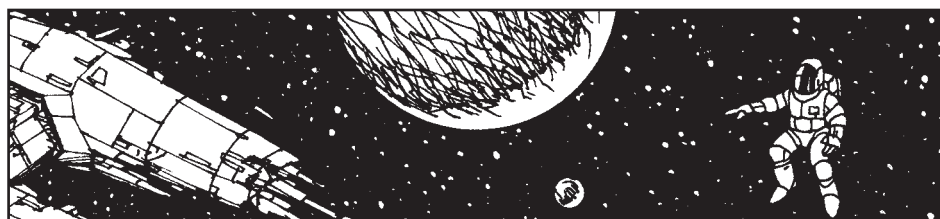


CONTENTS

Introduction	4
Where Credit Is Due	4
About <i>GURPS</i>	4
1. Creating a Universe	5
Campaign Type	6
<i>Recommended References</i>	6
<i>Other Military Campaigns</i>	7
Races	9
<i>Writing History</i>	9
Societies	10
The Alliance	10
<i>Languages</i>	10
<i>The Precursors</i>	10
<i>Alliances: Variant Forms</i>	11
<i>Federations: Variant Forms</i>	12
The Federation	13
<i>The Conquered/Insignificant Terrans</i>	13
<i>Corporate States: Variant Forms</i>	14
The Corporate State	15
<i>The Long Night</i>	15
<i>Empires: Variant Forms</i>	16
The Empire	17
<i>Why People Support Rotten Empires</i>	17
<i>The Census Division</i>	18
<i>The Rebels</i>	18
Organizations	19
Government Organizations	19
<i>The Marines</i>	19
<i>The Rangers</i>	20
<i>Three Multistellar Corporations</i>	21
Private Organizations	22
<i>Planning Adventures</i>	22
<i>Interstellar Trade</i>	24
<i>Startown</i>	24
2. Choosing Technology	25
Power	26
Spaceship Power Plants	26
Energy Banks	26
<i>Tech Levels</i>	26
Space Drives	27
Maneuver Drives	27
<i>Technology Paths</i>	27
<i>Civilization Levels</i>	28
<i>Technology Checklist</i>	28
Stardrives (FTL Drives)	29
<i>Bussard Ramjets</i>	29
<i>Light Sails</i>	30
<i>Frequency of Habitable Worlds</i>	31
Stardrive Options	32
<i>Detecting Worlds</i>	32
<i>Campaign Scope and FTL Travel</i>	33
<i>Speed vs. Acceleration</i>	33
FTL Astrogation	34
<i>Map Obstacles</i>	34

Communications	35
No FTL Radio	35
Slow FTL Radio	35
<i>Astrogational Errors</i>	35
Fast FTL Radio	36
<i>Astrogational Hazards</i>	36
Unlimited FTL Radio	37
Computers and Cybernetics	37
<i>Time Effects</i>	37
Gravity Manipulation	38
<i>FTL Side Effects</i>	38
Weapons and Defenses	40
<i>Sensors</i>	40
<i>Nanotechnology</i>	41
Stealth and Invisibility	42
Other Technology	42
<i>Teleportation</i>	42
3. Characters	43
Character Types	44
Starship Crew	44
Other Starfarers	44
Advantages	46
New Advantages	46
Disadvantages	47
Skills	47
Heroic Performance	49
Home Gravity	50
Economics, Jobs, and Wealth	50
Social Status and Cost of Living	50
Buying and Selling	50
Prices	51
Job Table	52
Variant Human Races	54
Genetically Enhanced Humans	54
Alien Races	55
Creating Alien Races	55
Sample Aliens	56
Space Campaign Plan	59
4. Gadgets	60
Air Masks, Vacc Suits, and Life Support	61
Communications/Information Equipment	63
Superscience Info-Tech	64
Computers	64
Complexity	64
Using Computers	65
TL Differences	65
Hardware	65
Software	66
Contragrav Gear	67
Personal Gear	68

Power Sources	68
Sensor and Vision Equipment	69
Survival Gear	70
Thief/Spy Equipment	71
Superscience	72
Tools	72
5. Weapons	73
Weapons Tables	75
Critical Failure Tables	77
Projectile Weapons	78
Chemical-Propellent Guns	78
Electromagnetic Guns	78
Grenades	78
Tanglers	79
Directed-Energy Weapons	80
Electrolasers	80
Lasers	80
Particle Beams	81
Stunners	82
Melee Weapons	83
Weapon Accessories	84
Personal Armor	84
Force Fields	86
6. Medicine	87
First Aid and Medical Care	88
Fighting Disease	88
Cloning	89
Brain Transplants	89
Braintaping	90
Suspended Animation	91
Chrysalis Machine	91
Aging	92
Bionics	92
SF Wonder Drugs	93
Drug Design	93
Standard TL8+ Drugs	94
Artificial Tissue	95
Medical Equipment	96
7. Environments	97
Gravity	97
G-Tolerance and G-Increments	98
High Gravity	98
<i>Weight and Mass</i>	98
<i>Gunfire in Varying Gravities</i>	98
Low Gravity	99
Microgravity	99
<i>Climbing Up and Down</i>	99
<i>Falling People and Things</i>	99
Zero Gravity	100
<i>Throwing Things in Varying Gravities</i>	100



Different Atmospheres	101
Atmosphere Types	101
Health Problems in Micro-or Zero Gravity (Optional)	101
Pressure Differences	102
Space Sickness	102
Vacuum	103
Extreme Heat	103
Extreme Cold	103
Acceleration	103
Gravity Compensators	103
Corrosive Atmospheres and Equipment Leaks	103
Radiation	104
Rapid Decompression	104
Explosive Decompression	105
Fallout	106
Protection from Radiation	106
Radiation Treatment	106
Radiation Effects on Electronics:	
EMP	106
Radiation Detectors	106
8. Starships 107	
Designing a Ship	108
Design Sequence	108
Units and Abbreviations	108
Suggested Hull Sizes	108
Step 1 – Hull Design	109
Step 2 – Turrets	109
Hull Options	109
Step 3 – Armor and Screens	110
Armor	110
Buying a Ship	110
Force Screens	111
Step 4 – Sensor Masking	111
Standard Designs	111
Step 5 – Internal Spaces	112
Custom-Building	112
Refitting and Repairs	112
Step 6 – Hull Mass and Estimated Mass	113
Step 7 – Systems	113
Bridge	113
Finances	113
Sensors	114
Getting a Ship Without Buying It	114
Drive, FTL	115
STL Colony Ships	115
Drive, Maneuver	116
Auxiliary Craft	116
Consumables	116
Missile Warheads	117
Reaction Mass/Fuel Tanks	118
Airlocks	118
Gravity Generation	119
Pressure Doors	119
Contragravity	120
Tractor and Pressor Beams	120
Power Plant	120
Bridge Systems	121
Crew and Passengers	122
Communications	122
Quarters	123
Sensors	123
Life Support	124
Habitat Modules	124
Using Tractor Beams	124
Weapons	125

Teleport Projectors	125
Compatibility with GURPS Vehicles	126
Energy Banks	127
Light Sail Operations	127
Accessories	128
Cargo Capacity	129
Step 8 - Statistics	130
Ground-to-Space & Space-to-Ground Performance	130
Step 9 - Performance	131
Step 10 - Finalization	131
Traveling	131
Speeds with Maneuver Drives	131
Creating Deck Plans	131
Stardrive Performance	132
Interplanetary Travel with Low-Endurance Reaction Drives	132
9. Space Combat . . . 133	
The Engagement	134
Initiative	134
Shadowing and Detection	134
Formations	134
Space Combat Turns	135
Action Within the Turn	135
Space Maneuvers	135
Reaction Mass and Combat	135
Retaining Advantaged Status	135
Cinematic Rules	136
Selective Targeting	137
Range	138
Missile Attack	138
Beam and Gun Fire	138
Asteroids!	138
Groundfire	138
Missile Launch	139
Other Space Combat Systems	139
Damage	140
Ending the Battle	140
GURPS Weapon Statistics	140
Deriving sAcc	140
Tables	141
Missile Performance	141
Covert Operations	142
10. Stars and Worlds 145	
Star Mapping	146
Map Scale	146
The Third Dimension	146
Astronomical Measurement	146
Random Star Location	146
Astrographic Features	146
Generating Star Systems	147
Placing Worlds	148
Unusual Stellar Objects	148
Multiple-Star Systems	148
Unusual Stellar Objects	149
Very Unusual Stellar Objects	149
Stellar Populations	150
Creating the Star System	151
Star Types	151
System Names	151
The Habitable Zone	152
Creating Star Systems	152
Bode's Law	152
World Types	153

Orbit Locations	153
Creating Habitable Worlds	154
Size, Gravity, and Density	154
Generating Worlds	154
Rotation and Axial Tilt (Seasons)	155
Binary/Trinary Orbits and Biozones	155
Type of Terrestrial Planets	155
Atmosphere	156
Size of Terrestrial Planets	156
Density and Composition of Terrestrial Planets	156
Gravity of Terrestrial Planets	156
Determining Axial Tilt	156
Climate	157
Moons for Terrestrial Worlds	157
Length of Day	157
Surface Water	158
Primary Terrain Types	158
Terrestrial Atmospheres	158
Exotic Atmospheric Gases	158
Mineral Resources	159
Moons	159
The Biosphere	160
Completing the System:	
Other Worlds	160
Random Climate Choice	160
Surface Water	160
Terrain	160
Length of Year	161
Humidity	161
Water and Other Liquids on Uninhabitable Worlds	161
Gas Giant Types	162
Gas Giant Special Features	162
Moons for Gas Giants	162
Asteroid Types	162
Planetary Records	163
Miscellaneous Debris	163
Terraforming	163
Planetary Record: Redugan	164
Unusual System Phenomena	164
Science-Fantasy Phenomena	164
11. Civilizations . . . 165	
Population	166
Native Intelligence	166
Tech Levels	167
Natural Environments	167
Racial Templates	167
Planetary Societies	168
Random TLs	168
Multiple Societies	169
Restricted Worlds	169
Special Variations	170
Random Societies	170
Starports	171
Space Colonies	171
Installations	172
Control Rating (CR)	172
Production Type	173
Index 174	
Glossary 175	
Planetary Record Sheet . . . 176	

ABOUT GURPS

Steve Jackson Games is committed to full support of the GURPS system. Our address is SJ Games, Box 18957, Austin, TX 78760. Please include a self-addressed, stamped envelope (SASE) any time you write us! Resources include:

Pyramid (www.sjgames.com/pyramid). Our online magazine includes new GURPS rules and articles. It also covers *Dungeons & Dragons*, *Traveller*, *World of Darkness*, *Call of Cthulhu*, and many more top games – and other Steve Jackson Games releases like *In Nomine*, *Illuminati*, *Car Wars*, *Toon*, *Ogre Miniatures*, and more. *Pyramid* subscribers also have access to playtest files online!

New supplements and adventures. GURPS continues to grow, and we'll be happy to let you know what's new. A current catalog is available for an SASE. Or check out our website (below).

Errata. Everyone makes mistakes, including us – but we do our best to fix our errors. Up-to-date errata sheets for all GURPS releases, including this book, are available from SJ Games; be sure to include an SASE. Or download them from the Web – see below.

Gamer input. We value your comments, for new products as well as updated printings of existing titles!

Internet. Visit us on the World Wide Web at www.sjgames.com for an online catalog, errata, updates, Q&A, and much more. GURPS has its own Usenet group, too: rec.games.frp.gurps.

GURPSnet. This e-mail list hosts much of the online discussion of GURPS. To join, e-mail majordomo@io.com with “subscribe GURPSnet-L” in the body, or point your World Wide Web browser to: gurpsnet.sjgames.com.

The GURPS Space web page is at www.sjgames.com/gurps/books/space/.

PAGE REFERENCES

Rules and statistics in this book are specifically for the *GURPS Basic Set*, Third Edition. Any page reference that begins with a B refers to the *GURPS Basic Set* – e.g., p. B102 means p. 102 of the *GURPS Basic Set, Third Edition*. Page references that begin with CI indicate *GURPS Compendium I*. Other references are CII for *Compendium II*, GT for *GURPS Traveller*, T:BC for *Traveller: Behind the Claw*, and so on. The abbreviation for this book is S. For a full list of abbreviations, see p. CI181 or the updated web list at www.sjgames.com/gurps/abbrevs.html.

INTRODUCTION

There's this about space: It's big. Sometimes entirely *too* big. *GURPS Space* was tough and long-delayed, but when it hit the stores, it was worth it. When it was named Best Roleplaying Supplement at Origins 1989, we were overjoyed. And now it is in its third edition.

Each new edition of this book has seemed to take forever, because there was so *much* to cover and more was appearing every year. In fact, the first edition “spun off” several other projects. Bill's original manuscript included over 30 complete world descriptions, enough to be a book in their own right. We solved that problem by *giving* them their own book – the first of four *Space Atlases*.

Several other subjects that got chapters in this book deserved full-length treatment, too. We now have separate books for high-tech gadgets – *GURPS Ultra-Tech* and *Ultra-Tech 2* – not to mention technological sourcebooks like *Vehicles*, which covers spaceships in even greater detail than *Space*, and *Bio-Tech*, which is an indispensable guide to designing non-human races.

One common question has been “Is *GURPS Space* hard SF or space opera?” Actually, it's both. We have *not* included a pregenerated universe background. Instead, the book tells you how to create your own. Want detailed, state-of-the-art scientific guidelines for building star systems? They're here. Want quick random tables that give believable results? They're here, too. Descriptions of zap guns and aliens? No problem.

In some chapters, we've given detailed information on (for instance) the way the Galactic Survey works, or the politics of an interstellar federation. But, again, this is resource material . . . suggestions. We don't expect the GM to feel locked into these names, or these details, for his own campaign.

Instead, we're doing whole worldbooks for specific SF backgrounds, like *GURPS Autoduel*, *Cyberworld*, *Planet Krishna*, and *Traveller*. But this book is something else: the (pardon the expression) generic rules. It's a *general* sourcebook. You can use it to adventure in your own SF universe, or that of your favorite SF author – or even that of the SFRPG you used to play (before switching to GURPS, of course).

We had a lot of fun developing the technical material – but reality testing had to go right out the viewport this time. Not too many blasters or stargate generators are available to test, even at Frederick's of Altair VI. So if you disagree with any of our specifications – change 'em. We've done our best to keep the science straight wherever *our* science applies, and we have updated it in each edition, but science evolves quickly and today's “facts” may be discredited next week. Until then, take it and run.

Where Credit Is Due

We were certainly influenced by previous efforts in SFRP gaming (good or bad), and even more by that vast body of SF literature that has accumulated since the golden age of the '30s.

Our own favorites include the work of authors such as Poul Anderson, Isaac Asimov, Iain M. Banks, C.J. Cherryh, Arthur C. Clarke, Philip José Farmer, Robert A. Heinlein, Larry Niven, Andre Norton, H. Beam Piper, Robert Silverberg, Jack Vance, Roger Zelazny, and many more. Overt influences from the SF gaming world would include that old favorite, GDW's *Traveller* (now adapted for GURPS); the works of Don Rapp and Chuck Kallenbach of Paranoia Press (which published some of the best *Traveller* supplements); and Richard Tucholka, designer of the too-often overlooked *FTL: 2448*.

And, finally, our sincerest thanks to the many who commented on the various stages of the manuscript. If this book holds together well, it is only because of the dedicated pickiness of all those rules-readers and playtesters. Whatever is missing is the fault of the authors . . . but let us know what you want, and we'll deal with it. After all, we've got a whole universe out there.

Hot jets!