

Star Control Extended Reference Text

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This walkthrough was originally written for Star Control on the GENESIS, but the walkthrough is still applicable to the PC version of the game.

STAR CONTROL (STAR CONTROL 1)

16-BIT GAME CARTRIDGE FOR
THE SEGA GENESIS SYSTEM

EXTENDED REFERENCE TEXT

REVISION 09/27/2003

TOPICS IN ORDER OF APPEARANCE

TOPICS IN ALPHABETICAL ORDER

=====	=====
0. Introduction	| Androsynth Guardian (12)
1. Game Control	| Ariloulaleelay Skiff (20)
2. The Tactical Combat Screen	| Asteroids (4)
3. Background Stars	| Background Stars (3)
4. Asteroids	| Basic Ship Maneuvering: Strategic (33)
5. Planet	| Basic Ship Maneuvering: Tactical (6)
6. Basic Ship Maneuvering: Tactical	| Cheat Codes (35)
7. Ship Attributes: General	| Chenjesu Broodhome (16)
8. Ur-Quan Dreadnought	| Colonies (30)
9. Ur-Quan Fighter	| DOGI, Chenjesu (17)
10. Mycon Podship	| Earthling Cruiser (22)
11. Spathi Discriminator	| Fighter, Ur-Quan (9)
12. Androsynth Guardian	| Fortifications (32)
13. VUX Intruder	| Full Game (27)
14. Ilwrath Avenger	| Game Control (1)
15. Umgah Drone	| Ilwrath Avenger (14)
16. Chenjesu Broodhome	| Introduction (0)
17. Chenjesu DOGI	| Mines (31)
18. Yehat Terminator	| Mmrnmhrm X-Form (19)
19. Mmrnmhrm X-Form	| Mycon Podship (10)
20. Ariloulaleelay Skiff	| Planet (5)
21. Syreen Penetrator	| Post-Combat (26)
22. Earthling Cruiser	| Precursor Relics (34)
23. Shofixti Scout	| Projectiles (25)
24. Ship Attributes: Comparative	| Ship Attributes: General (7)
25. Projectiles	| Ship Attributes: Comparative (24)
26. Post-Combat	| Shofixti Scout (23)
27. Full Game	| Spathi Discriminator (11)
28. The Strategic Combat Screen	| Starbase (29)
29. Starbase	| Syreen Penetrator (21)
30. Colonies	| Strategic Combat Screen, The (28)
31. Mines	| Tactical Combat Screen, The (2)
32. Fortifications	| Umgah Drone (15)
33. Basic Ship Maneuvering: Strategic	Ur-Quan Dreadnought (8)
34. Precursor Relics	VUX Intruder (13)

0. INTRODUCTION

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- o This document provides information on Star Control that does not explicitly appear in the manuals included with the game. Many of the facts and tips found here will already be known to anyone who has played before; However, this document explores a wide variety of topics in detail, and should reveal useful information to novice and experienced players alike.
- o A Sega Genesis System Console, model 1601, equipped with one standard Sega Genesis "3-button" controller (model 1650) was used as the basis for the controller descriptions and real-time measurements in this document.
- o This document is 79 characters wide, and is best viewed in a monospaced font. The master HTML version is located here: <http://Ledmeister.com/scgenxr.htm>
The master text version is located here: <http://Ledmeister.com/scgenxr.txt>

1. GAME CONTROL

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- o Either controller can be used to select the player and game options.
- o In games where one side is Computer-operated, either controller can be used to make selections for either side.
- o Anywhere in the game, the B and C buttons can both be used to continue a paused display. During Full Game play, either button can be used to skip an animated display.
- o Pausing a game will not interrupt music or a sound effect.
- o Start will not pause or cancel the ending sequence in Melee or Full Game.
- o In Practice and Melee modes, the Hierarchy always chooses ships first.
- o In Full Game mode, the Hierarchy will always move first in eight of the 15 scenarios, and the Alliance will always move first in the other seven (see section 27: Full Game).

2. THE TACTICAL COMBAT SCREEN

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- o The status display of Hierarchy-controlled ships will always be displayed in the upper right; the status display of Alliance-controlled ships will always appear in the lower right.
- o During ship-to-ship (tactical) combat, the screen will continuously center itself on the midpoint of an imaginary line drawn between the two ships. When one ship is in motion, this centering effect can give a false impression that both ships are moving.
- o The screen will zoom in on the pair of ships as they come closer together, and zoom out again as they move apart. There are 3 levels of magnification. A full-sized screen (zoomed all the way out) shows 25% of the total combat area.
- o Combat occurs in a rectangle of space four times the size of a full-sized screen. The opposite edges of this rectangle are mathematically linked, meaning that an object exiting one side of the rectangle is simultaneously

re-entering at the opposite side. Because of this "wraparound" effect, the maximum distance (in at least one direction) between any two objects will never exceed the diagonal measurement of one full-sized screen.

- o Note that overall game play may slow down or speed up at times. Often this is due to an increase or decrease in the number of objects being displayed on the screen. Because of this speed fluctuation, ship refueling rates and other events can vary in real time by several seconds.

3. BACKGROUND STARS

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- o The background stars are actually 3 overlapping star fields. If either ship is in motion, the three fields may appear to move independently. (Stars within each field remain fixed relative to each other.) The largest stars are the best guide for determining a ship's true state of motion, as the smaller stars can appear to move even if the ship in question is stationary.

4. ASTEROIDS

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- o There are 5 asteroids at any given time. When one is destroyed, a new one is generated off-screen, set rotating at a random speed either way about the one axis chosen for all asteroids, and set in linear motion at a random speed.
- o If a ship arrives in the combat area and materializes on top of an asteroid, the asteroid passes under the ship, and neither object is affected.
- o Ships will not be damaged by collisions with asteroids, however the course and speed of both objects are likely to be affected.
- o Asteroids can be destroyed by all weapons except the VUX limpet parasites, the Syreen Song and the Shofixti Glory Device. They are also destroyed if they touch the planet; (occasional, unexpected *Smack!* sounds are asteroids striking the planet, which may be off-screen at the time).
- o As an asteroid is destroyed, it loses all momentum and tangibility. Any asteroid fragments produced will have no effect on anything, and disappear in moments.
- o With the exception of the Umgah antimatter cone, the Syreen Song, and the Shofixti Divine Wind, an asteroid will always destroy any projectile encountered.
- o An asteroid's linear and rotational motion can be suspended when it's in contact with a ship, but its motion will resume when contact is broken. (As long as an asteroid exists, it will never stop moving unless it's being held in place by a ship.)

5. PLANET

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- o Three types of planets appear in game play: Life worlds, Mineral worlds, and Dead worlds. On the tactical combat screen, Life worlds appear mostly blue in color, while on the strategic combat screen Life worlds are green upon discovery. On either screen, Mineral worlds will always be red, and Dead worlds will always be white.
- o In Practice and Melee modes, the planet type is selected randomly before the first combat encounter, and remains unchanged from round to round.
- o All planets are the same size and exert the same gravitational force.

- o Gravity extends in all directions from the center of a planet to a distance of about 4 times its diameter. Beyond that perimeter gravity drops to zero. Note that planets are the only objects in the game that exert a gravitational force.
- o Most slow-moving solid objects can achieve orbit around the planet. This includes asteroids, most ships, and even spaceborne crew (see section 21: Syreen Penetrator).
- o Collisions with the planet will cause damage, and at higher speeds the damage can be greater. Prolonged or repeated contact will destroy a ship.
- o The planet will block all missile and beam projectiles. It will not block the effects of the Umgah antimatter cone, the Syreen Song, or the Shofixti Glory Device.
- o As a ship enters combat, its hyperspace trail may pass near (or through) the planet. This will have no effect on the ship.
- o The planet cannot be destroyed, and cannot be moved (its position is fixed within the large-star field).

6. BASIC SHIP MANEUVERING: TACTICAL

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- o Ships cannot be controlled or affected as they are entering the tactical combat area.
 - o When ships arrive in the combat area, they will never appear inside a planet's gravity field.
 - o Ships rotate through 16 orientations (360 degrees at 22.5-degree intervals). Unguided missiles cannot be launched into the "blind spots" between these 16 firing angles, nor can unguided beams be swept through them.
 - o Ships will not gain momentum by turning. Rotation will always cease when the direction button is released.
 - o Gravity (or lack thereof) has no effect on a ship's turn rate.
 - o A ship which begins motion with forward thrust can be brought to a full stop by applying an equal amount of thrust in the opposite direction of travel, assuming the ship's course and speed remain unaffected by other influences. To halt a drifting ship under any other circumstances: Turn off thrust, rotate the ship to point away from the direction it's drifting, apply thrust until the ship reaches its top speed; then turn off thrust, rotate the ship 180 degrees, then apply thrust in small amounts until the ship comes to rest. This method will halt any ship, regardless of speed or direction of drift.
 - o The planetary "slingshot effect" will work for most ships: Passing close to the planet while applying continuous thrust will boost a ship's speed, often by a great deal.
 - o To orbit a ship around a planet, thrust on a straight course that will intersect the planet's gravity field, but not the planetary body itself. Before the ship reaches the gravity field, turn off thrust and rotate the ship 180 degrees. As the ship enters the gravity field, apply thrust as necessary to slow the ship to just below escape velocity. A different amount/duration of thrust will be required here depending on the type of ship and its speed.

- o If a ship under very low thrust (or one impaired by limpet parasites) is trapped in a planet's gravity field, it will be pulled to the surface and eventually destroyed unless it can escape or achieve orbit. In this case, simply thrusting directly against the pull of gravity will probably not work. Try keeping the ship facing 90 to 135 degrees away from the surface while applying continuous thrust.
- o Gravity will have no effect on an Ariloulaleelay Skiff, and as such an Arilou cannot gain or lose speed by moving through a planet's gravity field, cannot achieve orbit, and cannot be pulled to a planet's surface.
- o Occasionally a ship will gain an excess of momentum from contact with slower (or stationary) objects, and will bounce away from the object at high velocity. Collision with the planet tends to cause this effect most often, although on rare occasions contact with DOGIs will produce similar results.
- o The impact of any projectile will not affect a surviving ship's inertia, direction of motion, or its orientation in space.

7. SHIP ATTRIBUTES: GENERAL

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- o Unless otherwise specified, ship attributes described in this document (crew and fuel point levels, thrust speeds, turn rates, firing rates, etc.) assume no influence by collisions, gravity, weapon effects or Precursor items.
- o Note that overall game play may slow down or speed up at times. Often this is due to an increase or decrease in the number of objects being displayed on the screen. Because of this speed fluctuation, ship refueling rates and other events can vary in real time by several seconds.
- o Up until it is destroyed, a ship's performance will not be affected by loss of crew members.
- o There are 16 possible captain names for each ship type. When two ships of the same type are selected in Practice mode, both ships may have the same captain name.

8. UR-QUAN DREADNOUGHT

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- o Starts with 42 crew, 42 fuel points.
- o Fusion bolt weapon detail: Costs 6 fuel points to fire. Can fire 8 times in a row if fuel is at maximum. A hit does 6 points of damage.
- o A Dreadnought's fusion bolt will not affect its own fighters.
- o Fighter launch detail: Costs 8 fuel points to issue a launch command. Can launch 6 times in a row if fuel is at maximum.
- o Fighters are launched at 45-degree angles from the rear of the pods on either side of the ship (launching angle between two fighters is 90 degrees). When fighters need refueling and/or the enemy is destroyed, they can return to the Dreadnought through any part of its hull.
- o 2 fighters are launched at a time. If only 2 crew remain, then 1 fighter is launched (last crew member cannot be launched). When 1 fighter is launched, it will always exit from the starboard pod on the Dreadnought.
- o Coming out of combat in Full Game mode, all surviving fighters outside the Dreadnought are returned to it (regardless of fighter fuel status, distance

from the Dreadnought, or intervening objects).

- o Ur-Quan Dreadnoughts cannot find or use Precursor crew pods or Precursor fuel packs.
- o Ur-Quan captain names: Lord 3, Lord 18, Lord 21, Lord 43, Lord 52, Lord 88, Lord 89, Lord 103, Lord 156, Lord 237, Lord 342, Lord 412, Lord 476, Lord 666, Lord 783, Lord 999.

9. UR-QUAN FIGHTER

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- o Fighters are launched at 45-degree angles from the rear of the pods on either side of the ship (launching angle between two fighters is 90 degrees). When fighters need refueling and/or the enemy is destroyed, they can return to the Dreadnought through any part of its hull.
- o Fighters head directly towards the enemy ship via the shortest route, and will not attempt to avoid asteroids, the planet, other fighters, DOGIs, spaceborne crew or projectiles.
- o Will chase the enemy ship, and attempt to move to one of its flanks when possible. Note that a fighter launched from the pod on one side of an Ur-Quan Dreadnought will attempt to move to the same side of the enemy ship.
- o Will fire only at the enemy ship, ignoring everything else.
- o Can fire more than 30 times if proximity, time and survivability permit.
- o A hit from a fighter's laser does 1 point of damage.
- o Can be destroyed by all enemy weapons except the VUX limpet parasites, the Syreen Song and the Shofixti Glory Device. They are also destroyed by direct contact with any object (other than the launching Dreadnought), or by running out of fuel. A Dreadnought's fusion bolt will not affect its own fighters.
- o Fighters are not slowed by VUX limpet parasites.
- o Will pursue/attack for about 23 seconds, then return to the Dreadnought via the shortest route. Again, they will not attempt to navigate around any intervening objects, including the enemy ship (although they will still fire on the enemy ship if it is encountered along the path to the Dreadnought).
- o After breaking off an attack, a fighter has about 10 seconds of fuel remaining. If the launching Dreadnought is far away, fighters may not make it back before expiring.
- o Fighters are not affected by gravity.
- o If a fighter, in an attempt to return to the Dreadnought, rams into a Chenjesu Broodhome, the sound effect for a destroyed DOGI is played.
- o All fighters instantly disappear if both ships in combat are destroyed.

10. MYCON PODSHIP

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- o Starts with 20 crew, 40 fuel points.
- o Homing plasmoid detail: Costs 20 fuel points to fire. Can fire 2 times in a row if fuel is at maximum. The plasmoid decays over 11 stages of strength: Upon firing, a hit at point-blank range does 10 points of damage; each

successive stage does 1 point less than the previous, with the exception of stage six, which does not drop a point.

- o If a plasmoid is launched forward while the podship is moving faster than its standard maximum speed and/or the launching port is facing away from the enemy ship, the podship may hit itself.
- o Crew regeneration detail: Costs 40 fuel points. Can regenerate crew only once without refueling.
- o 4 crew are regenerated at a time, up to the maximum crew capacity of the ship.
- o During Full Game play, the Recruit command is unavailable to (and not needed by) the Mycon Podship.
- o A Mycon Podship will fill Precursor crew pods at the time of discovery.
- o Mycon captain names: Blort, Chupp, Floos, Glish, Glob, Glush, Plork, Shlish, Shlupp, Slingy, Sploozo, Spork, Uffo, Yush, Zalooop, Znuff.

11. SPATHI DISCRIMINATOR

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- o Starts with 30 crew, 10 fuel points.
- o Forward weapon detail: Costs 2 fuel points to fire. Can fire 5 shots in a row if fuel is at maximum. A hit does 1 point of damage.
- o Backwards Utilizing Tracking Torpedo (BUTT) detail: Costs 3 fuel points to fire. Can fire 3 shots in a row if fuel is at maximum. A hit does 2 points of damage.
- o Torpedoes home in by adjusting course about 6 times per second.
- o Torpedoes travel slower than the Spathi's top speed. Firing a torpedo with the BUTT weapon facing forward can lead to the ship hitting itself.
- o Lowest documented Refuel rate of all ships.
- o Spathi captain names: Bwinkin, Jinkeze, Kwimp, Nargle, Phlendo, Phwiff, Pkunky, Plibnik, Pwappy, Rupatup, Snelopy, Snurfel, Thintho, Thwill, Whuff, Wiffy.

12. ANDROSYNTH GUARDIAN

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- o Starts with 20 crew, 24 fuel points.
- o Acid bubble detail: Costs 3 fuel points to fire. Can launch 8 bubbles at a time if fuel is at maximum. A hit does 2 points of damage.
- o The Androsynth will not be damaged by its own bubbles.
- o "Comet" form detail: Costs 1 fuel point about every .58 seconds, until all fuel is used (it will engage on as little as 1 fuel point). Comet form will last about 14 seconds if fuel is at maximum. A hit (ramming) does 2 points of damage.
- o The comet form can cause equal damage from any point on its surface (not only the forward edge).

- o The Androsynth can still take damage from projectiles while in comet form.
- o Comet speed and maneuverability are not affected by VUX limpet parasites.
(Note that parasites picked up by an Androsynth in comet form will remain to affect its normal form.)
- o The Androsynth cannot pick up spaceborne crew while in comet form; crew members are destroyed on contact.
- o Comet's course is not affected by gravity.
- o The Androsynth loses all momentum during comet mode, and will come to a full stop when it's disengaged.
- o A Precursor dynamo will not extend the duration of the comet mode. (The Androsynth does not generate fuel while in comet mode.)
- o Precursor control jets and thrusters will not have an affect on an Androsynth in comet form.
- o Androsynth captain names: AK-47, BHS-79, BIM-XT, BOOJI-1, CRC-16, DORN-3, DOS-1.0, HAL-2001, JOR-15, KORB-7B, ME-262, NECRO-99, SR-71, XR4-TI, 976-KILL, 1040-EZ.

13. VUX INTRUDER

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- o Starts with 20 crew, 40 fuel points.
- o Optical laser detail: Costs 1 fuel point to fire. Can fire 40 times in a row (continuous fire) if fuel is at maximum. Minimal, flash-use of the laser does 1 point of damage.
- o The VUX's laser beam will not affect its own limpet parasites.
- o Limpet parasite detail: Costs 2 fuel points to launch. Can launch 20 limpets in a row if fuel is at maximum.
- o Note that VUX limpet parasites and spaceborne crew (see section 21: Syreen Penetrator) will both appear as flashing green dots on the screen. Although they may look similar, parasites flash less frequently and will generally move faster than spaceborne crew members. When the tactical combat screen is zoomed all the way in, parasites will appear larger than spaceborne crew members.
- o Parasites only affect enemy ships; they have no effect on the launching VUX, asteroids, the planet, fighters, DOGIs, spaceborne crew or projectiles.
- o Parasites will affect only the forward thrust and turn rate of an enemy ship. They do not affect the Androsynth's comet form, the Umgah's reverse jump, or the Ariloulaleelay's hyperjump. (Note that parasites picked up by an Androsynth in comet form will remain to affect its normal form.)
- o Parasites will have an equal effect regardless of their size or placement on a ship's hull.
- o Although parasites will slow a ship, they cannot reduce a ship's thrust or turn rate to absolute zero.
- o Parasites can pass through a Yehat shield.

- o Parasites can be affected by gravity.
- o In Practice and Melee modes, limpets will remain attached to an enemy ship permanently. In Full Game mode, they are removed from the enemy ship if it survives combat with the VUX (and any other ships attacking it that Turn).
- o The VUX always enters the combat area facing within 90 degrees of the enemy ship.
- o VUX captain names: DAK, FIZ, FUP, NRF, ORZ, PIF, PUZ, VIP, YUK, ZEK, ZIK, ZIT, ZOG, ZRN, ZUK, ZUP.

14. ILWRATH AVENGER

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- o Starts with 22 crew, 16 fuel points.
- o HellFire Blast detail: Costs 1 fuel point to fire. Can fire 16 times in a row (continuous fire) if fuel is at maximum. The weapon fires a series of overlapping bursts of flame, each burst doing 1 point of damage.
- o The HellFire Blast has qualities common to both field and unguided-missile weapons: Like a field, its area of influence in relation to the ship will not vary, even if the ship is moving at great speed; and like an unguided-missile weapon, its fire can be concentrated along one firing angle, or swept to cause damage in two or more directions simultaneously. Among all ships, this is the only weapon with these combined attributes.
- o Firing will deactivate the cloaking device. It will remain deactivated until the C button is hit again.
- o If the Ilwrath fires when cloaked, it will always uncloak facing towards the enemy ship (provided no object is preventing the Ilwrath from facing that direction). The Ilwrath will even find another cloaked Ilwrath in this way.
- o Cloaking device detail: Costs 3 fuel points to toggle on or off with the C button. No fuel is used to uncloak when uncloaking is caused by firing. Can maintain a constant rate of use if fuel is at maximum.
- o Generally, the cloak only truly conceals the direction the ship is facing, and the ship's thrust trail. The Ilwrath's position, speed and direction of flight can still be computed, because the tactical combat screen view adjusts to keep each ship in the exact inverted location of the other ship at all times. A cloaked Ilwrath can counter this disclosure of position only when combatting another cloaked Ilwrath.
- o The cloak absorbs light instead of bending it, so the ship will still blot out the stars it passes over. Its silhouette may also be glimpsed in Earthling missile explosions against its hull.
- o Fighters, DOGIs and homing weapons are unable to track the Ilwrath when it is cloaked. (Fighters, DOGIs and Androsynth bubbles will remain in a limited area; other homing projectiles will proceed along a straight path until they expire.)
- o The Ilwrath's Refuel rate is very fast (well above the rate shown in the graph provided by the ship data bank in Practice mode), and as such it allows nearly continuous firing of the HellFire Blast weapon.
- o Ilwrath captain names: Argarak, Baylor, Borgo, Dirga, Gorgon, Kalgon, Kayzar, Lurgo, Manglor, Regorjo, Rogash, Slygor, Taragon, Targa, Vogar, Zoggak.

15. UMGAH DRONE

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- o Starts with 10 crew, 30 fuel points.
- o Antimatter cone detail: Costs no fuel points (per se) to fire. Can maintain continuous firing regardless of fuel status. Minimal, flash-use of the cone does 1 point of damage.
- o The antimatter cone can block all laser weapons, and destroy most other projectiles on contact.
- o Reverse jump detail: Costs 1 fuel point per jump. Can jump 30 times in a row if fuel is at maximum.
- o The Umgah loses all momentum during reverse jump, and will come to a full stop when it's disengaged.
- o In reverse jump mode, the Umgah exceeds the standard top speed of all other ships. (Note, however, that the Umgah's maximum forward thrust speed is the slowest of all ships.)
- o The reverse jump is not affected by VUX limpet parasites.
- o The refueling process for the Umgah differs from that of all other ships. Up to 30 fuel points are instantly generated once every 10 seconds. If the ship fires at any time, or attempts to jump without fuel, the 10-second timer is suspended, and will start again (from zero) only when the Umgah is neither firing or attempting to jump.
- o One Precursor dynamo will cut the Refuel delay from 10 to 5 seconds.
- o Precursor thrusters will not affect the Umgah's reverse jump.
- o Umgah captain names: Baguk'i, Bob, Brewz'k, Chez'ef, Chup'he, Ei'Ei'o, Gibj'o, Gwap'he, I'buba, Julg'ka, Kterbi'a, Kwik'ow, O'bargy, O'guk'e, Pruk'u, Znork'i.

16. CHENJESU BROODHOME

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- o Starts with 36 crew, 30 fuel points.
- o Crystal bomb detail: Costs 5 fuel points to fire. Can fire/detonate 6 bombs in a row if fuel is at maximum. A direct hit with the entire crystal does 6 points of damage. If the crystal is detonated before impact, it will break into 8 fragments (360 degrees at 45 degree intervals), which do 2 points of damage apiece.
- o Bomb will travel indefinitely until the B button is released, or it hits something. If the bomb goes off the edge of the screen, it will eventually "wrap around", approaching from the opposite edge. If the bomb reaches the launching Chenjesu, it will pass overhead, doing no damage.
- o While the crystal bomb (as a whole or in fragments) will not damage the launching Chenjesu, it can damage or destroy the Chenjesu's DOGIs.
- o Bomb's course can be affected by gravity.
- o If the Chenjesu is destroyed while a crystal bomb is in flight, the bomb will detonate.

- o DOGI launch detail: Costs 30 fuel points to launch. Only 1 DOGI at a time can be launched without refueling.
- o When a DOGI is released, it appears immediately aft of the Broodhome.
- o If a DOGI is released directly onto an asteroid, planet or enemy ship, the DOGI is instantly destroyed. The asteroid, planet or ship is not affected.
- o The Broodhome can have up to 4 DOGIs deployed at one time. They can be replaced indefinitely as they are destroyed.
- o Chenjesu captain names: Brrzap, Bzrak, Fzzzz, Hmmhmm, Krrtzz, Kzzakk, Pzkrakz, Tzaprak, Tzrrow, Vrroww, Vziziz, Zxzakz, Zzmzmm, Zznaz, Zzzhmm, Zzzzz.

17. CHENJESU DOGI

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- o "DOGI" is an acronym for De-energizing Offensive Guided Interceptor.
- o When a DOGI is released, it appears immediately aft of the Broodhome.
- o The DOGI heads directly towards the enemy ship via the shortest route, and will not attempt to avoid asteroids, the planet, fighters, other DOGIs, spaceborne crew or projectiles. However, it will attempt to move out of the line of fire of an enemy's primary (B button) weapon.
- o Will draw fuel only from the enemy ship, ignoring everything else.
- o Draws 10 points of fuel from the enemy per attack.
- o Cannot draw fuel from Ur-Quan fighters. If it touches a fighter, the fighter is destroyed (the DOGI remains unaffected).
- o Can drain a Yehat Terminator's fuel through its shield.
- o Can be destroyed if hit with 3 points of damage. This can include touching the planet.
- o DOGIs are not slowed by VUX limpet parasites.
- o DOGIs do not run out of fuel, and will not return to the Broodhome.
- o Occasionally a DOGI will halt in place while it attempts to sense and track the enemy ship. If the enemy is also stationary, a halted DOGI will remain in place until the enemy moves, or the DOGI is pushed by something.
- o On generally-rare occasions, two DOGIs in contact with each other can lock together, and neither will be able to break away under its own power.
- o DOGIs are not affected by gravity.

18. YEHAH TERMINATOR

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- o Starts with 20 crew, 10 fuel points.
- o Pulse cannon detail: Costs 1 fuel point to fire. Can fire 10 pairs of shots in a row if fuel is at maximum. The two shots do 1 point of damage apiece.
- o Shield detail: Costs 3 fuel points to use. Can use 3 times in a row if fuel

is at maximum.

- o The shield will not damage an enemy ship in contact with it.
- o With its shield on, the Yehat is still vulnerable to damage from VUX limpet parasites, DOGIs, the Syreen Song, the Shofixti Glory Device, and collision with the planet. Otherwise, no weapon at any strength can affect the Yehat through its shield.
- o The Yehat can retrieve spaceborne crew with its shield on.
- o With a Precursor dynamo, the ship can maintain continuous shielding.
- o Yehat captain names: Beep-eep, Eeep-eep, Feep-eep, Geep-eep, Heep-eep, Jeep-eep, Leep-eep, Meep-eep, Neep-eep, Peep-eep, Reep-eep, Teep-eep, Veep-eep, Weep-eep, Yeep-eep, Zeep-eep.

19. MMRNMHRM X-FORM

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- o Starts with 20 crew, 10 fuel points.
- o First Form detail: Low thrust, fast turning rate, fast Refuel, short-range weapon (twin lasers). Traits are inverted from the Second Form.
- o Laser weapon detail: Costs 1 fuel point to fire. Can fire 10 pairs of beams in a row (continuous fire) if fuel is at maximum. Minimal, flash-use of the laser does 1 point of damage per beam.
- o Second Form detail: High thrust, slow turning rate, slow Refuel, long-range weapon (twin missiles). Traits are inverted from the First Form.
- o Missile weapon detail: Costs 1 fuel point to fire. Can maintain a constant rate of fire. The two missiles do 1 point of damage apiece.
- o Missiles launch at about 30 degrees from forward, and home in by adjusting course about 3 times per second.
- o The Mmrnmhrm in Second Form can actually gain energy while maintaining continuous fire. Under normal circumstances, it is the only ship that can do this.
- o Transformation detail: Costs 10 fuel points to use. Can transform only once without refueling.
- o After transformation, there may be a delay before the Mmrnmhrm will respond to turn controls.
- o The Mmrnmhrm in Second Form has the fastest standard forward thrust speed of all ships.
- o Always enters the combat area in First Form (hence the term).
- o Precursor control jets and thrusters will not affect the Mmrnmhrm's Second Form.
- o Mmrnmhrm captain names: Hm-nhuh, Hmr-hun, Hrn-mhm, Jhe-mhr, Jhe-qir, Jra-nr, Mn-quah, Mrm-na, Nhuh-na, Nrna-mha, Qir-nha, Qua-qir, Qua-rhna, Rrma-hrn, Um-hrh, Ur-mfrs.

20. ARILOULALEELAY SKIFF

- =====
- o Starts with 6 crew, 20 fuel points.
 - o Laser weapon detail: Costs 2 fuel points to fire. Can fire 10 shots in a row if fuel is at maximum. A hit does 1 point of damage.
 - o The laser will only attempt to fire in the direction of the enemy ship, and will not seek or lock onto asteroids, the planet, fighters, DOGIs, spaceborne crew or projectiles. If the enemy is cloaked or destroyed, the Arilou's laser will fire forward from between the headlights.
 - o Hyperjump detail: Costs 3 fuel points to use. Can jump 6 times in a row if fuel is at maximum.
 - o Although the hyperjump will change the location of the ship, it will not change the ship's rotational orientation.
 - o When the Arilou hyperjumps, it can appear anywhere within the combat area, including a location shared with an asteroid, the planet, or the enemy ship. If an Arilou appears within the planet, it may not take damage; and although it will not be able to turn, it can escape the planet either by thrusting forward, or by hyperjumping. If the Arilou appears at the center of the planet (an extremely rare occurrence), it may be instantly destroyed.
 - o The hyperjump ability is not affected by VUX limpet parasites.
 - o Gravity will have no effect on an Ariloulaleelay Skiff, and as such an Arilou cannot gain or lose speed by moving through a planet's gravity field, cannot achieve orbit, and cannot be pulled to a planet's surface.
 - o Although the Ariloulaleelay Skiff can move through undefended enemy fortifications, it cannot attack fortified enemy colonies or mines before the fortification is destroyed.
 - o Ariloulaleelay captain names: Bezabu, Dingdup, Fefaloo, Loleelu, Louifoui, Marypup, Oowbabe, Patooti, Pinywiny, Ropilup, Tifiwilo, Tinkafo, Tiptushi, Wewalia, Wolwali, Yipyapi.

21. SYREEN PENETRATOR

- =====
- o Starts with 12 crew (capacity of 42 crew), 16 fuel points.
 - o Particle weapon detail: Costs 1 fuel point to fire. Can maintain a constant rate of fire. A hit does 2 points of damage.
 - o Song weapon detail: Costs 5 fuel points to use. Can use 5 times in a row if fuel is at maximum. Song will be ineffective at ranges where the combat screen is zoomed all the way out. The closer the two ships are, the more effective it will be. At zero range, the Song will pull a maximum of 8 crew at a time from the enemy ship.
 - o Song weapon only affects enemy ships; it has no effect on asteroids, the planet, fighters, DOGIs, spaceborne crew (using the Song twice won't make them approach faster, etc.) or projectiles.
 - o Song weapon will not affect the course of the Syreen's own crew if the crew has been called into space by an enemy Syreen.
 - o Song weapon can draw all but the last crew member from an enemy ship. (The Song will have no effect on a target carrying less than 2 crew.)

- o The Song weapon is able to pull crew from a Yehat Terminator through its shield. The Yehat can also retrieve spaceborne crew with its shield on.
- o Regardless of relative ship positions, crew will often leave an enemy ship from whichever side is facing the bottom of the screen at the time.
- o Crew members will last about 23 seconds in space before expiring.
- o Spaceborne crew members can be destroyed by all weapons except the VUX limpet parasites, the Syreen Song and the Shofixti Glory Device. They are also destroyed by direct contact with any object (other than the hull of a ship which has enough room to take them aboard), or by running out of time.
- o Spaceborne crew will be drawn towards the Syreen ship. If the Syreen is destroyed, the crew will be drawn towards the other ship.
- o Spaceborne crew are not slowed by VUX limpet parasites.
- o Note that spaceborne crew and VUX limpet parasites will both appear as flashing green dots on the screen. Although they may look similar, parasites flash less frequently and will generally move faster than spaceborne crew members. When the tactical combat screen is zoomed all the way in, parasites will appear larger than spaceborne crew members.
- o Spaceborne crew can be affected by gravity.
- o Spaceborne crew may be retrieved at any time by any ship (crew may enter through any part of a ship's hull). They are not cleared from the combat area until they are retrieved or until they expire. Note that any ship which is already crewed to its maximum capacity cannot retrieve more crew from space. In this case, the sound effect for successful crew retrieval is played, but in reality they are destroyed.
- o Coming out of combat in Full Game mode, the victorious ship automatically retrieves any surviving spaceborne crew.
- o In Full Game mode, the Syreen Penetrator can only recruit from unfortified and undefended Hierarchy colonies. At the end of Alliance Turns, each Syreen ship located at such a colony will automatically recruit to full capacity (42 crew) if the ship has any unused crew space. Colonies recruited from in this manner are then destroyed.
- o Syreen Penetrators cannot find or use Precursor crew pods.
- o Syreen captain names: Aelita, Alia, Alura, Ardala, Be'lit, Brawne, Dale, Danning, Dejah, Maya, Munro, Penny, Ripley, Sparta, Teela, Yarr.

22. EARTHLING CRUISER

=====

- o Starts with 18 crew, 18 fuel points.
- o Missile detail: Costs 9 fuel points to fire. Can fire 2 missiles in a row if fuel is at maximum. A hit does 4 points of damage.
- o Missiles home in by adjusting course about 4 times per second.
- o Point-defense laser detail: Costs 4 fuel points to fire. Can fire 5 times in a row if fuel is at maximum. A hit does 1 point of damage per beam.

- o Laser emanates from a point near the center of the ship, and its range is about 2.2 times the total length of the ship. The laser system will not fire unless it senses a target within this range.
- o Laser beams will simultaneously strike at all objects within range, including asteroids, the planet, fighters, DOGIs, spaceborne crew and projectiles (including the cruiser's own missiles, although a hit from the laser at the time of launch will not destroy the missile).
- o On rare occasions when the laser fires, a beam will attempt to hit an object that is not quite within range. In this instance, the beam will not hit the intended target, and may not even seek accurately.
- o A single use of the laser system will never cost more than 4 fuel points, regardless of how many beams are released at the time of firing.
- o Earthling captain names: Adama, Belt, Buck, Decker, Ender, Friedlan, Graeme, Halleck, Kucera, Pike, Pirx, Spiff, Trent, Tuf, VanRijn, Wu.

23. SHOFIXTI SCOUT

=====

- o Starts with 6 crew, 4 fuel points.
- o Energy dart detail: Costs 1 fuel point to fire. Can fire 4 times in a row if fuel is at maximum. A hit does 1 point of damage.
- o Glory Device detail: Costs no fuel points to arm; costs all fuel points and all crew to destruct. Can be used once. Self-destructing is effective only at ranges where the combat screen is zoomed all the way in. The closer the two ships are, the more effective it will be. At zero range, the explosion will do a maximum of 18 points of damage to the enemy ship.
- o Any damage to the enemy ship as a result of self-destructing will occur at the moment the explosion is triggered. By the time the explosion itself develops on the screen, the damage, if any, has already been inflicted.
- o Self-destructing only affects enemy ships; it has no effect on asteroids, the planet, fighters, DOGIs, spaceborne crew or projectiles.
- o The explosion from self-destructing can damage a Yehat Terminator through its shield.
- o When a Shofixti emerges from combat during Full Game play, any self-destruct arming switches that were thrown are reset.
- o Shofixti captain names: Bonsai!, Busu, Chimchim, Daikon, Gaijin, Genjiro, Ginzu, Hiyata, Ichiban, Kimba, Kudzu, Naninani, Sushi, Tofu, Tora-3, Wasabe.

24. SHIP ATTRIBUTES: COMPARATIVE

=====

- o Ship crew complements, largest to smallest:

1. Ur-Quan Dreadnought (42)
2. Chenjesu Broodhome (36)
3. Spathi Discriminator (30)
4. Ilwrath Avenger (22)
5. Mycon Podship (20)
 - /Androsynth Guardian (20)
 - /VUX Intruder (20)
 - /Yehat Terminator (20)

- /Mmrnmhrm X-Form (20)
 - 6. Earthling Cruiser (18)
 - 7. Syreen Penetrator (12)
 - 8. Umgah Drone (10)
 - 9. Ariloulaleelay Skiff (6)
/Shofixti Scout (6)
 - 10. Ur-Quan fighter (1)
-

Notes: While the Syreen Penetrator has a crew capacity equal to the Ur-Quan Dreadnought, its crew complement always begins below that capacity.

o Ship fuel points, most to least:

- 1. Ur-Quan Dreadnought (42)
- 2. Mycon Podship (40)
/VUX Intruder (40)
- 3. Umgah Drone (30)
/Chenjesu Broodhome (30)
- 4. Androsynth Guardian (24)
- 5. Ariloulaleelay Skiff (20)
- 6. Earthling Cruiser (18)
- 7. Ilwrath Avenger (16)
/Syreen Penetrator (16)
- 8. Spathi Discriminator (10)
/Yehat Terminator (10)
/Mmrnmhrm X-Form (10)
- 9. Shofixti Scout (4)

o Relative complete-refuel rate comparisons, fastest to slowest:

- 1. Ilwrath Avenger
- 2. Yehat Terminator
/Mmrnmhrm X-Form, First Form
- 3. Shofixti Scout
- 4. Mmrnmhrm X-Form, Second Form
- 5. Spathi Discriminator
- 6. Syreen Penetrator
- 7. Ariloulaleelay Skiff
- 8. Chenjesu Broodhome
/Earthling Cruiser
- 9. Mycon Podship
- 10. Ur-Quan Dreadnought
- 11. Androsynth Guardian
- 12. VUX Intruder

Notes: This list is based not on how fast a ship generates fuel, but on how quickly a ship will reach its maximum standard fuel capacity from a zero-fuel level.

The Ur-Quan fighter, Umgah Drone and Chenjesu DOGI are not included in this list. A fighter will refuel instantly once it returns to the launching Dreadnought; however, it cannot refuel until it returns, and the return-trip time is not a constant. The Umgah Drone also refuels at different rates depending on how it is manipulated by the player (see section 15: Umgah Drone). The Chenjesu DOGI does not use fuel, per se.

o Relative ship turn rates, fastest to slowest:

- 1. Ur-Quan fighter
- 2. Ariloulaleelay Skiff
- 3. Spathi Discriminator

- /Androsynth Guardian, comet form
- /Syreen Penetrator
- /Earthling Cruiser
- /Shofixti Scout
- 4. Ilwrath Avenger
 - /Yehat Terminator
 - /Mmrnmhrm X-Form, First Form
- 5. Ur-Quan Dreadnought
 - /Androsynth Guardian, forward thrust
 - /Umguh Drone (forward thrust and reverse jump)
- 6. Mycon Podship
 - /VUX Intruder
 - /Chenjesu Broodhome
- 7. Mmrnmhrm X-Form, Second Form

Notes: The Ilwrath Avenger's turn rate here does not reflect its ability to change its facing when it fires while cloaked. In that instance, the Ilwrath uncloaks facing a new direction, but does not actually pivot to achieve this. The Chenjesu DOGI is not included in this list since it does not rotate to change heading. (It can, however, shift direction of motion as quickly as an Ur-Quan fighter.)

o Relative ship speeds, fastest to slowest:

1. Umguh Drone, reverse jump
2. Androsynth Guardian, comet form
3. Mmrnmhrm X-Form, Second Form
4. Spathi Discriminator
5. Ariloulaleelay Skiff, forward thrust
6. Syreen Penetrator
7. Shofixti Scout
8. Ur-Quan fighter
9. Chenjesu DOGI
10. Ur-Quan Dreadnought
 - /Yehat Terminator
11. Mycon Podship
 - /Chenjesu Broodhome
12. Ilwrath Avenger
13. Androsynth Guardian, forward thrust
 - /Earthling Cruiser
14. VUX Intruder
15. Mmrnmhrm X-Form, First Form
16. Umguh Drone, forward thrust

Notes: The Ariloulaleelay Skiff in hyperjump mode is not included in this list. In sustained hyperjump mode, the Arilou could arguably be considered the fastest of all ships. However, a hyperjump covers a random distance in a random direction, and as such the Arilou's "speed" here is not a constant. The Ur-Quan fighter and Chenjesu DOGI have the same potential top speed, but the DOGI will occasionally slow or halt in place.

o Relative ship weapon/projectile ranges, longest to shortest:

1. Chenjesu crystal bomb, whole
2. Androsynth comet
3. Mycon plasmoid
 - /Earthling missile
4. Androsynth acid bubble
 - /Mmrnmhrm missiles
5. VUX limpet parasite

6. Ur-Quan fusion bolt
7. Spathi forward weapon
/Syreen particle shot
8. Spathi BUTT weapon
9. Chenjesu crystal bomb, fragment
10. Shofixti energy dart
11. Yehat pulse missiles
12. Syreen Song
13. VUX laser
14. Shofixti Divine Wind
15. Mmrnmhrm lasers
16. Ariloulaleelay laser
17. Earthling laser
18. Ilwrath flame burst
19. Umgah antimatter cone
20. Ur-Quan fighter laser

Notes: This list is arranged based on a ship's ability to strike another ship without being hit by return fire at the same range. However, some ranges very closely match others, and as such there may be times when a lower-rated weapon can match or outreach a higher-rated one, depending on the ships' relative hull and weapon orientations at the time of engagement. Ur-Quan fighters and Chenjesu DOGIs themselves are not considered projectiles, and are classified separately. The range of the Androsynth comet form is based on a maximum standard fuel status.

o Ship weapon/projectile damage, most to least:

1. Shofixti Divine Wind (18)
2. Mycon plasmoid (10)
3. Syreen Song (8)
4. Ur-Quan fusion bolt (6)
/Chenjesu crystal bomb, whole (6)
5. Earthling missile (4)
6. Spathi BUTT weapon (2)
/Androsynth acid bubble (2)
/Androsynth comet (2)
/Chenjesu crystal bomb, fragment (2)
/Yehat pulse missiles (2)
/Mmrnmhrm lasers (2)
/Mmrnmhrm missiles (2)
/Syreen particle shot (2)
7. Ur-Quan fighter laser (1)
/Spathi forward weapon (1)
/VUX laser (1)
/Ilwrath flame burst (1)
/Umgah antimatter cone (1)
/Ariloulaleelay laser (1)
/Earthling laser (1)
/Shofixti energy dart (1)

Notes: This list is arranged based on maximum potential damage done by minimal use of a weapon at point-blank range. Where a single use of a weapon projects more than one beam or missile, it is assumed that all projectiles strike the target; (an exception to this is the Chenjesu crystal bomb fragment, as it is unlikely in the extreme that all 8 fragments from one crystal bomb will strike a single target). VUX limpet parasites are not included in this list, as the damage caused is not comparable to that caused by other weapon systems.

The Syreen Song will have no effect on a target carrying less than 2 crew. Under certain circumstances the Earthling laser system will strike a single object with more than one beam. However, since this is generally a rare occurrence, only 1 point of damage to the target is assumed here.

25. PROJECTILES

=====

- o "Projectile" in this document refers to any missile, beam or field launched or projected from any ship. (Ur-Quan fighters and Chenjesu DOGIs themselves are not considered projectiles, and are classified separately.)
- o Ships rotate through 16 orientations (360 degrees at 22.5-degree intervals). Unguided missiles cannot be launched into the "blind spots" between these 16 firing angles, nor can unguided beams be swept through them.
- o Launched projectiles (beams, fields and the Ilwrath flame bursts excluded) will always move at a fixed speed through gravity-free space; their speed will not be added to or subtracted from that of the launching ship. As such, there are occasions where a ship will overrun its own projectiles. Depending on the ship and projectile types involved, this may or may not cause damage.
- o The impact of any projectile will not affect a ship's inertia, direction of motion, or its orientation in space.
- o Most projectiles can be damaged or destroyed on contact with another projectile.
- o A projectile will cause the same amount of damage regardless of where it impacts upon any ship. (The entire surface area within the perimeter of any object is treated as uniform and equal.)
- o Projectile damage chart:

Projectile	Type	Maximum damage	Repeats possible	Origin damage	Affect others	Others affect
Ur-Quan fusion bolt	.UGM.	..6.....	...8.....	.No.....	.Yes....	.Yes...
Ur-Quan fighter laser	.GB...	..1.....	>30.....	.N/A....	.Yes....	.Yes...
Mycon plasmoid	.GM...	..10.....	...2.....	.Yes....	.Yes....	.Yes...
Spathi forward weapon	.UGM...	..1.....	...5.....	.No.....	.Yes....	.Yes...
Spathi BUTT weapon	.GM...	..2.....	...3.....	.Yes....	.Yes....	.Yes...
Androsynth acid bubble	.GM...	..2.....	...8.....	.No.....	.Yes....	.Yes...
VUX laser	.UGB...	..1.....	..40.....	.N/A....	.Yes....	.Yes...
VUX limpet parasite	.GM...	.N/A....	..20.....	.No.....	.No.....	.Yes...
Ilwrath flame burst	.UGM...	..1.....	..16.....	.N/A....	.Yes....	.Yes...
Umgah antimatter cone	.F....	..1.....	Infinite	.N/A....	.Yes....	.No....
Chenjesu crystal bomb	.UGM...	..6.....	...6.....	.No.....	.Yes....	.Yes...
Chenjesu bomb fragment	.UGM...	..2 each	...6 (x8)	.No.....	.Yes....	.Yes...
Yehat pulse missiles	.UGM...	..1 each	..10 (x2)	.No.....	.Yes....	.Yes...
Mmrnmhrm lasers	.UGB...	..1 each	..10 (x2)	.N/A....	.Yes....	.Yes...
Mmrnmhrm missiles	.GM...	..1 each	Infinite	.No.....	.Yes....	.Yes...
Ariloulaleelay laser	.GB...	..1.....	..10.....	.N/A....	.Yes....	.Yes...
Syreen particle shot	.UGB...	..2.....	Infinite	.Yes....	.Yes....	.Yes...
Syreen Song	.F....	..8.....	...5.....	.N/A....	.No.....	.No....
Earthling missile	.GM...	..4.....	...2.....	.Yes....	.Yes....	.Yes...
Earthling laser	.GB...	..1 each	...5.....	.N/A....	.Yes....	.Yes...
Shofixti energy dart	.UGM...	..1.....	...4.....	.No.....	.Yes....	.Yes...
Shofixti Divine Wind	.F....	..18.....	...0.....	.N/A....	.No.....	.No....

Notes: "Type" is a general classification of these projectiles, where "GM" is

Guided Missile, "UGM" is UnGuided Missile, "GB" is Guided Beam, "UGB" is UnGuided Beam, "F" is Field. "Maximum damage" is the damage done by a single hit at point-blank range; "Repeats possible" is the number of consecutive shots assuming standard maximum fuel level; "Origin damage" is whether or not a ship can damage itself with this projectile; "Affect others" is whether or not this projectile can damage/destroy other projectiles; "Others affect" is whether or not this projectile can be damaged/destroyed by other projectiles. The Androsynth Guardian in comet form could be classified as a "wire-guided" missile, but is not otherwise considered as an independent projectile here.

- o In general, projectiles of equal Damage Potential ("DP") will destroy each other on contact. Projectiles of unequal Damage Potential will react differently depending on the nature and strength of the projectiles involved. For example: A Chenjesu crystal bomb does 6 points of damage (DP=6). An Ur-Quan fusion bolt (also DP=6) would destroy it on contact (6-6=0). However, a VUX's laser beam (DP=1) will have to hit the crystal bomb 10 times (DP=1x10=10) to destroy it (6-10=0).
- o With the exception of the Earthling point defense laser, all homing weapons seek only the enemy ship; they will not seek asteroids, the planet, fighters, DOGIs, spaceborne crew or other projectiles.
- o Laser beams will cancel each other if their forward points meet. Laser beams which cross will have no effect on each other.
- o With the exception of the Mycon plasmoid, a projectile that survives contact with another can still inflict its full Damage Potential on a ship.
- o Missile and beam projectiles are always destroyed on contact with asteroids, planets, ships or DOGIs. Field-type weapons, such as the Umgah antimatter cone, Syreen Song and Shofixti Divine Wind, blanket a fixed area, and their effects are not modified by any object.
- o There are some occasions where a ship will glow briefly if its projectiles destroy a Chenjesu crystal bomb. This effect will not cause damage.

26. POST-COMBAT

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- o A ship in combat will remain in combat until it is destroyed, or it destroys each of the enemy ships it faces in that round.
- o The moment a ship begins to explode, it will no longer respond to player control, and the ship loses all momentum and tangibility. Unless it is caused by Shofixti self-destruction, a ship explosion will not affect anything else in the combat area.
- o When an enemy ship is destroyed, its surviving fighters, DOGIs or projectiles (if any) will remain active for a few seconds, and can still affect the remaining ship.
- o For as long as it remains on the screen, the surviving ship can still be damaged or destroyed by collision with the planet.
- o If the surviving ship has any fighters, DOGIs or homing projectiles in space, they may remain to pursue any other opponents that attack during the same round.
- o Spaceborne crew may be retrieved at any time by any ship (crew may enter through any part of a ship's hull). They are not cleared from the combat area until they are retrieved or until they expire. Note that any ship which

Life worlds.....	11.	15.	12.	13.	15.	10.	10.	10.	12.	14.	14.	15.	7.	16..	14.
Mineral worlds..	12.	12.	18.	10.	13.	10.	13.	20.	14.	22.	14.	10.	12.	10..	12.
Dead worlds.....	10.	14.	13.	12.	4.	10.	15.	10.	12.	6.	0.	8.	9.	10..	9.
Precursor relics	No.	Yes	No.	Yes	No.	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No.	Yes.	Yes
-----	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
HIERARCHY SIDE	|	|	|	|	|	|	|	|	|	|	|	|	|	|	|
-----	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Starbase.....	No.	Yes	Yes	Yes	No.	Yes	Yes	Yes	Yes	Yes	Yes	No.	Yes	Yes.	Yes
Starbucks.....	...	0.	0.	14.	...	10.	14.	25.	11.	0.	10.	...	0.	0..	0.
-----	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Ur-Quan.....	1.	...	2.	1+	5.	...	..+	..+	...	1+	..+	...	..+	1+.	..+
Mycon.....	...	1.	...	..+	...	2+	...	..+	3+	1+	..+	...	..+	1+.	1+
Spathi.....	...	..+	...	1+	...	...	4+	..+	...	1+	1+	...	..+	..+	..+
Androsynth.....	...	..+	..+	..+	...	...	...	..+	...	1+	1+	...	2+	1+.	..+
VUX.....	...	2+	...	..+	...	...	...	..+	...	1+	..+	4.	..+	1+.	1+
Ilwrath.....	...	..+	3.	..+	...	2+	...	..+	...	1+	1+	...	..+	1+.	..+
Umgah.....	...	..+	..+	..+	...	...	...	..+	...	1+	..+	...	..+	..+	1+
-----	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Fortified/colony	1/1	0/4	0/2	2/9	...	...	...	...	1/4	2/5	0/1	0/3	0/1	....	0/4
Fortified/mine..	...	...	0/1	...	...	...	...	...	0/2	2/6	0/1	...	...	....	0/4
-----	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
ALLIANCE SIDE	|	|	|	|	|	|	|	|	|	|	|	|	|	|	|
-----	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Starbase.....	Yes	No.	Yes	No.	Yes	Yes	Yes	Yes	No.	Yes	Yes	Yes	No.	Yes.	Yes
Starbucks.....	0.	...	3.	...	15.	10.	0.	25.	...	0.	10.	0.	...	75..	60.
-----	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Chenjesu.....	...	1.	1.	...	..+	...	..+	..+	1.	1+	..+	..+	...	..+	1+
Yehat.....	...	...	...	...	1+	...	..+	..+	...	1+	..+	..+	...	1+.	..+
Mmrnmhrm.....	...	...	1.	...	1+	...	3+	..+	1.	1+	1+	..+	...	..+	..+
Ariloulaleelay..	...	...	1.	...	..+	2+	..+	..+	...	1+	1+	..+	...	...	..+
Syreen.....	...	...	1.	4.	..+	2+	..+	..+	1.	1+	..+	1+	1.	....	..+
Earthling.....	...	...	1+	...	1+	...	..+	..+	1.	1+	1+	2+	...	....	..+
Shofixti.....	5+	...	...	...	..+	...	..+	..+	1.	1+	..+	...	...	....	..+
-----	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Fortified/colony	0/3	1/1	1/1	...	0/6	...	1/4	...	...	2/5	0/1	0/3	...	3/10	...
Fortified/mine..	...	...	1/2	...	0/3	...	0/4	...	...	2/6	0/1	0/2	...	0/1	...
-----	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Notes: A plus in the ships column indicates that this ship type can be built at the player's starbase. Colony and mine numbers are represented as Fortified installations over Total installations. Example: "1/3" indicates that of these three installations, one of them is fortified.

- o The stars in each cluster are arranged at random each time a scenario is started.
- o At the opening of most scenarios, ships and installations will start at locations that are chosen somewhat at random. Ships will not begin the game sharing stars with enemy ships or enemy installations.
- o Star clusters will always rotate counter-clockwise.

28. THE STRATEGIC COMBAT SCREEN

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- o Visible stars (planets) are always one of 4 colors: Blue denotes an unknown world; green is a Life world; red is a Mineral world; white is a Dead world. Note that blue stars may appear white as they revolve into the foreground of the cluster.

- o A planet's nature can always be determined (even if its color can't) by moving a ship there and noting the options that appear in the ship's Orders window: "COLONIZE" denotes a Life world, "MINE" denotes a Mineral world.
- o The Hierarchy starbase (if any) appears as pink-white solid diamond at the top of the star cluster. The Alliance starbase (if any) appears as green-white solid diamond at the bottom of the star cluster.
- o Hierarchy installations are amber in color, Alliance installations are blue.

29. STARBASE

=====

- o The Hierarchy starbase (if any) appears as pink-white solid diamond at the top of the star cluster. The Alliance starbase (if any) appears as green-white solid diamond at the bottom of the star cluster.
- o Starbases cannot colonize, mine, fortify or recruit, and cannot be scuttled.
- o A Hierarchy starbase will produce 1 Starbuck at the end of every Hierarchy Turn; An Alliance starbase will produce 1 Starbuck at the end of every Alliance Turn.
- o A starbase can have a maximum of 99 Starbucks available. Any cash generated beyond this point is lost.
- o A fortification will offer no protection to a starbase at the same location.
- o Moving a starbase uses all three Actions of a player's Turn. Before moving the starbase, however, any number of ships can be moved from any number of that player's colony worlds.
- o Starbases cannot find or use Precursor relics. Any location that a starbase moves to will lose any potential item.
- o If a starbase is moved to an enemy fortification, it cannot move or build ships until the fortification is destroyed. Until then, it can only Besiege (with a 10% chance of success per attack), or Pass.
- o Starbase movement and combat results chart:

UNESCORTED STARBASE | POSSIBLE UNDEFENDED ENEMY SECTORS

```

-----|-----
.....:Starbase X.|.....:Starbase X.:.....:.....
.....:Starbase...|.....:.....:Colony/mine X.:.....
.....:Starbase...|.....:.....:.....:Fortification..
.....:Starbase...|.....:.....:Colony/mine...:Fortification..
.....:Starbase X.|.....:Starbase X.:Colony/mine X.:.....
.....:Starbase X.|.....:Starbase X.:.....:Fortification..
.....:Starbase X.|.....:Starbase X.:Colony/mine...:Fortification..
-----|-----

```

UNESCORTED STARBASE | POSSIBLE DEFENDED ENEMY SECTORS

```

-----|-----
.....:Starbase X.|.Ship(s):.....:.....:.....
.....:Starbase X.|.Ship(s):.Starbase...:.....:.....
.....:Starbase X.|.Ship(s):.....:Colony/mine X.:.....
.....:Starbase X.|.Ship(s):.....:.....:Fortification..
.....:Starbase X.|.Ship(s):.....:Colony/mine...:Fortification..
.....:Starbase X.|.Ship(s):.Starbase...:Colony/mine X.:.....
.....:Starbase X.|.Ship(s):.Starbase...:.....:Fortification..
-----|-----

```

```

.....:Starbase X|.Ship(s):.Starbase...:Colony/mine...:Fortification..
-----|-----
ESCORTED STARBASE | POSSIBLE UNDEFENDED ENEMY SECTORS
-----|-----
.1 ship:.Starbase...|.....:Starbase X:.....:.....
.1 ship:.Starbase...|.....:.....:Colony/mine X:.....
.1 ship:.Starbase...|.....:.....:Fortification /
.1 ship:.Starbase...|.....:.....:Colony/mine /:Fortification /
.1 ship:.Starbase...|.....:Starbase X:Colony/mine X:.....
.1 ship:.Starbase...|.....:Starbase X:.....:Fortification /
.1 ship:.Starbase...|.....:Starbase X:Colony/mine /:Fortification /
-----|-----

```

```

ESCORTED STARBASE | POSSIBLE UNDEFENDED ENEMY SECTORS
-----|-----
>1 ship:.Starbase...|.....:Starbase X:.....:.....
>1 ship:.Starbase...|.....:.....:Colony/mine X:.....
>1 ship:.Starbase...|.....:.....:Fortification X
>1 ship:.Starbase...|.....:.....:Colony/mine X:Fortification X
>1 ship:.Starbase...|.....:Starbase X:Colony/mine X:.....
>1 ship:.Starbase...|.....:Starbase X:.....:Fortification X
>1 ship:.Starbase...|.....:Starbase X:Colony/mine X:Fortification X
-----|-----

```

Notes: This chart shows all possible results at the end of a Turn where a starbase has been moved to an enemy sector, and any ship-to-ship combat has been resolved (ship-to-ship combat in a sector is always resolved before a starbase, colony, mine or fortification in the same sector is destroyed). "Escorted" indicates that one or more ships have moved from a colony world to the target sector ahead of the starbase; "Defended" indicates that this sector contains enemy ships (the term does not refer to fortifications); An "X" indicates that this unit will be destroyed in this encounter; A "/" indicates that this unit is destroyed only if the escorting ship is an Ur-Quan Dreadnought.

When starbases meet in a sector, any ships remaining there at the end of that Turn will defend their starbase against the enemy starbase.

While two ships can combine forces to automatically destroy a fortification at the end of a Turn, one ship and a starbase cannot (a starbase can only destroy a fortification by using the Besiege command).

30. COLONIES

=====

- o Hierarchy colonies are amber in color, Alliance colonies are blue.
- o Colonies will always take 2 Turns to complete. Assigning two or more ships to the construction of colony will not speed its completion.
- o Construction of a colony will always be completed at the start of the building player's Turn. Destruction of a colony will always occur at the end of the attacking player's Turn.
- o In Full Game mode, the Syreen Penetrator can only recruit from unfortified and undefended Hierarchy colonies. At the end of Alliance Turns, each Syreen ship located at such a colony will automatically recruit to full capacity (42 crew) if the ship has any unused crew space. Colonies recruited from in this manner are then destroyed.
- o An unfortified colony can be destroyed by an enemy starbase, even if the colony is defended by ships.

- o In addition to ship items, Precursor colonies may also be discovered.

31. MINES

=====

- o Hierarchy mines are amber in color, Alliance mines are blue.
- o Mines will always take 2 Turns to complete. Assigning two or more ships to the construction of a mine will not speed its completion.
- o Construction of a mine will always be completed at the start of the building player's Turn. Destruction of a mine will always occur at the end of the attacking player's Turn.
- o A Hierarchy mine will produce 1 Starbuck at the end of every Hierarchy Turn; An Alliance mine will produce 1 Starbuck at the end of every Alliance Turn.
- o An unfortified mine can be destroyed by an enemy starbase, even if the mine is defended by ships.
- o In addition to ship items, Precursor mines may also be discovered.

32. FORTIFICATIONS

=====

- o Hierarchy fortifications are amber in color, Alliance fortifications are blue.
- o Fortifications will always take 2 Turns to complete. Assigning two or more ships to the construction of a fortification will not speed its completion.
- o Construction of a fortification will always be completed at the start of the building player's Turn. Destruction of a fortification can occur either at the end of the attacking player's Turn, or at any point during the attacking player's Turn if it is successfully besieged.
- o A fortification will offer no protection to a starbase at the same location.
- o Although the Ariloulaleelay Skiff can move through undefended enemy fortifications, it cannot attack fortified enemy colonies or mines before the fortification is destroyed.

33. BASIC SHIP MANEUVERING: STRATEGIC

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- o A ship's orders to Colonize, Mine or Fortify are cancelled if another ship at the same location is the first to complete the construction.
- o When moving a ship (or starbase), a series of lines ("space spines") will be drawn from that ship to all of the stars within its range. Hierarchy ships are prompted by default to move to the southern-most of those stars; Alliance ships are prompted by default to move to the northern-most of those stars.
- o Any ship can move through a sector containing unfortified and undefended enemy installations (provided there are enough Actions remaining in that player's Turn).
- o No ship can move through or retreat from a sector containing enemy ships or an enemy starbase. The ship's movement will end in that sector, and combat or an attack will occur at the end of that player's Turn.
- o Although the Ariloulaleelay Skiff can move through undefended enemy fortifications, it cannot attack fortified enemy colonies or mines before the

fortification is destroyed.

- o A ship located at an enemy ship location, installation, fortification or starbase cannot be scuttled.
- o Just prior to battle ensuing, there is an interim screen depicting the ships involved, and the planetary system where the battle will occur. Hierarchy ships are displayed to the left of the planet, Alliance ships are on the right. The upper-right display window will be switched temporarily to show the status of the first ship on the ships roster of the attacking player.

34. PRECURSOR RELICS

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- o Not all scenarios include Precursor relics (see section 27: Full Game). In the scenarios that normally include them, the actual number that can be found will vary from game to game, and on rare occasions no relics are found.
- o Only unexplored stars will have Precursor relics; they are never found at ship locations, installations or starbases that are pre-established at the opening of the game.
- o Starbases cannot find or use Precursor relics. Any location that a starbase moves to will lose any potential item.
- o Crew pods will add space for up to 6 crew to a ship.
- o Fuel packs will add up to 8 points of fuel to a ship.
- o Precursor crew pods and fuel packs will not affect a ship's maneuverability.
- o Precursor items will not add to a ship's mass.
- o A ship can use multiple items of the same type, although only one letter will appear on the ship's image. Note that Crew and Fuel capacity for a ship will never exceed 42 points each.
- o A ship with a capacity of 42 crew cannot find Precursor crew pods. A ship with 42 fuel points cannot find Precursor fuel packs.
- o Ur-Quan Dreadnoughts and Syreen Penetrators cannot use Precursor crew pods.
- o Ur-Quan Dreadnoughts cannot use Precursor fuel packs.
- o A Mycon Podship will fill Precursor crew pods at the time of discovery.
- o Precursor control jets and thrusters will not have an effect on the Androsynth Guardian's comet form, or the Mmrnmhrm X-Form's Second Form.
- o A Precursor dynamo will not extend the duration of an Androsynth Guardian's comet form. (The Androsynth does not generate fuel while in comet mode.)
- o Precursor thrusters will not affect the Umgah Drone's reverse jump.
- o An Umgah Drone with one Precursor dynamo refuels every 5 seconds (half its normal Refuel time).
- o A Yehat Terminator with a Precursor dynamo can maintain continuous shielding.
- o In addition to ship items, Precursor installations (excluding fortifications) may also be discovered. However, they can only be found at unexplored worlds

of the correct type. For example, in the scenario "The Nebula", a Precursor mine will never be discovered if ten mineral worlds have already been found.

35. CHEAT CODES

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- o A built-in cheat code exists in Full Game mode which allows Precursor relics to appear at most unexplored stars. To invoke the code, select a scenario to play, choose visible or hidden stars, then tap the B button to read through the scenario description. As the "ENTERING NEW STAR CLUSTER" screen appears, immediately press and hold the left arrow on the controller's directional pad ("D-pad"). Continue to hold the D-pad in the left direction until the star cluster appears, then release it.
- o The Precursor cheat code will work with all scenarios, and so can be used to add relics to scenarios which do not normally include them.

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