged.

Jump Tanks

Jump tanks do not exist in the Rhodaverse.

Lab modules

The GURPS Traveller rules are unchanged.

Low berths

Low berths do not exist in the Rhodaverse. Although they could easily be produced, there is no demand for them.

Passenger couches

The GURPS Traveller rules are unchanged.

Sickbay modules

The GURPS Traveller rules are unchanged.

Spacedock/Hangar

The GURPS Traveller rules are unchanged.

Staterooms

The GURPS Traveller rules are unchanged.

Utility modules

The GURPS Traveller rules are unchanged.

Impulse Drives

The impulse drive modules have a thrust power of 4,000 miles/sec² per module. It is not possible to assign more than 50% of a ship's available spaces to impulse drive modules due to the necessity to install the required projectors and thrusters.

Transition Drives

The following table lists the game stats for transition drives.

Drive Level	Max Range/Transition in light years	Minimum space*)	Space per 100 hull spaces (or fraction thereof)
1	5	5	2
2	50	25	4
3	500	50	6
4	1,000	100	8
5	2,500	250	10
6	5,000	500	12
7	7,500	1,000	14
8	10,000	2,500	16
9	12,500	5,000	18
10	15,000	10,000	20

*) The minimum size in spaces refers to commonly available transition drives, especially such for private vessels. It is possible to build more compact versions, but this vastly increases their cost and they are more difficult to operate. Usually, such compact drives are reserved for military vessels and other vessels built for special tasks (e.g. the private space-jet of Perry Rhodan).

The modules include energy banks for storing the energy that is required for a transition up to the maximum range of the drive (cf. rules for transitions). Additional energy bank capacity may be purchased if a ship shall be able to make several transitions in a row without the need to recharge the banks.

Energy banks may only be increased in 50% increments. Each 50% of added energy banks increases the displacement and mass of the transition drive by 40% and its cost by 30%.

Vehicle Bays

The GURPS Traveller rules are unchanged. Typical auxiliary craft of the Solar Empire include Space-Jets and Destroyers for smaller vessels, as well as Tadpoles for larger vessels (Battlecruiser and larger). Furthermore, Shifts (a type of contra-grav tank) and Turtles (a tracked ATV) are widespread.

Weapons

The standard weapon mount in the Rhodanverse is the turret. Three sizes of weapon mounts are available: Very small, small and regular mounts. One **very small mount** is allowed for each 100 spaces of displacement or fraction thereof (i.e. minimum of one mount per ship). Very small mounts are similar to weapon turrets in GURPS Traveller, i.e. they use one internal space. Their mass is 0.4 and they cost 0.01 M\$. A very small turret has an area of 800.

For **small mounts**, one is allowed per 1,000 spaces of displacement or fraction thereof. As in the GURPS Traveller rules, displacement used for small mounts reduces the maximum allowed number of

very small mounts (similar to weapon bays). Small mounts use twenty internal spaces. They have a mass of 3.0 and cost 0.03 M\$. The area is 6,500.

One **regular mount** is allowed per 10,000 spaces or fraction thereof. Regular mounts use 500 internal spaces. They have a mass of 100 and cost 0.9 M\$. The area is 16,000.

For reasons of stability, no turret may have a displacement in spaces that is larger than 10% of the total ship displacement.

All turrets may be designed as single, twin or triple turrets. Twin or triple turrets must always fire at the same target. If they are hit, damage affects all weapons in the turret at the same time.

Impulse cannons, thermal cannons, disintegrators, tractor beams, torpedo launchers and paralysis guns are available for all mount sizes. Gravitic bomb launchers are not available for very small mounts. In the following, weapon stats are given for the different types of mounts.

Fixed mounts

Normally, fixed mounts are only used on small spacecraft, especially fighters, but also some space-jet series (displacement 400 spaces). Spinal weapons, however, are virtually unknown among the major races of the Milky Way, and therefore may not be installed without the master's permission. For fixed mounts, shift the installation threshold by one level, e.g. one small mount is allowed per 100 spaces if it is designed as a fixed mount.

Note: For spinal weapons, the only limit would be that the displacement of the weapon may not be larger than 20% of the ship displacement.

Thermal cannons

Thermal cannons are x-ray lasers.

<u>Size</u>	<u>Spaces</u>	<u>Mass</u>	<u>Cost M\$</u>
Very small	1	8.0	0.07
Small	50	350.0	2.1
Regular	800	5,000.0	40.0

Paralysis guns

Paralysis guns are non-lethal weapons.

<u>Size</u>	<u>Spaces</u>	<u>Mass</u>	<u>Cost M\$</u>
Very small	1	8.0	0.07
Small	50	350.0	2.1
Regular	800	5,000.0	40.0

Tractor beams

Tractor beams are used to manipulate objects at a distance.

<u>Size</u>	<u>Spaces</u>	<u>Mass</u>	<u>Cost M\$</u>
Very small	1	8.0	0.07
Small	50	350.0	2.1

Regular	800	5,000.0	40.0
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Tractor beams may only be installed in single turrets or in fixed mounts.

Disintegrators

Disintegrators fire beams that attack the molecular bonds of matter. They ignore any armor, but are affected by force screens.

<u>Size</u>	<u>Spaces</u>	<u>Mass</u>	<u>Cost M\$</u>
Very small	1	9.0	0.1
Small	50	394.0	3.0
Regular	800	5,625.0	60.0

Impulse cannons

Impulse cannons fire so-called impulse beams which cause any matter that they hit to enter a nuclear fusion process.

<u>Size</u>	<u>Spaces</u>	<u>Mass</u>	<u>Cost M\$</u>
Very small	1	12.0	0.1
Small	50	525.0	3.0
Regular	800	7,500.0	60.0

Torpedo launchers

The term torpedo launcher describes a missile rack capable to launch one missile per combat round.

<u>Size</u>	<u>Spaces</u>	<u>Mass</u>	<u>Cost M\$</u>
Very small	1	13.0	0.002
Small	50	569.0	0.06
Regular	800	8,125.0	1.2

Torpedo launchers may only be installed in single turrets or in fixed mounts.

Gravitic bomb launchers

Gravitic bomb launchers are special projectors which can be used to fire gravitic bombs in the form of energy spirals.

<u>Size</u>	<u>Spaces</u>	<u>Mass</u>	<u>Cost M\$</u>
Small	100	1,000	25
Regular	1,500	15,000	300

Gravitic bomb launchers may only be installed in single turrets or in fixed mounts.

Normally this weapon is not available for private vessels in the Solar Empire (legality class 0).

Communicator ranges

The following range table applies for communicators of TL12:

	<u>STL radio</u>	<u>STL laser</u>	<u>FTL</u>
Cockpit	0.5	1.0	1 light week
Basic Bridge	5	10	100 light years
Command Bridge	5	10	1,000 light years

Computers and software

The standard computer in the Rhodanverse is the positronic computer. Positronic computers normally do not qualify as AIs. However, depending on the actual design, it is possible to create sentient positronic computers. The most famous example is the Robotic Regent of Arkon, a giant computer covering several thousand cubic miles on Arkon III. The Venus Positronic also is at least semi-sentient. Nevertheless, no sentient computers are installed on board of spaceships. These basic rules also will not cover robot-controlled spaceships as they are e.g. used by the Arkonid Empire.

The following table gives an overview of the computers in the Rhodanverse.

	<u>Complexity</u>
Cockpit	8
Basic Bridge	9
Command Bridge	10

The available software is similar to that in GURPS Traveller. However, divide all prices by 10 to convert them to Solar. Furthermore, the following deviations apply:

Astrogation program

This program has a complexity equal to its level. It costs 10.000 \$ x level² and is explained in the rules for FTL travel.

Targeting program

In the Rhodanverse, the fact that battle distances are much longer than in GURPS Traveller has led to the development of much more sophisticated and powerful targeting software. The bonus on the attack roll is therefore calculated as **twice** the program's complexity plus 1.

Sample spaceships

Space-Jet (civilian version)

This is a typical small spacecraft that is still affordable for some individuals. Its transition range is rather limited, so that it will need a while to get from Terra to Arkon. On the other hand, it is perfectly suited for travelling in a smaller stellar neighborhood such as the M13 cluster or the core regions of the Solar Empire.

The ship is lightly armed, mainly for self defense purposes. The disintegrators may also be helpful during the exploitation of asteroids or similar activities.

Displacement: 400 spaces
Streamlined Hull

Defense:

Armor	DR 1,250
Force Screen	DR 3,125
HP	26,400

Weapons:

Very Small Twin Turret with 2 disintegrators, 5d x 100(!)

Very Small Twin Turret with 2 paralysis guns, special

Basic Bridge (4 modules)

4 Staterooms

Cargo Hold: 115.25 spaces

Transition drive: 500 light years range

Vehicle Bay: 15 spaces (Shift or similar vehicle)

Total mass (empty) 1,243.20

Total mass (loaded) 1,819.45

Acceleration (empty) 386 miles/sec²

Acceleration (loaded) 263 miles/sec²

Price 41.84 M\$

Ship Patron cost 48.5 points

Space-Jet (Solar Fleet auxiliary craft version)

This is the smallest FTL capable auxiliary craft of the Solar Fleet. It is carried in the hangars of most starships starting with Light Cruisers. Space-Jets are also used for independent missions, especially for long range recon flights.

Displacement: 400 spaces

Streamlined Hull

Defense:

Armor	DR 2,500
Force Screen	DR 5,000
HP	28,800

Weapons:

Two Very Small Triple Turrets with 3 impulse cannons, 5d x 200(2)

One Very Small Triple Turret with 3 disintegrators, 5d x 100 (!)

Very Small Twin Turret with 2 paralysis guns, special

Basic Bridge (4 modules)

4 Staterooms

Cargo Hold: 115.25 spaces

Transition drive: 500 light years range

Vehicle Bay: 15 spaces (Shift or similar vehicle)

Total mass (empty) 1,995.0

Total mass (loaded) 2,011.25

Acceleration (empty) 401 miles/sec²

Acceleration (loaded) 397 miles/sec²

Tadpole (civilian version)

This is a small globe shaped starship and the next biggest step in Terran standard designs after the Space-Jet.

Displacement: 8,000 spaces

Streamlined Hull

Defense:

Armor	DR 1,667
Force Screen	DR 8,333
HP	209,250

Weapons:

- One Small Twin Turret with 2 impulse cannons, 5d x 400(2)
- One Small Twin Turret with 2 paralysis guns, special
- One Small Single Turret with 1 tractor beam

Basic Bridge (8 modules)

25 Staterooms

Cargo Hold:	3,169.0 spaces
Transition drive:	1,000 light years range
Vehicle Bay:	200 spaces (Shifts, Fighters or similar vehicles)
Total mass (empty)	21,881.10
Total mass (loaded)	37,726.10
Acceleration (empty)	438 miles/sec ²
Acceleration (loaded)	254 miles/sec ²
Price	607.68 M\$
Ship Patron cost	94.5 points

Very Small Springer ship

This is a small tube shaped starship of some 90 yards length and 18 yards thickness. It is used by minor clans of the Springers, as well as by minor branches of more powerful clans. The armament is mainly installed for defensive purposes.

Displacement: 1,200 spaces

Streamlined Hull

Defense:

Armor	DR 255
Force Screen	DR 2,128
HP	70,500

Weapons:

- Two Very Small Single Turrets with 1 thermal cannon, 6d x 100(2)
- Two Very Small Single Turrets with 1 disintegrator, 5d x 100(!)
- One Very Small Single Turret with 1 paralysis gun, special
- One Very Small Single Turret with 1 tractor beam

Basic Bridge (4 modules)

50 Staterooms

Cargo Hold:	520.5 spaces
Transition drive:	1,000 light years range
Vehicle Bay:	50 spaces (Shifts, gliders or small auxiliary craft)
Total mass (empty)	1,930.3
Total mass (loaded)	4,532.8
Acceleration (empty)	310 miles/sec ²
Acceleration (loaded)	132 miles/sec ²
Price	65.92 M\$
Ship Patron cost	65 points

Small Springer ship

This is a small tube shaped starship of some 110 yards length and 22 yards thickness. It is a bit bigger than the very small type, but still mainly used by minor clans of the Springers. The armament is mainly installed for defensive purposes.

Displacement: 2,400 spaces

Streamlined Hull

Defense:

Armor DR 327

Force Screen DR 3,815

HP 110,100

Weapons:

Four Very Small Single Turrets with 1 thermal cannon, 6d x 100(2)

Two Very Small Single Turrets with 1 disintegrator, 5d x 100(!)

One Very Small Single Turret with 1 paralysis gun, special

One Very Small Single Turret with 1 tractor beam

Basic Bridge (6 modules)

100 Staterooms

Cargo Hold: 1,011.5 spaces

Transition drive: 1,000 light years range

Vehicle Bay: 50 spaces (Shifts, gliders or small auxiliary craft)

Total mass (empty) 4,129.7

Total mass (loaded) 9,187.2

Acceleration (empty) 310 miles/sec²

Acceleration (loaded) 140 miles/sec²

Price 146.54 M\$

Ship Patron cost 77 points

Tadpole (Solar Fleet auxiliary craft version)

The Tadpole is the next biggest auxiliary craft used by the Solar Fleet. It is carried on board of all starships of battlecruiser size and above. The first FTL capable spaceship of Perry Rhodan, the GOOD HOPE, was a Tadpole of Arkonid design.

Displacement: 8,000 spaces

Streamlined Hull

Defense:

Armor DR 3,333

Force Screen DR 16,667

HP 258,000

Weapons:

Three Small Triple Turrets with 3 impulse cannons, 5d x 400(2)

One Small Triple Turret with 1 disintegrator, 5d x 200(!)

Two Small Twin Turrets with 2 paralysis guns, special

One Small Single Turret with 1 gravitic bomb launcher, 8d x 400(10)

One Small Single Turret with 1 tractor beam

Basic Bridge (8 modules)

25 Staterooms

Cargo Hold: 569.0 spaces

Transition drive: 1,000 light years range

Vehicle Bay: 200 spaces (Shifts, Fighters or similar vehicles)

Total mass (empty)	41,453.10
Total mass (loaded)	44,298.10
Acceleration (empty)	376 miles/sec ²
Acceleration (loaded)	352 miles/sec ²

CITY Class light cruiser (Solar Fleet)

The light cruisers of the CITY class are rather heavily armed for their size. They are used for all kinds of independent missions and also very popular for customs and anti-pirate patrols, so that merchants are likely to encounter this ship type more often than battlecruisers or battleships.

Displacement: 38,000 spaces

Streamlined Hull

Defense:

Armor	DR 8,571
Force Screen	DR 25,714
HP	675,000

Weapons:

- Two Regular Triple Turrets with 3 impulse cannons, 5d x 900(2)
- One Regular Triple Turret with 3 disintegrators, 5d x 450(!)
- Two Small Single Turrets with 1 gravitic bomb launcher, 8d x 400(10)
- Two Small Triple Turrets with 3 paralysis guns, special
- Two Small Triple Turrets with 3 disintegrators, 5d x 200(!)
- Two Small Single Turrets with 1 tractor beam

Command Bridge (5 modules)

150 Staterooms

Cargo Hold: 64 spaces

Transition drive: 7,500 light years range

Vehicle Bay: 600 spaces (Space-Jet plus Shifts, Fighters or similar vehicles)

Total mass (empty) 242,753.7

Total mass (loaded) 243,073.7

Acceleration (empty) 310 miles/sec²

Acceleration (loaded) 310 miles/sec²

COUNTRY Class light cruiser (Solar Fleet)

The light cruisers of the COUNTRY class resemble the CITY class ships. However, they sacrifice a significant portion of their armament and protection in favor of a much higher acceleration. Consequently, these ships are mainly used for long range recon missions or for special missions, in particular such involving the Mutants' Corps or the Solar Defense.

Displacement: 38,000 spaces

Streamlined Hull

Defense:

Armor	DR 3,429
Force Screen	DR 20,571
HP	675,000

Weapons:

- Two Regular Single Turrets with 1 impulse cannon, 5d x 900(2)
- One Regular Single Turret with 1 disintegrator, 5d x 450(!)
- Two Small Single Turrets with 1 gravitic bomb launcher, 8d x 400(10)
- Two Small Triple Turrets with 3 paralysis guns, special

Two Small Triple Turrets with 3 disintegrators, 5d x 200(!)
 Two Small Single Turrets with 1 tractor beam
 Command Bridge (5 modules)
 150 Staterooms
 Cargo Hold: 1,664 spaces
 Transition drive: 7,500 light years range
 Vehicle Bay: 600 spaces (Space-Jet plus Shifts, Fighters or similar vehicles)
 Total mass (empty) 175,297.7
 Total mass (loaded) 183,617.7
 Acceleration (empty) 433 miles/sec²
 Acceleration (loaded) 413 miles/sec²

COUNTRY Class light cruiser – special “CALIFORNIA” variant (Solar Fleet)

This is a special version of the COUNTRY class cruiser with an even higher acceleration power. These ships are only built in very small numbers because their armament and protection means that they are almost useless in a space battle. On the other hand, the incredible acceleration often allows them to escape into hyperspace when other vessels would have been caught.

Displacement: 38,000 spaces
 Streamlined Hull
 Defense:
 Armor DR 1,286
 Force Screen DR 9,429
 HP 583,500

Weapons:
 Two Small Single Turrets with 1 paralysis gun, special
 Two Small Single Turrets with 1 disintegrator, 5d x 200(!)
 Two Small Single Turrets with 1 tractor beam

Command Bridge (5 modules)
 150 Staterooms
 Cargo Hold: 7,104 spaces
 Transition drive: 7,500 light years range
 Vehicle Bay: 600 spaces (Space-Jet plus Shifts, Fighters or similar vehicles)
 Total mass (empty) 122,387.7
 Total mass (loaded) 157,907.7
 Acceleration (empty) 621 miles/sec²
 Acceleration (loaded) 481 miles/sec²

Fighter (Solar Fleet)

This is a small fighter spacecraft with a crew of one. Fighters of this type were among the first Arkonid designs built by the Third Power in the 1970s, and for some time, the defense of the Solar System mainly relied on them. Fighters are not FTL capable.

Displacement: 10 spaces
 Streamlined Hull
 Defense:
 Armor DR 20
 Force Screen DR 500
 HP 3,000

Weapons:

One Very Small Impulse cannon, 5d x 200(2)

Cockpit Bridge (1 module)

Cargo Hold: 1.5 spaces

Vehicle Bay: 15 spaces (Shift or similar vehicle)

Total mass (empty) 45.8

Total mass (loaded) 53.3

Acceleration (empty) 436 miles/sec²

Acceleration (loaded) 375 miles/sec²

Space Combat Rules Conversion

Time and Distance

It is very difficult to simulate the conditions of the Rhodaverse on a hex grid. The ships are terribly fast, and the combat ranges amount to millions of miles for large weapons.

Nevertheless, we made an attempt to find a playable way. We suggest a hex size of 100,000 miles and combat rounds of 45 seconds. The acceleration of all ships is divided by 50 and rounded to the nearest full number. The result is called the Combat Acceleration. A combat acceleration of 1 means that a ship can change its speed (in hexes per round) by 1 per round.

Range modifiers

In the following, the applicable distance modifiers for space combat are listed. Please note that speed of spaceships is considered to be irrelevant.

<u>Range/Hexes</u>	<u>Modifier</u>
0	-45
1	-47
2	-49
3	-50
4-5	-51
6-8	-52
9-10	-53
11-15	-54
16-20	-55

Weapons table

The following table gives the necessary weapons stats for use with the GURPS Traveller rules.

<u>Weapon</u>	<u>Damage</u>	<u>½ D</u>	<u>Max</u>	<u>Acc</u>	<u>SS</u>
V.Sm. Impulse Cannon	5d x 200 (2)	7	11	30	30
V.Sm. Thermal Cannon	6d x 100 (2)	8	12	33	30
V.Sm. Paralysis Gun	special	2	4	33	30
V.Sm. Disintegrator	5d x 100 (!)	8	12	36	30
Sm. Impulse Cannon	5d x 400 (2)	8	13	30	30
Sm. Thermal Cannon	6d x 200 (2)	9	14	33	30
Sm. Paralysis Gun	special	3	6	33	30

Sm. Disintegrator	5d x 200 (!)	9	14	33	30
Sm. Gravitic Bomb	8d x 400 (10)	n/a	10	8	30
Rg. Impulse Cannon	5d x 900 (2)	9	14	30	30
Rg. Thermal Cannon	6d x 450	10	16	33	30
Rg. Paralysis Gun	special	3	7	33	30
Rg. Disintegrator	5d x 450 (!)	10	16	33	30
Rg. Gravitic Bomb	8d x 900 (10)	n/a	11	8	30

All ranges are given in hexes. Remember that one hex is 100,000 miles.

Special Weapons

Gravitic bombs

Due to the fact that they are energetic missile weapons based on hyperdimensional effects, gravitic bombs do not have a ½ D range, i.e. their damage does not depend on the combat distance. However, this weapons system also is more difficult to aim. This is reflected by its considerably lower accuracy value.

In addition to causing ordinary damage, gravitic bombs can throw a vessel into hyperspace forever, resulting in its instant destruction. So that this event can occur, a vessel must have been damaged by one or more gravitic bombs in the same turn, and have lost more than 25% of its total hit points due to gravitic bomb hits in that turn. In that case, the ship player must roll 3d. On a result of 6 or less, the ship is blown out of normal space. The threshold changes to 9 or less if the damage is more than 50% of the hit point total, and to 12 or less for more than 75%.

Furthermore, even if they do not cause the above-mentioned special effect, gravitic bomb hits can have severe effect on critical ship systems due to five-dimensional disruptions. To simulate this, any ship that loses at least 10% of its total hit points due to one or several gravitic bomb hits in a single turn must roll with 3d on the following table to check for special effects:

<u>Die roll</u>	<u>Result</u>
3:	Ship computer disabled for 1d combat rounds
4:	Force screen generator disabled for 1d combat rounds
5:	FTL Communicators disabled for 1d combat rounds
6..8:	Contragrav systems disrupted: All acceleration or deceleration in the next 1d combat rounds will impose 1d3 additional gees on all crew members.
9..12:	No special effects
13..15:	Mental shockwave affects crew members. All crew members that do not make a successful HT check lose 1d fatigue. On a critical failure, they are unconscious for 1d minutes.
16	Transition Drive disabled for 1d hours
17:	Ship computer loses 1d complexity levels, effect lasts 1d combat rounds
18:	All software on ship's computer has been deleted. Backup requires 1d minutes.

Paralysis guns

Paralysis guns are shipboard versions of the respective Ultra-Tech weapons. They only affect the crew of a spaceship. As for individual combat, paralysis guns do not have any effect on electronics in the Rhodaverse. Furthermore, they are completely ineffective against force screens.

If a paralysis gun hits a turret, it can safely be assumed that the turret crew is affected as if having been hit by a paralysis gun in close combat. Unless the turret is manned by PCs, the master should judge the crew as being paralyzed automatically.

Ordinary hits to the hull do not incur any specific effects. However, if a roll on the damage table must be made, the respective system will lose 1D crew members due to paralysis. For PCs, this should be treated like a hit by a paralysis gun.

Torpedoes (Missiles)

Normally, missiles are called torpedoes in the Rhodaverse. However, to avoid confusion, in the following the term “missiles” is going to be used.

Conventional warheads are virtually unknown in the Rhodaverse because they are ineffective against typical starship force screens. Instead, the standard warhead is a fusion bomb. Alternatively, gravitic bomb warheads can be installed. Antimatter warheads cannot be constructed during this period of the Rhodaverse, and Arkon bombs (anti-planet warheads) will not be part of this sourcebook as already mentioned.

Missile acceleration can be assumed as 700 miles/sec² (i.e. combat acceleration of 14). All missiles are equipped with dedicated computers, so that they do not need to be remote controlled by a gunner. The fuel of a missile is sufficient for ten combat rounds of acceleration. Assume the dedicated computer to give the missile a pilot skill of 14.

The main drawback of missiles is that ships are almost as fast and maneuverable, and furthermore, they can easily be destroyed by point defense.

As missiles will probably rather rarely be used, the following simplified damage table is suggested:

<u>Type</u>	<u>Damage</u>
Very Small fusion missile	8d x 500
Very Small gravitic missile	not available
Small fusion missile	8d x 1,000
Small gravitic missile	8d x 400 (10)
Regular fusion missile	8d x 2,400
Regular gravitic missile	8d x 900 (10)

Rate of Fire

All weapons can be assumed to fire once per combat round (RoF 1/45). Therefore, do not apply any RoF bonus on the attack rolls.

Size modifiers

The size modifiers for spaceships should be recalculated to reflect the typical Rhodaverse ship designs. They all refer to the table in the GURPS Basic Set. In the following, size modifiers for typical Terran spaceships are listed.

<u>Type</u>	<u>Comments</u>	<u>Size Modifier</u>
Fighter		+4

Destroyer		+5
Space-Jet:	32.8 yards largest dimension	+7
Tadpole	65.6 yards diameter	+9
CITY/COUNTRY CLASS	109.4 yards diameter	+10
TERRA CLASS	218.8 yards diameter	+12
SOLAR CLASS	546.8 yards diameter	+14
STARDUST CLASS	874.9 yards diameter	+15
EMPIRE CLASS	1,640.4 yards diameter	+17

Starship defense

Starships are allowed to make dodge rolls if they are in danger of being hit. The Dodge of a ship is equal to $(\text{Pilot skill}/2 + \text{Combat Acceleration} \times 2 - \text{Size Modifier})/2$, rounded down.

Apply a +1 modifier for a pilot with Combat Reflexes, and add a PD modifier of 2 (general PD for all starships).

Light speed effects

All energy weapons fire at light speed. As one hex is 100,000 miles, this means that the weapon beam needs more than one second at ranges exceeding two hexes (for game purposes, treat 2 hexes as one light second). Consequently, dodge rolls become much easier at large distances because the ship's sensors are able to observe the beam for a sufficient time to estimate its exact destination.

Apply a modifier of +1 on the Dodge of a ship for each full 4 hexes of range or fraction thereof exceeding 2 hexes. For convenience, please refer to the following table.

<u>Range</u>	<u>Dodge Modifier</u>
0-2	none
3-6	+1
7-10	+2
11-14	+3
15-18	+4
19-22	+5

Force Screens

All force screens are considered ablative. For every 10 points of damage received by a force screen, its DR is reduced by 1, provided that the damage is at least equal to 50% of the screen's DR. If the damage from a single attack is lower, the screen is completely unaffected.

Example: A cruiser with a DR 20,000 force screen is hit by two impulse cannon shots. The first causes 8,000 points of damage, the second damage roll produces a result of 12,000. This means that the first shot does not affect the force screen at all. However, the second shot reduces the screen's DR by 1,200 points (10% of 12,000) to DR 18,800.

If a screen's DR reaches zero, the screen collapses. In that case, roll 3D for the consequences of the collapse and refer to the following table:

<u>Roll</u>	<u>Effect</u>
3	Screen generator damaged, DR is divided by 10 until repaired in a shipyard.

4	Screen generator damaged, DR is divided by 5 until repaired in a shipyard.
5-6	Screen generator damaged, DR is divided by 2 until repaired in a shipyard.
7-8	Screen generator damaged, DR is reduced to 75% until repaired in a shipyard.
9-12	Screen generator is disabled for 1D combat rounds*).
13-14	Screen generator is disabled for 2D combat rounds*).
15-16	Screen generator is disabled for 2D x 5 minutes*).
17	Screen generator is disabled for 1D hours*).
18	Screen generator melted, must be replaced.

*) The force screen crew may reduce this time by half on a successful repair attempt.

Force screens that have not collapsed regenerate 10% of their DR every combat round. This means that a force screen must be hit with more than 10% of its DR in order for the ablation effect to occur.

If a force screen whose DR has been reduced is completely shut down, it will regenerate 20% of its DR for every combat round of the shutdown. If a force screen has collapsed and is reactivated by the crew, its initial DR will be equal to 10% its maximum DR. The time during which a force screen was inoperable due to a collapse does not count as regeneration time.

Point attacks may be made as in close combat. For purposes of screen penetration as well as of determining whether the damage is sufficient to cause a DR reduction (ablative effect), add the damage from all attacks that were part of a successful point attack. Torpedoes or gravitic bombs cannot be used for point attacks.

Damage table

The damage table for space combat is different in the Rhodanverse because various components either do not exist at all or are less important than in the Traveller setting, and vice versa.

<u>Roll</u>	<u>Damage effect</u>
3:	Force screen knocked out (DR =0)
4:	1d passengers injured, 5d damage each, ignore DR (as GURPS Traveller)
5:	Transition drive knocked out
6:	Cargo damaged: a quarter of all cargo carried is lost (as GURPS Traveller)
7:	One computer knocked out (as GURPS Traveller)
8:	1d crew are injured, 5d damage each, ignore DR (as GURPS Traveller)
9:	Power loss: halve acceleration and force screen DR (but not the transition drive capacity)
10:	Weapon: one turret, bay or other weapon disabled (as GURPS Traveller)
11:	Hangar hit (one vehicle is destroyed)
12:	Force screen damaged (DR is halved)
13:	1d passengers injured, 5d damage each, ignore DR (as GURPS Traveller)
14:	Impulse drive acceleration is halved
15:	Cargo damaged (see above)
16:	Bridge (or cockpit) knocked out (as GURPS Traveller)
17:	1d crew are injured, 5d damage each, ignore DR
18:	Power plant knocked out, ship crippled (as GURPS Traveller)