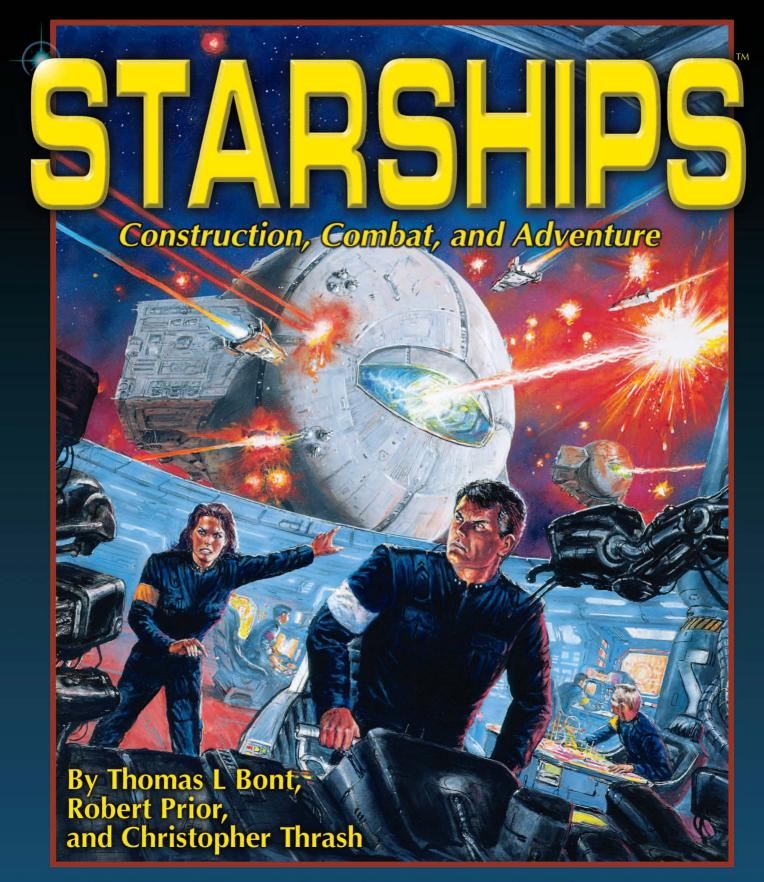
# GURPS Traveller



STEVE JACKSON GAMES

When ships to sail the void between the stars have been invented, there will also be men who come forward to sail those ships.

Johannes Kepler,Somnium, -2887 (1634 A.D.)

From launches to liners, from system defense boats to dreadnoughts, a starfaring campaign requires ships . . . and *GURPS Traveller: Starships* gives them to you! In addition to rules for designing and rating your own spaceships (at both TL9 and TL10), this book contains over 35 pre-designed craft, ranging from 10-ton fighters to 500,000-ton dreadnoughts, described in detail and ready for use in a campaign.

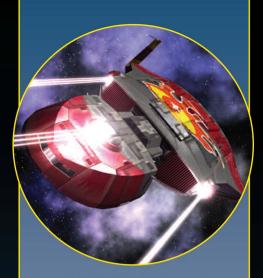
Deck plans are included for the:

- Vayu-Class Type T Patrol Cruiser
- Leaping Snowcat-Class Safari Ship
- Kugashin-Class Lab Ship
- . . . and a schematic diagram of the *Tigress*-class 500,000-ton dreadnought, the first time the internal view of this Imperial behemoth has seen print!

**GURPS Traveller: Starships** also details the "View from the Deck" . . . the experience of being aboard a starship. Passengers and pursers, bridge crews and black gang, owners and deckhands . . . they're all here.

Whether your campaign involves a single surplus scout ship or a fleet of dozens of warships, *GURPS Traveller: Starships* has everything you need!

STEVE JACKSON GAMES www.sigames.com



The *GURPS Basic Set* and *GURPS Traveller* are required for full use of this book in a *GURPS* campaign. The background presented here will be of great value to any *Traveller* campaign, and will also serve as a source of inspiration for other SF gamers.

#### THE SHIP'S CREW:

Written by

THOMAS L BONT,
ROBERT PRIOR,
AND CHRISTOPHER THRASH

Based on the award-winning **Traveller** science-fiction universe by

MARC MILLER

Edited by

GENE SEABOLT AND JON F. ZEIGLER

Cover by

**DOUG CHAFFEE** 

Illustrated by

AARON CAMPBELL, JESSE DEGRAFF, AND GLENN GRANT

Deck Plans by

**ANDREW AKINS** 

FIRST EDITION, FIRST PRINTING PUBLISHED SEPTEMBER 2003

ISBN 1-55634-475-9



9 781556 344756 SJG02495 **6613** 



Printed in

## GURPS Traveller



# STARSHPS

By THOMAS L BONT, ROBERT PRIOR, AND CHRISTOPHER THRASH

Based on the award-winning Traveller science-fiction universe by MARC MILLER

Design and Design Verification by John Buston, Brandon Cope, and Kenneth Peters

> Additional material by John M. Ford, Martin Heidemann, Thomas Jones-Low, Phil Masters, Thomas Schoene, Patrick Sweeney, and Jon F. Zeigler

Modular Ship Design System by David Pulver Edited by Gene Seabolt and Jon F. Zeigler Illustrated by Aaron Campbell, Jesse DeGraff, and Glenn Grant

> Deck plans by Andy Akins Cover by Doug Chaffee

Other Contributions by Andy Akins, Matthew Ashley, William Barnett-Lewis, Kurt Brown, Juliean Galak, Thomas Karpf, Erik Manders, Paul May, Dominic Mooney, William Prankard IV, David P. Summers, Fred Wolke.

GURPS System Design ■ STEVE JACKSON
Managing Editor ■ ANDREW HACKARD
GURPS Line Editor ■ SEAN PUNCH
GURPS Traveller Line Editor ■ JON F. ZEIGLER
Project Administrator ■ MONIQUE CHAPMAN
Art Director ■ LOREN WISEMAN
Design and Production ■ GENE SEABOLT
Page Design ■ JACK ELMY
Print Buyer ■ MONICA STEPHENS
GURPS Errata Coordinator ■ ANDY VETROMILE

Playtest Coordinator: Shawn Fisher

Sales Manager ■ ROSS JEPSON

Playtesters: Frederick Brackin, Terry Carlino, Harold Carmer, Nelson Cunnington, Peter Dell'Orto, Charles Gray, Volker Greimann, Anthony Jackson, Jim MacLean, James Maliszewski, Onno Meyer, David Morgan-Mar, Nana Yaw Ofori, Hans Rancke-Madsen, Mark Turnage, Eric Ueber, Ian Whitchurch, Bolie Williams IV, and Kenneth Witt.

GURPS, Warehouse 23, and the all-seeing pyramid are registered trademarks of Steve Jackson Games Incorporated. GURPS Starships, Pyramid, and the names of all products published by Steve Jackson Games Incorporated are registered trademarks or trademarks of Steve Jackson Games Incorporated, or used under license.

GURPS Traveller: Starships is copyright © 2003 by Steve Jackson Games Incorporated. All rights reserved.

Traveller is a registered trademark of Far Future Enterprises and is used under license.

The scanning, uploading, and distribution of this book via the Internet or via any other means without the permission of the publisher is illegal, and punishable by law. Please purchase only authorized electronic editions, and do not participate in or encourage the electronic piracy of copyrighted materials. Your support of the author's rights is appreciated.

ISBN 1-55634-475-9 1 2 3 4 5 6 7 8 9 10

STEVE JACKSON GAMES

## Contents

About GURPS4	Custom Hull Sizes	Communications Modules (Xboat)	
	Options	SENSOR SYSTEMS	
1. STARSHIPS 5	COMPARTMENTALIZATION	Sensor Suites	
THE STARSHIP ENVIRONMENT 5	Robotic Ships 30	Long-Range Sensors (TL8)	
Starship Structure 6	DISPERSED HULLS	Densitometers (TL11)	
<i>Size Range</i> 6	PLANETOID HULLS	Underwater Electronic Systems	
Common Ship's Systems 6	ARMOR	ELECTRONIC WARFARE SYSTEMS	
Internal Appearance 7	SURFACE FEATURES	JAMMER SYSTEMS	
Noise 7	Sealing	COMPUTER SYSTEMS	
Smells	Sensor Masking		
<i>Viewports</i>	Additional Shielding32	6. WEAPONS AND	
Gravity	Turrets	DEFENSES	46
Shipboard Information Service8	Weapon Bays	TURRET WEAPONS	
Compartments 8	Modular Sockets	Missile Racks	
Workstations	External Store Mountings	Energy Weapons	
<i>Freshers</i> 10		Sandcasters	
Culture and Naval Architecture11	4. PROPULSION,	BAY WEAPONS	
2 STARSHIR DESIGN AND	POWER, AND FUEL . 36	Missile Bays	49
2. STARSHIP DESIGN AND	Engineering Component Modules 36	Energy Weapons	
CONSTRUCTION 12	Engineering Modules	Repulsor Bays (Late TL9)	49
SHIPBUILDING	Airlocks	SPINAL WEAPONS	
Terminology	Small-Craft Bridge Add-Ons 36	SCREEN SYSTEMS	
Working the Yards	Power-Plant Cores	Nuclear Dampers (TL10)	
Shipyard Facilities	Power Plant Slices	Meson Screens (TL10)	
Standard Designs	Energy Banks	Force Fields (Late TL12)	50
Building Better Ships From the	Jump Drives (TL9)	7. LAUNCHED	
Ground (Clearance) Up 14 Custom Building	SHORT-TERM SYSTEMS	ORDNANCE	<b>5</b> 2
STARSHIP DESIGN SEQUENCE	REACTION AND MANEUVER DRIVES 37	MISSILES	
Naval Ship Classes	Maneuver Drives	Missile Design	
Step 1: Concept and Tech Level 17	Solar Sails         38           Reaction Drives         38	Standard Missiles	53
Streamlining		Missile Warheads	
Step 2: Hull Design	Atmospheric Drives	DEADFALL ORDNANCE	
Step 3: Turrets, Bays,	Maneuvering Without	Spike Submunitions (SSM)	
and Spinal Mounts	Grav Compensation	Glide Bombs	
Evolution vs. Revolution 20	Utility Systems (TL8)	PROBES/DRONES	
Step 4: Armor	Contragravity Systems (TL8) 40	Stealth Surveillance Drone (TL12)	
Step 5: Other Surface Features 21	Can My Vessel Really Fly? 40	Electronic Warfare (EW)	
Step 6: Component Modules 21	Combination Gravitics Systems	Drone (TL9)	55
Cargo Space in Turrets	(TL8)	Short-Range Probe (TL12)	
Step 7: Turret and Weapon Bay	FUEL TANKS	Probe Launchers	
Armament	Jump-Fuel Tanks 41	JUMP TROOP SYSTEMS	55
Step 8: Statistics	Collapsible Tanks 41	Standard Drop Capsule	55
Step 9: Performance	Demountable Tanks 41	Capsule Racks	
and Design Finalization 23	Drop Tanks	Drop-Capsule Launchers	55
G-Round Calculations 23	Reaction Mass41	Battledress Ready Rooms	
Underwater Action	FUEL COLLECTION AND PURIFICATION 41	("Morgues")	55
Directions and Numbering 24	Fuel Processors 41	8. CREW AND	
CREW AND PASSENGERS		PASSENGER	
Crews on Large Ships	5. CONTROLS, SENSORS,	ACCOMMODATIONS	<b>E</b> 6
Gunnery Section	AND ELECTRONICS . 42	Modules for Crew and Passengers	
How Many Medics Do I Need?26	Bridge Systems	Life Support	
FITTING OUT	Cockpit/Systems	Alien Environment Suites	
Additional Expenses	Basic Bridges	Bunkrooms	
Outfitting the Ship	Command Bridges	Small-Craft Cabins	
Hiring Crew	Bridge Options 42 Auxiliary Control Stations	Traveling	
Tilling Cicw	(Duplicate Controls)	Low Berths (TL9)	
3. HULLS28	BRIDGE SYSTEMS MODIFICATIONS TABLE 43	That's Entertainment	
STREAMLINED	Information Centers	Passenger Couches	
AND UNSTREAMLINED HULLS28	COMM SYSTEMS	Staterooms	

Offices	10-ton Launches	Chief Engineer	. 12
Life Support and Provisions 59	20-ton Gigs	Purser	
Luxury Fittings	20-ton Customs Gigs75	Medical Officer	. 12
and Entertainment Facilities 59	DECK PLAN: QUATERMAIN-CLASS	CAPTAIN'S DUTIES	
Gymnasiums/Exercise Rooms 59	10-TON HUNTING LAUNCH	Starship Skills	. 12
Halls, Bars, or Conference Rooms 60	DECK PLAN: CONNOR MCBANE-CLASS	Three Twists	
Holoventures (TL9) 60	<b>20-</b> TON CUSTOMS GIG	Passengers	. 12
Shooting Ranges	30-ton Ship's Boats	Your Attention, Please	
Stages	40-ton Pinnacles		
Swimming Pools	100-ton Interplanetary Shuttles 78	APPENDIX A:	
Theaters 60	Fighters	MODULE TABLES 1	2
Null-G Handball Courts (TL8) 60	DECK PLAN: VALOR-CLASS	Key	
Ship's Galleys	HEAVY FIGHTER	ENGINEERING AND POWER PLANTS	. 12
Ship's Ganeys	System Defense Boats 80	Fuel Tanks	
9. ACCESSORIES AND	DECK PLAN: Dragon-Class SDB	Gravitic Systems	
UNUSUAL ITEMS 61		Energy Banks	
CARGO	AND JUMP SHUTTLE	Hydrogen-Fueling Units	
Cargo Holds 61	System Defense Boat Jump Shuttles . 83	Misc. Engineering Systems	
Smuggler's Holds	Type T Patrol Cruisers 84	SECURITY	
Ship's Lockers	DECK PLAN: VAYU-CLASS	QUARTERS AND LIFE SUPPORT	
WEAPON STORAGE	PATROL CRUISER		
	Safari Ships	MEDICAL	
Anti-Blast Magazines	DECK PLAN: SAFARI SHIP	RECREATION FACILITIES	
Damper Boxes (TL11)	Container Ships 90	SURVIVAL SHELTERS	
Antimatter Bunkers (TL12) 61	Jgd-ll-Jagd Vessels 91	HABITATS	
CARGO-HANDLING GEAR	Common Starships 92	MISCELLANEOUS SYSTEMS	
Gravitic Manipulators (TL11/13) 62	DECK PLAN: KUGASHIN-CLASS LAB SHIP 94	Jump-Troop Systems	
Mass Catchers (TL8)	Warships and Dreadnoughts98	Ore Processors	. 12
Optional Detail: Hatches	DECK PLAN: TIGRESS-CLASS	Teleporters	. 12
and Openings 62	Dreadnought	Escape Capsules	. 12
Additional Equipment63		Beacons	. 12
VEHICLE STORAGE	11. STARSHIP	WEAPONS	. 13
Vehicle Bays	OPERATIONS 102	Turret Lasers	
Hangar Bays 64	MOVEMENT	Turret Missile Racks	
Spacedocks	Jump Points	Turret Sandcasters	
Launch Tubes/Mass Drivers (TL8) 64	and Jump-Point Masking 102	High-Energy Turret Weapons	
Labs and Workshops	JUMP POINT MASKING TABLE	Bay Weapons	
Laboratories	(MAIN SEQUENCE STARS) 102	Missile Bays	
Isolation Laboratories	FREE JUMP-POINT TABLE	Missiles	
Simulation Labs (TL9)	Deep Navigation	EW Drones	
Computer Labs	COMBAT	Sand Canisters	
Workshops	Missiles	Weapon Storage	
Shipyards (TL7/9)	ECM	Turrets	
MEDICAL FACILITIES 65	Boarding Operations 105	50-ton External Bays	
Emergency-Aid Stations 65	MAINTENANCE AND SUPPLIES 106	100-ton External Bays	
Sick Bays	Routine Maintenance 106	Internal Bays	. 13
Military Sick Bays/Aid Stations 66	Annual Maintenance	Spinal Mount Weapons	
Evacuation Bays	Refitting and Starport Repairs 106	COCKPITS AND BRIDGES	
Operating Theaters 66	Field Repairs	ELECTRONIC SYSTEMS	. 13
HABITAT MODULES	WILDERNESS REFUELING OPERATIONS 107	Sensor Systems	. 13
SECURITY SYSTEMS	Refueling Classifications 108	Screens	. 13
Cells/Armories/Safes 66	Refueling Options	Electronic-Warfare Systems	. 13
Brigs	Gas Giant Skimming 109	Long-Range Sensors	
Double-Cell Brigs	How Far Is That Gas Giant?109	Special Sensors and Add-Ons	. 13
MISCELLANEOUS SYSTEMS	High Guard	Communications Suites	
Turreted Mining Lasers (TL8) 67		Computer and Scientific Systems .	
Ore Processors	12. LIFE ABOARD 110	Drives	
Passage Tubes	FINDING A BERTH	Reactionless Thrusters	
Entry Modules	Recruiting Organizations 110	Reaction Drives	
	Starship Superstitions	Atmospheric Drives	
Escape Capsules	Crewing a Ship		
Boarding Clamps	Incident-Free Voyage112	Short-Term Reactionless Thrusters	
Survival Shelters	BASIC DUTIES	Short-Term Reaction Drives	
Optional: Zero-Space Systems		Short-Term Atmospheric Drives	
COMPUTERS AND PROGRAMS70	Duty Shifts	Solar Sails	
Using Programs	Ship's Articles	Jump Drives	. 13
FUTURE DEVELOPMENTS	Turnover	ADDENDIY B. WEADON	
Reactors and Energy Banks 73	Duty Types	APPENDIX B: WEAPON	
Antimatter	Staying Alive	TABLES 1	
Megathrusters (Late TL13)73	Career Planning	Turret Energy Weapons	
Weapons	OFFICER'S DUTIES	Bay Energy Weapons	. 14
Teleporters (Late TL13)	Pilot	Spinal Mounts	
	Astrogator	Missiles	
10. STARSHIP	Flight Controller	Civilian Missiles	
DESIGNS74	Sensor Officer119	Deadfall Ordnance	. 14
SMALL CRAFT	Communications Officer 119		
Starship Writeups74	Weapons Officer120	INDEX1	4

#### 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 and 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. For a current catalog, send us a legal-sized or 9"×12" SASE – please use two stamps! – or just visit www.warehouse23.com.

*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 on our website – 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 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, point your web browser to **www.sjgames.com/mailman/listinfo/gurpsnet-l/**.

The *GURPS Traveller: Starships* web page is at www.sjgames.com/gurps/books/traveller/starships/.

#### 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 Basic Set - e.g., p. B102 means p. 102 of the Basic Set, Third Edition. Page references that begin with CI indicate Compendium I. Other references are BIO to Bio-Tech, CII to Compendium II, RO to Robots, S to Space, Third Edition, UT to Ultra-Tech, VE to Vehicles, Second Edition, GT to Traveller, Second Edition, T:AIII to Traveller Alien Races 3, T:FT to Traveller Far Trader, T:FI to Traveller First In. T:GF to Traveller Ground Forces, T:SM to Traveller Star Mercs, and T:ST to Traveller Starports. The abbreviation for this book is T.S. For a full list of title abbreviations, see p. CI181 or visit the updated web list at www.sjgames.com/gurps/abbrevs.html.

### Introduction

As the name implies, *Traveller* is about *traveling* – heading toward new adventures, shaking pursuit from old adventures, and reveling in the freedom to explore the galaxy. Travelers who possess a starship have more control over their destinies, because it gives them more independence and freedom of movement than a group without a ship. An adventuring group that lacks its own starship will find buying, building, finding, or stealing one to be an important goal.

GURPS Traveller: Starships is intended as the ultimate guide to starships in its universe. This book contains extensions to the starship-design rules found in GURPS Traveller, fully compatible with those rules and with GURPS Vehicles. It also provides rules for starship operations, and details of what life aboard a starship is really like.

So sign on the roster, grab your duffel, and get ready to lift ship!

#### ABOUT THE AUTHORS

Thomas L Bont has been a gamer for over 20 years. This is his first foray into printed media, aside from a few collaborations from a gearhead perspective. He is the lead programmer for *GURPS Vehicle Builder* and has over a dozen articles to his credit in the *Journal of the Travellers' Aid Society*. Currently, he is the president of Bont Software & Control Systems Inc., based out of Hickory Creek, TX.

Robert Prior has played *Traveller* since it was first published. He has written for Digest Group Publications, Heliograph, the Canadian Space Agency, and Steve Jackson Games, including more *Journal of the Travellers' Aid Society* articles than any other mortal. When not dreaming about the future, he nurtures it, one mind at a time.

Christopher Thrash is a serving military officer and a qualified helicopter pilot. He has spent far too much time away from his family, and has learned a fair amount about ships and shipping in the process. He has been playing roleplaying games since March 1976, *Traveller* since December 1977, and *GURPS* since 1991.

#### ABOUT THE LINE EDITORS

Loren Wiseman was one of the founding partners of GDW Inc., original publishers of *Traveller*, and spent more than 20 years there as a game designer, developer, typesetter, and editor. After GDW closed, Loren freelanced for a time, then came to SJ Games, where he is the *GURPS Traveller* senior line editor and *Traveller* expert in residence.

Jon F. Zeigler has been a science-fiction fan since the cradle (literally). He and his wife and two children live in Maryland, where he works as a computer-security consultant. He has written several past books for *GURPS* and *GURPS Traveller*, and currently serves as the *GURPS Traveller* line editor for Steve Jackson Games.

#### JOURNAL OF THE TRAVELLERS' AID SOCIETY

The long-running *Traveller* magazine is now online at **jtas.sjgames.com**. It supports all versions of *Traveller* with news, articles, discussion areas, and reviews. Subscriptions are \$20 per two years, for 52 biweekly updates and full access to archives.

The *Traveller News Service* is updated weekly, chronicling the life and times of the Imperium, and is viewable *free* at **www.sjgames.com/gurps/traveller/news.html**. The SJ Games *Traveller* links page (**www.sjgames.com/gurps/traveller/links.html**) links to the *Traveller* Web Ring, which includes most of the major *Traveller*-oriented websites. For information on subscribing to the *Traveller* mailing list, go to **tml.travellercentral.com**.



Consider how often we take the parameters of interstellar technology for granted. It's true that the workings of the jump drive are so perplexing that very few civilizations have ever developed it independently. Aside from that obstacle, however, almost everything about interstellar travel is easy. Once the jump drive is known, it can be built by relatively primitive cultures. It requires no extraordinary skill to maintain or use. It can be installed in ships small and simple enough to be operated by a single crewman. Its operating costs are well within the reach even of individual entrepreneurs.

As a result, interstellar travel is within the reach of common individuals everywhere in Charted Space. We can afford to use it for the most prosaic purposes: warfare, trade in basic commodities, migration, even idle tourism.

There's no obvious reason why this had to be the case. Suppose interstellar travel cost the equivalent of billions of credits per ton-parsec, could not be accomplished by ships smaller than flying mountains, and required skills only a tiny fraction of Humans could master. History would have been utterly different – assuming that an interstellar civilization could be built at all, under such circumstances.

- Sir Shamash Thomas,

#### An Overview of Imperial History

Starships bind the Imperium together. Millions of starships are registered within Imperial space, carrying cargo and passengers, protecting the trade lanes, helping Imperial citizens go about their business. Most citizens will never travel

from one world to another – but starship stories fill the Imperial news and entertainment channels, giving every citizen a picture of what life aboard is like. Every citizen knows *something* about the ships that carry goods and passengers, protect the trade routes, or explore new worlds. Starships are romantic, promising the freedom to travel widely, visit exotic places, take part in a millennia-old tradition, and make one's personal fortune.

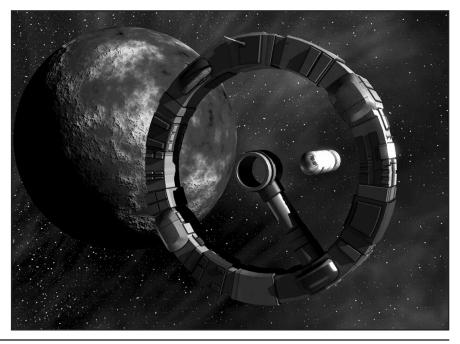
Traveller revolves around starships. Almost every adventuring party will spend much of its time making its way from one world to the next via starship. Perhaps only one member of the group will own a ship (or at least control it, in the case of a detached Scout). Or the adventurers may be part owners in a merchant starship. Or the GM may turn the acquisition of a ship into an adventure, making would-be starfarers earn their wings.

Adventuring without a ship is possible, but the campaign takes on a radically different nature (which some players may prefer). The focus changes from interstellar to interplanetary (or single-planet) situations, and the group tends to linger in one system or on one world. The group can take passage on NPC-operated starships, stow away, or otherwise arrange to travel from world to world – but this cannot always be done freely, at the will of the adventurers.

## THE STARSHIP ENVIRONMENT

In *Traveller*, a starship is defined as a spacecraft capable of faster-than-light travel. Because there is only one means of FTL travel in *Traveller*, this specifically means any spacegoing vessel that has a jump drive. Slower-than-light generation ships can engage in interstellar travel, but are not called starships because they do not use jump drives. Such vessels are obsolete. Battle riders are large, extremely powerful ships of the line, but they have no jump drive, and thus are not starships.

A starship presents an artificial environment which spends much of its time utterly isolated from the wider universe. Crewmen and passengers coming aboard for the first time will find much of it unfamiliar, despite efforts to make it safe and comfortable.



#### SIZE RANGE

A starship must displace at least 100 dtons (see p. 12) in order to use a jump drive. The most common starship of this size is the *Suleiman*-class scout/courier, used by the IISS and by detached scouts throughout the Imperium and beyond. Coming in a close second is the 100-dton express boat (Xboat).

The upper limits of starship size have yet to be reached, but current theory places the maximum size of a starship between 1.5 million and 2.5 million dtons – although some engineers claim that there is no real upper limit.

#### STARSHIP STRUCTURE

Every starship has a *hull*, a main body or shell which acts to contain the ship's components and payload. The hull always carries some armor to protect against meteor impact and other natural hazards. It may or may not carry extra armor to protect against combat damage.

The hull is internally divided into *compartments*, each of which contains some of the ship's components or provides space for payload. Compartments are separated by *bulkheads*, *decks*, and *partitions*. Decks are usually perpendicular to the onboard artificial gravity's "down" axis, while bulkheads and partitions are parallel to it. More intuitively, one walks on the decks and opens doors set into the bulkheads and partitions.

Bulkheads are structural elements of the ship and can withstand differences in air pressure on either side. A compartment which is sealed by bulkheads will maintain its internal environment even if there is a hull breach in an adjacent area. Bulkheads are used to surround very important or dangerous areas of the ship, such as the bridge, the engineering compartment, or the block of crew quarters. Bulkheads cannot be moved around the ship without a significant amount of work at a shipyard.

Partitions are simple walls, serving to divide compartments without being airtight. They can easily be moved from place to place by a mechanic-and-electrician team. As a result, different ships (even of the same class) can have different internal arrangements.

#### COMMON SHIP'S SYSTEMS

A variety of equipment and systems will be found inside the hull of any starship, all designed to provide basic support to the vessel and help fulfill its intended function. Each ship's internal design is different, but certain systems are common to almost all starships.

Almost all starships will have one or more *power plants*. In the present-day Third Imperium, these are usually reliable, long-lasting fusion installations. There may be backup power plants or energy banks using other technologies. The power plant is the basic energy source for all other ship's systems.

Most starships will have a *maneuver drive*. This system permits the vessel to travel under power through normal space. Maneuver drives can make use of a variety of technologies (see Chapter 4), but most Imperial starships use reactionless thrusters. Thrusters require no fuel, instead converting energy from the ship's power plant directly into motive thrust.

By definition, all *Traveller* starships will have a *jump drive*. The jump drive is the key to interstellar travel. It permits starships to traverse interstellar distances in reasonable time, by taking "short cuts" through an alternate dimension called *jumpspace*. Jump drives use power-plant energy, but they also use hydrogen fuel which is expended in the course of the jump. Jump drives are rated according to their operating range; a jump-1 drive can move its starship one parsec at a time, while a jump-6 drive can make six-parsec jumps. A controlled jump of more than six parsecs is theoretically impossible, although starships occasionally jump further as a result of "misjump" accidents. High-rated jump drives are very expensive and use vast quantities of fuel, so only courier and military vessels routinely use higher than jump-3.

Starships usually mount *communications* and *sensor* equipment. Most of this equipment uses very old technology for manipulating the electromagnetic spectrum: radios, communication lasers, telescopes, radar, and so on. More exotic electronics, such as meson communicators and gravitic sensors, are available on high-technology worlds. In *Traveller*, all sensors and communications in normal space are restricted to lightspeed; as a result, interstellar communication is usually handled by courier starship.

Many starships are armed. Starships can use a variety of beam weapons such as laser cannon, particle accelerators, meson guns, plasma guns, or fusion guns. Many starships also use missiles. Small weapon systems can be mounted in *turrets* on a starship's hull. Large warships are often designed around *spinal mounts*, gigantic beam weapons that are aimed by turning the entire ship.

To defend against attack, starships use a variety of techniques. *Sandcasters* can be used to fill nearby space with prismatic particles, providing some protection against laser weapons. At high levels of technology, a ship can use force screens such as *meson screens* or *black globes* to protect against beam weapons. Ships' beams weapons also can be used in a defensive role, to shoot down any incoming missiles. Very advanced ships can use *repulsors* to deflect missiles or *nuclear dampers* to prevent nuclear explosives from working.

Many starships carry smaller craft on board as auxiliary vehicles. Auxiliaries give a starship greater flexibility, permitting cargo, fuel, or passengers to be carried where the starship itself can't go. Some starships (such as fighter-wing carriers) are designed entirely around their carried craft.

#### Fiery-Class 500-ton Gunned Escort (TL11)

This is a more refined, streamlined version of the *Gazelle*. The external drop tanks are replaced by internal fuel tanks, limiting the ship to jump-4 without the possibility of the extended-range jump-5. Few navies regard this as a major shortcoming, but many don't like the fact that the *Fiery* is slower than a tankless *Gazelle*.

The *Fiery* is much less common than the *Gazelle* because it cannot be built at less sophisticated shipyards like its ancestor can (p. 97).

It has a heavy frame and heavy compartmentalization.

The typical crew of 13 includes four command personnel, two engineers, four gunners, and three maintenance crew.

**Subassemblies:** VGSL Hull +9, 4×Turret +5.

**Powertrain:** Engineering, 25 Jump Drive, 104 Maneuver.

Fuel: 200 Jump Fuel Tank.

**Occ:** 8 Staterooms **Cargo:** 3.5 dtons

Armor	F	RL	В	T	U
Hull:	4/1,700	4/1,700	4/1,700	4/1,700	4/1,700
Turrets:	4/850	4/850	4/850	4/850	4/850

#### Weaponry

- 2 Turrets with 2×1.4-GJ Turret P-Beam [1 per Turret].
- 2 Turrets with 6×390-MJ Turret Lasers [3 per Turret].

#### **Equipment**

All: Basic Emission Cloaking and Stealth. Hull: Emergency Aid Station; compact Basic Bridge; Enhanced Sensor System; 2 Fuel Processors; Utility; 20-dton Vehicle Bay (for Faun-class Gunned Gig).

#### **Statistics**

Size: 138'×90'×28' Payload: 127 stons Lwt.: 2,754 stons Volume: 500 dtons Maint.: 76.6 mh/day Price: MCr255

HT: 12 HPs: 90,000 [Hull], 2,400 [each Turret].

sAccel: 3.8 Gs/4 Gs empty Jump: 4 aSpeed: 4,850 mph

#### Condor-Class 2,000-ton Belt Surveyor (TL7)

The *Condor*-class belt surveyor represents what a lower-tech society committed to exploring its solar system can achieve. It is designed with long-term comfort in mind for the crew, with single-occupancy staterooms, an oversized recreation facility, and two gymnasiums. Its acceleration is nothing to be proud of, but it can make the Earth-Mars run in around five months (coasting most of the way). It would require refueling at the end of its journey, and thus would not normally travel to a destination without a guaranteed supply of water.

It carries five triple-missile racks. They are for point defense against rogue asteroids and for making smaller asteroids out of larger ones, enabling easier study.

A standard crew would be 33: 13 command personnel, a medic, 14 lab technicians, and five gunners/maintenance crew.

**Subassemblies:** Hull +10, 5×Turret +5.

**Powertrain:** Engineering, Power Core, 476 Fission Rocket.

Fuel: 1,290 dtons Water, 1,290 Fuel Tanks.

**Occ:** 33 Staterooms **Cargo:** 172 dtons

Armor	F	RL	В	T	U
All:	4/100	4/100	4/100	4/100	4/100

#### Weaponry

5 Turrets with 15×250mm Missile Racks [3 per Turret].

#### **Equipment**

*Hull:* Sickbay, 2 Gymnasiums, 6 Isolation Labs, Hall, Command Bridge, Advanced Sensor System, Planetary Survey Module, Enhanced Communication System, 2 Large Entry Modules, Complete Workshop.

#### **Statistics**

*Size*: 318'×80'×40' *Payload*: 20,217 stons *Lwt*.: 25,636 stons *Volume*: 2,000 dtons *Maint*.: 113 mh/day *Price*: MCr554

HT: 11 HPs: 90,000 [Hull], 1,200 [each Turret].

sAccel: 0.13 Gs 0.81 GRds

#### WARSHIPS AND DREADNOUGHTS

Large starfaring services such as the Imperial Navy usually organize themselves around "capital ships," massive warships whose primary armament is a spinal-mount beam weapon. During wartime, these ships serve as the primary arm of battle. In peacetime, they provide command-and-control services for routine patrols and other non-combat missions.

## **Azhanti High Lightning**-Class 60,000-ton Frontier Cruiser (TL11)

Conceived as a fleet intruder, the *Azhanti High Lightning* was designed with unusual mobility and defenses; at the time, jump-5 capability and meson screens were very unusual for warships below the capital class. The first members of the class were built in the years just before the Solomani Rim War, and many of them saw valiant service during that conflict.

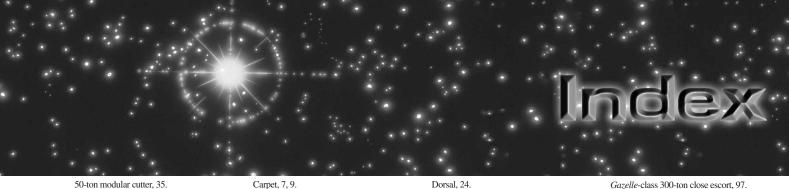
The original *Azhanti High Lightning* class presented here has long since been declared obsolete by the Imperial Navy. Examples can still be encountered in IISS service, or (with

most or all weapons removed) in commercial service. A number of the original model have also been transferred to local or allied service (notably to the Darrian Confederation and Vegan Autonomous Region).

In the 1080s, 28 Azhanti High Lightnings were taken out of mothballs and refurbished to reenter frontier service. A spinal meson gun replaced the particle accelerator, with particle accelerators replacing most of the missile batteries, and a black-globe generator and meson screen were installed. The refurbished cruisers were deployed to the Imperium's most dangerous "trouble spots," the Spinward Marches, the Solomani Rim sector, and the turbulent client states along the Gateway frontier to trailing. Although several of the refurbished ships have been lost, most remain in active Imperial service.

The ship has an extra-heavy frame.

A standard crew of 662 includes 30 bridge, 10 countermeasures, 196 flight, 106 gunnery, 136 engineering, four medical, and 180 service personnel, with 150 troops and up to 52 non-crew personnel often carried, as well.



50-ton modular cutter, 35. 100-diameter limit, 102. 150-ton Jgd-ll-Jagd launch, 91. 1,500-ton Jgd-ll-Jagd seeker, 92. 7,000-ton Jgd-ll-Jagd ore hauler, 91. Aft. 24. Aging of ships, 20. Air Speed, 23. Airlocks, 36, 67; optional detail, 62. Alien environment suites, 56. Alien starships, 11. Anatomy of starship, 5-11. Anti-blast magazines, 61. Antimatter, 73; bunkers, 61-62. Appearance of interior, 7. Architecture of starships, 5-11. Armaments, see Weaponry. Armor, 14-15, 20-21; classifications, 20; dispersed structure limits, 30; planetoid hull formula, 31; thermal superconducting, 33; types, 31. Armories, 66. Artificial gravity, see Gravity Control. Aslan, 11, 17, 111. Asteroids, see Planetoid Hulls. Astronomical survey module, 44. Atmospheric drives, 39; component tables, 138-139. Auxiliaries, see Small Craft. Auxiliary control stations, 43. Auxiliary equipment, 27. Azhanti High Lightning-class 60,000-ton frontier cruiser, 98-99, 109. Bandersnatch-class 400-ton SDB, 80. Bandersnatch/S-class 700-ton SDB jump shuttle, 83. Bars, 60. Basic starship components, 5-11. Baso Rita-class 200-ton small survey ship, 89. Bathrooms, 10. Batteries, 24. Battle riders, 5, 16-17. Battledress ready rooms, 55. Battleships, 16, 99-101. Bays, 19, 33-34, 49-50; *armor*, 20; installing weapons, 21-22; vehicular, 63-64. Beacons, 69; component tables, 129. Belt surveyors, 98. Berth, obtaining one, 27, 110-112. Berthing costs, 27. Birdsong-class 100-ton container ship, 90. Black globes, 6, 50-51, 104-105.

cruiser, 85. Blain Virishii-class 20-ton customs Decks, 6, 24. gig, 76. Decompression, 116, 123.

Boarding a ship, 105-106. Boarding clamps, 67. Bridge, 8-9, 21, 42-43; alien, 11; auxiliary, 8-9; component tables, 132-133; flag, 8; options, 42.

Brigs, 66. Bulk freighters, 97. Bulkheads, 6, 9. Bunkrooms, 10, 26, 56. Capital ships, 16-17. Captain, 8; duties, 120-121. Careers, 118.

Cargo, 9, 61; handling gear, 62-63; office, 9; stored in weapon bays, 19.

Carpet, 7, 9. Carriers, 16. Cash reserves, 27. Catwalks, 9. Cells, 66. Chief engineer, 9, 25, 120. Civil War, 17. Classes of starports, 13-14. Classifications of starships, 6; military, 16. Cleaning, 115-116. Close escorts, 97. Cockpit systems, 21, 42; component tables, 132-133. Collapsible tank, 41.

Colresh-class 400-ton subsidized merchant, 93. Combat Information Center, 8, 43. Combat, 19, 104-106. Combination gravitics systems, 40. Commercial ships, 16, 111-112; combat techniques, 21. Communications module for Xboat, 44.

Communications suites, 6, 43-44; component tables, 137. Compartmentalization, 6, 8, 30-31. Component modules, 21.

Computers, 45, 70-72; component tables, 137; labs, 65; particle beams and, 48; programs, 49-50, 70-72; terminals, 68. Condor-class 2,000-ton belt surveyor, 98. Conference rooms, 60.

Connor McBane-class 20-ton customs gig, 76.

Container ships, 90. Contragravity systems, 40; see also Gravity control.

Corsairs, 96; boarding a ship, 105-106. Cost of starship, 23.

Cr (credit), 13.

Crews, 25-26, 56-60, 112-121; duties, 113-121; hiring, 27, 110-112. Cruisers, 16, 98-99.

Custom ship design, 15; hulls, 29. Damage control, 116-117; lockers, 68.

Damage threshold, 23. Damper boxes, 61.

Deadfall ordnance, 19, 53-54.

Deck plans, Kugashin-class 400-ton lab ship, 94-95; Leaping Snowcat-class 200-ton safari ship, 88; **Tigress**-class 500,000-ton dreadnought, 100; Valorclass 50-ton heavy fighter, 79; SDB and jump shuttle, 82; Type T patrol

Definitions, 12-13, 21; module tables terms, 124; orientation and numbering aboard, 24-25; ship-writeup terms, 74; weapon table, 142.

Demountable tank, 41. Densitometers, 44-45. Departments, 113. Design system, 12-27. Designs, standard, 14.

Detection Modifier, 32. Dimensions of ship, 15, 74. Directions onboard, 24.

Dispersed structure hulls, 18, 30. Displacement, 12.

Double-Fire, 46, 72.

Dragon-class 400-ton SDB, 81, 82. Dragon/S-class 700-ton SDB jump

shuttle, 83. Dreadnoughts, 99-101. Drive axis, 24.

Drones 55

Drop capsules, 55. Drop tanks, 41, 97.

Droyne, 11, 111. dTon, 12, 22.

Duplicate controls, 43.

Duties of crew, 113-121. Dyaus-class 400-ton patrol cruiser, 86.

Dynamic configuration, 9.

Electrified surfaces, 32-33.

Electronic countermeasures, 105.

Electronic warfare, component tables, 134; drone, 55; systems, 45.

Emergency, aid stations, 65; life-support packs, 68; lights, 7.

Emission cloaking, 21, 31-32.

Empty mass, 22.

Energy banks, 37; component tables, 125. Energy weapons, 47-48; see also Weaponry.

Engineering, 9, 21; component tables, 124-125; modules, 36.

Entertainment, 8, 58-59, 123; component tables, 127.

Entry modules, 67.

Equipment, 27.

Escape capsules, 67, 123; component tables, 129.

Escorts, 16.

Evacuation bays, 66. EW drone launchers, 47.

Exercise room, 59.

External cradles, 35

External store mountings, 34.

Fang-class 400-ton corsair, 96. Faun-class 20-ton gunned gig, 75.

Fiery-class 500-ton gunned escort, 98. Fighters, 79.

Fire extinguishers, 9, 68, 116.

First (Vilani) Imperium, 17. Fission rockets, 38.

Fitting out, 23, 26-27. Fixed mounts, 13, 19.

Fleet tender, 16.

Flight in atmosphere, 40. Force fields, 50-51.

Fore, 24.

Frames of hulls, 14, 23, 29; planetoid variation, 30.

Free traders, 92-93, 111. Freshers, 10.

Frozen watch, 26.

Fuego-class 30-ton ship's boat, 77. Fuel, 25, 27, 40-41, 107-109; component tables, 124-125; processors, 41; tanks, 40-41.

Furniture, 7, 9-10.

Fusion air rams, 39.

Fusion guns, 48-49; see also Weaponry. Future gear, 72-73. G-rounds (GRds), 23-24.

Galley, 60.

Gas-giant skimming, 18, 107-109.

Gazelle-class 300-ton close escort, 97.

General quarters, 114-115.

Gigs, 75-76.

Glide bombs, 54.

Grapples, 35. Grav pong, 7.

Gravitic manipulators, 62.

Gravity control, 6-7, 17, 39-40; component tables, 124-125; maneuvering

without, 39-40. Gunned escorts 98

Gymnasiums, 59.

Habitat modules, 66; tables, 127.

Halls, 60.

Hangar bays, 64.

Hardpoints, 34.

Harper-class 10-ton launch, 75.

Harvey Walbash-class 20-ton customs gig, 76.

Hatches, see Airlocks. HEPlaR drives, 38-39.

High guard, 109.

High passage, 57.

Hijacking, 7, 105-106.

Hiring crews, 27, 110-112.

Hivers, 11, 30.

Holoventures, 60. HPs (hit points), 13, 23.

HT of starships, 23; see also Aging of Starships.

Hull mounts, 13, 19, 24, 46.

Hulls, 6, 14-15, 28-35; additional shielding, 32-33; class, 13; dimensions of, 15; internal spaces of, 18; robotic, 30; sealing, 21; streamlining and structure, 17-18, 28-29.

Hyperfans, 39.

liken-class 100-ton scout courier, 92. Imperial Navy Bureau of Ships, 14.

Inboard, 24.

Information centers, 43.

Infrared cloaking, 31-32.

Inspections, 105.

Internal spaces for hulls, 18.

Interplanetary shuttles, 78.

Invisibility, 51.

Isolation labs, 65.

Jammers, 45.

Jared Al'Kaseel-class 20-ton customs gig, 76.

Jgd-ll-Jagd ships, 91-92.

Jump drives, 6, 9, 17, 37, 102-103; component tables, 139; fuel tanks, 41;

origins, 5.

Jump Number, 23. Jump troop systems, 55; component tables, 128.

K'kree, 7, 11. Keys, see Definitions, Deck plans.

Kokirrak-class 200,000-ton dreadnought, 99.

Kugashin-class 400-ton lab ship, 12, 93-95.

Laboratory, 64-65; ships, 93-95. Ladders 9

Lasers, mining, 67; missile warheads incorporating, 53; turret, 47; see also

Weaponry. Launch tubes, 64. Launches, 75.

143 INDEX

Leadership, 121. Leaping Snowcat-class 200-ton safari ship, 87-88. Life aboard a starship, 110-123. Life support, 56, 59; component tables, 126. Lights, 7, 9. Limited acceleration formula, 23-24. Liquid-fuel rockets, 38. Liris-class 100-ton IP shuttle, 78. Liverpool-class 20,000-ton dispersed hull bulk freighter, 97. Livestock, 57-58. Living quarters, see Quarters. Loaded mass, 22. Lockers, 9-10. Long Night, 17. Long-range sensors, 44; component tables, 134-136. Lounges, 10; alien, 11. Low berths, 26, 57-58. Luxury fittings, 59. Machine shops, 9. Macla-class 100-ton IP shuttle, 78. Maintenance, 22, 27, 106-107, 115. Maneuver drives, 6, 9, 17, 37-39; beyond TL12, 73; component tables, 138-139. Masking sensors, 21. Mass, catchers, 62; driver, 64; of starships, 22. Medics, 26, 65-66, 120; medical component tables, 126. Megathrusters, 73. Megawatts (MW), 13, 15-16. Merchant lines, 111. Meson guns, 49, 73; see also Weaponry. Meson screens, 6, 50. Metal/oxide rockets, 39. Middle passage, 57. Mining lasers, 67. Missiles, 46-47, 49, 52-55, 104; bays, 49; racks, 46-47; warheads, 53; see also Weaponry. Modular ships, 34-35. Modular design system, 14, 16. Morgue (battledress ready room), 55. Naval architecture, 5-11. Navigation in deep space, 103. Noise aboard, 7, 9. Non-starships, definition of, 13. Nuclear dampers, 6, 50. Nuclear warheads, 53-54, 61, 105, 142. Null-G handball courts, 60. Numbering aboard, 25. Ocklosh-class 400-ton salvage ship, 96. Odors, 7, 11. Officer duties, 118-121. Offices, 58. Operating a starship, 102-109. Operating theaters, 66. Ore processors, 67; component tables, 129. Orientation of decks, 24. Outboard, 24. Particle beams, 48-49; see also Weaponry. Partitions, 6. Passage tubes, 67. Passengers, 56-60, 117, 123; couches, 58. Passive Defense (PD) scale, 21. Patrol cruisers, 84-86. Payload, 22-23. Performance, 22-24; atmospheric flight, 40; modular ships and, 34-35. Pinnaces, 77. Planetary survey module, 44. Planetoid hulls, 18, 30-31. Plans for custom ship, 15. Plasma guns, 48-49; see also Weaponry.

Power plants, 6, 9, 17, 36; beyond TL12,

size in modular system, 15.

of, 13.

Power slice, 14-16, 36-37; definition

73; component tables, 124-125; overall

Prancing Poni-class 200-ton charter yacht, 87. Probes and launchers, 55. Programmable walls, 7. Provisions, 27, 59. Psi shielding, 33. Psionics, 11. Pulse mode, 46. Ouarterdeck, 8-9. Quarters, 7, 10, 56-60; alien, 11; component tables, 126; crew, 10. Quatermain-class 10-ton hunting launch, 75. Radiation shielding, 33. Reaction drives, 23-24, 37-39; component tables, 138-139. Reaction mass, 41. Reactionless drives, 17, 37-39; component tables, 138-139. Refitting, 20, 106-107. Refueling, 107-109. Repairs, 106-107. Repulsors, 6, 49-50, 104; see also Weaponry. Restrooms, 10. Robotics, 11, 30. Rudra-class 400-ton patrol cruiser, 84. Safari ships, 87-89. Safes, 66. Salaries, 27. Salvage ships, 96. Sandcasters, 6, 48-49, 105; see also Weaponry. Scout couriers, 6-7, 16, 92. Screens, 50-51; component tables, 134. Sea Animal-class 200-ton aquatic safari ship, 89. Sealed hulls, 21, 31. Second Imperium (Rule of Man), 17. Security systems, 11, 66, 69, 123; component tables, 125. Sensors, 6, 44-45, 119-120; component tables, 133-136; masking, 21, 31-32. Shares, 27. Shielding of hulls, 32-33. Shifts, 113-115. Ship classes, see Vessels. Ship's, articles, 113; boats, 77; definition of, 13; design, 12-27; galleys, 60; information service or system, 7-8; locker, 61, 68; systems, 6; troops, 26. Ship-writeup terminology, 74. Shipbuilding, 12-27; (Starship) skill, 15, 61. Shiphandling and -master skills, 121. Shipyards, 12-14, 65, 106; maintenance, Shooting ranges, 60. Short-range probe, 55. Short-term systems, 37. Sickbay, 10, 65-66. Siigiizuni-class 200-ton free trader, 92-93. Simulation labs, 65. Size of hull, 15, 28-29, 74; custom, 29. Sizes of starships, 6, 16. Skanda-class 400-ton patrol cruiser, 86. Skills, 15, 25-27, 35, 54, 61, 63-65, 69, 104, 106-107, 109-112, 115, 118-121; combat, 105; computer program, 49-50, 70-72; medical, 26; psionic, 33; running a starship with one crewmember 92 Skimming gas giants, 18, 107-109. Slower-than-light generation ships, 5. Small craft, 6, 16, 74-79; bridge add-ons, 36; cabins, 57; crew, 25; definition of, 13; weapon bays holding, 19. Smells, 7, 11. Smuggler's hold, 61. Solar sails, 38; component tables, 139. Solid-rocket boosters, 38-39. Solomani, 11, 17, 111; Rim War, 17.

Space Acceleration, 23. Spacedocks, 64. Spaces, internal, 18. Spike submunitions, 53-54. Spinal mounts, 16, 19, 46, 50; installing weapons, 21-22; see also Weaponry. Stages, 60. Standard designs, 14. Starboard, 24. Starfaring employers, 110-112. Starports, 13-14, 27, 106-107. Staterooms, see Quarters. Statistics, see Performance. Stealth, 21, 31-32. Stealth surveillance drone, 55. Steps in design process, 16. sTon, 12, 22. Streamlining, 17-18, 23, 28-29. Structural HT, 23. Subsidized merchants, 93. Suleiman-class scout/courier, 6-7, 92. Superstitions, 111. Supplies, 106-107. Survey module/traffic control system, 44. Survival kits and shelters, 67-68: component tables, 127. Swimming pools, 60. Sylean Federation, 17. System defense boats, 80-83. Tables, 124-142; Armor Type at TL, 31; beacons, 69; Bridge Systems Modifications, 43; Cockpits and Bridges, 132-133; Communications Systems, 44; computer programs, 71; Drives, 138-139; Electronic Systems, 133-137; Electronic Warfare Systems, 45; Engineering and Power Plants, 124-125; Free Jump-Point, 103; fuel types, 25; Habitats, 127; hull modifiers, 29; intrinsic couplings sAccel limits, 35; jammers, 45; Jump-Point Masking, 102; Livestock Stowage, 58; Medical, 126; Miscellaneous Systems, 128-129; Quarters and Life Support, 126; Reaction Mass, 41; Recreation Facilities, 127; Security, 125; Sensor Masking Features, 32; Shielding Features, 33; sonar, 45; Standard Hull Sizes, 28-29; Survival Shelters, 67, 127; teleporters, 73; Weapons, 130-132, 140-142. Tech Levels, 17; armor, 31; different TLs in same ship, 15, 17; equipment beyond TL12, 72-73; hulls and, 29; lasers, 47. Teleporters, 73; component tables, 129. Terminology, see Definitions. Terran Confederation, 17. Theaters, 60. Thermal superconducting armor, 33. Tiger-class 40-ton slow pinnace, 77. Tigress-class 500,000-ton dreadnought, 100-101. Tikuma-class 100-ton IP shuttle, 78. Tons, different, 12, 22, Tool kits, 68. Total-conversion rockets, 39. Turbo-ramjets, 39. Turrets, 19, 24, 33, 46; armor, 20; installing weapons, 21; mount, 13; popup, 19; reduction in capacity by other items, 19; storing cargo in, 21. Type T patrol cruisers, 84-86. Underwater electronic systems, 45. Underwater performance, 24. Unstreamlined hulls, 18, 28-29. Upkeep, 22, 27. Utility systems, 40. Valor-class 50-ton heavy fighter, 79. Vargr, 11, 17, 111, 121. Variant Dragon-class 400-ton SDB, 81. Vayu-class 400-ton patrol cruiser, 86. Vehicle bays, 63-64. Ventral, 24.

Vessels, 12; 50-ton modular cutter, 35; 150-ton Jgd-ll-Jagd launch, 91; 1,500ton Jgd-ll-Jagd seeker, 92; 7,000-ton Jgd-ll-Jagd ore hauler, 91; Azhanti High Lightning-class 60,000-ton frontier cruiser, 98-99, 109; Bandersnatch-class 400-ton SDB, 80; Bandersnatch/S-class 700-ton SDB jump shuttle, 83; Baso Rita-class 200ton small survey ship, 89; Birdsongclass 100-ton container ship, 90; Blain Virishii-class 20-ton customs gig, 76; Colresh-class 400-ton subsidized merchant, 93; Condor-class 2,000-ton belt surveyor, 98; Connor McBaneclass 20-ton customs gig, 76; Dragonclass 400-ton SDB, 81, 82; Dragon/Sclass 700-ton SDB jump shuttle, 83; Dyaus-class 400-ton patrol cruiser, 86; Fang-class 400-ton corsair, 96; Faunclass 20-ton gunned gig, 75; Fieryclass 500-ton gunned escort, 98; Fuego-class 30-ton ship's boat, 77; Gazelle-class 300-ton close escort, 97; Harper-class 10-ton launch, 75: Harvey Walbash-class 20-ton customs gig, 76; Iiken-class 100-ton scout courier, 92; Jared Al'Kaseel-class 20ton customs gig, 76; Kokirrak-class 200,000-ton dreadnought, 99; Kugashin-class 400-ton lab ship, 12, 93-95; Leaping Snowcat-class 200-ton safari ship, 87-88; Liris-class 100-ton IP shuttle, 78; Liverpool-class 20,000ton dispersed hull bulk freighter, 97; Macla-class 100-ton IP shuttle, 78; Ocklosh-class 400-ton salvage ship, 96; Prancing Poni-class 200-ton charter yacht, 87; Quatermain-class 10-ton hunting launch, 75; Rudra-class 400-ton patrol cruiser, 84; Sea Animalclass 200-ton aquatic safari ship, 89; Siigiizuni-class 200-ton free trader, 92-93; Skanda-class 400-ton patrol cruiser, 86; Suleiman-class scout courier, 6-7, 92; Tiger-class 40-ton slow pinnace, 77; Tigress-class 500,000-ton dreadnought, 100-101; Tikuma-class 100-ton IP shuttle, 78; Valor-class 50-ton heavy fighter, 79; Vayu-class 400-ton patrol cruiser, 86; Wyrm-class 400-ton SDB, 81; Wyrm/Sclass 700-ton SDB jump shuttle, 83; Wyvern-class 400-ton SDB, 81; Wyvern/S-class 700-ton SDB jump shuttle, 83. Viewports, 7. Vilani, 11, 111, 121. Warships, 98-101. Watch, bills, 113-114; officer, 8. Water performance, 24. Weapon mounts, 13, 19. Weaponry, 6, 21-22, 46-50, 52-55; ammunition, 27; balanced array, 21; batteries, 24; beyond TL12, 73; combat tables, 140-142; component tables, 130-132; storage, 61-62; underwater performance, 24. Window boxes, 69. Working passage, 27. Working the yards, 12. Workshops, 64-65. Workstations, 9; alien, 11. Wyrm-class 400-ton SDB, 81. Wyrm/S-class 700-ton SDB jump shuttle, Wyvern-class 400-ton SDB, 81. Wyvern/S-class 700-ton SDB jump shuttle, Xboats, 6, 17; communications module for, 44.

Zero-space systems, 68-69.

Zhodani, 11, 17.

144 INDEX

Sound baffling, 21.