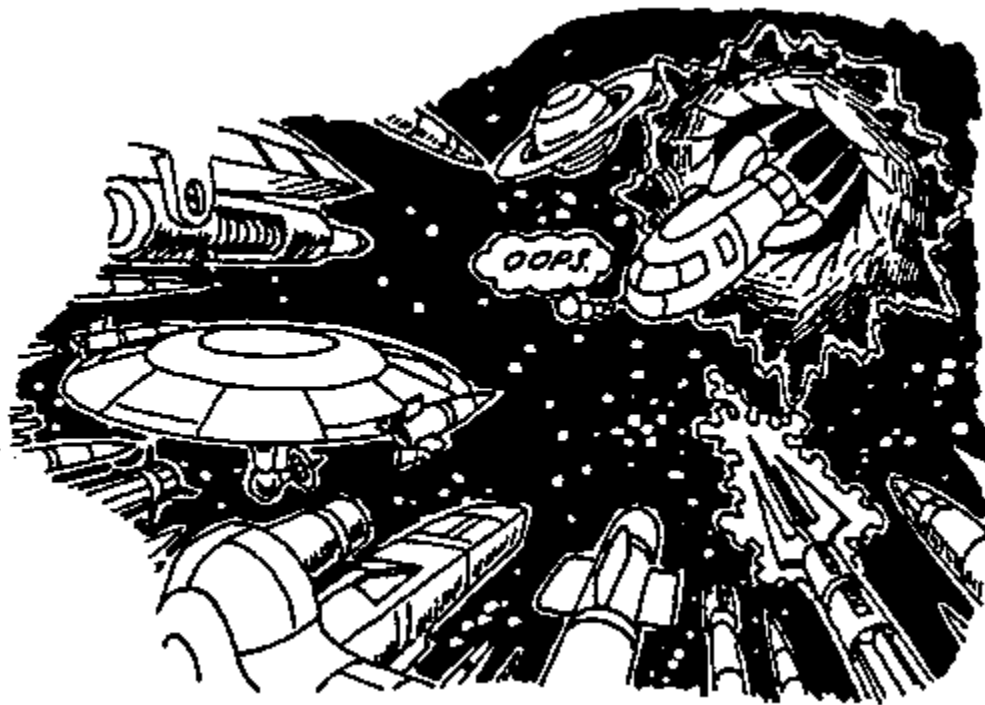


Galac-Tac

Rule Book



GALAC-TAC

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GALAC-TAC RULE SYSTEM

INTRODUCTION

Welcome to GALAC-TAC, a galactic-scale strategic war game!

You will be pitted against other living opponents in a life or death struggle to conquer the GALAC-TAC galaxy. There are only two ways to win in GALAC-TAC. The first method is to neutralize all of the other player's Home Systems. Unfortunately they will not allow you to simply come in and take over! Alliances, understandings, agreements, etc., can be worked out by the players, but there can be only one winner. The second method is to allow the Masters to decide. If there is more than one empire still in the game when the Masters return (usually around turn 85-95) the empire with the highest Empire Valuation percentile will be declared the winner.

Guard the location of your Home System well!

THE GAME SYSTEM

The game is played in turns. There are 50 possible actions in a turn. Since your opponents are human, you have a time limit. A move must be submitted by the turn deadline. The deadline date will always be shown on your reports. If we do not receive your actions, your turn will process without the benefit of your direction. Try not to miss a turn! As in most war games, you may move all, some, or none of your units in a single game turn. All turns are executed simultaneously.

We recommend that you take your time and learn the game system before attempting anything elaborate! Once a turn has been processed it is irrevocable.

Your initial turn report will include starting position information, a shipyard report, and two maps. Updated shipyard reports and maps may be requested through the use of an action in any turn, or printed at any time via the website. They will not otherwise print out unless requested. You will receive a new report (including the shipyard and/or any maps that you have requested) at the end of every turn. A turn in GALAC-TAC represents a "fortnight" which is equivalent to 16 standard Earth days. There are 16 fortnights in a year. The current date is always displayed on your reports (top right hand corner) and is shown in the format "year-fortnight". At the beginning of the game the date is 3500-01 AM (After Masters). Fortnight numbers range from 01 to 16.

It is suggested that you read this entire instruction book and begin formulating some type of overall strategy for the conquest of the galaxy.

HISTORY OF THE GALAXY

In the beginning there were the Masters, a superior race (by their standards). They took the known galaxy and eliminated all that was not perfect. Dead stars, gas clouds and asteroids were but a minor sampling of what was removed because it failed to comply with the Masters idea of "perfect." All planets underwent some form of terraforming, a process which turned a rough, inhospitable world into a tropical paradise. Finally, they standardized the language and the writing. Thus the galaxy as we know it was born.

The Masters provided sufficient technology to the various races (known as the "People") to guarantee "the good life." Their ships visited all star systems in the galaxy regularly. When they came, they brought new technical marvels and took various raw materials. Some systems were even selected as Production Systems and were given the honor and privilege of servicing the Masters' fleet of star ships. For several millennia peace and prosperity reigned. As time passed, the People learned the inner mysteries of the Masters' Star drive and realized that they could produce their own ships capable of reaching the stars! They were no longer dependent upon the Masters...

Now the Masters are gone! Over ten fortnights have passed since they discovered the star ship that was under construction down at your space port and disappeared. No sign of the great cargo ships that brought production value (what the Masters called the raw materials that they had gathered from other systems) to this Production System, your Home System. It used to be a daily occurrence. The sub-space communication system between all Production Systems simply confirms that the Masters' withdrawal appears to be complete. Some of the other Production Systems are even now suggesting that some type of joint government be set up until the Masters return.

But you know that when the Masters return, only one Empire had better be in charge! Legends tell of the great "test," a time of trial, a period of darkness. Historians still argue over the length of this "test," but latest estimates place the time of the Masters' return at somewhere around 80-100 fortnights from the time of their departure. The other Empires are merely stalling for time to build up their own space fleets. Your Home System has decided that if there can be only one power in the galaxy, they would rather it be them! They have placed all faith in you, their Supreme Commander. Can you lead your Empire to its destiny? Can your Empire become the next galaxy masters?

The time has come for action!

EMPIRE EXPANSION

Print out your GALAC-TAC galaxy map and follow along with me. The "Whole" galaxy map fits on one page, and the coordinate system is based on squares and goes from 00-00 (top left) to 99-99 (lower right). So, to find out where something is, you read down the left hand side (the Y-axis for you math fiends) and across to the right (the X-axis). NOTE: Always read down and then across! If you look at your Empire report, you have one System, and the location is provided. Use it to find your Home System on the map. All those other stars are unknown worlds. Some are Home Systems, like yours, belonging to other players. There are usually between 10 and 15 players in a game. The term "Home System" designates that one of your Production Systems is the seat of your government, and is also your opponents' primary objective. At the beginning of the game you have only one Production System, and it is your Home System.

OBJECTIVE: The primary objective in GALAC-TAC is to neutralize (i.e. destroy) all the other Home Systems in the galaxy. There are a few minor problems to contend with, such as where they are located and how well defended they are. As you look at the galaxy map you might realize that your domain is not exactly awe-inspiring! You control one Production System (your Home System) and the rest of the galaxy is uncharted. The only protection any system has is the fleet that is present in that system. You will need to explore and chart new territory, collect resources from your growing empire, and build up your economics to enable you to construct fleets for defense... and domination! In the event the Masters return and there is more than one empire still trying to take control of the galaxy, the winner will be chosen according to the highest empire valuation percentile.

PRODUCTION VALUE (PV): PV is the amount of raw material you can remove from any given System each fortnight. Every Star System has a base PV. Your Home System has a base PV of 10 units per fortnight. The value of other Systems will be disclosed to anyone charting that System. After that, the base PV will be printed on the map in place of a star symbol. A star system holds raw materials, but does not generate PV by itself, and it cannot be stockpiled. Therefore, PV can only be collected if there is a ship there doing the collecting (it does not accumulate, waiting for you to pick it up). You cannot collect PV from an enemy's Colony, but any System you have Charted is fair game if uncolonized. In order to increase the amount of PV you can take from a System, you can upgrade the Charted System to a Colony System or upgrade a Colony System to a Production System. This increases the PV as follows:

CHARTED	Base PV x 1	=	Output per fortnight
COLONY	Base PV x 3	=	Output per fortnight
PRODUCTION	Base PV x 5	=	Output per fortnight
HOME	Base PV x 10	=	Output per fortnight

PRODUCTION INVENTORY (PI): PI is the basic "monetary" unit in the game and all costs are shown in PI. In order to benefit from a Chartered or Colony System, you must transport the PV to a Production System so that it can be converted to PI. A Production System automatically converts all of its PV into PI at the rate of 1 PV to 1 PI (i.e. your Home System has a base PV of 10, produces 100 PV and generates 100 PI per fortnight). All PV brought in by cargo ship is also converted to PI at the rate of 1 PI for 1 PV. It takes one fortnight to convert PV to PI. Unlike PV, PI can be accumulated at Production Systems (but not Colonies), and anything that is left over after expenditures is automatically stored and available on the next turn. Note that PI can be moved by cargo ship from one of your Production Centers to another by combining the LOAD, TO, and UNLOAD commands. See the description of these commands for more information.

EMPIRE VALUATION: Empire Valuation is determined by breaking down your empire and everything in it to its basic value, including ships, systems, and other resources. The empire with the highest value is considered the leader, and every other empire's valuation is expressed as a percentage based on the leader's value. Hence, if you're at 85%, your Empire is worth 15% less than the current leader. You still do not know if you're in second place, or last. More than one player may be at any particular valuation percentile, including 100%.

CHARTED SYSTEMS: When any ship belonging to your Empire ends its turn in an Uncharted System in CHART mode, that System becomes chartered and its PV is known. Please realize that you do not "own" a Chartered System and you do not automatically get the PV for that System every turn. You must set up a cargo run (e.g. "Shuttle") between that System and a Production System (your Home System at the start of the game – later on you may have other Production Systems). There is no way to tell if another player has chartered a System before you (or after you if you do not leave a ship present).

COLONY SYSTEMS: When any Chartered System is colonized, it shows up on your reports as part of your Empire! The presence of an alien fleet in the same location as your Colony System will be reported to you, providing the Colony is still able to report...

PRODUCTION SYSTEMS: Production Systems also show up on the reports as part of your Empire. A Production System can produce ships, convert PV to PI, research technology, etc. These Systems are always considered as primary targets and should be protected. After all, the Home Systems are simply Production Systems where the government resides.

IMPROVEMENTS: Now that you know of the three basic types of systems, how do you colonize a Chartered System or develop a Colony System?

In order to colonize a Chartered System (you cannot colonize an Uncharted System or one that another empire already owns) you must load a cargo ship with 10 PI and move to the proposed Colony System (if you're not already there), then you land five (5) PI per turn for two turns. The PV from that System for those two turns is used in the colonizing process. You cannot ship it out! At the end of those turns, the System will show up on your reports as belonging to your Empire. Use the COLONIZE action to accomplish this.

EXAMPLE: A Chartered System is known to have a base PV of seven (7). In order to convert it to a Colony System you must have something with a cargo capacity of at least 10 PI at one of your Production Systems and you must have 10 PI in your stockpile. (You may also issue the COLONIZE action to a ship or fleet that has 10 PI already loaded, located anywhere.) You then issue the COLONIZE action and the following takes place:

BY TURN	SHIP ACTION	RESULT
0	Vessel loads 10 PI	(If necessary)
	Vessel moves to site	May take more or less than one turn
1	Vessel lands 5 PI	5 PI landed & PV used
2	Vessel lands 5 PI	5 PI landed & PV used
3	Vessel released	Colony active and PV available

It now produces $7 \times 3 = 21$ PV per fortnight.

Not too bad, eh? Ok, say that the war is going well and you need to have this Colony System support a major push in this area. You need it to be a Production System. In order to convert a Colony System to a Production System, you need to land thirty (30) PI. Only your Colonies may be converted to Production Systems. You would use the DEVELOP action and abide by the same restrictions as the COLONIZE action. The following takes place:

BY TURN	SHIP ACTION	RESULT
0	Vessel loads 30 PI	(If necessary)
	Vessel moves to site	May take more or less than one turn
1	Vessel lands 15 PI	15 PI landed & PV used
2	Vessel lands 15 PI	15 PI landed & PV used
3	Vessel released	Production Capable!

TECH LEVEL: Tech Level stands for Technological Level, and is a measure of your technical expertise. Tech Level 1 is the minimum for star-faring races. Your Empire begins at Tech Level 1. It is possible to raise your Tech Level by expending PI. Increasing your Tech Level will alter basic game parameters favorably on your behalf. Your weapons will be more effective and you will be able to build bigger ships and larger platforms. (Existing designs may go up in cost-to-build.) This can be compared to an ongoing R&D project. Use the RESEARCH action to increase your Tech Level.

Existing ships must be REFIT to the current Tech Level in order to take advantage of new capabilities. Until they are, the ship rating of combat ships will print with a trailing "@" sign and level which will show you the current Tech level of the ship. Until you refit the ship, you will not gain the benefits of being at the higher Tech Level.

TIP: Existing ships do not gain any notable benefits from REFITting unless they have weapons, shields, or hangar bays, so you will probably wish to leave unarmed ships (such as ordinary cargo ships or unarmed scouts) alone.

The only material drawback to achieving a new Tech Level is that all stockpiles of missiles, on ships and systems, are cut in half and you have the newer type. (This avoids a logistics nightmare.)

NOTE: It is not necessary to REFIT a ship in order to fire the higher Tech Level missiles.

EXAMPLE: If you have 50 Tech 1 missiles stockpiled and go to Tech 2, you would have 25 Tech 2 missiles. All fractions are rounded down (you can't have half of a missile).

BREAKDOWN OF RESEARCH COSTS

The research threshold for technological advancement is different in every galaxy. The following table provides the average cost of level advancement; actual values in your galaxy may be somewhat higher or lower. Please note that the PI shown is the TOTAL PI required and includes the previous amount, hence it only costs about 6,000 more PI to go from Level 2 to Level 3 and 9,500 more PI to go from 3 to 4, etc.

TECH LEVEL	TOTAL RESEARCH EXPENDITURE
1	0 PI (Starting Tech Level)
2	2,500 PI
3	8,500 PI
4	18,000 PI
5	31,000 PI
6	47,500 PI

DESTROYING ENEMY STAR SYSTEMS

Congratulations! You have just captured an Enemy Star System, or at least you control the space surrounding it by having destroyed all opposing ships in the system. However, the Enemy Colony/Production Systems are still there. If the Enemy player can drive you out, then he or she is back in business!

The DESTROY action takes one or more turns to move to the target system (if not already there) and then one turn to eliminate a Colony System (10 PI) or two turns to eliminate a Production System (20 PI) as shown below:

SYSTEM TYPE	TURNS	RESULTS
Colony	1	10 PI landed. Colony destroyed.
Production System	1	10 PI landed. Missile and PI stockpiles destroyed, along with any ships under construction.
	2	10 PI landed. Production System destroyed.

NOTE: You must have 20 PI available in your ship/fleet even if you are only destroying a Colony System.

You can issue the DESTROY action only if you are in military control the System at the start of a turn. To control a System your fleet must be unopposed. If no combat occurs in a System that you are destroying, your DESTROY will work. If you have a combat, you must eliminate all enemy ships from the System in order for the DESTROY to work. An enemy ship is defined as one that belongs to another Empire; it does not have to belong to the Empire whose System you are destroying. DESTROY is a movement action, so you do not have to risk the cargo ships with the attacking fleet. It is sometimes a good idea to send your cargo ships in on SCOUT. That way, they have a chance of surviving the combat should you not be successful (assuming they are not caught). If you win, you can issue the DESTROY to the cargo ships on the next turn so that they drop PI immediately. You have a chance of capturing your opponent's Tech Level (5% chance per PV value of the System) when you destroy a Production System, if your opponent's Tech Level is higher than yours!

EXAMPLE: If you destroy a Production System with a base value of 8 PV, you have a 40% chance to capture the owner's Tech Level, if it is higher than yours.

When you DESTROY a Production System that turns out to be an Enemy Home System you will always gain the destroyed Empire's Tech Level (if it is higher than yours) and one half of the DESTROYed System's PI stockpile. All Production Systems belonging to the destroyed Empire become Colony Systems of your Empire and you gain all charting information the enemy has accumulated. All Enemy fleets, no matter what they are doing, will vanish.

GATHERING INTELLIGENCE

The only way to gather information about the other Empires in the game is to use the ol' Mark 1 Eyeball. In other words, someone from your empire has to actually go and see the opposing ship or system. Bear in mind however that each of your opponents will not react favorably towards any ship caught snooping! Use the SCOUT action to slip a ship into a system quietly. Your SCOUT will send you intelligence reports each turn unless it is detected and destroyed. While this puts a ship at risk, the information gained is worth it! Keeping a significant number of SCOUTS as busy as possible starting as early as possible gives you a lot more information about the galaxy around you, which will be invaluable for long-term offensive and defensive planning.

EMPIRE RELATIONS

Your empire must be named on the first turn of the game. All names must be unique, so you may be required to rename it the next turn if it turns out to be a duplicate.

There are no formal alliances supported through the game system. Since the object of the game is the elimination of all other players, long-term formal alliances would seem pointless. If your ships encounter another player's ships during the course of the game, one of two things will happen:

Aborted mission: If all the ships are in a non-hostile posture, this is called a Cease Fire and you will get a report that lets you know who you ran into. All ships will have their last action cancelled and will sit there with NONE orders until given a new command. **EXCEPTION:** Ships already engaged in COLONIZE, DEVELOP, or SHUTTLE activities will continue with their current tasks and only the intruder's action will be cancelled.

Combat: If any player has any ship in a System with one of the following actions, a combat will ensue: DEFEND, DESTROY, PATROL, SECURE, SENTRY or ATTACK. This is the only way to invoke the combat system. Note that if the enemy ship is a successful SCOUT, no combat will take place; you will simply not know it's there.

TIP: Any time there's a combat in a system where you don't conquer everyone else, you should always check to make sure what orders your ships are left with (and what ships are left, and in what condition, of course).

You may, of course, negotiate informal alliances (or deliver threats) by sending a message to the Empire you wish to contact. Since you very likely will not know who the other players in the game are, Galac-Tac will route your message for you (using only your Empire name), but you must know the name of the Empire you wish to contact by having encountered them during the game.

Diplomatic messages may be sent via the website, or (for postal mail players only) by including messages with your mailed turn.

SHIP PRODUCTION

Ships are required for everything in GALAC-TAC. The best thing about ships is that you can create your own designs! Once you have a design you like, you use the CLASSIFY action to add the design to your shipyards. The Masters provided the following designs (unknowingly). They are provided to help you start construction on your own star fleet, but they are not necessarily optimal designs. You may use these designations or create new ones by altering them as you wish.

#	CLASSIFICATION	CODE	RATING	SSD	PI	DELAY
1.	FREIGHTER	FX	/ ; 10/20-1	2	9	1
2.	FREIGHTER	FXV	/ ; ; 15/16-1	3	12	1
3.	FREIGHTER	FXX	/ ; ; 20/16-1	4	16	1
4.	FREIGHTER	FXXV	/ ; ; 25/16-1	5	20	1
5.	FREIGHTER	FXXX	/ ; ; 30/14-1	6	21	1
6.	SCOUT SHIP	SC1	//19-1	1	4	1
7.	FIGHTER	FT1	4P/1 ; ; /-16	5	21	1
8.	FRIGATE	FF1	3P/2 ; ; /16-16	5	34	1
9.	DESTROYER	DD1	6P/4 ; ; /14-14	10	59	1
10.	CARRIER, LIGHT	CV1A	/ ; 4 ; /20-1	2	11	1
11.	CARRIER, JEEP	CV1J	4P/4 ; 4 ; /14-14	10	61	1
12.	STATION	ST1	20P/20 ; ; /	40	42	4
13.	SKIRMISHER	SK1	2P//11-1	2	7	1

NOTE: Cost reflects the amount of PI necessary to build the ship and does not include filling the cargo area or the hangar space. It does build Drones and fill missile racks.

SSD: Standard Size Designation: The SSD is a means to measure the size of any given ship in the game. It is used to determine the cost of the propulsion units for a particular ship and the construction delay time. The formula used for figuring the SSD is given in the next section.

SHIP RATING CODES: For those of you who now desire to dispose of the author based on the garbage that you saw under the title "RATING" in the previous table, relax... please! The only real notation used in the game is in the form of ship ratings. In order for you to design a ship you have to give us a description of it. To save you time in writing those descriptions, we have devised a simple notation.

[1]D + [2]P + [3]T[4][(5)] / [6] ; [7] ; [8] / [9] - [10] [@11]

1. Number of attached drones.
2. Number of P-Type weapons.
3. Number of T-Type launchers.
4. Number of T-Type missile firing racks.
5. Number of missiles remaining.
(For display only, and only if not fully loaded).
6. Number of shields.
7. Number of attached hangars.
8. Number of cargo bays.
9. Number of star drives.
10. Number of inertia drives.
11. Current ship Tech Level if below your Empire's Tech Level.
(For display only. The system provides this entry only where it is needed and it is never shown on the Shipyard report.)

So instead of: HC, Heavy Cruiser, 18 P-Type weapons, 3 T-Type launchers, 20 filled T-Type missile racks, 8 Star drives, and 10 Inertia drives,

You say: HC, Heavy Cruiser, 18P+3T20//8-10.

NOTE: If any shields, hangers or cargo bays are specified, both of the ";" symbols must be placed appropriately. Also include the "-" in between the number of Star drives and the number of Inertia drives (if any engines are present). The slashes ("/") are always shown.

EXAMPLE:

1. 10D/10;;/8-8 - 10 Drones, 10 Shields, 8 Star drives and 8 Inertia drives.

EXAMPLE:

2. /;;10/-12 - 10 Cargo bays, 12 Inertia drives.

EXAMPLE:

3. 10P// - 10 P-Types, no movement (a platform).

NOTE: A ship with missiles will have the number of missiles remaining on board listed in parentheses if the magazine is not full. Such instances often occur after a combat. For instance a torpedo boat rated at 3T9// -16 was in combat with a cargo ship. After the battle the torpedo boat may look like this:

3T9(3)//-16

This would indicate the ship has fired 6 of its 9 missiles and needs to be reloaded. The number of missiles needed to rearm a fleet will be listed after the flagship on your turn sheet.

CONSTRUCTION OF SHIPS

There are two methods you can use when you construct ships: you can use the ship designs left behind by the Masters or you can design your own. The game allows a maximum of 50 designs per player and it should be enough for you to create "the perfect fleet."

- TIP: The designs left behind by the Masters are all basically good designs, but are not overly efficient. You will probably want to begin designing your own ships immediately by "borrowing" the Masters' designs, but improving the Engine ratings, at least.
- TIP: You can delete old designs from the Shipyard as long as you do not have any ships of that class in service. See the information on the DECLASSIFY action below for more details.
- TIP: Many players will use a maximum of 20-25 designs for ships at their current Tech Level and reserve at least 25 more design slots for ships at future Tech levels. (If you have 50 different Tech 1 designs in service when you attain Tech 2, you will not be able to design any Tech 2 ships until all the ships of a given design are either destroyed or SCRAPPED.)

To design a ship, you must first decide on what its primary mission will be. For instance, it is not generally considered cost effective to place expensive weapons on a ship that will only perform cargo missions (and not need weapons for self-defense). After deciding what the ship will need to accomplish its mission, make sure it is a legal design and use the calculations below to determine its cost and size. As you increase your Tech Level, your design limitations change and you will be able to build new designs with more firepower for the same maneuverability.

- TIP: When you encounter ships from other Empires, pay attention to the designs that they are using and build ships that exploit their weaknesses.

Once you have a working design, submit a CLASSIFY action. You must give the new ship type a code and a name. The ship code is a 1-4 letter code; the name should be representative of the class of ship (i.e. its purpose) and is limited to 15 characters.

EXAMPLE: DD2 Destroyer

If you use exactly the same design as an existing one, the code and design name will be changed while retaining the same rating. You cannot reuse a code that is already defined. The Masters usually used two letter codes followed by Tech Level. This leaves an extra letter available for variations.

EXAMPLE: FT1 is the standard Tech Level 1 fighter; an FT1X is a Tech Level 1 fighter, eXperimental for a design you are testing out. FT2 would be your standard Tech Level 2 fighter, etc.

The DECLASSIFY action will completely remove a design from your table. You may not remove a design until all ships that were built using that design are destroyed or SCRAPPED.

Once you have a new design accepted, you may start building ships with the design. You may do this in the same turn providing the design is legal. (If not, nothing will happen if the code was not previously in use and you will simply waste several BUILD actions. If the code was already in use, you will build the prior design.) Classifying a new design the turn before you use it will let you see if there are any problems first. All ships have a turn-delay associated with building them (the time it takes for construction). All costs are paid in advance when the ship is ordered. The SCRAP action can be used to cease production on a large ship and scrap whatever was built to that point, for further information, see the action descriptions. Ships with a one (1) fortnight delay will be ready at the start of your next turn. Larger ships take longer to build. Below you will find the formulas used to calculate the cost in PI, the SSD, and the number of turns delay for each ship.

<pre> SSD = Ship Size Designation (Rounded up) = 2 x the number of Attached Drones + the number of P-Type Weapons + the number of T-Type Launchers + 0.2 x the number of T-Type Missile Racks + the number of Shields + 0.5 x the number of Attached Hangars + 0.2 x the number of Cargo Spaces </pre>
--

<pre> Turns Delay = SSD divided by 10, and rounded up. </pre>

Ship Cost = dr + pw + tl + tr + sh + ha + ca + mf, and rounded up.

dr = Cost of Drone Units
= 3 times the number of Drone Units

pw = Cost of P-Type Weapons
= Ship's Tech Level plus the number of P-Type Weapons

tl = Cost of T-Type Launchers
= 3 times the number of T-Type Launchers

tr = Cost of T-Type Missile Racks (loaded with missiles)
= 1.2 times the number of T-Type Missile Racks, rounded up

sh = Cost of Shield Units
= Ship's Tech Level plus the number of Shield Units

ha = Cost of Attached Hangar (Excluding Hangared Ship)
= 1 times the number of Attached Hangars

ca = Cost of Cargo Bays (Excluding Cargo)
= 0.2 times the number of Cargo Bays, rounded up

mf = Cost of Star drives and Inertia drives
= The number of Star drives plus the number of Inertia Drives, times the ship SSD, this total then divided by six (6) and rounded up.

EXAMPLE: To build the Battle Cruiser "Enterprise" rated as:

18P+3T12//8-10

SSD = (18) + (3) + 0.2x(12) = 23.4, round up to 24.

Turns Delay = 24 divided by 10, round up to 3.

mf = (8 Star drives + 10 Inertia drives) times 24 (SSD) and then divided by 6 = 72

COSTship = 19 (Tech Level (1) + # P-Type Weapons (18))
+ 9 (3 x # T-Type Launchers (3))
+ 15 (1.2 x # T-Type Missile Racks (12) = 14.4, round up)
+ 72 (mf)
= 115 PI

Thus the "Enterprise" could be built at a cost of 115 PI with a construction delay of 3 galactic fortnights.

P-TYPE WEAPONS

Basically "P" stands for projector. It can mean phaser, plasmer, paren beam or any other type of beaming weapon. P-Type weapons are used both offensively and defensively. P-Types are tied into your target selection computer and will fire at anything they have a chance to hit. P-Types will fire at enemy ships or drones and at inbound T-Type missiles (providing defensive cover). There are two factors that determine how much damage a P-Type weapon does - Tech Level and SSD class (see chart below). Initially, all P-Type weapons are Tech Level 1 models. By raising your Tech Level, you increase your firepower. Once a ship is built, its Tech Level stays with it until a REFIT action is issued. You may REFIT a ship at any Production System. Note however that a ship's SSD category may change at any new Tech Level!

EXAMPLE: A 5 SSD Fighter would do 1 point of damage per P-Type weapon at Tech Level 1, but would do 2 points per P-Type at Tech Level 2.

EXAMPLE: A 6 SSD Destroyer would do 2 points of damage per P-Type weapon at Tech Level 1 and also at Tech Level 2 (This is because 6 SSD is in the Medium class at Tech Level 1, but in the Small class if REFIT to Tech Level 2!)

SSD CATEGORY	TL 1	TL 2	TL 3	TL 4	TL 5	TL 6
Small	1	2	3	4	5	6
Medium*	2	3	4	5	6	7
Large	3	4	5	6	7	8
Huge	4	5	6	7	8	9

* Platforms may fall in the Large or Huge categories, but the damage that each of its P-Type weapon does is treated as if it were no larger than Medium size, as the weapons draw power from onboard engines.

T-TYPE WEAPONS

"T" is for torpedo. Basically, any unintelligent/intelligent missile type weapon that must travel between the firing point and the target under its own power (photon torpedoes, trailer missiles, ICBM's, etc.).

T-Type weapons consist of two parts; the Launcher (with its missile racks) and the Missile. The T-Type Launcher is a permanent part of a ship (unless blown off!) and is paid for once when the ship is constructed. Each T-Type missile rack can hold one missile, and the maximum number of missiles that a ship can carry ready to fire is determined by the number of racks that the ship was built with. When a ship is constructed, the cost of the rack includes the cost of a missile, so they are already loaded. You can build more missiles with the MISSILES action. They cost 1 PI each,

regardless of tech level. The T-Type missiles are strictly offensive in nature and must be replaced when used. Higher Tech Levels are more destructive:

LEVEL	DAMAGE - Direct Hit	DAMAGE - Near Miss
1	4	2
2	8	4
3	12	6
4	16	8
5	20	10
6	24	12

Remember that a missile, once fired, must be replaced. Use the RELOAD action to replace your expended missiles. If you have T-Type Missiles in Cargo, you may issue the RELOAD action wherever you are, but reloading is not possible in the middle of combat. T-Type missiles may be stockpiled at any System you wish. If there are not enough missiles on hand to go around, then first come, first served! A ship will only reload enough missiles to fill up the number of missile racks it was built with (providing they are all operational). If you RELOAD in one of your Systems, your racks will be filled from any missile stockpile first, then from your own cargo bays, and finally from other cargo ships in your fleet.

ATTACHED DRONE UNITS

The Drone is a tiny robotic fighter craft capable of inflicting two points of damage (per Tech Level) per combat round. After combat (assuming the Drone survived), it returns to the mother ship. It is so small and fast, in fact, that P-Type weapons have difficulty targeting them. While it is true that P-Type weapons can be used against Drones directly, the two best ways to stop a Drone are to use another Drone or to destroy the mother ship (or just her Drone bays). Note that a Drone destroyed in flight also disables its Drone bay in the mother ship. The Drone can target specific items, including missiles and other Drones. Use the COMBAT/STANDING actions to select a specific item during an attack for all Drones on a ship. Higher Tech Levels are more effective and can do more damage. See the table below for more details.

LEVEL	DAMAGE	NOTES
1	2	Drones tend to hit more often than P- or T-Type weapons, but usually inflict less damage.
2	4	
3	6	
4	8	
5	10	
6	12	

The Mother ship can only support the number of Drones that it was built with, so if it gets hit in the computerized support bays, those Drones (even if already launched) will simply cease to exist (self-destruct).

SHIELDS

Shields are a defensive screen that surrounds a ship. All damage taken by a ship will first come off the shields' energy screen. Once all shield energy is exhausted, the ship will take damage in other areas. All shields are fully charged when arriving in a System. Any shield generator not destroyed by an enemy hit will be able to charge before the next combat (fortnight). A single Shield unit will generate enough energy to absorb several points of damage. The level of protection (points of damage absorbed) that each Shield unit will provide is determined by a ships SSD category and Tech Level as shown in the table below.

SSD CATEGORY	TL 1	TL 2	TL 3	TL 4	TL 5	TL 6
Small	3	4	5	6	7	8
Medium*	4	5	6	7	8	9
Large	5	6	7	8	9	10
Huge	6	7	8	9	10	11

* Platforms may fall in the Large or Huge categories, but the protection each shield provides is treated as if it were no larger than Medium sized, as shields draw power from onboard engines.

ATTACHED HANGAR BAYS

A hangar bay allows a base of operation for one small ship (5 SSD max at Tech Level 1). This ship will deploy at various times when the situation calls for it. (See the COMBAT section.) You must have one hangar bay for each assigned ship (even if less than 5 SSD). The small (hangared) ship may not have drone bays, hangar bays of its own, cargo bays, or star drives. The hangared ship must have at least one Inertia drive. The hangar bay can be used to transport small intrasystem ships between Star Systems. The attached hangar also provides one other "small" service... it repairs all damage taken by any ship assigned to it at the end of the fortnight!

CARGO SPACE

This area can be used to transport PV, PI and extra missiles. PI is typically used by a ship performing a COLONIZE or DEVELOP action, PV is usually LOADED at a charted system and UNLOADED in a Production System so that it can be converted to PI, and T-Type missiles can be transported to a fleet based far from home. One cargo space can carry 1 PI or 1 PV or 1 T-Type missile. Everything in a cargo hold is considered to be containerized and is inaccessible during combat, but is available in non-combat situations.

MOVEMENT

There are two types of movement in GALAC-TAC: Star drive and Inertia drive. The number of Star drives given to a ship governs how far a ship can travel in a fortnight. A Star drive capable ship can move itself between Star Systems. A ship with only Inertia drives is limited to the Star System where it was built, unless it is TOWed or transported in another ship's hangar bay.

Star drives: On the GALAC-TAC map, one Star drive will move you one location horizontally, vertically, or diagonally in one fortnight. At the end of the fortnight you are no longer under Star drive and will appear in the location in which you finished your movement. If there are any enemy ships which finish their turn at that location with you, a battle will result (given any hostile orders). A fleet moves at the Star drive speed of its slowest ship (although during combat, each ship is on its own)! This can lead to problems when dealing with a fleet trying to leave a System. Make sure that all ships in the fleet have Star drives and Inertia drives (or in the case of Fighters, are ASSIGNED to a Carrier equipped with the proper drives). A damaged ship can slow down the whole fleet!

Inertia drives: You have no direct control over this type of movement. All ships equipped with a Star drive must also have at least one Inertia drive. The number of Inertia drives greatly affects combat; please read that section for more information. Essentially, the faster a ship is, the harder it is to hit and the easier it hits enemy ships.

Over-extended Movement: If you send a ship farther than it can go in a single fortnight, it will take the shortest direct route and stop at its maximum movement rate. Your turn sheet will show its final destination and, unless given new orders, the ship will continue on its way during succeeding turns. It is not necessary to reissue the orders. It is quite possible that it will end its partial movement turn in a Star System (some galaxy maps are crowded!). If you wish, you may plot out each leg of its journey and submit actions each turn.

Platforms: Any ship designed without drives is considered a platform and cannot move. Platforms are more stable than ships in motion and always target with an assumed attack speed of 10, even though defensively they're still motionless.

SHIP DESIGN LIMITATIONS

Ships may be created (see CLASSIFY action) in any configuration desired, but the following restrictions apply until altered by your Tech Level. Tech level affects both the Size of ships that you are able to build as well as the number of engines that those ships can carry. The limitations for your current Tech Level are always displayed at the top of the Shipyard report. It is a good idea to get a new Shipyard report when you reach a new Tech Level so you can see how the advancement has changed your ship design limitations and costs. The following table summarizes the SSD limitations by Tech Level. For the Inertia and Star Drive limitations, refer to your Shipyard report.

SSD CATEGORY	TL 1	TL 2	TL 3	TL 4	TL 5	TL 6
Small	1-5	1-6	1-7	1-8	1-9	1-10
Medium	6-15	7-17	8-19	9-21	10-23	10-25
Large	16-30	18-33	20-36	32-39	24-42	26-45
Huge	31+	34+	37+	40+	43+	46+

The maximum movement allowances depend upon SSD and Tech Level as shown below.

TECH LEVEL	SSD RANGE	STAR DRIVES	INERTIA DRIVES
1	1-2	30	20
	3-5	24	16
	6-10	21	14
	11-15	18	12
	16-25	15	10
	26-30	12	8
	31-35	--	8
	36-75	--	--
2	1-3	30	20
	4-6	24	16
	7-11	21	14
	12-17	18	12
	18-27	15	10
	28-33	12	8
	34-38	--	8
	39-80	--	--
3	1-3	30	20
	4-7	24	16
	8-12	21	14
	13-19	18	12
	20-29	15	10
	30-36	12	8
	37-41	--	8
	42-85	--	-
4	1-4	30	20
	5-8	24	16
	9-13	21	14
	14-21	18	12
	22-31	15	10
	32-39	12	8
	40-44	--	8
	45-90	--	--

5	1-4	30	20
	5-9	24	16
	10-14	21	14
	15-23	18	12
	24-33	15	10
	34-42	12	8
	43-47	--	8
	48-95	--	--
6	1-5	30	20
	6-10	24	16
	11-15	21	14
	16-25	18	12
	26-35	15	10
	36-45	12	8
	46-50	--	8
	51-99	--	--

In addition to limitations on the amounts and types of Drives that a ship can carry, there is also a limitation on the maximum number of P-Type weapons that a ship can be equipped with.

WEAPON	TL 1	TL 2	TL 3	TL 4	TL 5	TL 6
P-Types	30	35	40	45	50	55

The following limitations always apply regardless of Tech Level:

1. All costs must be paid in advance at the Production System where the ship will be built.
2. No ship or platform may exceed the largest SSD value shown in the tables above (by Tech Level) nor may it exceed the maximum number of P-Type Weapons per Tech Level.
3. Only ships in the Small SSD category may be transported by hangar equipped ships.
4. A Drone-, Hangar-, or Cargo bay-equipped ship cannot fit into a Hangar bay even if under the current SSD limit.
5. A Star drive equipped ship cannot fit into a Hanger bay even if under the current SSD limit.

COMBAT

Combat in GALAC-TAC is technically strategic, rather than tactical, in nature. You order your ships/fleets into battle and you can give them some rough guidance. The GALAC-TAC sequence of battle is listed below and will provide you vital information concerning various actions that your ships can perform.

CONCEPTS OF DEPLOYMENT

Since it is not obvious how ships are logistically deployed for combat, a more detailed explanation is in order. The ATTACK, SECURE, DEFEND, and PATROL commands are very similar in their effects. The main differences are related to distances in combat situations. This provides us a mechanism for making use of distance without overcomplicating the whole combat system with it. DEFENDING ships are deployed at the center of the Star System. PATROLing ships are sent out to the fringes of the System, near the limits of the System's sensors. SECUREing ships arrive in the center of the Star System where DEFENDING ships are usually found so they can engage in combat immediately. Ships with ATTACK orders will arrive well outside the limits of the Star System before moving into the System for their attack. This gives them a chance to get a rough idea of the defensive strength of the System and avoid the encounter if desired. Unfortunately, they start too far away to be able to determine any details of the defense at all, only its rough overall size. The SCOUT command can be used to gain more detailed information, but it must arrive closer to the System, generally at its fringes (just where the PATROLing ships stay). If not caught, SCOUTs can glean important information. If they are caught, they frequently do not return (or report). SENTRY ships are similar to PATROLing ships in that they are deployed at a System's fringe. Other than moving from star to star, the main difference is one of conceptual purpose: PATROLs primarily concentrate on looking for enemy scouts, but will engage any enemy in-System once combat ensues. Sentries, however, specifically look for the presence of any enemy ship in-System and will then also look for SCOUTS.

Ships in SECURE mode always fire at targets of opportunity. Ships in ATTACK or DEFEND mode can accept a COMBAT or STANDING action and will behave accordingly.

BATTLE SEQUENCE

A combat or "battle" in GALAC-TAC is divided into 10 segments called "combat rounds." In each round every available weapon on every available ship selects an appropriate target and fires once, doing appropriate damage if the shot hits. However, not every weapon can fire every round. A weapon that is destroyed obviously can no longer fire. Ships that expend or lose the last of their T-Type missiles can no longer fire T-types. Conversely, if all of a ship's T-Type launchers are destroyed, it cannot use any missiles that may remain in its racks.

Furthermore, a ship's last order and that of the enemy can also affect when a ship can begin firing and which ship can be targeted. These orders interact with one another in complicated ways. Here are the underlying rules for when ships can enter combat.

- Ships with DEFEND orders are positioned near the center of the system. Ships with SECURE orders move into the system near the center to engage the defensive forces arrayed there. Both of these groups may fire on each other immediately in the first combat round.
- Ships with PATROL or SENTRY orders scatter themselves around the periphery of the system, where SCOUT ships are expected. SCOUT ships arrive in this region with all their ship's systems (especially weapons) shut down to attempt to avoid detection. All these ships move toward the center of the system after combat ensues to participate in the melee, so for the most part they cannot fire on combat round 1.
- Ships with ATTACK orders arrive even further out from the system in order to roughly determine if a large or small defensive fleet is present. If appropriate, they will move into the central area of the system to engage, so they may not fire or be targeted until combat round 2.
- PATROL and SENTRY ships can fire on SCOUT ships that were caught beginning in combat round 1.
- Other PATROL and SENTRY ships, because they were out of position, cannot fire on other PATROL/SENTRY or ATTACK ships until combat round 3.
- Otherwise, PATROL and SENTRY ships can begin firing on combat round 2.
- SCOUT ships may not fire on combat round 1 at all because their systems are shut down. A SCOUT ship tries very hard to look like a rock. They may begin firing on combat round 2, but the PATROL/SENTRY ships can attack them in combat round 1. They become targets for other ships on combat round 2.
- Ships with any orders that are within hangar bays (this does not include PATROL or SENTRY where the ships are considered to already be deployed on duty) cannot fire or be targeted during combat round 1. They must deploy from their hangar bays during combat round 1 and cannot get involved in the combat until at least combat round 2. Note that if a mother ship is hit in the hangar bay area during combat round 1, any hangared ship that is deploying from the damaged hangar during that time is completely destroyed before it can get into action.
- Ships with any other kinds of orders (NONE, TO, SHUTTLE, etc.) are not expecting combat at all and therefore none of their weapon rooms are even manned. They may become targets during the first two combat rounds but they cannot return fire until they get their weapon systems on-line and manned in combat round 3.

Yes, this is extremely confusing. A chart showing the interaction of these different orders may help to make it clearer. Down the left side of this chart is the list of possible orders that a firing ship may have. Across the top of the chart is the list of possible orders that a target ship may have. Where the "firing order" row and the "target order" column cross, this is the first round during combat in which that ship can fire on that target. If it is too early to fire on that target, another target will be chosen instead that it will be able to fire on.

		TARGETED SHIP'S ORDERS				
		DEFEND SECURE	PATROL SENTRY	ATTACK	SCOUT (caught)	(other)
FIRING SHIP'S ORDERS	DEFEND SECURE	1	2	2	2	1
	PATROL SENTRY	2	3	3	1	2
	ATTACK	2	2	2	2	2
	SCOUT (caught)	2	2	2	2	2
	(other)	3	3	3	3	3

Once a SCOUT ship is caught, it is no longer considered to be scouting and will be a target for the entire combat. If a SCOUT is not caught, it stays hidden, does not participate in the combat, and will give a scouting report at the end of combat; however, the report will reflect pre-combat strengths.

Any COMBAT/STANDING actions selected remain in effect as long as the ship/fleet retains ATTACK or DEFEND orders. The COMBAT action can be used only with the ATTACK action, and the STANDING action can be used only on ships with the DEFEND command. There are no corresponding controls for the SECURE, PATROL, SENTRY, or SCOUT actions. The COMBAT or STANDING action may be issued anytime after the corresponding ATTACK or DEFEND action and will remain in effect until their orders are changed.

RATE OF FIRE

All active ships may fire each weapon once per combat round. Drones fire when the ship launching them is able to fire. If the ship that launched the Drones is destroyed, all Drones that it launched self-destruct due to losing their Drone bay controllers. T-Type weapons fire until they are out of missiles. Note that missiles carried as cargo cannot be used during combat.

TARGETING

When a ship fires a weapon in combat, it has to target (aim at) a particular enemy ship with each weapon. The effective inertial speeds of the weapons and their targets are used when determining whether or not the shots successfully hit their targets, so the choice of target for each weapon can be of considerable import. The selection of targets is made independently for each weapon being fired, but the type of weapon is used to determine its method of target selection.

Drones engage as independent units and have their own effective inertial speed, which is faster than anything else on the field of battle. Consequently, while they can effectively target any ship or deployed weapon, they are of most use against missiles in flight or other drones. This is because P-Types have a much lower chance to hit these small, independently-moving weapons. So Drones are most often used to attack these hard-to-hit targets preferentially. Therefore, when there is a variety of target choices, Drones will more often attempt to target any enemy Missiles in flight (because they're more dangerous) rather than enemy Drones, and they will attempt to target enemy Drones over enemy ships, and then smaller ship categories before larger ship categories.

P-Type weapons are attached to the ship, and therefore their effective inertial speed is that of the ship itself (i.e. the number of inertia engines). Also, P-Type weapons vary in power depending upon the size category of the ship on which they're mounted. These two facts combine to mean that ships of a given size category (Small, Medium, Large, or Huge, based on each ship's SSD and Tech Level) are most effective when firing their P-Types at enemy ships of the same size category (e.g. fighters attacking fighters and battleships attacking battleships). Therefore, when P-Types target ships, they'll consider only their own size category as targets first. If no ships of their size remain in battle, then they will target the next-larger size category. This decision-making process continues until no ships remain of their size category or larger, at which point they will instead target ships of the next lower size category, then decreasing through any smaller groups. If you know what type of fleet you will be facing, this knowledge can be critical to your decision about your own fleet composition.

T-Type Missiles are independently-driven in combat and have a high effective inertial speed (higher than most ships can obtain). Therefore, they are relatively difficult for most P-Types to hit in defense, and they themselves hit slow or stationary ships quite easily. Combined with the larger amount of damage they do, they are most useful against the large ships and platforms. Missiles cannot target other Missiles or Drones in flight at all. Because of these factors, T-Types will target enemy ships starting with the largest size category (Huge) first. When no more of those remain in combat, they will then target Large-category ships (e.g. battleships), followed by Medium-category ships. However, the chances of a Missile hitting ships that are smaller (and presumably faster) than that are less than is generally desirable. Since Missiles are expendable ammunition it is usually not profitable to use them on unlikely targets. Therefore, Missiles will never bother to target Small-category ships (e.g. fighters), nor unarmed ships, so that the expensive ammunition is not being used wastefully. A word of warning, though... this has the side effect that if there is a solely Missile-based fleet facing a fleet composed entirely of Small-category ships, the Missile-based fleet won't fire at all and will likely be decimated by the small ships.

Of course, the COMBAT and STANDING actions can be used to fine-tune these decisions somewhat.

Something that is not obvious is the overall effect of Tech Level on P-Type targeting. As you advance in Tech Level, larger ships can be used. For example, a 6 SSD fighter will fit into a Tech 2 hanger bay. This means that such a 6 SSD fighter would fight in a larger ship class if combatting a Tech 1 enemy with 5 SSD fighters. To re-balance this, the SSD categories are adjusted based on Tech Level. But what happens when ships of differing Tech Levels face off? Simply put, a ship will always apply its own category limitations to its targets. What this means is that a Tech 2

fighter will try to target ships that are up to 6 SSD in size, but a Tech 1 fighter will only try to target ships up to 5 SSD in size. As you can see, having a superior Tech level to your opponent may be a great advantage, depending on each fleet's composition. As you reach higher Tech Levels, consult your Design Limitation table from your Shipyard report to determine your new combat category groupings. The new boundaries can be found at the SSDs corresponding to the same movement restrictions as before on your new report.

The following formula is used to determine the results of firing a weapon:

$$\% \text{ Chance to hit} = \text{WA} + \text{MA} + \text{MF} + \text{TL}$$

Where:

WA = Weapon accuracy. Each weapon system has the following base chance to hit: Drone (50%); P-Type (50%); T-Type (direct hit) (25%); T-Type (near miss) (+15% if not a direct hit).

MA = Maneuvering. A maneuvering ship is attempting to evade fire. A ship is never placed in maneuver by the player, the combat system does this for you when the ship is unable to shoot back. Maneuvering reduces the chance of being hit by an extra 1.5% per functioning Inertia drive on board the maneuvering ship.

MF = Movement Factor. Number of Inertia drives on the defending ship less the number of Inertia drives on the firing ship (+/- 1.5% per difference in Inertia drives).

TL = Tech Level. +/- 10% per difference in Tech Level between ships.

EXAMPLE:

Side #1 2P//20-20 Tech 2
 Side #2 /;;20/16-16 Tech 1
 WA = +50% (base chance for P-Type weapon)
 MA = -24% (16 Inertia drives x 1.5%)
 MF = +6% (attacker has 4 more Inertia drives x 1.5% each)
 TL = +10% (attacker is 1 Tech Level higher)

$$\text{Chance to hit} = 50\% - 24\% + 6\% + 10\% = 42\%$$

The chance to hit the defender is 37% per P-Type weapon.

DAMAGE

Damage is based on points. A point of damage will eliminate one P-Type weapon, one shield point, etc. The only exception is in the case of engines. One point of damage will disable three engines because they are particularly fragile and susceptible to combat damage. Higher Tech Levels will do more damage; see the descriptions of the various weapon systems under Ship Construction.

Ship damage is allocated randomly unless a COMBAT or STANDING order is specified, and then only 70% of the time will you hit the desired section. If the ship has shields, all damage will be allocated against the shield points before ship points. See the section on SHIELDS for more information. After the shield points are gone, damage is allocated to portions of the ship itself. For instance, a Tech 1 ship is laid out as follows:

```

2704 SS    NIGHTMARE    2D+10P+2T10/4;2;10/8-8

Shield Points:           o o o o o o o o o o o o (12)

1 ] . . . . . Drones:  o o
  ] . . . . . P-Types:  o o o o o o o o o o
  ] . . . . . T-Types:  o o
  ] . . . . . Missile Racks: o o o o o o o o o o

2 ] . . . . . Shields:  o o o o
  ] . . . . . Hangars:   o o
  ] . . . . . Cargo:     o o o o o o o o o o

3 ] . . . . . Star Drives: o o o o o o o o
  ] . . . . . Inertia Drives: o o o o o o o o

4 ] . . . . . Excess Damage: o o o o o o o o o o o o o (25)
                               o o o o o o o o o o o o

```

Excess damage is equal to the ship's SSD. This area represents “non-constructed” systems (like life support!) and any hits to another area already destroyed (i.e. all damage points expended) apply to excess damage. Once all excess damage points are expended, the ship is destroyed, regardless of the damage status of the rest of the ship.

As you can tell from the example above, there are three target areas selectable by the COMBAT/STANDING actions, and all items in that area are laid out separately. All excess damage is repaired by the crew at the end of the fortnight. If an item does not exist on the ship design, it does not exist as a target area. Hence, if you specify an area that does not exist for the ship your gun is attempting to target, it will look for a better target first.

Attacking/defending ships will maneuver whenever they have lost all weapons. Platforms and ships that have lost all of their Inertia drives cannot maneuver.

Combat will end when ten rounds have elapsed or only one Empire remains with undestroyed ships present. If more than one Empire has surviving ships after ten rounds, all their surviving ships will remain in that location and combat will be likely resumed in the next fortnight unless orders to the contrary are given. The only major exception to this is the DESTROY action, which will terminate if any enemy ship is present in system after combat. An undetected Scout ship will not abort a DESTROY action.

SCOUTING

The purpose of scouting is to determine the presence and quantity of enemy ships in any system, and which Empire owns the system, hopefully without being detected yourself. SCOUTS can only be caught by enemy ships on PATROL or SENTRY duty. Since SCOUTS are typically considered to be expendable they are usually built as cheaply as possible, and this usually means with only one impulse engine (since they are not expected to get into combat) and are often only given enough star drives to serve your needs (though very fast SCOUTS can be quite useful). Ships built solely for scouting seldom have anything but engines.

Do not SCOUT with large or hangared ships – they are much easier for PATROLS to detect. For every SSD your SCOUT ship has it increases your chance of being caught by an extra 1% for any given PATROLLING ship. For example, it's very difficult to succeed when using a battleship to SCOUT. Likewise, trying to SCOUT with a whole fleet would treat each SCOUTING ship independently and some may be caught and others not, thus splitting up a fleet you may have intended to stay together – probably not the result you had in mind.

You are not prohibited from SCOUTing a System that you own (Colony or Production System). However, a Colony/Production System will automatically give you a SCOUTing report whenever an enemy fleet is detected.

A SCOUT will not be able to see a SCOUT from another empire in the same System. Several ships may be sent to SCOUT a System at the same time; each scout ship will be treated separately when determining whether they are detected or not, even if they are in the same fleet or from different Empires.

The owner of a system may decide to place so many PATROL ships on duty that they are almost certain to catch enemy scouting ships. However, SCOUTS have a possible escape mechanism. If they are caught, the first thing they will do is try to escape before the PATROL ship can close with them. If they do, they are still detected by the PATROLS but they avoid being drawn into combat and thus survive to give a report back to their owner. Since they did not have much time to determine fleet composition before being detected, though, they are not able to give a full scouting report – only the very rough size of the fleet present is reported. Remember to give escaped SCOUTS new orders the very next turn, though, because they are no longer in SCOUT mode and will likely be destroyed if they don't leave immediately. The chance of a SCOUT escaping is determined solely by its own impulse engines, with a 1% chance of escape per engine. It does not matter how many PATROL ships detect it, only how fast it can run away.

PATROLLING AND SENTRIES

PATROLS and SENTRIES are the only means to detect enemy scout ships. The main difference between the two actions is as follows: A PATROL is dedicated to a single System. A SENTRY, however, can be assigned a route of up to four Systems to protect in sequence. The two actions are explained in more detail below.

PATROLS: Patrolling craft have the best chance of detecting enemy scout ships. The chance a patrolling ship will find and engage an enemy scout is 1% per Inertia drive on board the patrolling ship. A carrier type ship may also be given patrol orders. Not only will the carrier have a chance to discover any enemy scouts operating in the system, but each of the hangared ships will also be added in the search. This implies that hangared ships are kept deployed in a state of combat readiness. Platforms are allowed to PATROL as well, though they get no chance themselves of catching a SCOUT (since platforms have no inertia drives). Any hangared ships on board will be deployed and used as usual.

SENTRIES: A Ship on Sentry duty has a chance of detecting enemy scout ships as well, though it has a somewhat less chance than a dedicated PATROL. Scouting ships can use their impulse engines to try to remain hidden from Sentries during their search, and can sometimes evade detection. Unlike a dedicated PATROL, however, a SENTRY moves from System to System on a fixed route. As this implies, only ships equipped with Star Drives may be given SENTRY orders. As with patrolling ships, any hangared ships will be deployed and added to the search of each System on the route. See SENTRY in the actions section for more details.

DRONES

Drones are able to fire during all rounds of deployment (subject to the restriction of the mother ship being able to fire that round).

FLEETS

Fleets of ships may be JOINed together in many different ways. The flagship of a group of ships may be JOINed to another ship (often part of another fleet) creating a sub-fleet. This sub-fleet can be individually directed. Any action by this sub-fleet (its flagship, actually) will cause the entire sub-fleet to execute the action. If it is a movement related action, the sub-fleet will separate itself from the larger fleet and proceed independently. An action given to a fleet containing a sub-fleet will apply through all levels of the fleet/sub-fleets. Additionally, the COMBAT and STANDING actions may be applied to sub-fleets at the same time as the main fleet. The action to the main fleet will apply to any ship or sub-fleet that does not have another similar action applied. In every case, the last action issued will be the one the fleet/sub-fleet executes.

An effective large fleet organization can be constructed using these rules: First, all the ships of a similar type are JOINed together to a single flagship for each type. Then each of those flagships are JOINed to a single main battle fleet flagship. Mission and combat actions can then be issued to the main flagship and then additional combat controlling actions can be issued to any of the sub-fleets desired. That way each type of ship can have different objectives in a major battle with a minimum of trouble.

ACTIONS

This game is played by issuing commands, called actions. You are allowed 50 actions per fortnight. Actions are divided into three categories: Empire, System, and Ship. Empire Actions will affect your entire Empire, System Actions only affect one System and (you guessed it!) Ship Actions will only affect one or more ships.

While 50 actions may not seem like a lot, many actions have long term effects. All actions are shown on the next page and are further described alphabetically in the pages that follow.

ACTION PRECEDENCE

Actions can and will overlay each other. There are three types of actions and all actions are resolved for all players at the same time. The three types of actions are as follows:

<p>Before [B] actions take effect in the order that they are issued. While these actions are generally administrative in nature, there are a few notable exceptions. All of these actions are processed before anything else.</p>
<p>Movement [M] actions will cause a ship/fleet to move to another location on the GALAC-TAC map. If multiple movement actions are issued to the same ship/fleet, the last movement action will be the one that takes effect. All movement occurs before combats are resolved.</p>
<p>(Combat occurs here.)</p>
<p>After [A] actions take place after everything else. It is important to understand that these actions can be aborted before completion due to other players' activity and/or combat results.</p>

Generally one issues as many immediate Before [B] actions as one wants, but only one Movement [M] or After [A] action per ship/fleet per turn. While this looks complicated, a little common sense will help (i.e. you can't LOAD missiles until you've built missiles!) [B] actions are actually processed in the order that they are given (i.e. at the time they are encountered while processing your turn) while the rest are only prepared for later application. The operation of [M] and [A] actions are then handled at their appropriate time.

EXAMPLES: You want to LOAD 10 PI and then GO to another location. Regardless of the order you type in your actions, the LOAD will happen first, because it is a [B] action, and the GO will happen later, during the [M] phase.

You want to build 10 MISSILES and then LOAD them, but you typed the LOAD action first. Your action fails, because there are no missiles to load at the time you issued the LOAD action. Both actions are [B] types, so the order you enter them matters.

You want to load PV at a colony, so you GO there and then LOAD PV, but you don't get the results you want. The LOAD happens at the star the ship is leaving, since it takes place before [M]ovement.

ACTION SUMMARY SHEET

Empire			
1.	Capital	[A]	Moves location of Home System
2.	Classify	[B]	Adds a new ship design
3.	Declassify	[B]	Deletes an old ship design
4.	Map	[A]	Prints (a section of) your galaxy map
5.	Name	[B]	Names Systems or Ships
6.	Shipyards	[A]	Prints Shipyards report

System			
1.	Build	[A]	Builds a ship (or platform)
2.	Downgrade	[A]	Reduces your own Production System to a Colony
3.	Missiles	[B]	Builds missiles and adds to stockpile
4.	Research	[B]	Contributes to Empire R&D

Ship			
1.	Assign	[B]	Assigns a ship to a hangar bay
2.	Attack	[M]	Attack a System (conditionally); allow COMBAT action
3.	Chart	[M]	Find out base PV of a System
4.	Colonize	[M]	Colonizes a Charted System
5.	Combat	[B]	Modifies Combat System for Attacker
6.	Defend	[B]	Guards against an Attack/Secure
7.	Destroy	[M]	Annihilates enemy Colony/Production Systems
8.	Detach	[B]	Cancels previous actions for a ship (separates from fleet)
9.	Develop	[M]	Turns a Colony into a Production System
10.	Join	[B]	Creates a fleet
11.	Load	[B]	Loads cargo area of ship/fleet
12.	Patrol	[B]	Guards against an enemy Scout
13.	Refit	[A]	Upgrades ship/fleet to current Tech Level
14.	Repair	[B]	Removes all damage from a ship/fleet
15.	Scout	[M]	Move into another System cautiously
16.	Scrap	[A]	Converts any ship/fleet into PI
17.	Secure	[M]	Attack a System and take at all costs
18.	Sentry	[M]	Set up a moving sentry
19.	Shuttle	[M]	Set up a cargo run
20.	Standing	[B]	Modifies Combat System for Defender
21.	Reload	[B]	Reloads empty missile racks
22.	To	[M]	Moves a ship/fleet to another System
23.	Tow	[M]	Tows one ship with another
24.	Transfer	[B]	Transfers cargo items between ships
25.	Unload	[B]	Unloads cargo area of ship/fleet

ACTION SYNTAX SUMMARY

ASSIGN	[Mothership ID] [Ship ID 1] [Ship ID 2] [Ship ID 3] [Ship ID 4]
ATTACK	[Ship ID] [Location] [Max SSD]
BUILD	[Location] [Ship Code] [Name 1] [Name 2] [Name 3]
CAPITAL	[Location] [Name]
CHART	[Ship ID] [Location] [Ship ID] [Location]
CLASSIFY	[Design Code] [Design Name] [Design Rating]
COLONIZE	[Ship ID] [Location] [Name]
COMBAT	[Flagship] [Drone Target] [P-Type Target] [T-Type Target] [Min SSD for T-Type]
DECLASSIFY	[Code 1] [Code 2] [Code 3] [Code 4] [Code 5]
DEFEND	[Ship ID 1] [Ship ID 2] [Ship ID 3] [Ship ID 4] [Ship ID 5]
DESTROY	[Ship ID] [Location] [Ship ID] [Location]
DETACH	[Ship ID 1] [Ship ID 2] [Ship ID 3] [Ship ID 4] [Ship ID 5]
DEVELOP	[Ship ID] [Location] [Name]
DOWNGRADE	[Location] [Name] [Location] [Name]
JOIN	[Flagship ID] [Ship ID 1] [Ship ID 2] [Ship ID 3] [Ship ID 4]
LOAD	[Ship ID] [Quantity] [Item] [Quantity] [Item]
MAP	[Type] [Location] [Type] [Location]
MISSILES	[Location] [Quantity] [Location] [Quantity]
NAME	[What] [New Name] [What] [New Name]
PATROL	[Ship ID 1] [Ship ID 2] [Ship ID 3] [Ship ID 4] [Ship ID 5]
REFIT	[Ship ID 1] [Ship ID 2] [Ship ID 3] [Ship ID 4] [Ship ID 5]
RELOAD	[Ship ID 1] [Ship ID 2] [Ship ID 3] [Ship ID 4] [Ship ID 5]
REPAIR	[Ship ID 1] [Ship ID 2] [Ship ID 3] [Ship ID 4] [Ship ID 5]
RESEARCH	[Location] [PI] [Location] [PI]
SCOUT	[Ship ID] [Loc 1] [Loc 2] [Loc 3] [Loc 4]
SCRAP	[Ship ID 1] [Ship ID 2] [Ship ID 3] [Ship ID 4] [Ship ID 5]
SECURE	[Ship ID] [Location] [Ship ID] [Location]
SENTRY	[Ship ID] [Loc 1] [Loc 2] [Loc 3] [Loc 4]
SHIPYARD	[Sort]
SHUTTLE	[Ship ID] [Loc 1] [Loc 2] [Loc 3] [Loc 4]
STANDING	[Flagship] [Drone Target] [P-Type Target] [T-Type Target] [Min SSD for T-Type]
TO	[Ship ID] [Location] [Ship ID] [Location]
TOW	[Towing Ship ID] [Towed Ship ID] [Location]
TRANSFER	[From Ship ID] [To Ship ID] [Quantity] [Item]
UNLOAD	[Ship ID] [Quantity] [Item] [Quantity] [Item]

ACTION DESCRIPTIONS

All Actions which involve a “name” will accept 15 characters, including letters A-Z and numbers 0-9 only, with a few exceptions noted under the specific Action instructions below.

ASSIGN [Mothership ID] [Ship ID 1] [Ship ID 2] [Ship ID 3] [Ship ID 4]

Purpose: To assign a Small ship (5 SSD or less at Tech Level 1) to a hangar bay. The Mother ship must have an available hangar bay and be in the same location as the ship being assigned. The ship being assigned may not have Drones, Hangar bays, Cargo bays, or Star drives. The ship being assigned must have at least one Inertia drive. This action will cancel any previous action for the ship being assigned, since the assigned ship picks up the orders of the Mother ship.

ATTACK [Ship ID] [Location] [Max SSD]

Purpose: To order a fleet to attack a System at the given location. This action will cause the ship given and all joined and assigned ships to move to the System provided and attack. If Max SSD is either set to zero or left blank then the attack will always be made. If Max SSD is supplied and the total enemy SSD encountered exceeds this number then the attack will be called off and no engagement will occur. However, the SSD total may not be estimated accurately and the attack may be carried out or aborted unexpectedly. The enemy will be informed of an aborted attack and your ships will be in the System you wished to attack. Please note that ships that have aborted their attacks will not abort any of the defender's actions, and he may well engage you during the next fortnight if you do not depart immediately. You may ATTACK one of your own systems, to achieve a certain placement of your forces. Of course, you won't be firing on friendly ships.

BUILD [Location] [Ship Code] [Name 1] [Name 2] [Name 3]

Purpose: To build up to three new ships of the same type. All ships will be built at the location specified and all costs will be deducted from there. This location must be a Production System. The Ship Code is the four letter code you gave one of your designs or one of the Masters' ship codes (FT1, CV1J, etc.). The Name(s) are whatever you decide to name these ship(s), limited to fifteen (15) characters each. You may build up to three ships of the same design with one action and you will be charged for each ship built. The Name is required for each ship built; however, the name does not have to be unique. If you run out of PI, the remaining builds will abort.

CAPITAL [Location] [Name]

Purpose: This action will move your Capital (your Home System) to some other Production System you control. You must not be under attack at either your current Home System or the Production System you are going to move to. In other words, no enemy ships may be present in either System at the end of the fortnight (after any combat)! The optional [Name] allows you to rename your new Capital. This action costs 150 PI (from your current Home System) to execute and takes one fortnight. The PI stockpile will move with the Home System, as well as your missile stockpile. Be sure there is enough PI left in your current Capital by the end of the turn (after builds, research, etc. commands) so that the relocation can be completed.

CHART [Ship ID] [Location] [Ship ID] [Location]

Purpose: This action will move a ship (and all those assigned or joined to it) into the designated System specified by location and chart it. This will cause the System's base PV to be printed on the GALAC-TAC galaxy map and you will get a report from your charting ship. Your ship must be in the System at the end of the fortnight and no enemy ships may be present.

CLASSIFY [Design Code] [Design Name] [Design Rating]

Purpose: Adds a new ship design to your Ship Design Table. A design code may be 1 to 4 characters, your choice (A-Z and 0-9 only). Design classification names are limited to 15 characters, and may also include the characters - , ; and (space). The design rating must be constructed by the rules given in the ship design section. If the rating is invalid, this action will fail. Please note that the design code is only used when you CLASSIFY, BUILD or DECLASSIFY and is shown where ships appear on your reports. The ship ID number is assigned whenever a ship is built and should be used for all other commands.

EXAMPLE: CLASSIFY ST Station 14D+30P+5T30//

CLASSIFY can be used to replace a design rating for a given code. You must first DECLASSIFY the code (succeeds only if there are no ships currently existing of that type), then redefine the code and rating.

EXAMPLE: DECLASSIFY SC
CLASSIFY SC Scout 2P+1T5//16-16

CLASSIFY can also be used to rename the design code and design name for a given design rating.

EXAMPLE: To rename (but not change) the design of the example station above,
CLASSIFY ST1 Station1 14D+30P+5T30//

COLONIZE [Ship ID] [Location] [Name]

Purpose: To route a ship or fleet of ships to the System specified by location and begin a colonizing effort. The system to be colonized must have been CHARTed first. Make sure your ship/fleet has 10 PI aboard or is in a Production System that has enough PI in its stockpile and that your ship/fleet has enough cargo bays to carry it, otherwise this action will fail. The name will be the new name of your Colony System and is limited to 15 characters. Note that [Name] is optional. If the ship is in a Production System and does not already have 10 PI on board, it will automatically attempt to load the required 10 PI before departing. COLONIZE causes both LOAD and movement to occur.

COMBAT [Flagship ID] [Drone Target] [P-Type Target] [T-Type Target] [Min SSD for T-Type]

Purpose: This action will allow you some control over the automatic combat System. It may only be issued to a fleet/ship under ATTACK orders or that has received such an order in the same fortnight. The ATTACK action must be issued first. The various [Target] options allow you to specify what area(s) you wish a weapon type to focus on first. Target areas are specified below. Specifying a zero (or blank) in a Target field means that the indicated weapon type will select "a target of opportunity." If all Target/SSD arguments are zero or left out, then any previous COMBAT controls are cancelled. See the table below for the allowable target codes.

TARGET	DESCRIPTION
0	Target of opportunity (default target)
1	Weapons (P-Types, T-Types & Drone bays)
2	Main (Shields, Hangar Bays, & Cargo Bays)
3	Engines (Star Drives & Inertia Drives)
4	Platforms (Ships built with no Engines)
5	Attacking Drones (only Drones can use)
6	Missiles in Flight (only Drones and P-Types can use)

EXAMPLE: COMBAT 1234 0 3 2 200
 Instructs ship 1234 (and any ships JOINed to it) to direct drones to fire at any target of opportunity, target P-type weapons on engines, target T-type weapons on main components (shields, hangar bays, and cargo bays), and fire T-type weapons only if the enemy fleet initially exceeds 200 SSD.

Specifying a target area will decrease your base chance to hit by 5% for all weapon types except Drones. P-Type and T-Type weapons will search for targets of opportunity once all of the specified targets are destroyed. Drone targets are slightly different, however. Specifying a Drone target will make it "blind" to other targets once the specified targets are exhausted.

[Min SSD] for T-Type weapons will allow you to decide the minimum SSD (this is the total SSD of the enemy ship/fleet) before your T-Types open up (and expend ammunition). Since this is a snap decision, the enemy SSD is estimated and this could cause a false firing or no firing of missiles.

DECLASSIFY [Code 1] [Code 2] [Code 3] [Code 4] [Code 5]

Purpose: To eliminate obsolete designs from your shipyards. All that is needed is the code of the design you wish removed from your shipyard. This action will fail if you have any ships still in your fleet of that design.

DEFEND [Ship ID 1] [Ship ID 2] [Ship ID 3] [Ship ID 4] [Ship ID 5]

Purpose: To lock down a ship/fleet in defense of a System. This action does not move the ship/fleet. Make sure they are in the System you wish them to DEFEND before issuing this action. You may fine-tune the defensive posture with the STANDING action.

TIP: If an invading fleet is "in system" at the beginning of a fortnight, it can be issued DEFEND (and STANDING) actions even though the System belongs to someone else. This means that it is possible for there to be multiple fleets from different Empires in the same System (after living through a combat) - all with DEFEND orders!

DESTROY [Ship ID] [Location] [Ship ID] [Location]

Purpose: To destroy an enemy Colony/Production System. This action will attempt to load 20 PI, and will fail if insufficient PI is available or if the designated ship/fleet has insufficient cargo space. If successful, the ship/fleet will move to the location specified and destroy it (providing that no enemy ships stop it!) It is not possible to destroy your own Systems. Use the DOWNGRADE action for this purpose. Please note that if DESTROYING a Colony, only 10 PI of the 20 PI required are used during the destruction. Nevertheless, 20 PI must be available in order for the DESTROY to be attempted.

TIP: If the ships carrying the required PI are SCOUTed into the target System successfully by the fortnight before you attack, then it is possible to issue them DESTROY orders on the same turn that you ATTACK or SECURE the System using other ships/fleets. Remember though, in order for the DESTROY to be successful there may not be ANY enemy ships present AT THE END OF THE TURN. (This is because combat occurs after the [M]ovement phase and DESTROYs occur during the [A]fter phase). Note that there is some risk involved in SCOUTing the ships in early: If they are discovered by a PATROL or SENTRY, the ships (or at least their cargo) may be destroyed or damaged too badly to complete the DESTROY. Also, discovering an enemy SCOUT that is loaded with PI would likely be considered a clear act of aggression and will "tip your hand" to your intended target.

DETACH [Ship ID 1] [Ship ID 2] [Ship ID 3] [Ship ID 4] [Ship ID 5]

Purpose: To detach ship(s) from a fleet or cancel previous orders. This action reverses the effect of the JOIN action with one subtle difference. If the ship provided is the flagship of a sub-fleet, all ships joined to it will stay with the main fleet (i.e. they will JOIN to the ship that the former flagship was joined to). This action will work on different ships at once in different locations. If the ship detached was the flagship of the main fleet (i.e. there is no other ship for the other ships to JOIN to, the fleet will break up and each ship will separately follow the last order received for the fleet. The ship given the DETACH order will have the last order received as NONE. You may also DETACH hangared ships from their mother ship (reversing an ASSIGN order) and they will then be loose in their current location and their orders set to NONE. As one additional feature, if individual ships (not part of a fleet) are DETACHED, their orders are simply set to NONE and no other action is taken.

DEVELOP [Ship ID] [Location] [Name]

Purpose: To turn a Colony System into a Production System. This action otherwise is identical to the COLONIZE action except that it requires more PI! It costs 30 PI to DEVELOP a System. [Ship ID] specifies the ship in charge and [location] is the System to be developed. Make sure your ship/fleet has enough PI or is in a Production System that has enough PI in its stockpile and your ship/fleet has enough cargo bays to carry it, otherwise this action will fail. The name may be used to rename the newly formed Production System and is limited to 15 characters.

TIP: It is not necessary to specifically LOAD the ship/fleet used for the DEVELOP with PI, or move it TO the target colony if the ship/fleet is in a Production System when the action is issued. DEVELOP causes both LOAD and movement to occur.

DOWNGRADE [Location] [Name] [Location] [Name]

Purpose: To turn a Production System into a Colony System. This action can be used on any Production System (excluding your Home System) at any time. There are two exceptions: the first being that your Home System must not be under attack, and the second that the System being downgraded is not under attack. Use of this action will eliminate all ships under construction, the PI stockpile, current production for the turn in which the action is issued and the missile stockpile at the location specified. Be warned that any SHUTTILING ships normally UNLOADing PV at the Production System will cease doing so and will attempt to LOAD it instead. If such shuttles are not rerouted, they will likely fill up and collect no more PV.

JOIN [Flagship ID] [Ship ID] [Ship ID] [Ship ID] [Ship ID]

Purpose: To cause a ship to join with another to form a fleet. When ships are in a fleet, issuing one order to the flagship will cause it, and all ships joined to it, to perform the order. The first ship ID is the [Flagship], the second and following ship IDs are ships that wish to JOIN the fleet. Any ship can be a flagship. To take a ship out of a fleet, issue it a new order or use the DETACH action. The fleet will always move at the speed of the slowest ship in the fleet. Be careful after combat – ships with damaged engines can slow down the entire fleet!

If a fleet is JOINed to another fleet, all ships will perform the orders of the main flagship but will not lose their own fleet status. Hence you can issue a single attack action for a combined fleet and separate Combat actions for each sub-fleet (or each individual ship).

LOAD [Ship ID] [Quantity] [Item] [Quantity] [Item]

Purpose: To load cargo aboard any ship equipped with cargo bays. [Ship ID] is the ship to be loaded. [Quantity] is the number of items to be loaded. [Item]s may be: PV, PI, or MISSILES. Items come from the star system where the ship is currently located.

EXAMPLE: LOAD 1805 10 PI 10 MISS; would put 10 PI and 10 Missiles (may be abbreviated) aboard ship 1805, providing it had 20 cargo bays available. Otherwise, it would load as much as it could.

One cargo bay can carry 1 PV, 1 PI, or 1 Missile.

MAP [Type] [Location] [Type] [Location]

Purpose: Generates a map of stars in your galaxy. [Type] can be WHOLE, QUAD (quadrant), or PV. The map will be centered on the [Location] given. If the location is left blank, a WHOLE map will not be centered (it will show locations from 00-00 to 99-99) and a QUAD or PV map will be centered on your Home System. The map contains the latest information about your Empire.

A WHOLE map displays the entire galaxy at once (100 by 100) with very small symbols. A QUAD or PV map displays only the area surrounding the Location (center point) for a distance of 25. A PV map shows base PV for all charted Systems while a QUAD map displays symbols for Colony and Production Systems and shows PV for other systems you have charted. A legend for these and other symbols will be printed on the map. You may request up to two Maps with a single action if you so desire.

A special command, MAP QUAD QUAD, will create four map pages covering the whole galaxy.

MISSILES [Production System] [Number] [Production System] [Number]

Purpose: Will cause missiles to be built (at the current Empire Tech Level) and stockpiled at the System given. Number is the number you wish built. The cost is 1 PI per missile, regardless of Tech Level. If the System does not have enough PI to build that many, the System will build as many as possible. You may order missiles to be built at two Production Systems with a single action if you so desire.

NAME [What] [New Name] [What] [New Name]

Purpose: Names a System or Ship. [What] must be specified as either a System location (xx-yy) or as a ship code (xxxx). Note that you must own a System in order to name it (i.e. must be Colonizing, a Colony, Developing, a Production System, or a Home System). [New Name] may not exceed 15 characters.

[What] may also be specified as the text "Empire", especially for the first turn of the game. This assigns your required empire name, with a maximum size of 30 characters. Your empire name may also include the characters ' " . , - _ : ; / \ @ # \$! () [] { } and (space). It may also be used as desired later in the game to change your empire's name, but everyone who knows the old name will also be informed of the name change, this can't be used to hide under a pseudonym.

EXAMPLE:

NAME 05-27 SAMPLE

- Would (re-)name the System located at 05-27 to be "SAMPLE".

EXAMPLE:

NAME 1201 DEFIANT

- Would (re-)name ship 1201 to be "DEFIANT."

PATROL [Ship ID 1] [Ship ID 2] [Ship ID 3] [Ship ID 4] [Ship ID 5]

Purpose: Puts a ship/fleet on defensive patrol. This is not a movement action; make sure the ship is in the System you wish to patrol. See the combat section for further information on this action. Note that the chance to catch a scout depends on the number of inertia drives this ship has. While a platform has no chance of its own, any hangared ships on that platform or ships JOINed to it will have a chance to catch any scouts.

NOTE: Once a SCOUT has been discovered by a PATROL, all "friendly" warships in the System that are under DEFEND, PATROL, SENTRY, or SECURE orders will help remove it. See the combat section for further clarification.

REFIT [Ship ID 1] [Ship ID 2] [Ship ID 3] [Ship ID 4] [Ship ID 5]

Purpose: Will raise a ship/fleet to your empire's current Tech Level. Cost equals the SSD of the ship multiplied by the number of Tech Levels difference between your current Tech Level and the Tech Level of the ship being REFITTED. A REFIT is always to the current Tech Level. The ship/fleet must be in a Production System. Damaged ships may not be REFITTED until after they have been REPAIRED.

RELOAD [Ship ID 1] [Ship ID 2] [Ship ID 3] [Ship ID 4] [Ship ID 5]

Purpose: Will cause a ship to reload all T-Type Missiles. This depends on the ship/fleet location. If it is in a Production System, they will reload from the stockpile. If not, they will reload from cargo (their own) and then search all ships that are a part of their fleet if they need more missiles.

REPAIR [Ship ID 1] [Ship ID 2] [Ship ID 3] [Ship ID 4] [Ship ID 5]

Purpose: To repair a ship to its classification rating. The cost is variable depending on the amount of damage that the ship has received. The cost can be determined by taking the current SSD value of the ship and subtracting it from its original SSD rating. This is the amount of PI required to REPAIR the ship. REPAIR will take PI from the PI stockpile first (if you are located in one of your Production Systems) and then search all ships that are a part of the fleet if it needs more PI. Engines are therefore repaired for free since they are not part of the SSD calculation and may have only taken minor damage before becoming inoperable, but they still require repair work.

RESEARCH [Location] [PI] [Location] [PI]

Purpose: To increase Tech Level. This action will cause a Production System to expend PI for the Empire's R&D effort. All PI expended applies toward your Empire's total, regardless of which Production System contributed. Tech Level increases according to the amount of PI invested. There are thresholds for each Tech Level that vary from game to game. You will not know these thresholds; however, a table of approximate research thresholds is listed under the section on Tech Level. You may specify up to two Production Systems with a single action if you so desire.

SCOUT [Ship ID] [Loc. 1] [Loc. 2] [Loc. 3] [Loc. 4]

Purpose: Will allow one of your ships an exciting opportunity! It will be able to move into a Star System and look for trouble. The information it returns depends on whether or not it succeeds. If it does, you will find out the number of enemy ships in that System, the enemy fleet's total SSD, and the size of the largest ship observed. The enemy will only know that they have been scouted if they have a PATROL or SENTRY that catches the scout. Remember that other scouting ships are invisible to your scouts. The second through fourth locations are optional. If provided, the scouting ship will continue to the next location on your next turn until destroyed, or it reaches the last system, where it will simply remain in SCOUT until given something else to do.

SCRAP [Ship ID 1] [Ship ID 2] [Ship ID 3] [Ship ID 4] [Ship ID 5]

Purpose: This action will scrap the ship/fleet specified. It returns 80% of the ship's original value (less one PI per SSD of damage) to the stockpile if the ship/fleet is at a Production System, otherwise the ship is abandoned in deep space and no PI is returned. You may also scrap ships currently under construction with a prorated return on your investment. Any cargo on board is unloaded first (you get 100% credit for it, just like UNLOAD). ASSIGNED ships will be scrapped with their carrier unless you issue them a DETACH action first.

SECURE [Ship ID] [Location] [Ship ID] [Location]

Purpose: Will cause a ship and all ships joined or assigned to it to move to the location provided and attack. If combat lasts longer than ten rounds, you will be able to issue surviving ships new actions for the next fortnight. See the section on COMBAT for more details. This command allows up to two SECURE actions to be specified on one action line.

SENTRY [Ship ID] [Loc. 1] [Loc. 2] [Loc. 3] [Loc. 4]

Purpose: Will put a ship/fleet on a sentry run between up to four Systems. A ship/fleet on a sentry run will move from System 1 to 2 to 3 to 4 and back to 1, moving to the next System in the sequence with each fortnight. In the case above, it will take four fortnights (turns) before the ship comes back to its first location. It will have a chance to catch SCOUTING ships in each location it passes through; however, it has less of a chance than an established PATROL. This action continues until cancelled or until the sentry ship/fleet is destroyed.

SHIPYARD [Sort] [Sort] [Sort] [Sort] [Sort]

Purpose: Will print out a shipyard report. Essentially it contains all current ship designs and current design limitations. Up to five different reports may be requested. [Sort] can be any of the following:

SORT	DESCRIPTION
SSD+	SSD, ascending
SSD-	SSD, descending
NAME	Design Name, ascending
CODE	Design Code, ascending

If the sort chosen is illegal, or not provided, the report will print by SSD, ascending. This report will also show you the total number of ships built with each design, the total number of each design still in service, and your current Tech Level limitations.

SHUTTLE [Ship ID] [Loc. 1] [Loc. 2] [Loc. 3] [Loc. 4]

Purpose: Will put a ship on a shuttle run between up to four Systems. A ship on a shuttle run will move from System 1 to 2 to 3 to 4 and back to 1, moving to a new System with each fortnight. In the case above, it will take four fortnights (turns) before the ship comes back to its first location. It will LOAD PV in any non-Production System and UNLOAD it in a Production System (including Home Systems). Hence, at least one of the Systems given must be a Production System, and another be a non-Production System, or this action will fail. This action continues until cancelled or until the cargo ship is destroyed.

EXAMPLE: Given a production system (85-23), a colony system (99-15) and a cargo ship in 85-23;

SHUTTLE 2201 85-23 99-15 - will cause the cargo ship to sit idle for a fortnight, move to 99-15 on the next fortnight, load PV then move to 85-23 on the next fortnight, unload PV then move back to 99-15 on the next fortnight, etc.

SHUTTLE 2201 99-15 85-23 - will cause the cargo ship to move to 99-15 this fortnight, where it will load PV then move to 85-23 on the next fortnight, unload PV and move back to 99-15 on the next fortnight, etc.

SHUTTLE 2201 99-15 99-15 85-23 - will cause the cargo ship to move to 99-15 on this fortnight, load PV and remain at 99-15 on the next fortnight, load PV again (if enough Cargo Holds are available) then move to 85-23 on the next fortnight, unload PV and move to 99-15 on the next fortnight, etc.

STANDING [Flagship ID] [Drone Target] [P-Type Target] [T-Type Target] [Min T-Type SSD]

Purpose: Provides combat instructions to fleets with DEFEND orders. It is otherwise identical to the COMBAT action.

TO [Ship ID] [Location] [Ship ID] [Location]

Purpose: To simply move a ship/fleet to a new location. This is neither a hostile nor a cautious movement.

NOTE: Movement can be requested that exceeds the ship's movement capability. In this case, the ship will move in a straight line as far as possible along the shortest route and then continue movement (if an intervening combat does not stop it) in the next fortnight, without your issuing it another action. This property applies to all movement actions. The second Ship ID and Location allow you to specify another ship to move.

TOW [Towing Ship ID] [Towed Ship ID] [Location]

Purpose: To allow a ship to move another ship, for whatever reason (usually because the second ship is badly damaged). [Towing Ship ID] is the ship that will tow the other. [Towed Ship ID] is the ship being towed, and [Location] is the destination System. A ship that is towing or that is being towed can perform no other action. A towing ship moves at one half of its current movement rating. A ship can tow another ship whose pre-damage SSD does not exceed its own current SSD. You can cancel this action by giving either ship a new action. It will cancel automatically once completed.

TRANSFER [From Ship ID] [To Ship ID] [Quantity] [Item]

Purpose: To transfer cargo between ships. [From Ship ID] is the ship giving the cargo. [To Ship ID] is the ship receiving the cargo. [Quantity] and [Item] are the same as in the LOAD action, above. When moving cargo between ships, then both of them must be in the same System. In addition, the receiving ship must have enough cargo bays to accomplish the transfer.

UNLOAD [Ship ID] [Quantity] [Item] [Quantity] [Item]

Purpose: To unload a ship. This is similar to the LOAD action except in reverse. Items are unloaded to the Star System stockpiles. PV and PI can only be UNLOADED at a Production System.

REPORTS

There are four GALAC-TAC reports used for playing the game. Your main report is the Economic/Fleet status report. This report consists of several subsections and is available to you each turn along with any Shipyard reports and/or Maps that you may have requested or reports of any Combats where you survived. The purpose of these reports is to keep you abreast of what is happening in your Empire. With the exception of the first turn, neither a Shipyard report nor any Maps will be sent to you unless you specifically request them by using an action during your turn. The Shipyard report shows all of your current ship designs and current Technological Limitations. The Map report contains all of the various maps that you have requested. Each map is up-to-date with all your current information. Note that these reports are useful, but not necessary every turn; hence the need to specifically request them. A Combat report will be generated and included automatically any time ships from your Empire are involved in a battle and survive. Be aware, however, that you will not receive a combat report from any battle where all of your ships were destroyed. As they say, "Dead men tell no tales." These ships are simply reported as "missing".

ECONOMIC/FLEET REPORT

This report will show you everything about your Empire. It is prefaced with an action summary and status page showing the results of all current actions and activities. All controlled Systems are then shown with all data that applies to them. Production Systems have several data lines that appear, and each is explained in the following paragraphs. If there is no information available, the line will not print.

EXAMPLE:

```
10-54 My Home World 10(100) PV, 432 PI, 2 M Home System
```

The System status line shown above will always print for each System you own. The location is the first thing that prints, followed by the System name. If you have not named your System, "Unnamed Star System" will print. You may name your System with the Colonize, Develop, or Name action. The Base PV (10 in the above example) will be shown followed by the total PV the System generates in parentheses. Since this is a Home System, the base is multiplied by 10. Next, in the case of Production Systems, is the PI stockpile. The "M" represents the missile stockpile. The System status is last. This will show Colony, Production, or Home System and a "Being Destroyed!" or "Under Attack!" message if and when it applies.

```
Empire Valuation: 98th percentile
```

The Empire Valuation prints next. This is only shown once, under your Home System. This is the total worth of your Empire as compared to the "leader". (The leader will be shown as 100%.)

Research: 1,250 PI expended, Current Tech Level is 2

The research data line prints next and is also shown under the Home System only. It will always show you the total research amount and your current Tech Level. If you have not issued a RESEARCH action, this line will not print.

Imports: 124 PV en route

The Imports line will only print when you have shuttling cargo ships. This line will only print under Home/Production Systems. The amount of PV shown is the total of the full cargo bays inbound. These ships are currently at the Colony Systems or en route to the Production System. This is not a count of what is sitting in your Home/Production System on freighters that have not yet unloaded.

Dry dock: 1901 ST GUARDIAN due 3501-01 Tech 1, 75% complete
1303 CT MEGAHAUL due 3500-15 Tech 2, 50% complete

The Dry dock report section prints next, but only if you have large (>10 SSD, multi-turn delay) ships under construction and only for Home/Production Systems. This will show you the ship number, code, name, completion date, Tech Level and percent complete. The only action that works for a ship under construction is SCRAP.

After this, all ships in this System will print out. Line one of each ship contains current location (if it isn't listed under a system you own), ship code, name of ship, current rating, SSD, and current orders. If the rating has an "@" with a number following it, it means that the ship has a lower Tech rating than your Empire (see REFIT above). If there are any hangar bays on the ship, line two will print the number of hangar bays available, and the ship number(s) of currently assigned ships. If cargo bays exist and are not empty, line three will print the number of cargo bays available, and the amount of PI, PV, or Missiles on board. Line numbers mentioned are to show sequence only. Remember that if it does not apply, a data line will not print.

If the ship is on a shuttle run, a Shuttle line will print showing the route the ship is following. The COMBAT/STANDING orders will print next, if you have issued those actions to this ship/fleet. There is also a Refit/Repair/Reload data line for fleets which details the cost of those actions for the fleet if applicable (which can save you a considerable amount of effort calculating it yourself).

When a flagship is listed, all ships JOINed to it will print following the flagship. Groups of JOINed ships identical to their flagship will only be listed by ship number.

Once all Production Systems have printed out, the Colony Systems will be printed. After that, all ships will be grouped by their location, including ships in deep-space.

GALAC-TAC GALAXY MAP

This is simply a printout of the galaxy, from your Empire's perspective. A legend will be printed on the map to help you find your way around. There are a variety to choose from, but the quadrant map centered on the Home System is usually found to be the most useful in the early stages of the game.

You are provided two maps (one galaxy, one quadrant) on your first turn. This will be the only turn you receive with maps automatically printed.

SHIPYARD REPORT

This lists all of your custom designs and other information (such as the number of ships built with each design and the number of each design still in service). It also shows your current Tech Level limitations.

COMBAT REPORT

This describes any hostile encounters you may have had, providing at least one of your ships survived the encounter in order to be able to report! It will show before and after status of each ship involved in the battle, both your own and enemy vessels.

SUBMITTING TURNS FOR PROCESSING

Turns for Galac-Tac are submitted by typing them into the form provided on the Talisman Games web site, by uploading them via a third-party utility program, or by writing them down and mailing them to Talisman Games. Galac-Tac does not actually process the turns until the turn deadline has expired.

PLAY BY WEB

The web site will accept actions up to the end of the due date. In other words, if the turn is due on the 12th of November, you can submit actions up until 11:59 PM on that date, but we will allow you to use your local time zone for the determination of the time. If we do not receive your actions in time, your turn will process without the benefit of your direction. Please do not push the deadline – the game system processes automatically and there may be Internet or web site difficulties preventing access at the last minute.

Each time you go to the action page on the web site, it will show you all of the actions that you have submitted for this turn. If you find an error, you can edit and re-save your actions. However, once the turn begins processing, your submission can no longer be changed.

Talisman Games [Galac-Tac Overview](#) | [Galac-Tac Galaxy](#) | [Contact Us](#)

Action Input

Galac-Tac Galaxy #13 Expertus Astrum

Save Changes Save and Exit

	Action name	Argument #1	Argument #2	Argument #3	Argument #4	Argument #5
1	Build	34-11	FX	Freighter		
2	Build	34-11	SC1	Scout	Scout	Scout
3	Scout	1523	45-23	48-30	52-25	55-40
4	Shuttle	1010	38-15	34-11		
5	Chart	1524	55-44	1525	60-23	
6						

Once the turn processes, the reports are available to view or print from your Galac-Tac galaxy detail page. The actions page will be empty after processing, ready for new actions for the next turn.

PLAY BY MAIL

Postal mail actions must be received by Talisman Games on or before the due date. Since the postal service can be unreliable on occasion, it is recommended that you mail your action sheet well before the deadline, just to make sure it arrives here on time. Your written orders will be entered into the system as accurately as possible.

NOTE: For those using this extra-cost paper mail service, reports will be printed and mailed on the same day that the turn has processed, so it will get to you as quickly as possible. Be sure to keep a high enough balance in your gaming account so that turn charges may be deducted at this time. Insufficient funds will cause your turn not to be mailed to you until the situation is corrected.

Galac-Tac Turn Input Sheet
Due Date: Sunday October 24, 2021

For Galaxy #99, Turn #999
John Doe (#99)
Grand Fenwick (#99)

Send To: Talisman Games
P.O. Box 861147
Plano, TX 75086-1147

#	Action	Argument #1	Argument #2	Argument #3	Argument #4	Argument #5
1	BUILD	23-64	DDI	PT-110		
2	BUILD	23-64	ST20	Station1	Station2	
3	CHART	1503	25-23			
4	COLONIZE	1003	35-42	Mars II		
5	ATTACK	4017	70-63			
6	JOIN	4103	4104	4105	4106	
7	SCOUT	1505	21-25	28-30	32-40	
8	SECURE	3118	35-42			
9	LOAD	1010	10	PI		
10	COLONIZE	1010	28-27			
11	SHUTTLE	2402	37-50	23-64		
12						
13						
14						
15						
16						
17						
18						
19						
20						

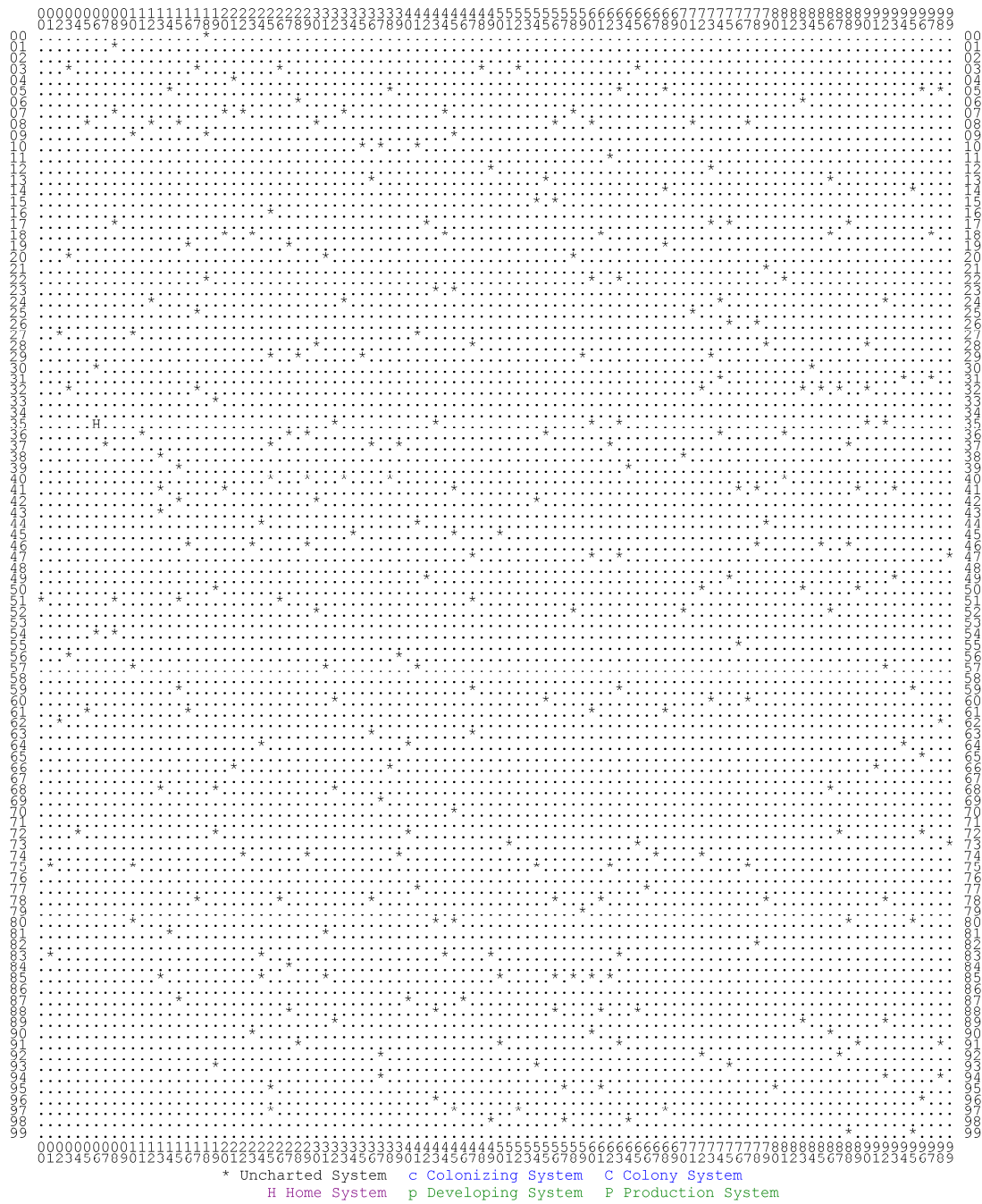
ECONOMIC/FLEET REPORT

3500-01

35-06 Unnamed Star System		100 (10) PV, 500 PI	Home System
Empire Valuation: 100th percentile			
1001 FX	Freighter	/;;10/20-1	2S None
	Cargo: 10 PI		
1002 FX	Freighter	/;;10/20-1	2S None
	Cargo: 10 PI		
1003 FX	Freighter	/;;10/20-1	2S None
	Cargo: 10 PI		
1004 FX	Freighter	/;;10/20-1	2S None
	Cargo: 10 PI		
1005 FX	Freighter	/;;10/20-1	2S None
	Cargo: 10 PI		
1006 FX	Freighter	/;;10/20-1	2S None
	Cargo: 10 PI		
1007 FX	Freighter	/;;10/20-1	2S None
	Cargo: 10 PI		
1008 FX	Freighter	/;;10/20-1	2S None
	Cargo: 10 PI		
1009 FX	Freighter	/;;10/20-1	2S None
	Cargo: 10 PI		
1010 FX	Freighter	/;;10/20-1	2S None
	Cargo: 10 PI		
1501 SC1	Scout Ship	//19-1	1S None
1502 SC1	Scout Ship	//19-1	1S None
1503 SC1	Scout Ship	//19-1	1S None
1504 SC1	Scout Ship	//19-1	1S None
1505 SC1	Scout Ship	//19-1	1S None
1506 SC1	Scout Ship	//19-1	1S None
1507 SC1	Scout Ship	//19-1	1S None
1508 SC1	Scout Ship	//19-1	1S None
1509 SC1	Scout Ship	//19-1	1S None
1510 SC1	Scout Ship	//19-1	1S None
2201 SK1	Skirmisher	2P//11-1	2S None
2202 SK1	Skirmisher	2P//11-1	2S None
2101 ST1	Station	20P/20;;/	40S Defend
	Also in fleet: #2102		+40S
2001 CV1J	Carrier, Jeep	4P/4;4;/14-14	10S Patrol
	Hangars: FT1#1601, FT1#1602, FT1#1603, FT1#1604		+20S

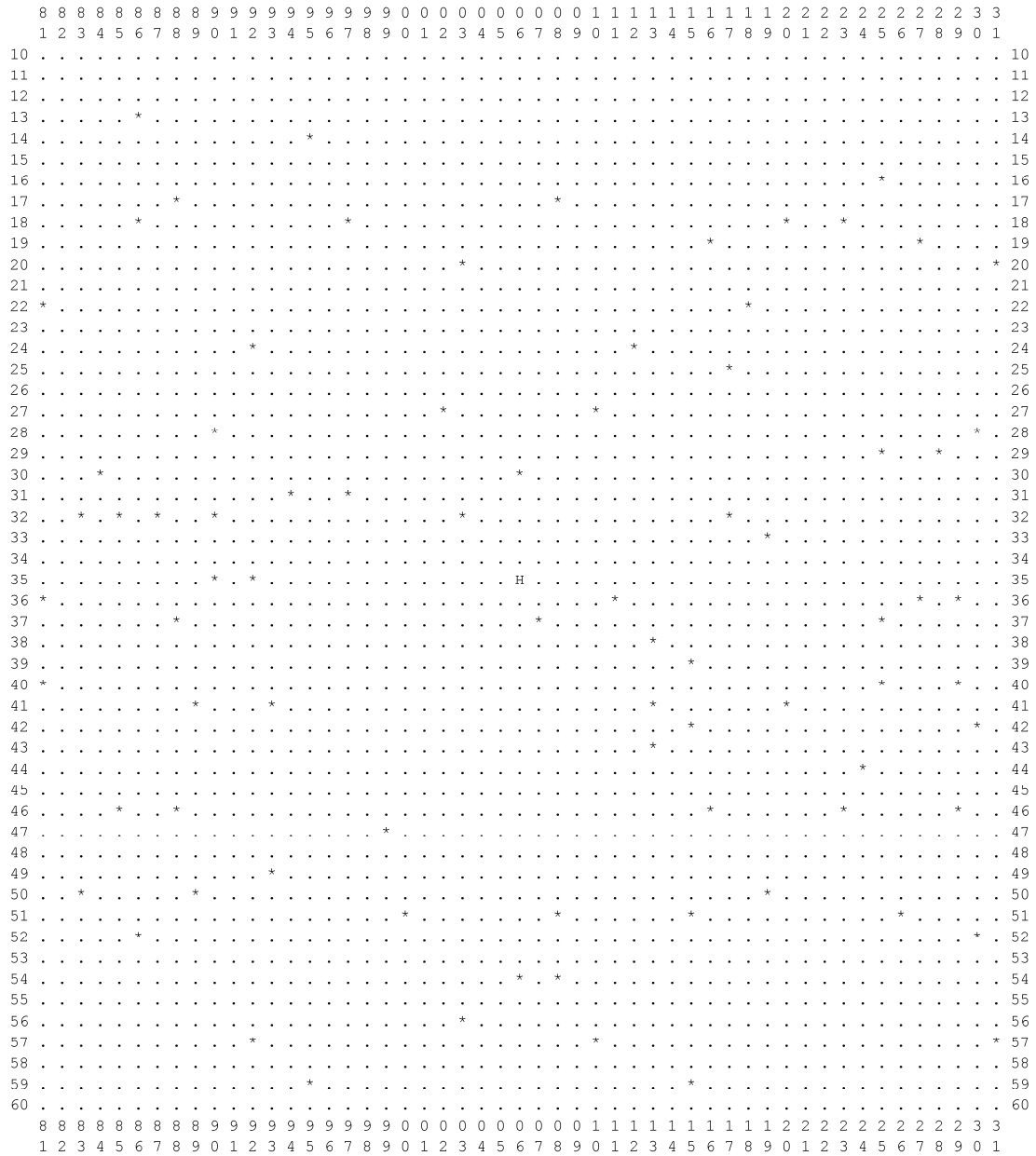
GALAXY OVERVIEW CENTERED
ON 51-51

3500-01



MAP CENTERED ON 35-06

3500-01



* Uncharted System c Colonizing System C Colony System
H Home System p Developing System P Production System

SHIPYARD REPORT

3500-01

Ship design limitations at Tech Level 1

SSD		Engines		SSD		Engines	
Min	Max	Star	Iner	Min	Max	Star	Iner
1	2	30	20	3	5	24	16
6	10	21	14	11	15	18	12
16	25	15	10	26	30	12	8
31	35	0	8	36	75	0	0

Maximum ship size for hangar bay: 5

Maximum P-types allowed per ship: 30

Total number of ships in empire: 29

Current ship designs of your empire

#	Code	Classification	Ship Rating	SSD	Cost	Delay	# Built	# Active
6	SC1	Scout Ship	//19-1	1	4	1	10	10
1	FX	Freighter	/;/10/20-1	2	9	1	10	10
10	CV1A	Carrier, Light	/;4;/20-1	2	11	1	0	0
13	SK1	Skirmisher	2P//11-1	2	7	1	2	2
2	FXV	Freighter	/;/15/16-1	3	12	1	0	0
3	FXX	Freighter	/;/20/16-1	4	16	1	0	0
4	FXXV	Freighter	/;/25/16-1	5	20	1	0	0
7	FT1	Fighter	4P/1;/-16	5	21	1	4	4
8	FF1	Frigate	3P/2;/;/16-16	5	34	1	0	0
5	FXXX	Freighter	/;/30/14-1	6	21	1	0	0
9	DD1	Destroyer	6P/4;/;/14-14	10	59	1	0	0
11	CV1J	Carrier, Jeep	4P/4;4;/14-14	10	61	1	1	1
12	ST1	Station	20P/20;/;/	40	42	4	2	2