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## Introduction

"War is not just about defeating your enemy on the field of battle. A war can just as easily be won by averting it via diplomatic means, building super weapons designed in secret by your brightest minds, being the best at knowing other people's secrets, earning economic dominance on the floor of a stock exchange, on the assembly lines at your factories, or within the cavernous interiors of mighty shipyards. But, in the end, the matter of galactic supremacy must be settled one way or another. Cry havoc and let slip the dogs of war..."

This book serves as an introduction to the Victory by Any Means (VBAM) Campaign System, a set of strategic gaming rules that allow players to wage war across the stars, pitting interstellar empires against one another in a battle for economic, military, and political dominance.

But what is a campaign? These rules define a campaign as a strategic gaming environment of the classic 4 X style in which players use their empires' forces to explore, expand, exploit, and exterminate in a science fiction setting.

The VBAM Campaign System offers players a modular set of campaign rules with a level of complexity that can scale based on the players' preferences. When setting up a new campaign, players decide for themselves which rules to use for that game; they are not forced to use all of the rules found in this book if they don't want. Furthermore, players can choose to omit or even replace entire campaign "modules" if they think that will improve their game play experience. This modularity is especially useful when players want to integrate the VBAM Campaign System with their favorite tactical combat systems. If your preferred rule set already includes rules for unit construction and research, you can continue to use those rules with only simple modifications to resolve how they interact with the basic campaign rules.

Another advantage of the VBAM Campaign System is that it provides players with a strategic combat resolution engine that can be used to quickly resolve both space and ground combat scenarios as they occur during the game. This allows players to either not use a separate tactical system at all if they don't want to, resolving all combat encounters with the included strategic combat rules, or they can use the strategic combat rules to resolve battles that wouldn't be fun to play out using tactical combat
rules. The average strategic combat scenario can be resolved in less than ten minutes, and the smallest may require six or fewer die rolls.

While the rules in this book may seem overwhelming at first glance, please keep in mind that the book contains multiple layers of complexity, and most players will not utilize all of these rules in any of their campaigns. In fact, most campaigns will only use a fraction of the rules included in this book at any one time.

## L.O Getting Started

## I.I Required Materials

Players are required to have access to both this book (which you already have) and a collection of polyhedral dice. You will need a pair each of six-sided (D6) and ten-sided (D10) dice along with a twenty-sided (D20) die to play this game. At least two D10 dice are required because many rules require the player to roll a D100 (percentile die) against a target number. When asked to roll a D100 or percentile die, the player should instead roll one D10 die for the tens place and the other D10 for the ones place. For example, if the tens die rolls a 4 and the ones die rolls an 8, then the final result on the D100 roll is 48 . Rolling two 0's produces a result of 100 .

Players also require pencils, paper, and all of the other paraphernalia required to record and track information during the game. Some sample record sheets are included in the appendices, but players should feel free to create new forms or use other methods of tracking their relevant campaign and empire information in whatever form they find easiest or most intuitive.

Perhaps the most important asset players will need to have available is time. Strategic campaigns can take days, weeks, months, or maybe even years to run to completion depending on how often the players can meet or otherwise submit and process their turn orders. Players should consider how much time they have available when deciding on the size and scope of the campaign they are going to participate in.

## I. 2 Recommended Materials

While a campaign can be successfully run using nothing more than pen-and-paper, it is obviously much easier to track campaign information and make calculations on the fly using electronic aids such as word processors and spreadsheets. This is especially true for players that find themselves overwhelmed by the concept of running a campaign completely by hand. Players that have access to a laptop, netbook, or tablet can very easily bring these electronic aids to the gaming table.

[^0]
## I. 3 Rules References

All of the campaign rules found in this and other Victory by Any Means Campaign System products use a numeric numbering system to uniquely identify and reference each major rule or topic in a book. Each of these numeric rule identifiers begins with the number of the chapter where the rule is located followed by the specific section and sub-sections. For example, the current section is "1.4 Rules References," which indicates that "Rules References" is located in the fourth numbered section of the first chapter of this book.

References to rules found in other campaign supplements are preceded by a unique two- to three-character abbreviation that indicates the name of the book in which the specified rule can be found. Refer to the list of products and their related abbreviations provided below.

| Product Name | Abbreviation |
| :--- | :---: |
| Campaign Guide | CG |
| Campaign Companion | CC |
| Menagerie | MG |
| Engineering Manual | EM |
| Those Who Serve | TWS |

## I. 4 Optional Rules

Any rule in this book that has a delta (" $\Delta$ ") symbol after its heading is an optional rule that players can choose to use or ignore when they play a campaign. These optional rules are included alongside the relevant standard rules to which they apply. Optional rules usually introduce advanced concepts that may not be appropriate to every campaign setting or that might only appeal to specific groups of players.

Players must agree on which optional rules are going to be used in a campaign before it starts. It's best to create a list of all of the optional rules that are being used in a campaign and have it available for players to reference during the game.

The following is a list of all of the optional rules that are included in this book:
[insert list here]

## I. 5 Campaign Moderation

The Victory by Any Means Campaign System can be run either by a single neutral arbiter, called a Campaign Moderator or CM (moderated campaigns); or as a collective effort by all the involved players (unmoderated campaigns). Before starting a new campaign, players must decide which of the two options will be used in their game. The advantages and disadvantages of both choices are discussed in this section.

## I.5.I Moderated Campaigns

A campaign moderator (CM) is responsible for organizing and managing the campaign in a moderated campaign. This individual's primary duty is to collect and process the players' turn orders and then report the results back to his players so that they can begin writing new orders for the next campaign turn.

One of the largest advantages of the moderated campaign is that it allows for players to operate under a fog of war that forces them to gather intelligence on their opponents or risk being left in the dark. Because the CM is responsible for processing the players' turn orders, the players themselves will only be provided with the information that their faction has access to. Compare this to an unmoderated campaign where player orders are publicly declared each campaign turn.

Another perk of playing in a moderated campaign is that your CM has the ability to string together otherwise unrelated campaign events to form an overarching campaign storyline, plot, or narrative. This infusion of imagination on the part of the CM can increase the tension and intensity of action within the campaign. For example, let's suppose that several player empires have begun finding mysterious ancient ruins, remnants of some alien civilization, on a number of planets. Normally the random discovery of these ruins (a special trait from the Campaign Moderator's Companion) would be just that: random. However, the CM could craft a story that connects these disparate ruins and then provide hints or clues as to what happened to the vanished civilization that built them. The culmination of their storyline might be that the force that wiped out these colonies is returning... or maybe it was a complex alien bio-weapon, a deadly contagion that will infect the populations of the empires now rummaging through the ruins? The CM has broad liberty to incorporate these kinds of game play elements into a campaign.

When resolving turn orders and generating new campaign turns, the CM should adhere to the written campaign rules except as modified by any special scenario or house rules used in the campaign. Players should feel free to query the CM in circumstances in which they feel that a rule isn't being applied correctly, fairly, or uniformly. There are enough "moving parts" within these campaign rules that it's easy for either the player or CM to make a mistake, and these kinds of challenges are a healthy part of the gaming experience. However, the CM is the final arbiter in the campaign and once he has ruled on an issue (hopefully after having polled his players for feedback and consulting the relevant campaign rules) the issue should be considered settled. That being said, CMs should be careful to avoid capricious, off-the-cuff decisions as it will almost certainly alienate their players and can ultimately derail the game.

## I.5.2 Unmoderated Campaigns

Players can choose to run a campaign without the aid of a neutral moderator. In this case, most (but not all) fog of war aspects are eliminated from the game and the campaign is run in a very "open-handed" fashion in which very little information is actually secret. This lack of secrecy is a necessary evil in an unmoderated campaign as it is required to make sure that all players are following the rules. This is not to say that you should suspect that your opponents are actively cheating when playing without a CM we would hope that you are gaming with trustworthy players! - but honest mistakes are possible and even likely, especially when players are first learning the rules. By making game play and turn resolution as transparent as possible the players will be able to catch any rules errors quickly enough to prevent them from having a major effect on the game.

Players in an unmoderated campaign secretly draft their turn orders during the Turn Orders Phase just as they would in a moderated campaign. However, rather than handing these orders over to a CM to be processed, the players instead wait until everyone's turn orders are completed (or the prearranged turn generation time arrives) at which point the group will begin declaring and resolving their orders in the order established by the X.X Sequence of Play, starting with the Colony Phase and progressing through to the Update Phase. The players take turns each phase publicly declaring their orders and resolving any checks that arise. After a player has resolved all relevant orders for the current phase, play passes to the next player and so on.

Turn generation continues in this manner until all of the players' turn orders have been resolved, at which point the players will be ready to begin drafting their turn orders for the next campaign turn.

Should debate or discussion arise as to the interpretation of a rule or the legality of an order, the players must collectively decide what to do about it. In most circumstances, the easiest way to resolve these disputes is to put it up to a player vote. The option that receives a simple majority of the player support in the vote is then be adopted as the solution to the problem until such time as an official ruling can be procured that contravenes the player-selected solution.

Please be aware that arguments between players in an unmoderated campaign can be even more destructive than in a moderated campaign because all of the players are involved in the resolution process in the former, while in the latter a neutral CM is responsible for making the final decision. All it takes is one extremely contentious rule dispute for a campaign to fall apart. Players should attempt to be as impartial as possible when making these decisions, and they should be prepared to vote against their own empire's best interests if doing so will enforce the "correct" interpretation of a rule.

In the event of a "no-win" argument, the players should at least consider finding a compromise that will satisfy the majority of the players, even if it doesn't satisfy everyone completely. For example, consider that a rule has been misinterpreted for a large part of the campaign, and one or more players built their forces to either exploit or defend against this rules misinterpretation. This rule change might even be "game ending" in that their forces or strategy might be completely nullified under the correct interpretation of the rules. At this point in the campaign correcting the rule will put these players' empires at a distinct disadvantage compared to the players whose decision making processes weren't affected by the ruling. In such a situation, especially if the mistake was made by multiple players in the same campaign, the players may want to allow the affected players the opportunity to alter their existing forces so that they can remain competitive even after the rules change goes into effect in order to keep the campaign alive.

## I. 6 Campaign Timekeeping

Campaigns represent a snapshot of history for a collection of empires in a specific universe or
setting. A campaign's timeline is divided into campaign turns and campaign years.

## I.6.I Campaign Turn

The basic unit of strategic timekeeping in a campaign is the campaign turn. Each campaign turn represents about five weeks of time in the game world, which allows units enough time to move between systems, engage in combat, and carry out other operations without straining credibility. Players draft and submit orders at the start of a campaign turn that outline what actions their empires are going to take that turn. The remainder of the turn is then spent resolving those actions to determine their repercussions on the campaign environment (see X.X Turn Orders Phase).

An average campaign lasts about 50 turns. Resolving turns at a rate of one turn per week, which is common for gaming groups that meet locally or play-by-email online, the players can expect to take about a year to complete a full campaign. Smaller campaigns or those with stricter objectives can obviously be completed in less time. Solo campaigns can easily last 100 turns or longer and can continue as long as the player remains interested in playing the campaign.

## I.6.2 Campaign Year

Ten campaign turns are resolved per campaign year. Each campaign turn is assigned a numeral identifier corresponding to the current turn of the year that is represents. This numeral value is then appended to the current campaign year to uniquely identify the campaign turn for record keeping purposes. For example, the seventh campaign turn of campaign year 2258 would be recorded as 2258.7, where 2258 is the campaign year and 7 is the campaign turn number.

Campaign scenarios can adjust the length of a campaign year to change the number of campaign turns that are processed each year. Players can use this option to extend the length of a campaign year to twelve turns so that each turn equals exactly one month of game time. Campaign year lengths can also be shortened to accommodate settings where galactic level events happen more slowly, often as the result of slower travel times between star systems.

## I.6.3 Tactical Turns $\Delta$

Campaign settings that require campaign units to act more rapidly can achieve this effect by dividing each standard campaign turn into five
separate tactical turns, with each tactical turn representing approximately one week of game time. Units can be issued movement orders and engage in combat during each tactical turn, but all other strategic and economic activities are stil only resolved every five campaign turns (i.e., once per campaign turn).

Campaigns that use this optional rule tend to focus more on military conflict and achieving specific scenario objectives because it gives military units more flexibility to move and attack during a single campaign turn. Tactical turns aren't suited for more open, sandbox scenarios largely because the added time requirement of resolving five tactical turns per campaign turn can become oppressive to the players and greatly slow down the game. As a compromise, players can choose to use the tactical turn optional rule in their campaign but only invoke it when empires are in a state of war. Otherwise, during peacetime, friendly units would just be allowed to move five times per turn.
Players have the option of changing how many tactical turns occur during a single campaign turn, of course, to better tailor the optional rule to their own setting and accommodate their preferred rate of movement on the associated campaign map.

## I. 7 Campaign Resources

Campaign resources are assets that empires use to achieve their goals. There are four different resources that players must balance in a campaign: economic points, population points, tech points, and intel points. The amount of each campaign resource that a power has available is tracked on its imperial record sheet. Each of these resources is stored in its own respective empire pool for use on a future campaign turn. Players can then refer to their imperial record sheets to determine how many resources of each type their empires have available. Empire pools are used to track the amount of campaign resources that a power has available for use during the current campaign turn.

An empire can never spend more resource points of any given type than it has available in its empire pool at the beginning of the campaign turn. This prevents a player from spending resources that his empire has not yet earned.

## I.7.I Economic Points

An economic point (EP) is a fixed unit of economic potential that an empire can use to purchase new units, repair existing ones,
improve colonial infrastructure, or spend towards other projects that require economic investment. The economic point is the most important campaign resource in the game because almost every enterprise that an empire can commit itself to costs economic points.
Players must maximize the amount of economic points that their empires earn each turn if they hope to achieve an economic advantage over their neighbors. Colonies are an empire's primary source of economic points (X.X System Income). Empires can also earn economic points as commerce income from their active trade links (X.X Commerce Income).

## I.7.2 Population Points

A population point (PP) represents a general increase in an empire's population, either as the result of one generation giving birth to the next or colonists migrating from one colony to another in response to job availability, overcrowding, persecution, or any number of other population pressures.
The number of population points an empire earns each turn is based on its total excess food production. This represents that nations that population growth is highest for nations that have more than enough food to feed their populations, and that population growth naturally slows as food sources become scarce prompting malnutrition, increased competition for scarce resources, and ultimately starvation once the empire's population exceeds its food production capabilities.
Population points are used to purchase X.X Population Increases at an empire's colonies. These population increases provide a +1 Census, +1 Morale bonus to the affected systems, expanding their population size and applying a corresponding increase in Morale to keep the system from experiencing unnecessary social unrest as the result of the population growth.

## I.7.3 Tech Points

A tech point (TP) represents a discrete unit of scientific knowledge that, in aggregate, can be used to realize new technological breakthroughs. Tech points are purchased at colonies at a cost of 1 economic point per tech point purchased. The maximum number of tech points that an empire can purchase each turn is equal to its total research capacity.
Tech points are spent to purchase tech advancements that advance an empire's tech level (see X.X Empire Tech Level). Tech
advancement costs are based on two factors: an empire's total Census value and its current tech level.

## I.7.4 Intel Points

An intel point (IP) represents an intelligence resource - be it an operative, asset, or opportunity - that an empire uses to carry out intel missions or support diplomatic missions. The intel cost to perform missions of either type are based on their stated mission difficulty level.

Colonies with Intel infrastructure are used to train new intelligence assets. Intel points cost 1 economic point each and the maximum number of intel points that an empire can purchase each turn is equal to its total intel capacity.

## I. 8 CAMPAIGN Recordkeeping

Campaign recordkeeping is one of the most critical aspects of running a successful campaign. Every empire in a campaign has an imperial record sheet and force list that its player uses to track its assets and plan out their orders for the current turn. These forms are updated during the Update Phase to reflect of events of the turn.

## I.8.I Imperial Record Sheet

An empire's imperial record sheet is a consolidated form that is used to track all of its assets. This puts almost all of the information that a player needs to run the empire in a single place. A sample imperial record sheet is included in the appendices, but players are encouraged to create their own forms to better suit their own organizational style.

An empire's name and the current turn are always displayed at the top of the imperial record sheet. This makes it easier to tell which whose imperial record sheet it is and where it fits in chronologically in the campaign. Each of the power's campaign resource totals and its empire tech level are also listed at the top of the imperial record sheet for ease of reference. This lets the player know exactly how many economic, population, tech, and intel points his empire has available at a glance.

The remainder of the imperial record sheet is divided into sections that provide an overview of the empire's assets as well as reports about the prior turn's activities.

## I.8.I.I Economic Overview

A general economic overview is provided on the imperial record sheet that breaks down the
empire's income and expenses so that the player can get a snapshot of his empire's financial situation. This is a good planning resource and can inform the player as to areas in which his empire can increase revenues or decrease expenses to improve the empire's economic condition.

## I.8.I.2 Systems Overview

Statistics for all of the star systems that an empire has encountered during the campaign are listed in this section of its record sheet. Tracking this information by empire is only necessary if your campaign utilizes a fog of war element that prevents all players from knowing the statistics of every system on the map at the start of the game. Otherwise, new systems are added to this section as the empire learns about them either by visiting them, performing successful intel missions, or after receiving map information from an opponent.

Players should note the age of the system information that they have gathered, as it is possible for a system's statistics to change over the course of a campaign and they should know just how old their intelligence information about a system really is.

### 1.8.I. 3 Colonies Overview

The Colonies section of the record sheet is used to track information about the colonies that an empire owns or has encountered during the game. This allows the player to plan colony improvements at his empire's own colonies while keeping tabs on other foreign colonies that his empire knows about.

As with star systems, players are encouraged to note how current the information on foreign colonies on the imperial record sheet so that they'll know how old their intelligence on the colony is. This saves the player time as he won't have to go back through old records to find out which turn his empire gathered intel on the opponent's colony.

## I.8.I. 4 Intel Overview

The results of an empire's intel missions from the previous turn are recorded in this section of the imperial record sheet. This provides the player with a reference as to the types of missions it performed and what their outcomes were. The number and location of an empire's X.X Operatives are also tracked here.

## I.8.I. 5 Diplomatic Overview

The current state of an empire's diplomatic relations is provided under the Diplomatic Overview heading. This section lists all of the empire's current relationships with other powers and lists all of the treaties and declarations (both public and private) that it has active with those powers.

## I.8.I. 6 Military Overview

This area of the imperial record sheet is used to track all of an empire's military assets. Each fleet or army is given an entry in this section that includes its current location, a list of its constituent units and their maintenance states, the cargo or flights that they're carrying, etc. Placing all of an empire's military assets in one location allows the player to quickly ascertain where his units are at any given time, what their current orders are, and what their command structure looks like. This makes planning future military operations that much easier.

## I.8.I. 7 Construction Overview

Construction Overview provides a breakdown of all of the empire's active construction projects by system. The amount of industrial capacity being used in each system is displayed along with its total industrial capacity to give players an idea of how much of the system's industrial capacity is currently being used.
Every unit that is under construction or repair in a system construction has an entry here. That entry includes the unit's construction cost (to verify how much industrial capacity is being used), construction time, and the number of turns of construction it has already completed. The latter two data points are usually displayed in fractional notation. For example, a unit that takes 4 turns to build that has completed 3 turns of construction would have the information listed as "3/4 Turns" on the imperial record sheet.

Units that completed on a previous turn but haven't been assigned to a fleet or army are usually listed in this section on the imperial record sheet until a player finishes their assignments.

## I.8.2 Force List

A force list provides an inventory of all of the unit classes (both space and ground) that an empire owns and/or is able to purchase. A unit class' entry on the force list always includes its full unit statistics so that players can quickly
compare and contrast the different units that it is capable of fielding.

Force lists are updated whenever empires prototype new campaign units. A new prototype class is added to its empire's force list on the turn it is purchased and begins construction. Prototype designs should have an asterisk appended to the end of their class name to remind players that these classes aren't available for widespread deployment yet. The asterisk can be removed from the class name once prototyping is complete.
Unit classes that an empire purchased from another power or captured also appear on its force list, but the empire can't build new members of these classes unless otherwise noted. Players must clearly mark which units on its force list it is incapable of building so that they won't accidentally try to purchase them.

## I. 9 CAMPAIGN MAPs

Campaign maps depict the location of star systems and jump lane in a game. Players use campaign maps to appraise the general strategic environment and determine the movement options that are available to their forces. Because most of a player's interactions with a campaign map will be spent plotting movement, it is extremely important that the position of all systems, jump lanes, and colonies be clearly labeled to prevent confusion.

## [Hex Lane Map Image]

A hex map is the most common mapping option for campaign maps. Each hex on the map contains a single star system with up to six jump lanes connecting it to systems in adjacent hexes. One of the key advantages of using a hex map is that it provides a structured method for creating new campaign maps because each hex will only ever contain a single system. This makes these maps easier to create because all a player has to do is print off a hex map and start drawing in jump lanes to connect the hexes/systems together. The end result is a clean map free of overlapping jump lanes or awkward jump lane connections that could cause confusion.

Hex maps are perfect for campaigns where the X.X Jump Lane Exploration rules are being used because it allows players to dynamically generate the campaign map as empires explore new star systems during the game. The map can be expanded by adding additional hexes to the outer perimeter of the map as new star systems are explored and players discover new jump
lanes that connect to systems beyond the map's existing boundaries.

Rules for randomly generating new campaign maps using a hex grid can be found in X.X Random Map Generation in the appendices.

## [Jump Lane Map Image]

An alternative to hex-based campaign maps is to create a jump lane map that arbitrarily places star systems on the map and then connects them together using jump lanes. This style of mapping is usually the most convenient option for players that are trying to convert a star map from another source, or when a campaign is going to be fought on a static campaign map. Jump lane maps aren't recommended for exploration campaigns where maps are dynamically generated during the game, however, as it is very difficult for players to determine where new systems and jump lanes should be placed on the map.

While campaign maps can be presented in many different ways, they must share a few common characteristics in order to be considered usable. Players are encouraged to use the following standard iconography guidelines detailed below when creating their campaign maps as it will make it easier for players to pick up a map and know what each element means.

Star systems should appear as circles or some other form of star-like icon on the map. The size of a system's symbol should based on its system importance, with more importance systems being afforded larger, more visible icons. Unexplored star systems should be clearly marked to differentiate them from systems that have already been explored.
Jump lanes should appear as lines that connect systems together on the map. It is recommended that the thickness of these lines be sufficient to make them stand out better. If the X.X Jump Lane Class optional rules are in use in your campaign, each jump lane class must be represented by a different line style, color, or equivalent notation so that the jump lane's class will be obvious when players refer to the map. Unexplored lanes should be displayed in a different style, usually by using a conflicting color, so that players will know which jump lanes have and haven't been explored.

Inhabited systems should be color coded, with each empire being assigned its own a unique color to represent its colonies on the map. Neutral systems that haven't been colonized yet should be assigned a white or neutral grey color to differentiate them from other player controlled
system. Assigning systems colors based on their owners allows players to determine who controls a system simply by looking at the map.

The size and extent of each empire's sphere of influence should also be depicted on a campaign map. The simplest manner to demarcate these spheres of influence is to draw a shaded linear border around all of an empire's claimed and controlled systems. Applying a background color to these regions makes it clear which star systems are included within an empire's sphere of influence.

Most campaign scenarios provide players with pre-generated maps and statistics that they can use to start playing the scenario "out of the box" without having to first do a lot of preparatory work. This is recommended for players that have never played the game before and are still trying to understand the campaign system. More experienced players can instead choose to create their own campaign maps using the rules in X.X Random Map Generation as a guide.

## Scenarios

## Home System

10 Carrying Capacity, 5 RAW, 5 Biosphere, 3 Special Traits

Either roll randomly for these traits or assign the following: +2 Carrying Capacity, +1 RAW, +1 Biosphere

Start with 6 Census, 6 Morale, 24 Infrastructure (player's choice), Shipyard
3 jump lanes

For a more balanced accelerated start, start each player empire in control of 4 systems: 1 Core World, 1 Colony, 1 Settlement, and 1 Outpost

6 CAP, 4 RAW, 3 BIO, 3 Special Traits
(Set specials: +2 CAP, +1 RAW, +1 BIO)
4 CAP, 3 RAW, 2 BIO, 2 Special Trait
(Set specials: +1 CAP, +1 RAW)
2 CAP, 2 RAW, 1 BIO, 1 Special Trait

## (Set specials: +1 CAP)

Culture $=$ player empires always at $50 / 50 / 50$
Recommended that player empires start at TL 5.
All special abilities from this book are available. Future special technologies must be researched separately

## 2.O Playing the Game

"Unfortunately, many people do not consider fun an important item on their daily agenda. For me, that was always high priority in whatever I was doing."

- Chuck Yeager


## Sequence of Play

The sequence of play defines the order in which campaign events occur and are resolved during each campaign turn.

## 2.I Turn Orders Phase <br> draft turn orders

## Turn Orders Sheet

Turn orders sheets are prepared during the X.X Turn Orders Phase. These forms contain a list of all the actions that and empire and its forces are to perform this turn. Empires are required to submit turn orders sheets every campaign turn. If a player fails to complete and/or submit a turn orders sheet for his empire, then the affected empire won't perform any actions on the current campaign turn. Any previously-ordered or automatic actions, such as unit construction, will continue to take place, however, just no new orders will be processed that turn.

### 2.2 Colony Phase

Population increases, decreases
Infrastructure increases, decreases
facility purchases

### 2.3 Inteluigence Phase

Diplomacy Phase

### 2.4 Movement Phase

Resolve Jump Lane Movement
Resolve Exploration Missions

At no point during its movement can a transport carry more cargo than is allowable given its Cargo value. A player could order ships to disembark cargo at a system to free up Cargo value before embarking new cargo, of course, as long as the construction cost of cargo embarked aboard the ships doesn't exceed its cargo capacity.

### 2.6 Piracy Phase

piracy checks in each system
commerce raiding

### 2.7 Encounters Phase

## Resolve First Contact

Empires that previously had no contact with each other that meet during the Encounters Phase must resolve their X.X First Contact scenario.
detection (if not done in movement phase)
resolve encounters, generate scenarios

### 2.8 Morale Phase

system loyalty checks

### 2.9 SUPPLY PHASE

update supply ranges
check blockades \& cut off regions
evaluate supply states

## 2.IO Agriculture Phase

food production / consumption
population growth

## 2.II Construction Phase

purchase intel points
purchase tech points

## 2.I2 Тесн Phase

Tech advancement

## 2.I3 Economic Phase

update commerce ranges
check trade routes

## Income

Empires earn income from two sources: colonies and trade. Colonies are an empire's primary source of income, and certainly the most reliable. Commerce income can serve as a lucrative source of revenue depending on how many foreign trading partners it has, however. Empires also sometimes earn income from other sources, and this is classified as miscellaneous income.

## Colony Income

An empire's primary source of income is its colonies. Each colony has an economic output equal to its Productivity $x$ RAW. The total economic output of all an empire's colonies is called its colony income, and this is the number of economic points the empire earns from its colonies every turn.

Empires can increase their colony income totals by increasing their Productivity values at colonies in high RAW star systems. Wealth is generated from systems irrespective of their population, which means that a colony's Census value has no effect on its economic output beyond its limits on the total amount of infrastructure that can be in the system. Players can establish mining outposts in systems that have substantial RAW reserves without having to worry about investing in population increases to grow their Census values. This is a quick and easy strategy for increasing a nation's colony income.
A colony's morale state can negatively modify its economic output, and players must be mindful of colonial Morale if they want to keep their colonies in Good Order and generating wealth at their full potentials.

## Commerce Income

The second most important revenue stream is commerce income. Empires that engage in interstellar trade with their neighbors earn a number of economic points every turn equal to the commerce value of each of their foreign trading partners' colonies that is part of an active trade route. A colony meets this condition if it is located within the commerce range of one of the empire's colonies or trading posts and a trade route can be drawn between the two systems
that doesn't pass into or through any contested systems.

A player can increase the amount of commerce income his empire earns by signing new trade treaties with nearby powers or purchasing trading posts to extend its commerce range to cover additional star systems.

Powers can't earn commerce income from their own colonies. The economic value of domestic trade is already figured into their normal economic outputs that contribute to a power's colony income.

## Miscellaneous Income

Occasionally, a random event or other one-time payment will provide an empire with extra income. Any income that an empire earns that cannot be classified as either colony income or commerce income should be recorded as miscellaneous income.

## 4.I.2 Expenses

The economic points that an empire earns from its income sources are used to make purchases, maintain their armed forces, and cover any unexpected miscellaneous expenses that arise during the campaign.

## Purchases Expense

Purchases expense is the total cost of purchases that an empire made this campaign turn. An empire's purchases expense can never exceed the number of economic points that were in an empire's Economic Pool at the start of the campaign turn. In this game, empires can't spend money they haven't earned yet.
Purchases that were ordered this turn but couldn't be carried out for one reason or another aren't added to an empire's purchases expense, however, as no resources were expended on these cancelled projects.

## Maintenance Expense

An empire must spend economic points each turn to maintain its fleets and armies. Maintenance expense is calculated by taking the total maintenance cost of all an empire's units, making sure to account for their current X.X Maintenance States, and multiplying it by $10 \%$ (round fractions up).

Empires can reduce their maintenance commitments by transitioning their fighting forces into reserve or mothball maintenance
states. Units that are in either of these two maintenance states cost less to maintain but can be reactivated and brought back to active duty in the future when the need arises. They can also scrap or sell unwanted units to completely eliminate their maintenance burdens.

## Miscellaneous Expense

Any expenses that an empire incurs that cannot be classified as either purchases expense or maintenance expense should be recorded as miscellaneous expense. The economic losses incurred as a result of commerce raiding are a common example of a miscellaneous expense.

## 4.I. 3 Economic Deficits

Empires in crisis can find themselves in situations where they no longer generate enough economic points in income every turn to cover all of their expenses. This usually happens during a war as colonies are attacked, conquered, or destroyed, or the empire ends up with a glut of military construction that increases its maintenance costs. An empire can maintain a policy of deficit spending only so long before their economic pools are exhausted and they'll face a day of reckoning.

Whenever the number of economic points in its economic pool goes negative, an empire will be forced to immediately scrap military units or liquidate colonial infrastructure to cover the economic shortfall. These scrapping or liquidation orders are processed as if they had been issued at the start of the turn as part of the player's original turn orders. The economic points earned from these operations are added to the empire's economic pool and will return it to a positive value.

An empire that doesn't have any units or infrastructure to sell off for a quick infusion of cash are allowed to carry their deficit forward, but all of their military units will be out of supply during the Supply Phase next turn.
total income \& expenses

The economic pool acts as an empire's treasury and is where its stores its economic point reserves until they are spent on new purchases. Each turn, During the Economic Phase, empires add their total income less their total expenses to their economic pool.

### 2.14 Update Phase

During this final phase of the campaign turn players adjust their resource pools to account for resources earned and spent during the current turn.

Economic Points: An empire earns economic points from its colonies and commercial operations, as well as from any other miscellaneous income sources such as infrastructure liquidation. Economic points are spent on purchases, maintenance, and any miscellaneous expenses the empire incurred this turn.

Population Points: Colonies with Agriculture infrastructure and Biosphere values greater than zero produce population points for their owners. Empires receive the benefits of this food production at this time, but some of these population points must also be used to feed its imperial population. Each Census costs an empire 3 PP per turn.
Tech Points: Tech infrastructure produces tech points based on the number of Census at a colony.

Intel Points: Colonies with Intel infrastructure generate intel points based on their current Census values.

Imperial record sheets are updated and finalized during the Update Phase to reflect the turn's events.
> B.0 Star Sustems
> "Looking at these stars suddenly dwarfed my own troubles and all the gravities of terrestrial life. I thought of their unfathomable distance, and the slow inevitable drift of their movements out of the unknown past into the unknown future."

\author{

- H.G. Wells
}

Star systems are the source from which an empire draws its resources. Every star system on the campaign map contributes three important resources (Carrying Capacity, RAW, and Biosphere) that in combination determine the system's overall value. The greater a system's resource values, the more important it is.

This chapter reviews all of the aspects of a star system, from the basic anatomy of a star system through to various types of system terrain or strategic resources that a system might possess. The number and type of stars in a star system influence the types of resources that players can expect to find there. A set of random system generation rules that players can use to generate new systems are located at the end of this chapter.

## 3.I System Type

A system's type describes how many stellar mass objects are present in a system. The number of special traits that a system receives during system generation is determined by its system type.
Single star systems are solar systems that contain a single star. These systems have the best chance of supporting robust planetary systems. They receive three special traits.

Binary star systems contain two gravitationally-bound stars that orbit around a common center of mass. The system can either be a close binary where the secondary component orbits in close proximity to the system primary; or a distant binary where the secondary component is located some distance way, possible far enough away to possess its own planets. The gravitational effects of the second star can make it more difficult for planets to achieve stable planetary orbits. This results in binary systems only receiving two special traits.

Multiple star systems are comprised of three or more stars. The large number of stellar mass objects in these systems interfere with planetary
formation and retention. Multiple star systems only receive one special trait.
Black holes are singularities that are so massive that nothing - not even light - can escape their gravitational pull. Objects caught in the vicinity of a black hole are inevitably drawn into them where they are ripped apart by intent tidal forces. Black holes are invisible to detection, but luckily they possess visible event horizons that alert observers to their presence so that they can safely identify and avoid them. Black hole systems have no material value and can't be colonized, nor can facilities be purchased there. They always have six jump lanes connecting to them.

### 3.2 Spectral Class

The Harvard classification system differentiates stars by surface temperature and assigns them one-letter alphabetic identifiers that can be remembered using the mnemonic "Oh Be A Fine Girl, Kiss Me" that arranges the seven spectral classes in order from hottest to coolest.
A system's RAW and Biosphere values are determined by its spectral class. Hotter stars are younger and tend to be more mineral rich and biosphere poor. Older, cooler stars meanwhile usually have fewer natural resources but are more likely to contain life-bearing worlds.

## Class O Extremely Bright Blue Giant

Class $O$ stars are the largest and most luminous. These bluish stars shine with a power equal to over a million times the luminosity of that of a class $G$ star such as Sol and can be up to 50 times more massive. Class O supergiants are short lived, with an estimated lifespan of 10 to 50 million years.
Stars of this class generate a powerful stellar wind that is so intense that, over the period of about one million years, it can break down and destroy protoplanetary disks not only in their own system but in neighboring systems, too. The ultraviolet radiation put off by the blue giant evaporates the dust and gast in the disk and the star's stellar winds then disperse the material, preventing it from coalescing into planets. This is called the photoevaporation effect. Class O stars are unlikely to have any planets orbiting them, let alone any capable of supporting life, but some may still possess an embryonic planetary system.
Stars of this class are unlikely to have many planets orbiting them because the powerful stellar wind that class O stars generate is so
intense that, over a period of about one million years, it can break down and destroy protoplanetary disks not only in its own system but in neighboring systems, too. This is called

Surface Temperature: > 25,000K
Example: Zeta Puppis, Lambda Orionis

## Class B Bright Blue Star

Class B stars are bright blue suns that are extremely large and luminous, like those of class O. In fact, it is sometimes difficult to tell the two apart, giving rise to class $O B$ stars that could be either class $\mathrm{O}, \mathrm{B}$, or maybe even a very hot class A.

Unlike class O stars, class $B$ stars aren't subject to photoevaporation effects. The amount of ultraviolet radiation emitted by these stars is less than that of class O stars, which prevents a class B from breaking down gas and dust in neighboring planetary space.

Surface Temperature: 10,000-25,000K
Example: Rigel, Spica

## Class A Blue-White Star

Class A stars are bluish-white in color, and are the most common of the bright blue stars encountered in the galaxy. They are known for their strong hydrogen (Balmer) lines, which are at a maximum at a magnitude of AO.
These stars are more apt to aupport planetary systems than larger, hotter stars, and some of these planets may even support tenuous atmospheres and maybe even primitive biospheres.

Surface Temperature: 7,500-10,000K
Examples: Vega, Sirius, Deneb

## Class F White Star

Class F stars are white in color, though members of this class sometimes possess a trace of yellow. Unlike class $\mathrm{O}, \mathrm{B}$, or A classes, these bright stars trend towards the main sequence which improves the chances of finding planets in these systems.
Stars of this spectral class shouldn't be confused with class D white dwarfs. These are two entirely different types of stars, and the two terms aren't interchangeable.

Surface Temperature: 6,000-7,500K
Examples: Canopus, Procyon

## Class G Yellow Star

Class G stars are relatively uncommon, as most stars normally only remain in this spectral class for a short period of time during between the young blue supergiant ( $O$ or $B$ ) and late life red/orange ( $K$ or $M$ ) phases of their stellar evolution.

Of all of the spectral classes, class $G$ stars are the most likely candidates to find planets that are capable of supporting life because of the relative age of these systems and the size of their habitable zones.

Surface Temperature: 5,000-6,000K
Example: Sol, Alpha Centauri A, Tau Ceti

## Class K Orange Star

Class K stars are slightly cooler than class G stars like our own sun but still hotter than the red class $M$ stars that they will one day become. These stars are orange to red in color and can range in size from behemoth supergiants down to smaller dwarf stars.
In our own stellar neighborhood class $K$ stars are much more common than class $G$ stars. This means that, while the former aren't as attractive of colonization targets as the latter, class K stars still offer very good prospects for finding inhabitable, life-bearing planets.

Surface Temperature: 2,000-5,000K
Example: Alpha Centauri B, Aldebaran

## Class M Red Star

These low mass stars can range from small dim dwarfs to extremely large red giants or supergiants. Class M stars are by far the most common class of stars. Red dwarfs make up nearly $80 \%$ of all the stars in the nearby stellar neighborhood.
Life around a red dwarf is extremely volatile. The size of the star's habitable zone is short, and most planets located within this zone are tidally locked to the star which has a profoundly negative effect on their climates. The net effect is that while class $M$ stars have a better chance of supporting life than a blue/white star, they also tend to be poor in exploitable resources.
Special Rule: Dim red dwarfs are commonly flare stars (see X.X System Terrain). To simulate this, any red dwarf system with an importance of Very Low or Low automatically receive the flare star trait.

Surface Temperature: 2,000-3,500K

Example: Proxima Centauri, Wolf 359, Antares

## Class D White Dwarf

White dwarfs (also called degenerate dwarfs) are planet-sized, low mass stars composed of carbon and oxygen. They represent the twilight existence of low to medium mass main sequence stars. At the end of their red giant stage, these stars eventually reach a point where they have insufficient mass to maintain the temperature required to fuse carbon. This prompts the star to shed its outer layers to form a planetary nebula. This leaves behind the core of the sun that becomes the white dwarf. Without the heat generated by fusion to support it against gravitational collapse, a white dwarf must instead rely on electronic degeneracy pressure; this requires the star to be extremely small and dense.

Planetary systems don't form around white dwarf stars. Any planets in these systems are inherited from the planetary systems that were orphaned when the stars became white dwarfs. The quality of planets orbiting class $D$ stars is typically much poorer than those found around other stars.
Special Note: Class D stars can only have a luminosity class of VII White Dwarf.

Surface Temperature: 1,000-1,500K
Example: Van Maanen's Star

### 3.3 Luminosity Class

The Yerkes spectral classification system divides stars into different types based on their luminosity (brightness) rather than by surface temperature. This system measures the width and intensity of spectral lines caused by luminosity effects.
These rules recognize eight distinct luminosity classes: 0 (hypergiants), I (supergiants), II (bright giants), III (giants), IV (subgiants), V (main sequence or dwarfs), VI (subdwarfs), and VII (white dwarfs).

A star's luminosity class is used to determine the size and value of its planetary system (Carrying Capacity) and the number of jump lanes that connect to the system, with the assumption that larger, brighter stars have the greatest number of jump lanes attaching to them. Players can choose to ignore luminosity's jump lane attraction effect if this isn't appropriate to their campaign setting.

## Class O-Hypergiant

Class 0 hypergiants are the most luminous stars in existence, and the most massive. A stable hypergiant has a mass equal to nearly 100 solar masses and may have had a mass of as much as 200 to 250 times that earlier in its stellar evolution.

Hypergiants don't appear as a result on the Luminosity Table. Instead, the player rolls a D6 for each supergiant during system generation and on a roll of ' 6 ' the star is really a hypergiant.

Hypergiants never possess planetary systems and always have Carrying Capacity, RAW, and Biosphere values of zero and the maximum of six jump lanes.

Example: Zeta-1 Scorpii, Rho Cassiopeiae

## Class I - Supergiant

The largest and brightest stars in the galaxy are supergiants. These high mass stars have extremely short lifespans, lasting only 10 to 50 million years on average. Because of their short lives, supergiants are typically found in areas populated with other young stars, such as in open clusters or the arms of spiral galaxies.

Example: Rigel, Betelgeuse, Antares

## Class II - Bright Giant

Bright giants straddle the boundary between supergiants and giants. These stars are more luminous than a normal giant but are not bright or massive enough to be classified as a supergiant.

Example: Alpha Herculis, Theta Scorpii

## Class III - Giant

A giant star is one whose size and brightness are greater than that of a normal star on the main sequence. A star leaves the main sequence and becomes a giant once all of the fusible hydrogen in its core has been consumed. Fusion reactions then migrate to layers surrounding the core where hydrogen remains available. Eventually, if the star is massive enough, it's core will begin to contract and its core temperature will increase until it's capable of fusing helium rather than hydrogen. Stars that lack sufficient mass to fuse helium (those with less than one-half solar mass when on the main sequence) will instead remain as hydrogen-fusing red giant stars.

[^1]
## Class IV - Subgiant

Class IV subgiants populate the boundary between normal main sequence stars and fullfledged giants. Subgiants are brighter than normal main sequence stars but aren't as bright as larger giants. Stars of this type have ceased fusing hydrogen in their cores, forcing hydrogen fusion reactions to migrate to the shell outside the core. This causes the star to swell, moving it on its way towards becoming a giant in the future.

Example: Procyon A, Epsilon Reticuli

## Class V - Main Sequence (Dwarf)

The majority of stars are located along the main sequence. These stars, common called dwarfs, are less massive than other less luminous stars. Dwarf stars come in all spectral class; however, some don't spend very much time in the main sequence before migrating towards other steps in their stellar development.

From a campaign perspective, main sequence stars offer the best balance between Carrying Capacity and jump lanes.

Example: Sol, Proxima Centauri, Barnard's Star

## Class VI - Subdwarf

Stars with a luminosity 1.5 to 2 magnitudes lower than that of main sequence stars are considered to be subdwarf stars. They are known for their emission of an above-average amount of ultraviolet radiation compared to what is considered normal for their spectral type.

Example: Kapteyn's Star, Groombridge 1830

## Class VII - White Dwarf

White dwarf stars are assigned a luminosity class of VII under the Yerkes system. This special classification is used to clearly divide white dwarfs from other luminosity classes, especially other dwarf stars.

## Example: 40 Eridani B, Procyon B

### 3.4 Carrying Capacity

Carrying Capacity (or simply Capacity) represents the number and quality of planets that are available for colonization in a system. From a practical standpoint, a high Carrying Capacity can mean that a system contains a large number of planets or that there is an especially valuable planet in the system, depending on the campaign background.

The maximum amount of Census, Morale, Economy, Industry, or Agriculture that can be placed in a system is equal to its Carrying Capacity. This makes systems with high Carrying Capacity values extremely valuable as they are the only systems that can support large colonies.

Star systems that have 0 Carrying Capacity don't contain any planets or other orbital bodies that an empire can colonize. A player can still purchase facilities in these systems to make use of any local resources, however. A mining base can be used to extract RAW from a system that doesn't has 0 Capacity, for example. This allows the empire to still access these resources even though it can't place a colony in the system.

### 3.5 RAW

RAW is an abstraction of the amount of exploitable resources present in a system, including their accessibility and relative worth. Systems with high RAW values possess abundant natural resources that an empire can harness to fuel its economy.
The planets found in orbit of hot, young stars tend to be more mineral rich and have higher RAW values than older stars. This makes class O, B, and A stars prized commodities for empires looking to increase their incomes.

Colonies use Economy infrastructure to convert a system's RAW into economic points. The amount of income a colony produces for its owner each turn is equal to its Economy x RAW. Mining bases can be used to extract additional economic points from a system, too.

### 3.6 Biosphere

Biosphere describes a system's ability to support life, specifically as it applies to food production. Systems with high Biosphere values either possess their own unique, alien biospheres that can be readily harvested and turned into food for an empire's population or else be very accommodating to the transplant of genetically engineered flora and fauna that have been tailored to the environment or else they may.
Life bearing worlds that offer favorable conditions for planetary agriculture are most often found in orbit of class G or K stars. Class F or M worlds sometimes also have respectable Biosphere values.
The amount of food that a colony produces for its owner each turn is equal to its Agriculture $x$ Biosphere. Orbital farms can also supplement a system's food production. Any food not
consumed by imperial populations is then turned into population points that a power can use to purchase population increases to expand colonial populations at its existing colonies.
Special Note: The percentage chance that a new system contains a native biosphere is equal to its Carrying Capacity $x$ Biosphere. This has no mechanical effect on the system but may be valuable information for players that are looking for an extra level of detail in their campaigns.

### 3.7 System Terrain

System terrain is the term that is applied to all of the special types of astronomic formations or special aspects of a star system that go beyond its base statistics. Special rules apply to each type of system terrain that impact the way that players interact with the system. Some types of system terrain offer bonuses that are beneficial to the player while others institute penalties that limit a system's overall value.

## Asteroids

Asteroid and other protoplanetary debris are commonly found in star systems. This special trait denotes that a system is home to abnormally high concentrations of these types of debris, enough to make the system a much more lucrative site for remote mining operations. Mining bases established in these systems earn twice their normal income.

Space combat encounters generated in systems that contain dense asteroid fields afford the defender extra protection against enemy attack. They can use hidden asteroid bases to hide and resupply, taking the enemy by surprise. This is represented by giving the defender a +1 bonus to his task force's rolls on the Surprise Table during these encounters (see X.X Surprise).

## Dark Nebula

A dark nebula is a form of nebulae without clearly defined borders that is located in the coldest, densest parts of space within which new suns are born. The concentration of interstellar dust within a dark nebula is so great that it can block out or obscure other light sources, such as the light reflected by background nebulae and stars.
It is almost impossible for a task force to detect enemy ships that are operating in a dark nebula. Space encounters in these systems are subject to a massive -4 detection penalty. Dark nebulae have no effect on ground encounter detection, however.

## Dust Cloud

Young stars are often surrounded by dense clouds of particulate matter. The protoplanetary disks around these stars have not yet fully accreted and a dust cloud fills the entire system. Although often beautiful to behold, dust clouds pose a significant danger to orbital assets. Orbits must be kept swept clean of rubble to prevent facilities from being damaged or destroyed by errant debris. This has the effect of doubling the cost of any facilities that are purchased in the affected system.

## Flare Star

Flare stars (also called variable stars) regularly undergo rapid, unpredictable increases in brightness that can last from ten to fifty minutes before ceasing as unexpectedly as they began.
A variable detection penalty is applied to every encounter that takes place in a system that contains a flare star. Roll a D6 on the following table before each encounter. This modifier is applied equally to all parties that are present in the encounter.

Flare Star Detection Table (D6)

| Roll | Detection <br> Penalty |
| :--- | :--- |
| $1-2$ | -1 |
| $3-4$ | -2 |
| $5-6$ | -3 |

This effect is very similar to that associated with nebulae except that the flare star's detection penalty is re-rolled each encounter and applies to both space and ground encounters equally (nebulae detection penalties only apply to space encounters).

## Maser $\mathbf{N}$ ebula

Maser nebulae are particularly vicious and deadly maelstroms and as a general rule not an environment to be actively sought out. The energized nature of the nebula makes travel extremely treacherous and prevents powers from establishing major fixed installations in the affected systems.

Space encounters generated in a system that contains a maser nebula are subject to a -4 detection penalty. This penalty doesn't affect ground encounters generated in the system.

Every starship, starbase, or flight that is in the system during the Supply Phase earns an extra out of supply level. This is in addition to any out of supply levels these units would normally have taken this turn.

Finally, empires can't purchase facilities in a maser nebula system. The long-term damage these facilities would sustain by being in the system precludes them from being build in the first place.

## N $\in$ bula

Nebulae are vast interstellar clouds of dust and gas that give life to new seedlings that will be the elder suns of a later stellar generation. Occasionally, nebulae are found in close proximity to a star system. Empires take advantage of their presence by hiding ships and facilities in these formations to prevent their discovery by other powers.

This particular special trait covers the range of reflection, emission, diffuse, and variable nebulae types that are commonly encountered in science fiction settings. Two other special types of nebulae - dark nebulae and maser nebulae are included as separate terrain types.

All space encounters generated in a nebula system are subject to a -2 detection penalty. This makes it harder for the encounter's participants to detect each other.

## Plasma Storm

A relative of the ion storm, a plasma storm is a dense field of ionized gas that is extremely treacherous to traverse. Small, fast ships can maneuver through a plasma storm with ease, but larger, bulkier craft can find themselves trapped within their deadly confines.

Because of the inherent danger in charting a safe course through a plasma storm, all non-Fast units that end their movement in a system that contains a plasma storm take 1 damage.

## Radiation Field

Some stars emit dangerously high concentration of electromagnetic radiation that can cause injury, sterility, or death in living organisms that are subjected to long-term exposure. Some species have a natural immunity to these radiation effects, but that is rare.

The cost of population increases in systems with the radiation field terrain are doubled to reflect that colonists in the system undergo extraordinary levels of attrition due to adverse
health effects. This makes it harder to establish large population centers in these systems.

Agriculture output is also affected by a radiation field, and all food production in the system is halved (round down). This applies to both planetary Agriculture infrastructure and orbital farms.

### 3.8 Strategic Resources $\boldsymbol{\Delta}$

Strategic resources are rare substances that confer major advantages to the empires that control them. In popular science fiction, strategic resources often appear as types of unobtainium that are valuable either because they are very rare or impossible to synthesize. Access to and control of these resources is usually a major concern in these milieus.

### 3.8.I Population Resource

Many systems exhibit unique organic or biochemical properties that make them especially compatible with life. Population increase costs are halved in systems that contain a population resource (rounding fractional costs up). This makes it much cheaper for an empire to build up massive populations in affected systems.

### 3.8.2 Morale Resource

Morale resources have a calming effect on a system's inhabitants and the system's Census is considered to be half that of normal (rounding down) for the purposes of system loyalty checks. The most common examples are chemical substances that act like aphrodisiacs or have a hallucinogenic effect. These tend to be highlyaddictive, which contributes to their effectiveness at keeping a system's population content.

### 3.8.3 Economic Resource

Systems that contain rare elements, ores, or substances that can't be readily synthesized via industrial means are of extreme economic value. The rarity of such a find attracts an inordinate amount of commercial interest to the system with all of the economic investment that comes with it. A system's utilized Economy value is doubled when it contains an economic resource.

### 3.8.4 Industrial Resource

This strategic resource indicates that a system possesses large quantities of easily accessible mineral deposits that are in high demand by planetary industry. A system's utilized Industry
value is doubled when it contains an industrial resource.

### 3.8.5 Agricultural Resource

Particularly fecund systems have rich soils and other biological factors that make them perfect sites for major agricultural development. A system's utilized Agriculture value is doubled when it contains an agricultural resource.

Special Rule: Any system with 0 Biosphere that receives an agricultural resource during system generation must re-roll to select a different system resource.

### 3.8.6 Scientific Resource

Explorers sometimes discover strange mineral deposits or astronomic phenomena in a star system that seem to defy scientific explanation. Studying these anomalies can help to unlock new avenues of research. A system's utilized Research value is doubled when it contains a scientific resource.

### 3.8.7 Intel Resource

Intel resources come in many varied forms. They might be naturally occurring psychotropic substances that can't be synthesized that are extremely effective at breaking down enemy mental conditioning during interrogations, or they might be a special material that is integral to the production of personal invisibility screens. A system's utilized Intel value is doubled when it contains an intel resource.

### 3.8.8 Special Resource

Special resources are extremely rare strategic resources that offer special and often unique bonuses. Each special resource has a different effect as chosen by the players or CM when a system is generated. A special resource should never provide a bonus equivalent to those offered by conventional strategic resources. A special resource's effects should be truly special, especially since it is likely to be the only system in the campaign like it.
A popular option for special resources is to have them provide specific bonuses to the combat, command, or special ability values of units that are built in the system. It is recommended that these military resources give $+10-25 \%$ bonus to a single unit statistic (round up). This bonus can be applied either to all units or to only a specific type of unit. A resource might only benefit ground forces that are built in the system, for example. It's recommended that special
resources that limit their effects this narrowly be more effective. To better illustrate this point, one system might have a special resource that gives a $+25 \%$ Attack Strength bonus to ground forces only, while another has a special resource that gives a $+10 \%$ Defense bonus to all units that are built there. The $+25 \%$ bonus is obviously more powerful, but it only affects a single type of combat unit (ground forces) while the other resource benefits every unit that is built there.

While martial bonuses are the most obvious to apply to special resources, they are obviously not the only kind of special abilities that this form of strategic resource can provide a player. Resources that increase a system's commerce or supply range beyond that of other resource types are an option. Players could also introduce a special resource that actually reduces the costs of units that are built there and/or shortens their build time. The important thing is to be creative when assigning properties to special resources and try to keep them as special as possible. Finding unique resources can be a real highlight of a campaign for the players, and fighting for control of one of these systems can really drive conflict during the game.

### 3.9 System Importance

System importance provides a method for categorizing systems based on their system statistic values. This allows players to quickly evaluate a system's overall value based solely on its system importance. A system's importance is found by totaling its three system resources (Carrying Capacity, RAW, Biosphere) and then performing a lookup on the System Importance Chart below.

## System Importance Chart

| Total | System Importance |
| :--- | :--- |
| 7 or less | Very Low |
| $8-11$ | Low |
| $12-15$ | Moderate |
| $16-19$ | High |
| 20 or more | Very High |

When displaying star systems on a campaign map, it is customary for the size of a star system's marker on the map to correlate to its system importance so that systems of greater importance have larger star system symbols. This makes it easy for players to look at the map
and instantly ascertain which star systems contain the most resources.
> 4.0 Jump Lanes
> "Today's flight marks a critical turning point in the history of aerospace. We have redefined space travel as we know it."

- Burt Rutan

Star systems are connected to one another by a series of jump lanes. Each star system can have up to six jump lanes connecting to it, and the number of lanes that a system has influences its strategic value. Starships and flights can use jump lanes to travel from one star system to another. This jump lane movement is resolved during the Movement Phase of the campaign turn. Units can use either their own FTL drives to move across jump lanes (FTL Jump Lane Movement) or else move between systems that contain jump gates (Non-FTL Jump Lane Movement).

Jump lanes serve the purpose of creating a network of artificial terrain that constrains movement along specific predefined paths. This produces defensive chokepoints at various point on the map that players can use to their advantage during the game to either entrench themselves at defensible positions or expand to cover weaknesses in their border by capturing strategically-positioned enemy systems.

But what does a jump lane really represent? Because of their abstract nature, jump lanes can be used to simulate everything from fixed hyperspace corridors, well-surveyed flight paths that have been pre-programmed into shipboard flight computers, or the shortest distances connecting two points in space. This approach allows the same set of movement rules to be used in all campaigns regardless of the specific type of FTL travel that is employed in any given setting. This improves rules consistency and makes it so that players don't have to create special movement rules or exceptions for each form of FTL propulsion system they might expect to encounter. The assumption is that a ship with a warp drive and another with a folding drive might violate physics in different ways to achieve faster-than-light flight, but they should be subject to the same basic movement limitations for the sake of making the game easier to play.

Under the default system generation rules, massive stars tend to have more jump lanes than smaller ones do. These same systems also tend to have fewer system resources, which creates an environment where the systems with the most jump lanes have the least intrinsic
value. Players have the option of divorcing the correlation between stellar luminosity class from jump lane concentration in their campaigns if they believe that this isn't applicable to their particular setting.

## 4.I FTL Movement

Starships and flights that have the FTL special ability can use jump lanes to move from one system to another. The maximum number of jump lanes that a unit can traverse during a single Movement Phase is equal to its FTL value. A FTL 4 unit could therefore cross four jump lanes per turn while a FTL 2 unit could only cross two jump lanes per turn.
Units that are capable of performing multiple jump lane moves per turn receive several marked advantages over those that can't. From a strategic standpoint they are more versatile and can be quickly redeployed between a player's systems to react to changing battlefield conditions. They are also very good at performing basic reconnaissance. Units make space and ground detection rolls for every system that they visit during their movement (see X.X Detection). This allows them to try to ascertain the size and disposition of opposing forces in these systems.

### 4.2 Non-FTL Movement

The majority of starships have FTL values greater than zero, but this isn't always the case. Building starships that lack FTL drives frees up mass that can be spent to improve their combat capabilities. These units take on the roll of system monitors that are optimized for "shore defense" missions and charged with protecting friendly colonies against enemy attack. In contrast, flights are rarely equipped with FTL drives because the systems are mass intensive and FTL-capable flights have diminished combat effectiveness when compared to non-FTL flights.
These non-FTL starships and flights can't travel across jump lanes on their own and must rely on jump gates to move from one system to another (see X.X Jump Gates). Jump gates allow units to move from one connected system to another as if they had FTL 1. This limits non-FTL units to a maximum of one jump lane movement per turn, but it at least allows them to move from one system to another when they would otherwise be denied access to jump lane movement because of their lack of FTL ability.

### 4.3 Fleet Movement

Fleet formations comprised of multiple starships and flights can be issued movement orders and perform movement as a single entity. Fleets always have a strategic speed equal to their lowest FTL value. Units that are being based aboard other craft in the fleet have an effective FTL value equal to their transport's in these instances and don't affect their fleet's strategic speed.

Fleets that contain one or more non-FTL units that aren't being transported aboard other units are also restricted to using jump gates and relays to move between systems until the offending non-FTL are removed from the fleet.
Example: A fleet consists of one battleship (FTL 2), three light carriers (FTL 3) carrying two flights each (FTL 0), five frigates (FTL 3), and two military freighters (FTL 1). The flights based aboard the trio of light carriers have the lowest FTL value in the fleet, however they are being transported by other units and don't impact the fleet's strategic speed. The slowest non-based units in the fleet are the military freighters, which gives the fleet an effective FTL value of 1 when performing jump lane movement.
Should the fleet's owner choose to remove the two freighters from this fleet, its strategic speed would increase to FTL 2 because the battleship is the next slowest unit and it is FTL 2.

### 4.4 Contested Movement

Contested movement occurs when units that have been ordered to perform multiple jump lane moves during a single Movement Phase pass through a system that contains potentially hostile fleets (i.e., the opposing force is owned by an empire that the moving power hasn't signed a non-aggression treaty with).

Contested movement is resolved by having each affected fleet perform one jump lane movement at a time. Preliminary space and ground detection rolls (see $X$. Detection) after each movement impulse for each empire that controls forces in the system. Empires can only make one detection roll of each type per system every campaign turn, and the results of these detection rolls carry through to the Encounters Phase turn and should be recorded for later reference. In other words, if one of a player's fleets rolls a Limited Detection for space detection and No Detection for ground detection in a system for one fleet during an early phase of contested movement any of its forces that move into that same system during a later step of contested
movement or remain in the system through the Encounters Phase will also be bound to those detection results - the player doesn't make separate detection rolls for each of his fleets that move into the system this turn!
After each jump the player receives the results of his force's detection rolls. This intel is used to decide whether or not to continue moving the fleet as previously ordered or else cancel its remaining movement orders and have it remain in the current system.

When attempting to move through a system that contains one or more enemy starships or flights, a fleet must either cancel its remaining movement or else leave behind a force with a total Command Cost equal to at least half the Command Cost of enemy starships or flights (but not starbases) that are currently in the system (round up). These units that the player leaves behind in the system are used to cover its retreat as it moves on to the next system listed in its movement orders. This leaves the fleet's owner in the unenviable position of dividing his fleet's strength in an attempt to push through the enemy lines and continue its movement. Maintaining maximum force concentration in the main fleet leaves it in a better combat position, but the token force left behind is likely to get slaughtered by the enemy. On the flip side, leaving a larger force to cover the main fleet's movement increases its survival odds at the expense of blunting the primary force's firepower as it moves on to the next system.
An exception to the above occurs when a fleet moves into a system and a system and rolls a No Detection result for its space combat detection roll. This poor detection result indicates that the fleet was completely unaware of the enemy forces in the system. This of course means that the fleet's owner doesn't have any indication of how many units its opponents have in the system. Enemy forces in the system have the option of either allowing the fleet to continue moving through the system unmolested, but they can also choose to completely block the fleet's movement, trapping them in the system for the remainder of the turn.

This sequence of events is repeated until all of the fleet's remaining movement orders are completed or cancelled.

Example: A 32 CC fleet has been ordered to move into three systems this turn ( $A, B$, and $C$ ). The fleet first moves into $A$ and makes its space and ground detection rolls. System A contains 5 CC of enemy non-starbase space combat units. To continue moving the fleet would have to leave
behind at least 3 CC of space combat units. The player decides to leave 8 CC of space combat units behind in system $A$, and the remaining 24 CC of units in the fleet move on to system B.

The fleet makes another series of detection rolls upon arriving in System B. There are two enemy fleets in this system, one with a construction cost of 12 CC and one with a construction cost of 9 CC. This produces a total of 21 CC of enemy ships in the system. The player must leave at least 12 CC of space combat units behind in System B if it hopes to move on to system C. Doing so would split his fleet into two 12 CC segments, however, and there's a good chance that a larger enemy fleet might be waiting in System C. The player decides to cancel his fleet's remaining movement and keep all 24 CC of his units in System B to participate in an encounter there this turn.

### 4.5 Concealed Movement

Units with the Stealth special ability are capable of moving through star systems without being detected. A fleet can only perform concealed movement each of its units has a Stealth value greater than zero. This indicates that all of the units in the fleet possess some form of stealth technology that they can use to mask their presence during movement. Units such as flights or ground forces that are being transported by units in a fleet don't affect its ability to perform concealed movement, but they also don't contribute their Stealth values towards their fleet's total, either.

Fleets can be ordered to perform concealed movement during the Movement Phase as long as this condition is met. A special detection roll is required whenever a fleet that is performing concealed movement enters a system. The percentage chance that the fleet successfully concealed its movement into the system is equal to its total Stealth value divided by the sum of its Command Cost and its opponent's total Scout value.

An opposing force can't contest the movement of a fleet that successfully performed concealed movement in their system this turn. Fleets that are detected by an opponent while attempting concealed movement however are still subject to the standard contested movement rules.

Instead of continuing its movement, a fleet that passed its concealment roll can elect to cancel its remaining movement orders and stay in the system so that it can generate encounters against an enemy during the Encounters Phase. Doing so will give the fleet's owner a +1

Advantage in every space combat scenario it generates in the system for the remainder of the turn.

Example: A fleet consisting of three cruisers (3 CC, 2 Stealth) and five frigates (1 CC, 3 Stealth) are attempting to perform concealed movement in a system where its opponents have a total of 12 Scout value. The fleet's chances of successfully completing its concealed movement is 9 Stealth $\div(14$ Command Cost +12 Scout $)=$ $34 \%$. The fleet's owner rolls a '27' on a D100. This is a success. The fleet can either continue its movement or else stay in the system and receive +1 Advantage to every space combat scenario it generates this turn.

### 4.6 Jump Lane Encounters

Opposing fleets that try to traverse the same jump lane during the Movement Phase generate a jump lane encounter against each others forces. This typically occurs when two fleets that are resolving contested movement move in opposite directions across the same jump lane during the same contested movement impulse.
Jump lane encounters during the Movement Phase immediately after two fleets meet in a jump lane. They are resolved using the standard encounter resolution rules (see X.X Encounters) with the exception that players can only generate X.X Hyperspace Scenarios against their opponents. Hyperspace scenarios are extremely unpredictable because both sides in the battle are subject to persistent combat penalties that make it difficult for either side to gain a definitive advantage.
Rarely, opposing fleets may generate a jump lane encounter in which each of the fleets rolls a No Detection result on the Encounter Table. This result indicates that none of the participating fleets even noticed each other as they moved across the jump lane. No hyperspace scenarios are generated during such an encounter, and movement progresses as if the encounter never actually happened.
After resolving a jump lane encounter, each fleet has the option to either continue moving on to its original destination or else fall back to the last system they visited. A fleet must do one or the other, it can't end the Movement Phase in the middle of a jump lane. Fleets that choose to move back to their system of origin cancel their remaining movement orders for the turn.

### 4.7 Jump Lane Exploration

The exploration of the unknown is one of the common themes of space strategy games. A classic starting campaign scenario is one in which each player's empire is limited to its own solar system at the start of the game and must explore nearby systems to see what kind of resources they offer and open up new avenues for colonization and expansion.

To achieve this effect, star systems and jump lanes on a campaign map can begin a campaign in an unexplored state. Unexplored jump lanes are innavigable and can't be traversed until they are successfully unexplored. An unexplored star system is then defined as a system that only has unexplored lanes connecting to it, which prevents any power from moving forces there until at least one of the lanes is explored.
Unexplored systems and jump lanes should be clearly identified on a campaign map to make their presence obvious to the players. Campaign scenarios don't have to include unexplored regions on their maps, and they are a completely optional addition to a campaign. On the other hand, players can create scenarios where jump lane exploration is a central component of play.

### 4.7.I Exploration Missions

Jump lane exploration is accomplished by assigning units or fleets to exploration missions. An exploration mission directs an exploration fleet to attempt to explore a specific unexplored jump lane that connects to their current system location. It's important to clearly note which unexplored lane that an exploration fleet is trying to explore because an empire's previous exploration attempts can give future exploration missions a bonus to their attempts to survey a specific unexplored lane. If for some reason the player doesn't specify a lane to explore, an exploration fleet will simply attempt to explore a random unexplored lane that connects to its system instead.
All of the units in an exploration fleet must be capable of independent FTL movement or be transported by a unit capable of basing them (as discussed earlier in this chapter). Fleets that have effective FTL values of zero can't perform jump gate exploration under any circumstances.
Exploration missions are resolved after movement during the Exploration Phase. Fleets can only attempt exploration if they didn't perform any movement during the Movement Phase or participate in combat or bombardment
during the Encounters or Bombardment Phases, respectively.

Each empire rolls on the Exploration Table for each unexplored jump lane that it is exploring this turn to discover the outcome of their exploration missions. Scout units that are assigned to an exploration mission provide a +1 bonus to the roll per 5 Scout value (round down). Exploration successes are rare and almost always require a power to spend multiple turns probing an unexplored lane until it has racked up enough Partial Exploration Success to all but ensure an exploration success.

Exploration Table (2D6)

| Roll | Effect |
| :--- | :--- |
| $2-4$ | Exploration Force in Peril. The <br> player must roll on the Exploration <br> Peril Table to determine what <br> unfortunate circumstance has <br> befallen his exploration force. |
| $5-8$ | No Effect |
| $9-11$ | Partial Exploration Success: The <br> exploring empire receives a <br> cumulative +1 to future attempts <br> to explore this jump lane. |
| 12 or more | Exploration Success: The <br> unexplored lane has been mapped <br> successfully. Move the exploration <br> force into the connecting system. |

Modifiers:
+1 per 5 Scout value (round down)

### 4.7.2 Exploration Peril

Exploration is dangerous, however, and some illfated expeditions may never return home. Exploration forces that find themselves in peril by rolling an Exploration Force in Peril result on the Exploration Table are in danger of becoming hopelessly lost. The player must roll on the Exploration Peril Table to discover what exactly has happened to his exploration force. A natural ' 2 ' on the Exploration Table always results in an Exploration Force in Peril result.

## Exploration Peril Table (2D6)

| Roll | Effect |
| :--- | :--- |
| $2-8$ | Out of Supply. The exploration force <br> journeyed too far away from the <br> existing supply lines. Each unit receives <br> 1 damage. |


| 9-10 | Systems Failure. A random unit in the <br> exploration force has suffered a <br> malfunction and takes an amount of <br> damage equal to its Defense value. |
| :--- | :--- |
| 11 | Unit Abandoned. The most expensive <br> unit in the exploration force has been <br> abandoned due to some unforeseen <br> crisis. |
| 12 | Exploration Force Lost: the entire <br> exploration force has disappeared <br> without a trace. All units assigned to <br> the exploration order are lost. |

## Exploration Strategies

Exploration can be very important in a campaign if there are lots of unexplored jump lanes on the map. This forces players to adopt a strategy for how they hope to explore these lanes and keep their empires expanding out into the stars.

It is recommended that new interstellar powers use small, low cost "hyperspace probes" to explore unexplored lanes. These small FTLcapable ships can be built on the cheap and can be easily replaced if they are lost during exploration.
The real goal of any empire that wants to develop a robust exploration corps is to field dedicated Scouts and then combining them into exploration fleets to receive the Scout exploration bonus. Exploration fleets that contain sufficient Scout value to receive bonuses to their exploration rolls will experience significantly more success than fleets that don't.

There are two strategies that players can adopt when building dedicated explorer ships. The first is to build large ships that cram in as much Scout value as they can, usually at least 5 Scout so that each of these ships will provide a +1 bonus to an exploration roll. The other option is to design smaller ships that are designed to work in tandem with one another. For example, a player could design a light cruiser with 2 Scout that is designed to be operated in groups of three. Three cruisers with 2 Scout each provides a total of 6 Scout value, which is enough to provide a +1 exploration bonus when they are operating as part of the same exploration fleet.

Empires that make heavy use of carriers can use a variant of this last alternative by fielding flights with the Scout ability. They can then load these flights aboard carriers to turn them into instant scouting units. This can be a worthwhile option
for players that don't want to build dedicated Scout ships.

Players can also choose to ignore active exploration and rely on other players to unlock jump lanes for them. While your opponents are spending money on explorer ships you can be building up a massive attack force that can move into the newly-explored territories and claim them for your own empire! This passive approach to exploration doesn't work as well if an empire is completely isolated from the rest of the galaxy, but it works well in campaigns where part of the map has already been explored but there are still unexplored systems to be found in frontier regions.

### 4.7.3 Discovering New Empires

There is always a chance that an exploration force will discover an unknown empire when it enters an unexplored system on the edge of known space. For reference, unexplored systems are defined as those that have only unexplored lanes connecting to them. The percentage chance of encountering a new power in one of these systems is based on the system's importance, as shown on the chart below:

## New Empire Discovery Chart

| System Importance | Discovery <br> Chance |
| :--- | :---: |
| Very Low | $5 \%$ |
| Low | $10 \%$ |
| Moderate | $15 \%$ |
| High | $20 \%$ |
| Very High | $25 \%$ |

Systems with high importance values are more likely to contain alien colonies or military units. This is largely because these systems are more likely to be home to emerging interstellar or preinterstellar civilizations. These low tech powers make up the majority of the first contact situations that explorers are likely to encounter during play. Rules for creating new non-player entities can be found in X.X Random NPE Generation.

### 4.7.4 Simplified Exploration $\Delta$

Players that would prefer a more basic approach to exploration can forego normal exploration attempts and instead require an empire to "spend" a set amount of Scout value to explore
an unexplored jump lane. The default exploration cost for unexplored lanes is 50 Scout value, but players can adjust this to fit the rate of exploration and expansion they want to see in their campaigns. At this exploration cost, it would take a long range explorer with 5 Scout value (enough to give it a +1 exploration bonus under the standard rules) one campaign year (10 turns) to fully-explore a jump lane.
Players can also choose to vary the exploration cost of unexplored lanes if they would prefer some to be easier to explore than others. The most obvious means of implementing this option is to assign each lane an exploration cost equal to 1D10 x 10. This provides a fixed cost range between 10 and 100.

### 4.8 Jump Lane Classes $\Delta$

Jump lanes can be assigned jump lane classes that vary the amount of FTL value a unit must spend to move across them. This optional rule introduces four different jump lane classes restricted, minor, normal, and major.
Restricted lanes are tenuous routes that have been only tentatively mapped by previous explorers and are hardly worthy of being called jump lanes. The adventurers that discovered the lane encountered various navigational hazards along its path that prevented them from completing a more comprehensive survey, which is part of the reason it's so difficult to cross a restricted lane.

Minor lanes are infrequently-traveled jump lanes that suffer from a lack of reliable navigation data. These lanes are often found on the frontier where no one has deemed it necessary to invest the time and resources to perform more detailed surveys of the lane.

Normal lanes are dependable jump lanes that support a consistent level of both civilian and military traffic. The quality of maps available for these lanes ensures travelers a safe and uneventful journey. As an empire expands, it is common for it to upgrade most of its internal jump lanes to this class.

Major lanes are heavily-traveled jump lanes that have been thoroughly mapped and provide the quickest, most reliable movement between galactic destinations. It is not uncommon for all of an empire's major colonies to be connected together via a network of major lanes.
A jump lane's class is assigned by rolling on the Jump Lane Class Table during map setup. Jump lanes that are supposed to be unexplored at the
start of the game defer their rolls on the Jump Lane Class Table until after they are successfully explored (see X.X Exploration). When using real world star data, players can alternatively choose to use the distances between stars to determine the effective jump lane class of the jump lanes that connect them.

Jump Lane Class Table (D10)

| Roll | Jump Lane Class |
| :---: | :--- |
| $1-4$ | Restricted |
| $5-7$ | Minor |
| $8-9$ | Normal |
| 10 | Major |

### 4.8.I Jump Lane Movement Costs

Each jump lane class is assigned its own movement cost as shown on the accompanying chart. The maximum movement cost of jump lanes that a fleet can traverse each campaign turn is equal to its FTL value. However, an FTLcapable unit can always move across at least one jump lane per turn regardless of the jump lane's class.

Jump Lane Movement Cost Chart

| Jump Lane Class | FTL Cost |
| :---: | :---: |
| Restricted | 4 |
| Minor | 2 |
| Normal | 1 |
| Major | $1 / 2$ |

### 4.8.2 Jump Lane Upgrades

Jump lanes can be upgraded by financing a series of costly navigational surveys. These surveys pay for more comprehensive mapping of a jump lane and the placement of additional navigation buoys along its length to help guide spacecraft safely from one system to another.

The cost to upgrade a jump lane depends on its current jump lane class, as shown on the following chart. An empire can't upgrade jump lanes that connect to systems that are owned by other powers unless it has signed a border treaty with them. Jump lane upgrades take effect during the Colony Phase.

Jump Lane Class Upgrade Cost Chart

| Current Class | New Class | Upgrade Cost |
| :--- | :--- | :--- |
| Restricted | Minor | 50 |
| Minor | Normal | 100 |
| Normal | Major | 200 |
| Major | N/A | N/A |

### 4.8.3 Jump Lane Downgrades

Just as jump lanes can be upgraded through careful mapping and the placement of navigation aids, they can also be downgraded by removing buoys, deleting map data from civilian and military navigation cores, and/or placing obstacles along previously-mapped safe routes. Any of these methods can be used to effectively reduce a jump lane's class.

The cost to downgrade a jump lane is determined by its current jump lane class, as shown on the chart below. An empire can't downgrade jump lanes that connect to systems that are owned by other powers unless it has signed a border treaty with them. Jump lane downgrade take effect during the Colony Phase.

## Jump Lane Class Downgrade Cost Chart

| Current Class | New Class | Downgrade Cost |
| :--- | :--- | :--- |
| Major | Normal | 100 |
| Normal | Minor | 50 |
| Minor | Restricted | 25 |
| Restricted | N/A | N/A |

### 4.9 Jump Lane Alternatives $\boldsymbol{\Delta}$

While jump lanes are excellent tools for constraining movement and creating artificial terrain on a campaign map there are some sci-fi settings where they may not be thematically appropriate. Perhaps more importantly, some players also detest the concept of jump lanes because they create artificial terrain and would prefer to use alternate movement options that better capture the feeling of FTL travel in their preferred campaign setting. The following are a few alternatives that players can use if they don't want to use jump lanes in their campaigns.

### 4.9.I Freeform Hex Maps

An easy option for players that want to do away with jump lanes is to continue using a hex map to track system locations as per the standard
campaign system rules but allow units to move between adjacent systems on the map as if they were connected by jump lanes. This constrains movement to a two-dimensional surface, which may not be optimal for the type of campaign environment you're trying to simulate, but it is very effective at increasing the number of movement options that a player has available. Most importantly, it eliminates the natural chokepoints on the map that jump lanes create and makes imperial borders more fluid.

### 4.9.2 Distance Based Movement

Another option is to use the distance between two systems on a campaign map to determine how long a ship has to be in transit to move from one system to the other. The recommended number of Movement Phases required to travel between two systems is equal to their light year distance divided by 5 (round fractions up). A FTL 1 starship moving from Sol to Alpha Centauri (4.4 ly) would make the journey in 1 turn, but that same ship would need 3 turns to move from Sol to Epsilon Eridani ( 10.5 ly ). Note that a faster starship with FTL 2 could cover that distance twice as fast, and it could make the trip from Sol to Epsilon Eridani in just 2 turns.

An advantage of this jump lane alternative is that players can use online star catalogs or mapping software like Celestia to calculate the distance between two stars. Meanwhile, players that are using flat, two-dimension maps can select a scale for their map and then use a grid or ruler to measure between points on the map to determine the distances between systems. Enterprising players can easily add a z-axis to the flat map to give it three-dimensional depth, too, and then use math to calculate the distance between any two systems.

## The Strategic Implications of Jump Lanes

Systems that have large numbers of jump lanes provide players with more movement options, but they are also harder to defend because each of these lanes represents another avenue of attack into the system. Empires often find themselves spending resources to fortifying and defend otherwise unimportant systems simply because of their strategic value. These defenses are rarely impregnable, however, and a dedicated opponent can usually push enough military forces into the system to eliminate them -- albeit at a significant cost in men and materials to achieve the victory. On the other hand, the opponent may choose not to attack a fortified system at all because he can't be sure that his forces can break through the defenses
without taking unacceptable losses, at which point the defense's mere presence are enough to protect the system against attack.

Systems that have few jump lanes connecting to it -- or even a single jump lane -- offer their own unique set of advantages and disadvantages. These systems are of lesser strategic value because they offer fewer access points into or out of the regions where they're located. The only reason most opponents have for attacking a system that only has one or two jump lanes is if it is located along a path of lanes that does lead to somewhere of greater importance.
Systems that are located in a cul-de-sac gain an additional defensive edge thanks to their out-of-the-way nature. It's unlikely that an enemy will aggressively pursue a military campaign against systems that are located in cul-de-sac unless one or more them are particularly high value when his forces can be better used trying to make territorial gains in more strategically valuable regions. Cul-de-sacs also tend to have a central point of access that the defender can easily reinforce, making it more difficult for an enemy's forces to achieve a breakthrough.
Unfortunately for the inhabitants of a cul-de-sac, it also harder for a player to reinforce his forces in these systems when they are cut off by an enemy offensive. Still, unless the isolated system exhibits unusual characteristics that make it abnormally valuable, most empires will balk at the prospect of wasting considerable time and resources to secure a section of enemy space that isn't strategically located or of considerable material value.

### 6.0 Empirgs

## X.I Player Empires

A player empire (PE) is a power that is controlled by a human player. Player empires are the default empire type and they follow all of the normal campaign rules provided in this rule book. Most campaigns will feature at least two player empires: one for each individual player in the game. Player empires compete against one another to achieve one or more predetermined victory conditions as dictated by their campaign scenario to determine the game's winner.
Players can also run solo campaigns that feature a single player empire. Solo campaigns are less focused on achieving victory conditions and instead offer the player a more open-ended game experience where they can expand, explore, and interact with other non-player empires in a sandbox environment without having to worry about direct competition with other player empires.

Should a player be forced to quit a campaign, the players or CM must decide whether or not to find a replacement player to take over control his empire or else convert the player empire into a non-player empire. The only difference between a player empire and a non-player empire is that the latter requires some special rules in order to automate its diplomatic relations and influence other campaign actions.

## X. 2 Non-Player Empires

A non-player empire (NPE) is a power that is being run by the CM rather than by a player. While X.X NPE Diplomacy is largely automated, players must still make specific decisions as to the empire's overall strategy, including what it should build, move its forces, etc. Players can use the results of a non-player empire's diplomatic rolls as a guide to determine the power's likely goals and intentions.

When setting up a campaign, players can decide how many non-player empires they want to include in their game. Non-player empires contribute to the campaign experience by giving players additional powers to interact with during the game. Each is a potential friend or foe that players must deal with during the game. They can also be used to add additional military and diplomatic challenges that the players have to overcome to achieve their goals.

New players or those that want a faster play experience should keep the number of nonplayer empires in their game to a minimum to reduce the amount of bookkeeping that they have to manage turn-to-turn. Players looking for a campaign that features more diplomatic maneuvering are instead encouraged to add extra non-player empires to the game to keep things interesting.
Non-player empires are a core staple of solo campaigns where they provide valuable foils for the player's empire. Each unexplored star system that is explored in a solo campaign has a chance of revealing a new non-player empire that the existing powers will have to deal with.

A player empire can be converted into a nonplayer empire should its player find himself unable to continue playing in the campaign. This is preferential to letting the player empire remain completely inactive for the rest of the campaign. It can always be converted back into a player empire later on if a replacement player is finally found to take over the position.

Players in unmoderated campaigns can choose to integrate non-player empires into their games, but the lack of a neutral third-party (CM) to run these powers means that the players much come to a consensus on who will issue their turn orders. In most cases the best solution is to have the player whose empire has the highest relations with the non-player empire control its actions in unmoderated campaigns.

## X. 3 Non-Aligned Empires

Non-aligned empires (NAE) are minor powers, usually confined to a single star system, with weak economies that limit their impact on the campaign. Any non-player empire whose total income is less than 10 economic points per turn is considered to be a non-aligned empire.
// always sign highest level treaties
// won't declare unless contractually obligated to by an alliance
X.X Pirate Forces are a special type of nonaligned empire that tracks their income and expenses like a normal empire but doesn't actually conduct meaningful diplomacy with other powers. An ascendant pirate force that accrues significant wealth can eventually become a full-fledged non-aligned or non-player empire.

Non-aligned empires (NAE) are minor powers that have limited economies and military forces. Any non-player empire that has a total colony income less than 25 EP per turn is considered to be a NAE instead of a NPE.

Unlike NPEs, non-aligned powers function as satellite states that, despite being sovereign states, are beholden to another power. As such, a NAE is always controlled by the player whose empire has the highest relationship value with it. This represents that while the NAE is still a separate political entity it's ultimately beholden to the political control of another power.
A NAE becomes a NPE when its total colony income increases to 25 EP per turn. This transition occurs at the end of the campaign turn during the Update Phase of the sequence of play. Conversely, a NPE that suffers significant setbacks that reduce its total colony income below 25 EP per turn reverts back to being a NAE until it can get back on its feet.

A non-aligned empire (NAE) is a minor power that is unable to exert influence over its neighbors due to weak economies and/or a lack of resources. These nations typically control few colonies, have limited colonial infrastructure, and field small militaries that are insufficient to defend against an attack by a great or middle power.

The key point of distinction between non-player and non-aligned powers is that the latter follows a simplified system for resolving diplomatic relations. Non-aligned empires continue to maintain Relationship values with each other nation it is in contact with, just as any other empire would, but these Relationship values indirectly determine what treaties or declarations exist between the powers.

A non-aligned empire will automatically sign the highest level treaty it can with another power. Should relations deteriorate far enough that their current treaty level can no longer be maintained, a non-aligned empire will automatically break any treaties beyond the highest level one it is currently capable of signing.
Non-aligned empires that have positive hostilities chances with another power will automatically declare the highest level hostile declaration (hostilities, war, total war) possible, and these declarations take precedence over any treaties that the power is currently capable of signing. The non-aligned empire will not return to a peaceful state and begin signing new treaties with an opponent until it is no longer capable of declaring against it.

These changes to diplomacy make it easier to run a larger number of small empires in a campaign without adding a lot of administrative overhead to turn generation. The end result is that some non-aligned empires can end up being fairly unpredictable, depending on their culture statistics and how rapidly their Relationship values swing in either direction.

By default, any empire that has a gross domestic product of 10 EP or less is considered to be a non-aligned empire. Players can modify this threshold up or down as they see fit, but it is recommended that only the smallest of nations be treated as non-aligned empires.

## X. 4 Culture

Culture is a representation of a society's attitudes and values that influence its diplomatic relations with other powers. All empires are assigned three culture values: Aggressiveness (AG), Integrity (IN), and Xenophobia (XE). These values range from 1 to 100 (low to high).
Player empires are normally assigned culture values of AG 50, IN 50, XE 50. A culture value of 50 is a neutral baseline, and an empire with all of its culture values at this level won't receive any diplomatic modifiers, either positive or negative. Players have the option of changing their empire's culture values before the start of the game if they so choose, however.
Culture values can be assigned to non-player empires in a number of ways. Non-player empires that are included as part of a pregenerated campaign scenario are usually preassigned culture values that reflect their own unique personalities and diplomatic inclinations. Manually assigning culture values to a non-player empire is best when you're attempting to model the culture of a nation from an existing science fiction universe. Another option for assigning culture values is to randomly assign culture values to new empires by rolling a D100 for each culture value. This is most appropriate when randomly generating new non-player empires that a player encountered during the course of an ongoing campaign.
While non-aligned empires are assigned culture values, they have less impact on its interaction with other powers than those that are assigned to player or non-player empires (see X.X NAE Diplomacy).

## X.4.I Aggressiveness

Aggressiveness (AG) represents a power's tendency to resort to violence in order to solve its problems. Powers with high Aggressiveness values are hostile, quick to go to war, and less likely to agree to a peaceful resolution to conflicts. Powers with lower Aggressiveness values are pacifistic and prefer to avoid conflict if at all possible. An empire's Aggressiveness modifies its relationship values with other powers when it attempts to issue declarations against them.

| Aggressiveness Overview Chart |  |
| :--- | :--- |
| AG | Diplomatic Overview |
| 81 |  |
| higher | or |
| $61-80$ | Extremely Hostile. This empire is so <br> belligerent that it makes diplomacy <br> almost impossible. |
| $41-60$ | Hostile. This empire is more <br> inclined to use violence to achieve <br> its goals. |
| $21-40$ | Neutral. This empire doesn't exhibit <br> any extreme tendencies towards <br> war or peace. |
| 20 or less | Peaceful. This empire is reluctant to <br> go to war unless faced with <br> sufficient provocation. |
| Extreme Pacifist. This empire is <br> unlikely to resort to violence even <br> when beset by hostile foes intent <br> on its destruction. |  |

## X.4.2 Integrity

Integrity (IN) is a measure of a power's willingness to honor its past agreements. It is more difficult for empires with high Integrity values to break the treaties they have signed with other powers. Conversely, empires with low Integrity values assume a more laissez faire attitude towards politics and treaties signed with them may not be worth the paper they were written on. An empire's Integrity modifies its relationship values with other powers when it tries to break treaties it has previously signed with them.

| I ntegrity Overview Chart |  |
| :--- | :--- |
| IN | Diplomatic Overview |
| 81 or <br> higher Honorable. This empire is dedicated <br> to honoring the treaties that it signs <br> with other powers and reacts very <br> negatively to those that dishonor |  |


|  | their treaties. |
| :--- | :--- |
| $61-80$ | Reliable. This empire prefers to <br> honor its treaties with other powers <br> and doesn't like breaking treaties. |
| $41-60$ | Honest. This empire honors most of <br> the treaties it signs, but can still <br> break them when the need arises. |
| $21-40$ | Unreliable. This empire is willing to <br> abrogate its treaties if it finds that <br> it is in its best interests to do so. |
| 20 or less | Deceitful. This empire has no <br> intention of honoring the treaties it <br> signs and will break them at the <br> first opportunity. |

## X.4.3 Xenophobia

Xenophobia (XE) determines a power's attitude towards other empires. Powers with high Xenophobia values openly dislike other alien species and take every precaution possible to limit their contact with outsiders. Powers with low Xenophobia values tend to be more "xenofriendly" and actively pursue relations with the empires they come in contact with. An empire's Xenophobia modifies its relationship values with other powers for purposes of signing treaties with them.

| Xenophobia Overview Chart |  |
| :--- | :--- |
| XE | Diplomatic Overview |
| 81 <br> higher or | Isolationist. This empire doesn't <br> want anything to do with the <br> outside world and prefers to be left <br> alone. |
| $61-80$ | Insular. This empire minimizes its <br> contact with other powers to limit <br> outside influence upon its society. |
| $41-60$ | Open. This empire entertains <br> diplomatic relations with some <br> powers while openly distrusting <br> others. |
| $21-40$ | Friendly. This empire encourages <br> interactions with other empires and <br> species and make good friends. |
| 20 or less | Universalist. This empire <br> enthusiastically greets each foreign <br> power it encounters and is <br> extremely interested in forging <br> lasting relations with them. |

## X.4.4 Cultural Archetypes

Science fiction makes heavy use of cultural archetypes, and many are seen so frequently in print, film, and television that they have become staples of the genre. The following is an overview of some of the more common cultural archetypes and how they relate to the culture rules in the Victory by Any Means Campaign System.

## The Relentless Horde

Empires that are both Extremely Hostile and Isolationist make the ultimate enemies because they are quick to go to war and have little interest in peaceful contact with other species. These powers usually take the form of mindless alien hordes that are driven by a relentless need to expand and destroy everything in their path. Insect hiveminds and advanced artificial intelligences are common forms of the relentless horde archetype. Examples from popular fiction include the Borg from Star Trek, Arachnid Omnivoracity from Starfire, and the Replicators from Stargate SG-1.

## The Honorable Warriors

The "space vikings" of a setting, the Honorable warriors yearn for the visceral thrill of combat so that they can demonstrate their skill in battle and revel in the glory of returning home as victorious conquering heroes. The combat-lust that the honorable warriors display makes them Hostile or possibly even Extremely Hostile, but they are usually still at least Open to peaceful diplomatic contact with outsiders (otherwise they would turn into relentless hordes). Examples include the Klingons from Star Trek and the Luxans from Farscape.

## The Peaceful Federation

The trope of a peaceful federation seeking out new life and new alien civilizations to befriend and bring into the fold is an enduring one. These empires are overwhelmingly Universalist that value their political Integrity, making them Reliable or Honorable. Examples include the United Federation of Planets from Star Trek or the Galactic Republic from Star Wars.

## The Evil Empire

The dark mirror of the peaceful federation is the evil empire, a power that binds individual worlds together via military instead of diplomatic means. Many evil empires start out as peaceful federations until sinister shifts in the political winds cause them to abandon their peaceful ideals and enforce order with the barrel of a gun.

Evil empires are overwhelmingly Hostile but are rarely Insular, preferring to remain Open to relations with other powers (as an obvious prelude to a future invasion, of course). Examples include the Galactic Empire from Star Wars, the Peacekeepers from Farscape, or the Goa'uld system lords from Stargate SG-1.

## Stark Pacifists

An uncommon archetype, the stark pacifist abhors war and violence to the point that they won't attempt to fight back even when threatened with conquest or annihilation. One of the best example of stark pacifists in science fiction are the alien protagonists from Alan Dean Foster's The Damned trilogy that were evolutionary predisposed against violence to the point that members of one species, the Wais, tended to enter a catatonic state when confronted by acts of violence.

## X.4.5 Cultural Revolutions

Empires can attempt to change their culture values by initiating cultural revolutions. These revolutions spark a period of turbulent social upheaval that can lead to permanent changes in the nation's cultural outlook.

Intel points are spent to fund a cultural revolution, representing the use of state propaganda and social programs to try and manipulate public opinion and make them more open to embracing social change. Each intel point spent on the revolution increases its chance of success.

It takes 10 turns to complete a cultural revolution. On the tenth turn, the player takes the number of intel points spent on the revolution and divides it by 10 times the empire's total Census to calculate its percentage chance of success. A percentile (D100) die is rolled against this chance to see if the revolution was a success or failure. A successful cultural revolution allows the player to increase or decrease his empire's culture values by a total of up to 50 points. The player always chooses which culture values are affected by the cultural revolution.

A failed cultural revolution can spark a reactionary counter-revolution if the D100 roll was greater than or equal to twice the chance of success. Counter-revolutions cause each of an empire's colonies to lose 1 Morale as the counter-revolutionaries rollback the social policies put in place during the revolution and purge the political elements that supported those policies. Such harsh acts to return to the status
quo can incite additional violence and lead to even greater political instability.

## X. 5 Capitals

Capitals serve as the administrative centers from which an empire's authority radiates outwards through its sphere of influence. It is within the walls of these capitals that political leaders make the important decisions that shape the destiny of empires. Whether history remembers their actions with reverie or disdain is a matter for future historians to debate.

There are two different types of capitals: imperial capitals and sector capitals. An imperial capital acts as an empire's political nerve center and is the seat of government at which its rulers gather to conduct affairs of state. All of an empire's other capitals are sector capitals. Sector capitals serve as provincial administrative bases that are used to extend an empire's political influence into new sectors of space.

Unless a scenario indicates otherwise, every empire starts the game with an imperial capital at ones of its inhabited systems. Imperial capitals are normally located at an empire's largest, most populous system -- usually its home system. This isn't a strict requirement, however, and when setting up a new empire players can decide to place an empire's imperial capital in any of its inhabited systems.

## X.5.I Capital Construction

The economic cost to build a new imperial capital is equal to 10 times an empire's total Census, and it takes 10 turns to build a new imperial capital. This cost and built time is halved if the imperial colony is being built at a colony that already has a sector capital (round fractional costs up). This expenditure finances the construction of a new administrative facility that is large enough to accommodate the amount of government activity that will be conducted there. Smaller empires pay less for their capitals because they require less space and fewer bureaucrats to administer their holdings. Nations that control expansive colonial and/or commercial empires have higher administrative overheads because they have more citizens to govern, ships to inspect, tariffs to levy, etc. Their high-level officials also tend to expect a higher standard of living as a way of displaying a symbol of their nation's wealth to foreigners that visit the capital to conduct state business.
Sector capitals are special facilities that follow all of the standard rules for facility construction and
maintenance (see 6.0 Facilities) with the notably exception that they can only be built at core worlds that have at least 6 Census. In contrast, empires can build their imperial capitals at any of their colonies regardless of their colony importance. This ensures that an empire can establish or reestablish an imperial capital even if it doesn't control any colonies that have populations large enough to qualify them for core world status.

An empire can only have one imperial capital at any given time.

## X.5.2 Zones of Control

The maximum distance that a capital can administer friendly colonies is called its zone of control and is equal to its system's commerce range. This zone of control defines the distance that imperial power extends outwards from the capital system and determines the size of the sector that the capital is directly administering.

Colonies that are located within a capital's zone of control are more politically stable because they are more tightly integrated into their empire's bureaucracy. This gives them greater access to an empire's leaders and/or representation in its governing bodies which in turn gives these colonies greater influence over imperial decision making. In contrast, frontier colonies that exist beyond the zone of control of any of their empire's capital systems are politically isolated and less likely to support their empire's actions or policies. These frontier colonies receive a +1 penalty to their system loyalty checks that reflects that their colonial populations are more likely to come into conflict with their ruling government.

## X.5.3 Losing an Imperial Capital

An empire can only lose its imperial capital if its colony is conquered, destroyed, or abandoned. The imperial capital is automatically razed and remains destroyed even if friendly forces successfully liberate the colony or the system is later recolonized. The damage has already been done and the capital is lost. Sector capitals are comparatively easier to destroy because they are treated as normal facilities, and they can be destroyed using Anti-Facility bombardment missions or Sabotage: Facility intel missions.

The successful conquest of an imperial capital gives an invading army the opportunity to loot the imperial treasury before burning the capital to the ground. Pillaging an imperial capital nets the conquering power half of the economic points
in the defender's economic pool at the time of conquest (round up).
The loss of an imperial capital leaves a nation without a central, recognized authority to administer its territories and other assets. Surviving government officials will try to hold the empire together during the interregnum until a new seat of government is established but the splintered nature of their political efforts leads to even more challenges, as described below. The empire's colonies receive a +1 loyalty check penalty during this period of turmoil as the colonial leadership openly challenges the provisional government's mandate to rule. Colonies are more likely to suffer morale failures in these times of crisis, falling into unrest or rebellion as the vestiges of the former government breakdown all around them. If enough colonies go into rebellion, an empire may find itself fighting a civil war in addition to dealing with the crisis that sparked the loss of its imperial capital in the first place.
An empire can't offer, sign, or break treaties with other powers without an imperial capital nor can it issue new declarations against foreign powers until a new imperial capital is established. The provisional government is incapable of enforcing any of the treaties or declarations that it might endorse, and too many governors, admirals, and generals would simply choose to ignore them in favor of policies that favored their individual personalities and ambitions.

## X. 6 Spheres of Influence

A sphere of influence is the territorial region, consisting of one or more star systems, that an empire directly controls or hold legitimate claims to, either through natural expansion or treaty. The size of an empire's sphere of influence is determined by two factors: the number of colonies the empire controls, and the supply range those colonies possess. Barring outside factors, powers control any system where they have a colony and claim any uninhabited systems that within the supply range of their colonies. Disputed systems that contain mutually hostile forces are contested. Claimed, controlled, and contested empires are all part of an empire's sphere of influence. These basic concepts drive the formation, expansion, and contraction of imperial spheres of influence.

## X. $6 . I$ Political States

Each of the star systems on the map are assigned a political state and affiliation. A system's political state (neutral, claimed,
controlled, contested) tells the player what level of control an empire is exerting over the system, while its affiliation tells you who owns the system.

## Controlled Systems

Empires control inhabited star systems where they own colonies. Controlled systems are an integral part of a power's sphere of influence and nothing short of a full military conquest will wrest them from its control. This is in contrast to claimed systems that can change ownership based solely on whose military forces are stationed there or who has the greatest effective supply range in the system. Any player that wants to be sure that a system is part of his empire's sphere of influence should make establishing a colony there a top priority.
While rare, an empire can cede ownership of its controlled systems to other powers. Surrendering colonies to an opponent usually only happens when a player is forced to give up territory as part of the terms of a particularly harsh armistice treaty.

## Claimed Systems

An empire can lay claim to any uninhabited system that is both located within the supply range of one or more of its colonies and connected via a jump lane to one of its other claimed or controlled systems. If multiple powers can trace supply into a system, the empire with the largest military force in the system (by Command Cost) has a claim to the system. Otherwise, if there aren't any military forces in the system, the empire with the highest effective supply range (i.e., the colony's supply range minus distance between the two systems) holds the superior claim. In the case of a tie, neither of the powers can claim the system and it becomes a neutral system.
Empires can voluntarily relinquish claims on their claimed systems to other powers as part of a treaty agreement. Players may choose to sign away their empires' rights to certain claimed systems in order to diffuse tensions and demonstrate that they have no interest in owning those systems. Any empire that has ceded its territorial claims to another power have an effective supply range of zero in these systems. Territorial claims are renewed if the treaty that relinquished them is broken or withdrawn.

## Contested Systems

A system is contested if it contains assets belonging to two or more mutually hostile empires that are currently in a state of war. Systems remain in a contested system state until all hostile forces are driven from the system or the attacker successfully capture the colony and remove all of the remaining defenders. Contested systems are considered to be part of the spheres of influence of both empires that are fighting for ownership of them.

## Neutral Systems

Neutral systems are located outside the supply ranges of any nearby colonies and are therefore unclaimed and not part of any empire's sphere of influence. A system remains in a neutral state until a power can extend supply into the system at which point it will become a claimed system.

Systems usually don't stay neutral for very long and the race to control neutral systems is one of the great sources of conflict during the early stages of a campaign. Galactic real estate is a limited resource and many of these unclaimed worlds may be worth going to war to control.

## X.6.2 Sectors

An empire's sphere of influence is divided into multiple sectors based on the number, location, and zones of control of its capital systems. Each capital assumes administrative control of its own sector, which includes all of the empire's controlled systems that are located within the capital's commerce range. In the event that a system is within the zone of control of multiple capitals, it is added to the sector administered by the capital with the greatest effective commerce range in the system (commerce range minus distance). Systems that are located outside the zones of control of any of their owners' capitals aren't part of any sectors.

## X.6.3 Borders

Empires that sign a border treaty agree to respect each others borders and can't intentionally move military assets across the border into the opponent's sphere of influence unless they have also signed a separate military treaty that grants them that access.

## X.6.4 Neutral Zones

A neutral zone is a demilitarized zone that can be created between two empires to separate their spheres of influence with the intent of minimizing future antagonism. Players can opt to create a
neutral zone as part of a normal border treaty. Such a treaty would include special provisions indicating that one or more claimed or neutral systems located along the mutual border are to be set aside and purposefully excluded from either signatory's sphere of influence. These systems become de facto neutral systems regardless of either empire's effective supply range into the system, at least until the border treaty is broken or a third-party absorbs them into its own sphere of influence.

Neither empire is allowed to move forces into the neutral zone without the express consent of the other party, nor may either party establish colonies in these systems. Either of these actions would violate the terms of the border treaty that created the neutral zone.


## Integrated Example

The best way to understand how spheres of influence interact is by taking a look at an actual example of how they work in play. Consider the following map which depicts seven star systems and two empires.


| System | Political <br> State | Supply <br> Range |
| :---: | :---: | :---: |


| Cenquine | Controlled | 3 |
| :--- | :--- | :--- |
| Voktratine | Controlled | 0 |
| Mazar | Controlled | 4 |
| Ferelon | Controlled | 2 |
| Bakr | Controlled | 0 |
| Parma | Claimed | 0 |
| Mendaba | Claimed | 0 |
| Veneziel | Claimed | 0 |
| Eltra | Neutral | 0 |
| Shaka | Neutral | 0 |

From its colony at Mazar, the Brindaki can trace supply routes to all of the systems on the map except Shaka. The farthest system from Mazar is Veneziel at 4 jumps, so it is just at the edge of its supply range. The Jains can't trace supply route quite as far as the Brindaki can, and both Veneziel and Shaka aren't within Cenquine' supply range.

The Brindaki have colonies in Mazar, Ferelon, and Bakr. That makes these their controlled systems. The Jains have colonies in Cenquine and Vokratine, and these are their controlled systems. This leaves the systems of Eltra, Parma, Mendaba, Veneziel, and Shaka that aren't controlled by either power. The next step in resolving our sphere of influence is to determine who holds a legitimate claim to these uninhabited star systems. Ignoring military forces and concentrating strictly on effective supply, here is an overview of how these claims are resolved:

Eltra: The Jains have an effective supply of 2 in the system ( 3 supply - 1 jump), but the Brindaki also have an effective supply of 2 (4 supply - 2 jumps). This is a tie, so the system is neutral.

Parma \& Mendaba: The Jains have an effective supply of 0 in these systems (3 supply - 3 jumps) while the Brindaki have effective supplies of 1 (4 supply - 3 jumps). The Brindaki claim both systems.

It's interesting to note that the Brindaki can actually trace supply into Parma from two of its controlled systems. Mazar's effective supply in the system is 1 , while Ferelon's is 0.

Veneziel: The Brindaki have an effective supply of 0 in this system (4 supply - 4 jumps). The Jains can't trace supply into the system, as their effective supply in the system is less than 0 (3
supply - 4 jumps $=-1$ ). The Brindaki claim this system.

Shaka: Neither the Jains nor the Brindaki can trace supply to Shaka because both have effective supply values less than zero in this system. This makes Shaka a neutral system.

But what happens to these systems if the Jain's declare war on the Brindaki and move forces from Cenquine into Ferelon? The Jain attack on Ferelon would force the system into a contested state and cut off the Brindaki's supply lines from Mazar because supply and commerce can't be traced through a contested system. This has a major impact on both spheres of influence, as shown in the following illustration.


| System | Political <br> State | Supply <br> Range |
| :--- | :--- | :---: |
| Cenquine | Controlled | 3 |
| Voktratine | Controlled | 0 |
| Eltra | Claimed | 0 |
| Mazar | Controlled | 4 |
| Ferelon | Contested | 2 |
| Bakr | Controlled | 0 |
| Parma | Neutral | 0 |
| Mendaba | Neutral | 0 |


| Veneziel | Neutral | 0 |
| :--- | :--- | :--- |
| Shaka | Neutral | 0 |

Eltra: Mazar and Ferelon can no longer trace supply, and Bakr has a supply range of 0 . The Jains now have the highest effective supply in the system and gain it as a claimed system.

Parma, Mendaba, Veneziel: These systems relied on Mazar and Ferelon for supply. With those sources of supply disrupted, all of these systems become neutral again. The Jains can trace supply into Parma and Mendaba, but they can't claim either of these systems because jump lanes don't connect them to any of its other claimed or controlled systems.

Had the Bakr system had a supply range of 1 , the Brindaki would have been able to hold on to their claims on Parma and Mendaba despite the Jain attack. The Brindaki would have still lost its claim to Eltra, however, as the Jains would have still had a higher effective supply in that system (2 vs. 0).

If this war were to end with the Brindaki giving up the Bakr system to the Jains as part of the peace deal, the Jains would end up with three controlled systems (Cenquine, Vokratine, Bakr) and three claimed systems (Eltra, Parma, Mendaba). That would leave the Brindaki with two controlled systems (Mazar, Ferelon) and no claimed systems. Such an outcome would be highly favorable to the Jains as it gives their empire a secure avenue for expansion that would guarantee them access to nearly a half dozen new star systems to begin colonizing.


## X.X Cut Off Regions

Enemy attacks, natural disasters, or other national crises can end up cutting off portions of an empire's sphere of influence. A region is considered to be "cut off" if none of the colonies in the affected region can trace a continuous route of jump lanes back to their imperial capital that doesn't pass through a contested system or territories owned by a non-military treaty partner. All of the colonies and facilities in a region that are similarly affected but can trace jump lanes paths to one another are part of the same cut off region.
All of the campaign resources that are generated in a cut off region are stored in separate resource pools. Any purchases that a player makes in the cut off region can only be paid for
using this special reserve of resources. The economic, population, tech, and intel points that a cut off region accrues during its time of isolation are returned to its owner's own resource pools once contact is restored.

A cut off region must rely on its own food production capabilities to feed all of its Census, and none of the food produced in a cut off regoin can be transferred to any of its owner's other colonies that are located outside the cut off region.

New unit classes that completed prototyping after the region was cut off can't be built in the cutoff region. Similarly, any new units that are prototyped in the cut off region won't be available in the rest of the empire unit after contact is restored.

## Splintering an Empire

Players should seriously consider granting a cut off region independence once it has spent two or more campaign years isolated from the rest of its owner's empire. After this length of time the cut off region should have become administratively self-sufficient and used to going it alone. This is especially true for cut off regions that already contain a sector capital, as the capital's presence gives it a ready-made bureaucratic center that can easily be converted into an imperial capital for the new nation.

Cut off regions that are given independence become "imperial remnants" that continue the traditions of their originating nation, and they usually have strong relations with that power, but they're no longer willing to be reabsorbed into their owner's empire even if contact is reestablished in the future.

Another way to view independent cut off regions is as a situation reminiscent of the division of the Roman empire into eastern and western sections. In that case, the new nation represents a self-administering segment of the larger empire, but the ties that bind them together are slowly fraying until the facade of national unity falls away leaving behind two distinctly different political bodies that have different goals and ambitions.

Introducing imperial remnants into an ongoing campaign can shake up the campaign narrative and make for an interesting story. Will the original empire try to reinstate control over its formers colonies, or will its player accept that his empire has started to splinter into any number of separate successor states?

## X.X Releasing New Empires

Empires have the option of releasing territories they control to form new non-player or nonaligned empires. There are several reasons why a player might decide to have his empire release one or more colonies to create a new empire. The most likely is to reduce the empire's total Census to reduce its tech advancement costs and accelerate that rate at which it can research new technologies. This can be especially important for an empire that has recently conquered a number of enemy colonies and needs to shed Census to get its tech advancement costs back in line with its ability to generate tech points.

New empires are also commonly created as the result of armistices after major powers go to war. The loser in a war might be required to release some of its colonies to create a new buffer state between itself and its opponent. The creation of this state along the border denies its resources to the previous owner while at the same time creating a small nation that the opponent can easily decapitate should the two nations return to a state of war.

Another scenario where an empire might choose to divest itself of its holdings is when its colonies are in unrest or rebellion and it doesn't have the resources available to deal with them because those resources are needed to deal with another crisis situation. Granting these bothersome systems independence can forestall a nasty civil war and allow an empire to continue concentrating on more pressing matters.

An empire can select one or more contiguous systems (i.e., you can trace a continuous path of jump lanes between them) to release as a new empire. These systems must be capable of producing enough food to feed all of their Census. Empires aren't allowed to release colonies if they'll inevitably starve to death from a lack of food. Any starbases or facilities that the empire controls in these systems will become property of the new empire. Other military forces, including starships, flights, and ground forces, are given ten turns to withdraw from the new empire's territories or else they'll be confiscated by the new power.

The first order of business when setting up a newly-released empire is to establish a provisional government. If one of the new empire's colonies already has a sector capital present, that capital is automatically upgraded to an imperial capital. Otherwise, one of the provisional government's first major objectives is going to be to build a new imperial capital in one of its systems. The player must roll a D100 for
each of the power's three culture statistics (Aggressiveness, Integrity, and Xenophobia) to determine its cultural outlook.

Next, we determine the empire's relationship with the empire that released it. Divide the power's total Morale by its total Census and multiply the result times 100, then subtract 50. Round fractions down, max +100 relationship. All of the new power's diplomatic relationship values with other powers are the same as those that the releasing empire has with those foreign governments. The exception is that a new empire receives a +50 relationship bonus to its relationship with any powers that forced the empire's previous owner to release it as part of an armistice or other treaty.

New empires start with an empire tech level equal to that of the power that released them regardless of the tech level of the colonies that they now control.

Each of the newly-released empire's colonies receive a Morale bonus equal to half its Census value (round up) to reflect the people's elation at having been granted independence. This increases Morale enough that most of the empire's colonies should start out in good order and puts an end to any rebellions that were already underway when the colonies were released.

A released empire's force list contains all of the units on the releasing power force list that colonies in the new empire are actually capable of producing. This reflects that the construction facilities at these colonies only have plans or schematics for units that could actually be purchased there. After all, an empire wouldn't leave plans for one of its cutting-edge battleships in a system whose industry was incapable of reproducing it.

Empires are released during the Diplomacy Phase of the turn. They receive their first orders on the Turn Orders Phase of the following turn.

## X.X Civil War

Disloyalty can spread like wildfire across an empire's sphere of influence as its colonies fall one after another into rebellion. This loss of political stability can even threaten to erupt into a civil war that forces colonial governors and military leaders to choose sides and take up arms either for or against their government.

## Starting a Civil War

Each empire that has one or more colonies in a state or rebellion are required to make a D100 roll during the Loyalty Phase to examine whether or not the rebellion has sparked a civil war. If the power's D100 roll is less than or equal to its total number of rebel Census, then it will find itself plunged into a bloody civil war!
Battle lines are drawn at the start of a civil war and all of an empire's assets - including its colonies, facilities, and military units - are divided between loyalist and rebel factions. These two factions are treated as separate empires for the duration of the civil war. The loyalist faction takes control of all of the empire's colonies that have Morale values greater than zero. All of the facilities in these systems are also controlled by loyalists. The rebel faction in turn controls all of the colonies that are currently in rebellion at the start of the civil war as well as all of the facilities located in those rebel systems. Any units under construction at a rebel colony automatically become rebel property when they join the rebellion. The rebel colonies increase their Morale value so that they are equal to their current Census, demonstrating that they are no longer in a state of rebellion and are ready to fight for their independence. More importantly, this ensures that the rebel colonies are in good order and capable of producing income for the rebel faction.

The rebels also receive militia reinforcements at their colonies to help them maintain order. Each of the Rebel colonies receives a total construction cost of ground force equal to 5 times their Census. Without these ground forces a rebel colony would find itself conquered by loyalist forces almost immediately after a civil war begins. The rebel player chooses which types of ground forces to purchase with these points. Any unused economic points are placed into the rebel faction's economic pool to be spent on future campaign turns.

An empire's military forces are also split between the loyalist and rebel factions. Special loyalty checks are rolled in each system where an empire has units to test their loyalty. This is accomplished by rolling on the Unit Defection Table to determine the percentage of units (by construction cost) that have defected to the rebel faction (round down). One loyalty check is made for the fleets in the system and another for its planetary defense forces (including starbases, ground forces, and flights based from planetary sites). Ground forces are more likely to side with the rebels, and they receive a +2 bonus to their
loyalty checks. Colonies also receive a modifier to their rolls based on their colony importance, indicating that civil wars that are incited by more important colonies have a much better chance of garnering rebel support from the local population. Civil wars sparked by the secession of smaller colonies, meanwhile, will draw fewer defections and have a comparatively lower chance of success.
Defecting units change their faction affiliation immediately during the Loyalty Phase.

## Unit Defection Table (2D6)

| Roll | $\%$ Defecting |
| :--- | :--- |
| 2 or less | $0 \%$ |
| $3-4$ | $10 \%$ |
| $5-6$ | $20 \%$ |
| $7-8$ | $40 \%$ |
| $9-10$ | $60 \%$ |
| $11-12$ | $80 \%$ |
| 13 or more | $100 \%$ |

Modifiers:
Planetary Defenses: +2 (see rules)
Minor Outpost: -2
Major Outpost: -1
Minor Colony: +0
Major Colony: +1
Core World: +2

Internal political stability is often difficult for a rebel faction to achieve, especially in the early stages of a civil war. This adds to the social problems that the rebels must face as they fight for their survival against loyalist forces. Establishing a permanent ruling body that can assert legitimate control over all rebel forces requires the rebels to build an imperial capital at one of their colonies. However, if one of the original rebel colonies already possesses a sector capital, the rebels can instead promote the capital to an imperial capital. In the rare case that a empire's imperial capital is one of the original rebel colonies, the rebel faction can actually start in control of its own imperial capital. Under these strange circumstances, it is the loyalist faction that will be forced to build or promote a new imperial capital in order to reestablish its administrative authority.

Rebel factions adhere to a different set of cultural values than those espoused by their loyalist brethren. As such, rebel nations are assigned separate culture values. Roll a D100 for each of the three culture statistics (Aggressiveness, Integrity, Xenophobia). Add each roll to the loyalist's culture value and then halve the total, rounding fractions to the nearest whole number. This average of the original empire's culture values and the results of a random die roll demonstrate that as much as the rebel faction's beliefs deviate from those of the loyalists they still have quite a bit in common.
Rebels always start with a -50 relationship with the loyalist faction. Their diplomatic relationships with other powers are the same as those the empire had with them prior to the civil war, with one important caveat. The rebels receive a +50 bonus to their relationship with any empire that is currently in a state of war with the loyalists and a -25 penalty to their relationship with any empire that has signed a mutual defense treaty with the loyalists. This shows that rebels are likely to believe the old mantra that "the enemy of my enemy is my friend" and seek entente with the loyalist's foes in order to forge an alliance of convenience to help defeat them.

All of the treaties and declarations that an empire has active prior to a civil war are inherited by the loyalist faction. None of these agreements apply to the rebel faction as they were negotiated with the empire's existing government.
The rebel faction can begin conducting diplomacy with other powers, including the rival loyalist faction, once an imperial capital is established at one of its colonies. Rebels are treated like any other empire for the purposes of conducting diplomacy. It will track diplomatic relationship values with its neighbors, offer and sign treaties, issue declarations, etc. just like any other empire. Rebels can use diplomacy to encourage other states to get involved in their battle for independence. Overt military support from foreign powers is of the most benefit to the rebel faction, but covert assistance undermining the loyalist's political position can also be beneficial.

The rebel faction's ultimate diplomatic goal is to sign an armistice treaty with the loyalists that will put an end to the civil war. It is unlikely that the loyalist faction will be prepared to sign such a treaty at the start of a civil war however, after enough blood has been shed and lives lost, the rebels may find their enemy more amenable to peace negotiations.

## During a Civil War

Colonies that belong to an empire that is embroiled in a civil war receive a -1 penalty to their loyalty checks, increasing the odds that they'll lose Morale each turn. Civil war also tend to promote acts of piracy, and each of the empire's systems are also subject to a -1 piracy check penalty.
Loyalist colonies that fall into rebellion during a civil war automatically join the rebellion and shift their allegiance to the rebel cause. These colonies don't receive any rebel militia to reinforce them like the original rebel colonies did, nor do they receive a Morale bonus after they rebel. This demonstrates that systems that join the rebels after the start of a civil war aren't as emotionally invested in the fight for secession as those that first rallied to the cause. Luckily for both sides in the conflict, colonies that are in a state of rebellion don't provide material support for either side in the conflict, which is as close to neutrality as you'll find in a civil war.

## Ending a Civil War

Civil wars can end under four conditions: 1) all rebel colonies and military units have been captured or destroyed; 2) all loyalist colonies and military units have been captured or destroyed; 3) an armistice is signed that puts an end to the civil war; or 4) all loyalist and rebel colonies and military units have been captured or destroyed, rendering the entire civil war extremely pointless. A military victory for either faction ensures that a single nation will remain in control of the empire's territories at the end of the war. However, if the loyalist and rebel factions sign an armistice treaty to end the civil war, two separate empires will emerge from the conflict, each controlling their own spheres of influence as determined by their colonial holdings when the armistice was signed.
When an armistice is used to end a civil war, the internal Rebel and Loyalist lines are dissolved and the territories controlled by both factions are recognized as legitimate successor states by the galactic community. Their new empires inherit the assets that their particular faction possessed at the end of the war. The powers are considered to be completely independent of one another from this point forward.
Several difficult questions remain for rebel factions that survive a civil war concerning their territorial integrity. It is possible for a rebel force to survive a civil war with sections of its territories cut off from each other. This is more common after civil wars that end in an armistice,
but can also happen if a third-party captured some of the original empire's systems during the war. In these cases it might make more sense to divide the surviving rebel territories into multiple empires that each controls a portion of the empire's remaining sphere of influence.

Empires resume making civil war checks beginning on the turn after the current civil war ends. There is nothing stopping a power from immediately falling back into civil war on the turn after the previous one was concluded, however the chances of that happening are fairly remote. In any event, the next civil war will prompt the creation new rebel and loyalist factions and start the cycle of destruction all over again, continuing until the social upheaval runs its course once more.
The chaos and destruction wrought by a civil war can bring even the strongest of empires to its knees regardless of who eventually achieves victory. The war itself can leave the nation economically devastated and unable to respond to outside threats. Worse, the Morale losses sustained during the civil war can make it all but certain that another bloody civil war will start immediately after the current one is finished.

## X.X Imperial Collapse

An empire descends into complete and utter chaos if all of its colonies are in a state of rebellion. This total collapse of imperial governance leaves the empire without any hope of surviving in its current form and creates a massive power vacuum that inevitably leads to the formation of a number of successor states, all of which claim to be the legitimate heir to the failed empire's territories.

After an imperial collapse event, the Morale values of all of the empire's colonies are increased to a value equal to half their Census (round fractions up). This restores them to a state of unrest and puts an end to the rebellion, as the colonists no longer have a loyalist government to rebel against.

Next, each of the power's colonies that have 6+ Census will declare independence and establish their own successor states. These empires start with a tech level equal to that the original empire from which they were formed. Ownership of the rest of the empire's colonies are split between these new successor states based on their effective supply in the system. The successor with the highest effective supply gains control of both the colony itself as well as any friendly military forces or other assets that are present in the system. If none of the empire's colonies have
a Census value of six or greater, then the most populous colony becomes the seat of power for a single successor state.

A player can choose to take control of any one of the successor states that were created after his empire is administratively dissolved during an imperial collapse. The remainder of the successor states become new non-player or non-aligned empires.


#### Abstract

5.0 Colonics "Since, in the long run, every planetary society will be endangered by impacts from space, every surviving civilization is obliged to become spacefaring - not because of exploratory or romantic zeal, but for the most practical reason imaginable: staying alive."


\author{

- Carl Sagan, Pale Blue Dot
}

Colonies are the source of an empire's political, economic, and industrial power. A colony's population is used to exploit local natural resources, produce finished goods, raise and harvest native food sources, pursue technological research, conduct intelligence missions, and provide logistical support for nearby friendly military and civilian assets.

## 5.I COLONIZATION

Empires establish new colonies by dispatching colony missions to nearby star systems. Colony missions can only colonize star systems that are located within the commerce range of an empire's colonies, and then only if the system has a Carrying Capacity greater than zero. This is because 0 Capacity systems don't contain any inhabitable planets or other system bodies. Empires can only colonize uninhabited systems unless the 5.1.4 Multi-Colony Systems optional rule is being used in your campaign.
The cost to finance a colony mission is 50 economic points, plus an additional 10 economic points per jump that the colony fleet must travel outside of the empire's sphere of influence. This expenditure covers the costs associated with recruiting and training colonists, manufacturing prefabricated colony structures, and outfitting a colony expedition to the destination system.
Colony missions are launched from one of an empire's owner's capital systems and then journey to the destination system, arriving and establishing colonies during the Colony Phase of the current turn. Colony missions can't move through into or through contested systems due to the threat of violence, and a player may have to choose a costlier, more circuitous route to reach a destination system.

For the sake of convenience it is assumed that the colony fleet has been underway for several turns prior to its actual purchase. This prevents players from having to track the colony fleet's movement over the course of multiple turns and simplifies colonization immensely, albeit at the
cost of making colony fleets immune from direct enemy attack. An optional rule is included in this section for players that would prefer discrete colony fleets that move and act like starships.
Because colony missions originates at a capital system, an empire can't purchase new colonies if they don't have an imperial or sector capital.

## 5.I.I New Colonies

New colonies are established during the Colony Phase of the turn in which they are purchased. They start with 0 Census, 2 Morale, and a colony tech level equal to the current tech level of the capital that organized the colony mission. Colonies don't start with any infrastructure in place unless there is preexisting infrastructure already in the system prior to colonization.
Colonies can't perform population or infrastructure increases/decreases on the same campaign turn that they are first colonized.

## 5.I.2 Pre-Interstellar Colonization

Pre-interstellar empires can only establish colonies in other systems if they have signed a trade treaty with another interstellar power. Even then, these powers are restricted to only being able to colonize systems that are located within the commerce range of its trade partner's colonies. This reflects that the pre-interstellar empire is contracting with the other power's civilian shipping to transport its colonists to the destination system.

## 5.I. 3 Colony Fleets $\Delta$

An optional alternative to same-turn colonization is to require players to build colony fleets at their systems and then manually move them to their destinations to establish new colonies. The cost to purchase a colony fleet is 50 economic points. Colony fleets can only be purchased in capital systems where an empire controls an imperial or sector capital.

A colony fleet can establish a new colony in its current system location if it's ordered to do as part of the player's turn orders. This new colony is established during the Colony Phase of the turn. The colony fleet is consumed as part of the construction of the colony and is removed from play during that phase.
Colony fleets are considered to be starships for the purposes of movement and combat. They are unarmed (DV 10, AS 0, PD 0) and have only limited command factors (CR 0, CC 1). Colony fleets that are built by interstellar empires are
equipped with 1 FTL so that they can travel to other star systems via jump lanes. Crippled colony fleets must be repaired before they can be used to colonize a system.

## 5.I. 4 Multi-Colony Systems $\boldsymbol{\Delta}$

This optional rule allows empires to establish new colonies in inhabited system that already host one or more other colonies as long as the total Census in the destination system is less than the system's Carrying Capacity. Systems that reach their maximum Census values have been completely colonized and there aren't any planets left for other empires to colonize.
Each colony in a system tracks its own Census and Morale values, but all of the colonies share the same set of infrastructure values. Empires pay to increase the system's infrastructure values as normal, but these infrastructure improvements benefit every colony in the system and not just their own. None of a system's inhabitants can perform infrastructure decreases in a multi-colony system, however. This protects infrastructure investment against empires that would try to destroy system infrastructure that other nations paid for.
The maximum number of Census is a system is still equal to its Carrying Capacity, and none of the colonies can purchase population increases once this population ceiling is reached. This encourages empires to rapidly build up Census in systems that they're cohabitating with other powers to ensure that they'll control the greatest share of the system's resources.

Unlike Census, the maximum amount of Morale in a multi-colony system isn't limited by the system's Carrying Capacity. Instead, each colony has a maximum Morale value equal to its Census +2 . This gives each colony a bit of cushion so that it can suffer a few Morale losses before it has to worry about falling into unrest or rebellion.

Multi-colony systems can turn into volatile flashpoints during times of war when hostile governments control colonies in the same star system. An empire's colony in a multi-colony system remains under its control as long as friendly ground forces remain on the ground in the system. The colony is captured if there aren't any friendly ground forces on the ground in the system but there are enemy ground forces planetside there.

The fate of a conquered colony that's located in a multi-colony system depends on whether or not the conqueror already has a colony in the
system. Colonies that are conquered in systems where the conqueror doesn't own a colony are handled as per the normal conquest rules. The conqueror takes ownership of the colony and it receives the Conquered trait (see X.X Conquered Colonies). However, the conqueror does control a colony in the system, then the conquered colony is instead absorbed into his other colony. The resulting colony has a Census value equal to the greater of the two original colonies and a Morale value equal to the original colonies total Morale minus the conquered colony's Census. The colony's Morale may have to be reduced if it exceeds the normal limits. This combined colony doesn't receive the Conquered trait, and its population is instantly integrated into the conqueror's empire.
Example: A multi-colony system contains two colonies owned by mutually-hostile powers. The first has 5 Census and 4 Morale and the second has 3 Census and 1 Morale. The owner of the larger colony has eliminated all enemy ground forces on the ground in the system and has captured the enemy colony. The two colonies' statistics must now be merged to resolve the conquest. The resulting colony would have 5 Census (the greater of the two) and 2 Morale (4 Morale + 1 Morale - 3 Census). This puts the combined system into a state of unrest, representing the after effects of the forced integration on the system's inhabitants.

### 5.2 POPULATION

The size and happiness of a system's population are indicated by its Census and Morale values, respectively. These population values are improved by population increases or reduced by population decreases. A colony can only perform one population increase or decrease per turn, and then only if it isn't in a state of rebellion or located in a contested star system.

Colonies with large populations are inherently more productive and can operate more infrastructure. This makes them imminently more valuable targets for an enemy that is seeking to capture or destroy your empire's means of production.

### 5.2.I Population Growth

Any excess food beyond the amount required to feed an empire's Census are converted into population points that a player can use to increase populations at its existing colonies. This conversion of food into population points represents that well-fed colonies are healthier
and have lower mortality rates than those that are just barely scraping by.

The amount of population points that an empire earns each turn is equal to its total food production minus its total food cost. The amount of food the power imported from its trade partners this turn is added to its total food production while the amount of food it traded away is instead subtracted from it. Blockaded colonies don't contribute towards either total because they are completely cutoff from the rest of the empire and can't contribute anything towards their empire's long-term population growth.

Example: The Jains have a food production total of 74. They purchased 12 food from the Tirelons and sold 9 food to the Brindaki this turn. This gives the Jains a total of $74+12-9=77$ food. Their empire has 21 Census with a food cost of 63 food per turn. This leaves the Jains with 77 $63=14$ food leftover after it feeds all of its Census. This food is converted into population points on a 1:1 basis, and the Jains earn 14 population points this turn.

### 5.2.2 Population Increase

Population points can be spent to increase a colony's population. The cost to purchase a population increase in a system is equal to 10 times the system's new Census value and increases its Census and Morale values by 1, to a maximum value equal to the system's Carrying Capacity. Population increases take effect during the Colony Phase.
Population increase costs are higher for colonies that have pre-interstellar tech levels to represent that these worlds haven't advanced the agricultural sciences to the point to be able to support large planetary populations. These increased population point costs force low tech population to grow more slowly.

## Population I ncrease Modifier Chart

| Tech Level | Population <br> Increase Modifier |
| :--- | :--- |
| Pre-Industrial | $50 \times$ New Census |
| Industrial | $40 \times$ New Census |
| Information | $30 \times$ New Census |
| Interplanetary | $20 \times$ New Census |
| Interstellar | $10 \times$ New Census |

Example: An inhabited system has 4 Census, 5 Morale, and is TL 5 (Interstellar). It would cost a player 50 population points to purchase a population increase at the colony. The colony would have 5 Census and 6 Morale after the population increase is applied to it during the Colony Phase that turn.

If this system from had an Information tech level instead, its population increase cost would be increased to 150 population points.

### 5.2.3 Population Decrease

Players may sometimes want to actually reduce the size of populations at their colony worlds. This usually happens during times of war when a colony's owner starts evacuating a system's population ahead of the enemy invasion so that as many inhabitants as possible can escape back to other worlds in its empire. A population decrease reduces a system's Census and Morale values by 1 , to a minimum value of 0 , and the colony's owner receives a number of population points equal to 5 times the system's original Census value.

Example: An inhabited system has 4 Census and 5 Morale. Performing a population decrease in this system would give its owner 20 population points and reduce the system to 3 Census and 4 Morale.

### 5.3 InfRASTRUCTURE

A colony's capabilities are largely defined by its infrastructure. Each system has five infrastructure values: Economy, Industry, Agriculture, Research, and Intel. While each of these infrastructure types operate differently they are all subject to the same basic set of rules. They each require Census to operate them, can be purchased using economic points (or torn down to recoup some of their costs), have a maximum value equal to a system's Carrying Capacity, and can be disrupted by the presence of enemy ground forces.

An empire can only build (infrastructure increase) or remove (infrastructure decrease) points of infrastructure from systems that it controls, and then only if the system isn't in a state of rebellion or currently contested by another power.

### 5.3.I Infrastructure Increase

System infrastructure values can be investing economic points into infrastructure development. The cost to increase one of a system's infrastructure values by 1 is equal to 10 times
the system's new infrastructure value. An infrastructure value can't be increased if it's already equal to its system's Carrying Capacity.
Example: An inhabited system has 5 Research. It would cost 60 economic points to increase this infrastructure value to 6 .

### 5.3.2 Infrastructure Decrease

An empire can sell off infrastructure at its colonies in return for cold, hard cash. Liquidating a point of infrastructure reduces the specified infrastructure value by 1 and provides a player with a number of economic points equal to 5 times the colony's original infrastructure value. The economic points earned from an infrastructure decrease are recorded as miscellaneous income for the turn.
Example: A player is removing Industry from a system with 6 Industry. This infrastructure decrease reduces the system to 5 Industry and gives the player's empire 30 economic points.

### 5.3.3 Infrastructure Utilization

Population is required to operate a system's infrastructure in order for it to provide any benefit. Each Census can utilize one point of each type of system infrastructure. A system's utilized infrastructure for each type of infrastructure is then equal to the lower of its Census or infrastructure values.
Systems that are experiencing unrest or rebellion are subject to infrastructure utilization penalties (see 5.5.1 Morale States). A colony's utilized infrastructure values are halved when it is in a state of unrest (round up) and reduced to zero when it is in a state of rebellion.

Example: A system has 3 Census, 2 Morale, 4 Economy, 3 Industry, and 2 Agriculture. The system is in good order. The system's 3 Census can operate three of each type of infrastructure present in the system (Economy, Industry, and Agriculture, in this example). Its Economy value exceeds this value, however, and the colony can only utilized 3 Economy in the system. The fourth point remains unused and provides no benefit to the player. The system's utilized infrastructure values are as follows: 3 Economy, 3 Industry, 2 Agriculture.
If this system's Morale dropped to 1, it would be in a state of unrest and all of its utilized infrastructure values would be halved (rounding up). This reduces the system's utilized infrastructure values to 2 Economy, 2 Industry, and 1 Agriculture.

### 5.3.4 Infrastructure Disruption

Enemy ground forces disrupt the normal operations of a system's infrastructure whenever the total command cost of enemy troops on the ground in the system is greater than the command cost of friendly ground forces defending the system. The disruption reduces the system's utilized infrastructure values to half that of normal (round fractions up). This effect is cumulative with the effects of being in a state of unrest, and colonies that are affected by both conditions reduce their utilized infrastructure values to one-quarter of normal (round up).
Example: A system has 4 CC of defending ground forces, but the enemy has landed 7 CC of its own troops in the system this turn. The system's infrastructure is now disrupted. The colony was utilizing 5 Agriculture before the disruption, but this is now reduced to 3 utilized Agriculture. If the colony was in a state of unrest, it would instead be reduced to 2 utilized Agriculture.

### 5.4 Census

Census is an abstraction of the size and density of a colony's civilian population. Colonies can range in size from the smallest civilian settlements or military outposts to heavilypopulated core worlds that are inhabited by billions of intelligent beings. Colonies with high Census values are more populous and have higher population densities. Conversely, lower Census values indicate that a colony's population is not only smaller but it is also more dispersed with fewer major population centers.
Census values don't directly correspond to explicit population sizes, and this detail is largely left to the player's imagination. General guidelines for how many colonists might be in a system can be found in X.X Colony Importance, but the actual number of inhabitants living in any system is left up to the player's imagination or campaign setting.

### 5.4.I Manpower

Ground forces can only be purchased at colonies that have Census available from which to draw manpower. The maximum Command Cost of ground forces that can be under construction at a system at any one time (including repairs) is equal to its current Census value. This forces empires to evacuate injured troops from combat zones and move them back to friendly colonies for repair, or else pay to field Medical support units (either ground triage or orbital hospital
ships) that can perform field repairs on damaged ground forces. It also limits the rate at which new ground forces can be built and a government's army expanded.

### 5.4.2 Depopulation

A colony is lost if its Census value is ever reduced below zero. All of the colony's inhabitants have either fled the system or been killed, depending on the circumstances that caused the Census loss. Remove the colony from the system and reduce its Census and Morale values to zero. The system's infrastructure values are unaffected by the colony's destruction and can be used by future colonists after a new colony is established in the system.

### 5.5 Morale

Morale measures the loyalty of a system's population. Unhappy colonies are less productive and extreme discontent can even lead to open rebellion! Players must manage their colonies' Morale values to keep the peace and avoid major economic disruptions. Empires that suffer from widespread unrest are politically unstable and are forced to spend valuable resources putting down rebel forces and restoring order. In severe cases, an empire can even descend into a fullblown civil war.

### 5.5.I Morale States

Colonies can exist in one of three different morale states, each representing a different level of support for the colony's owner. A colony may be perfectly happy with the current political situation (good order), starting to challenge imperial authority (unrest), or actively attempting an insurrection (rebellion). Colonies that are in good order function normally, but those that are in a state of unrest or rebellion are subject to penalties that impact the efficiency of their local infrastructure.

### 5.5.I.I Good Order

Colonies are in good order when their Morale values are greater than half their Census. Good orders colonist are contented, industrious, and they don't suffer from any special penalties. Players must try to keep their colonies in a state of good order if they want to maintain maximum production.

### 5.5.I.2 Unrest

Colonies are in a state of unrest when their Morale values are less than or equal to half their

Census. Colonies experiencing unrest are gripped by a deep malaise that can manifest itself as labor stoppages, anti-government protests, and rioting. A colony's utilized infrastructure values are halved when it is in a state of unrest (round fractional infrastructure values up).

Example: A colony that is utilizing 5 Economy has its utilized Economy value reduced to 3 when it is in a state of unrest.

### 5.5.1.3 Rebellion

Colonies that have 0 Morale are in a state of open rebellion. All of a rebel colony's utilized infrastructure values are reduced to zero while it is in a state of rebellion. The owner can't purchase population or infrastructure at the colony while it's in rebellion, nor can it purchase new military units there. Any units that were under construction at the colony when it went into rebellion don't advance their build times during the Construction Phase. Construction will only resume once the rebellion is over.

### 5.5.2 Loyalty Checks

A system's loyalty is constantly being challenged and tempered by campaign events. Changes in the political winds can cause colonies to be whipped into a patriotic fervor or else galvanize their resolve to challenge an oppressive political establishment.

Each of an empire's colonies is required to make a loyalty check during the Morale Phase to evaluate a possible shift in public opinion at the colony. Loyalty checks are resolved by rolling a D20 against the system's Census +1 . The system loses 1 Morale if the D20 roll is less than or equal to this target value.
Loyalty check rolls are modified by the following conditions that might apply to a system this turn:

- The system is an Outpost (+3)
- The system is a Settlement (+2)
- The system is a Major Colony (+1)
- The system is an imperial or sector capital (+1)
- The colony is a conquered colony ( -1 ).
- The system is blockaded (-1).
- The system's owner lost a core world this turn (-1)
- The system's owner captured or liberated a core world this turn ( +1 )
- The system is outside the zone of control of a friendly capital (-1)
- The colony's empire doesn't have an imperial capital (-1)
- The colony's empire is experiencing a civil war (-1)
- The colony is operating under a martial law decree (-3)
- There are other nearby colonies that are in rebellion ( -1 per rebel colony that is located within one jump of this colony)
- The total command cost of enemy ground forces deployed to the system is greater than or equal to its Census ( -1 )
- The total command cost of friendly ground forces deployed to the system is greater than or equal to its Census (+1)
- The total Police value possessed by friendly ground forces deployed to the system is greater than or equal to its Census (+1)
- The system sustained heavy bombardment this turn (-1)
- The system lost Census this turn (-2)

Every colony also has a chance of gaining Morale from its loyalty check. A natural ' $20^{\prime}$ roll on a loyalty check increases a system's Morale by 1. Systems with luxury resorts receive +1 Morale on a natural '19', too. This potential bonus allows colonies a chance to improve their Morale values over time even without player intel investment.
A loyalty check roll of 1 always results in the loss of 1 Morale, and a roll of 20 always results in the gain of 1 Morale regardless of any other factors that affect system loyalty.
The only effective way to manage loyalty at a colony is to station friendly ground forces there to keep the peace and maintain order. 2 CC of ground forces can effectively police a single Census or facility. Ground forces with the Police special ability provide an additional loyalty chance reduction. These peacekeeping units are quite effective at managing unhappiness in a system and maintaining system loyalty.
Example: Proxima is an inhabited system with 4 Census, 2 facilities, and 5 CC of friendly ground combat units that have a total of 7 Police value between them. The target value for Proxima's loyalty chance is 5 (Census +1 ). The roll is modified by -2 (facilities), +2 (friendly ground forces), and +1 (friendly Police value) for a total die modifier of +1 . This system will lose 1 Morale
on a die roll of '5' or less, or it will gain 1 Morale if the roll is a natural ' 20 '. If one of the facilities in this system is a luxury resort, it will gain a point of Morale on a natural '19', too.
Consider what would happen if an enemy force moved into Proxima and landed 13 CC of enemy ground forces in the system and destroyed the system's two facilities. Proxima's loyalty check modifiers would change to -7 (enemy ground forces), +2 (friendly ground forces), and +1 (friendly Police value) for a total modifier of -4. The system would now lose Morale on a D20 roll of '9' or less, more than doubling its chance of Morale loss!

### 5.5.3 Martial Law

Declaring martial law at a colony allows an empire to use its ground forces to keep the peace at the risk of further aggravating the local population. A colony's morale state is considered to be one level higher than normal for the purposes of infrastructure utilization only when it is in a state of martial law. For example, a colony in rebellion that is placed under martial law would continue to function as if it was in a state of unrest, while a colony in a state of unrest would continue to produce as if it were in good order. Colonies that are in good order receive no benefits from being placed under martial law.
Regardless of race or creed, all colonial populations chafe under the yoke of martial law and show strong resentment against the strongmen that are charged with using violence (or at least the threat of violence) to keep the peace. These colonies receive a -1 per 2 Census penalty to their loyalty checks (round up).

### 5.5.4 Reprisals

Empires can conduct reprisal attacks against their civilian populations in an attempt to eliminate dissident factions and restore order. These attacks can increase a colony's Morale but the resulting mass killings run the risk of reducing a colony's Census in the process. Roll on the Reprisal Table for each attack to determine its outcome.

## Reprisal Table (2D6)

| Roll | Effect |
| :---: | :--- |
| $2-4$ | -1 Census, -1 Morale |
| $5-6$ | -1 Morale |
| $7-8$ | +1 Morale |
| $9-10$ | -1 Census, +1 Morale |

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11-12 -1 Census, +2 Morale
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Conducting reprisals against your own colonies is frowned upon by the galactic community. When an empire launches reprisal attacks against its own colonies, any empire that can trace trade routes to the system (i.e., the system where the reprisals took place is located within the commerce range of one of its colonies) learn about the attacks on the turn they happen. These empires must roll a D100 against their own Aggressiveness (AG) values to see how they react to the attack. Empires condone the attack if their die roll is less than or equal to their AG, and even support it if the die result is less than half their AG. An empire's relationship with the power increases by 1D6 if it demonstrates support for the reprisals. Otherwise, if the die roll is greater than the empire's AG, it views the reprisals as an unwarranted act of aggression and its relationship with the power is reduced by 1D6. This relationship penalty is doubled if the die roll was more than twice its AG.

Reprisals that are carried out against conquered colonies are generally seen as more justified and relationship bonus and penalties stemming from reprisals against these worlds are halved (round down). This gives an empire leeway to ruthlessly persecute the inhabitants of recently-conquered systems without drawing major attention from other galactic powers.

Particularly brutal reprisals that result in the wholesale slaughter of civilian populations (Census loss) double the relationship penalties for empires that object to these heinous crimes against sentient life. Relationship bonuses aren't doubled by these deadly attacks, however, as the warlike nations that approve of reprisals place such little value on sentient life that the mass execution of a few million enemies of the state is seen as a purely urbane and appropriate exercise of imperial authority.

Example: An empire is conducting reprisals against one of its colonies. The player rolls a '4' for the reprisal, and the system loses 1 Census and 1 Morale.

Two nearby powers, one with $A G 92$ and the other with AG 22, can trace trade routes to the system where the reprisals took place. The first power rolls '38' against its $A G 92$. This is less than half its AG, which indicates that the power approves of the tactics used. Its relationship with the reprising power is increased by 1D6.
The second power rolls a '49' against its AG 22. This empire is completely appalled by the attack,
and its relationship with the reprising power is reduced by $1 D 6 \times 4$. This reflects that the penalty is four times that of normal because the empire rolled greater than twice is $A G$ on the initial roll and the system lost Census from the reprisal. A D6 roll of '4' results in a -16 relationship penalty.

### 5.6 ECONOMY

Economy measures the strength of a system's business sector, including its mining, consumer manufacturing, service, and high-tech industries. These enterprises earn an empire economic points that it can spend to fund colonization, military construction, research and development, and all of the other activities that are required to maintain normal government operations. An economic point is the basic unit of currency in this game and it represents a fixed amount of buying power that can be universally exchanged for goods and services. Systems with high Economy values generate the most wealth for their owners and are better positioned to serve as regional centers of trade and commerce.

### 5.6.I System Income

Systems generate economic points for their owners during the Economic Phase each turn. This represents the revenue generated by mining, manufacturing, and other commercial interests in the system. A system's base income value is equal to its utilized Economy times RAW. Mining base facilities provide a bonus to this value equal to twice the system's RAW.

Example: The Sol system has 10 Census, 8 Economy, 6 RAW, and contains a mining base. Sol's base system income is 8 Economy x 6 RAW $=48 E P$, and the mining base increases this by 12 EP for a final system income value of 60 EP. The system's owner therefore earns 60 EP per campaign turn from its colony in Sol.

### 5.6.2 Commerce Range

A system's commerce range is the maximum number of jumps away that its civilian shipping can travel to trade with other nearby systems. Large colonies that have extensive space ports, warehouses, refueling facilities, and financial centers are capable of supporting a greater number of civilian shipping interests. This makes them natural centers of trade. As such, a system's commerce range it equal to its utilized Economy value divided by 3 (round down).
Starport facilities can also be used to increase a system's commerce range, even in systems that
are uninhabited or have little or no utilized Economy infrastructure. Any system that contains a Starport has its commerce range increased by 1 and has a minimum commerce range of 2 .
Colonies that have Pre-Interstellar tech levels are incapable of engaging in commerce with other star systems. These colonies are always considered to have a commerce range of zero regardless of their current utilized Economy values. The colony's owner continues to earn commerce income from the system, however, to represent that the system is still making money from domestic trade even if its inhabitants can't visit other worlds to trade their goods and services.

### 5.6.3 Commerce Value

Each system has a commerce value equal to $10 \%$ of its utilized Economy x Census (round up). This is the amount of commerce income that an empire earns when it trades in that system.

### 5.6.4 Trade Routes

Trade routes connect star systems together for the purposes of interstellar commerce. Merchant vessels rely on trade routes to move their goods from one port to the next. A system can establish trade routes to other inhabited systems that are located within its own commerce range. A system with a commerce range of 3 could establish trade with systems that are up to 3 jumps away from it, for example. An empire can always trade with its own colonies, but it must have a trade treaty with a foreign power in order to establish trade routes to any of its systems.
Trade routes can't be traced into or through contested systems, nor can a system maintain trade routes if it's currently being blockaded by enemy forces or located in a cut off region. A well positioned enemy strike can disrupt an empire's trade routes and reduce its commerce income for the turn. Disrupted trade routes are automatically restored once these enemy forces are removed, however.

### 5.6.5 Commerce Income

An empire's earns commerce income from its trade routes in the form of taxes, tariffs, duties, and other fees that it levies against merchant traffic that operate in its territories. During the Economic Phase, each empire totals the commerce values of every system that is connected to its trade network by a trade route.

This total is the number of economic points that its receives as commerce income that turn.

### 5.6.6 Civilian Shipping

Empires can contract with civilian shipping interests to transport flights, ground forces, and other forms of cargo between systems. The economic cost to move a unit from one system to an adjacent system is equal to the unit's command cost. Most non-military units, including alien artifacts, have a command cost of 1 for purposes of being transported as cargo.

Civilian shipping orders are resolved at the end of the Movement Phase after all other units have moved. Civilian shipping can't transport cargo into contested systems. Orders that would require a civilian fleet to move into a contested system are automatically cancelled and the shipping fees refunded. This restriction prevents a player from using his empire's civilian shipping network to move troops and flights into contested systems to reinforce or replenish his military forces that are fighting there.

### 5.7 Industry

Industry encompasses all of a system's military fabrication and manufacturing capabilities. This infrastructure is used both to build and repair military units and produce supplies that are used to keep nearby fleets and armies in supply.

### 5.5.I Industrial Capacity

Each system has an industrial capacity equal to its utilized Industry times Census. This is the maximum construction cost of military units that can be under construction in the system during any given Construction Phase.

A system's industrial capacity can be improved by Orbital Factories or units with the Construction special ability. An Orbital Factory increases a system's industrial capacity by 10, and Construction units increase it by 1 per 5 Construction value (round down).

### 5.5.2 Unit Construction

Starship, starbases, flights, ground forces, and all other types of military units are built at colonies using a mix of planetary and nearorbital industry. Non-Atmospheric starships can only be produced in systems that contain orbital Shipyard facilities, but starships with the Atmospheric ability can be built at any colony using planetary factories because their Atmospheric capability allows them to be launched into orbit after completion/

The total construction cost of units under construction in a system during the Construction Phase cannot exceed its industrial capacity. Ground force production at a colony is further limited by its available X.X Manpower. The maximum command cost of ground forces that can be simultaneously under construction at a colony is equal to the colony's Census value.

In the event that the system's industrial capacity is insufficient to cover all of the construction projects currently underway in its system, the affected player must choose to suspend construction on one or more units until the total construction cost of units being produced at the system is less than or equal to its current industrial capacity. These units retain all of their construction progress to date and they can resume construction on a later turn once there is enough unused industrial capacity available to satisfy their construction cost requirement.

Ground force construction can be similarly impacted if a system's Census value is reduced. Like before, the player will be forced to suspend construction of one or more units until the total command cost of ground forces currently under construction in the system is equal to the system's current Census value.

Starbases and ground forces are automatically deployed to the colony where they were built after completion. An empire can't move its starbases after they're built, but its ground forces can be embarked aboard transports (either military or civilian) and moved to other systems on future campaign turn.
Flights are crated and stored at a colony after their are completed unless there is a Fighter Garrison available in the system with sufficient Carrier value available to base them. Unassigned flights can't participate in combat at their location, so it's in the player's best interest to quickly reassign them to carriers as soon as possible.

### 5.5.3 Remote Construction

Units with the Construction special ability are capable of performing remote construction operations in systems. This availability of extra machine shops and fabrication equipment increases a system's industrial capacity by 1 per 5 Construction value in the system (round down) as long as the units are currently in supply. This industrial capacity bonus is added to the system's industrial capacity if the power has a colony in the system.

Empires can use remote construction to build starbases or new flights in star systems where they either don't have colonies or lack the necessary industrial capacity to facilitate their construction. Construction units must remain in the system to contribute industrial capacity towards these projects throughout their construction.

### 5.5.4 Construction Times

All military units must be under construction at a colony for one or more turns after they're purchased before they are finally completed. By default, each unit has a construction time that is equal to its construction cost divided by 2 (round up). This is the number of Construction Phases that the unit must be under construction after it is purchased before it is finally completed and ready for service. For example, a unit that costs 9 economic points would take 5 turns to build.

Repairs also take time to complete. The time required to complete repairs is equal to half the unit's normal construction time (round up).
Unit construction times are advanced during the Construction Phase of the turn, starting on the turn that they are purchased. This means that a unit with a construction time of 1 turn will be completed on the same turn that it is purchased while another unit with a construction time of 2 turns is finished on the turn after it was purchased.

### 5.5.4.I Slower Construction Times $\Delta$

This optional rule slows production to half the normal rate, and each unit has a construction time equal to its construction cost. This makes individual units more valuable because they are harder to replace. This is recommended for campaign scenarios where players are given a limited number of high value capital ships that they must use to achieve the scenario's victory conditions.

### 5.5.4.2 Fast Construction Times $\Delta$

Players that would prefer units to be completed more quickly can give units construction times equal to their construction costs divided by 3 (round up). These reduced construction times allows players to replace combat losses more quickly than before, but it also reduces the value of individual units because they can be so easily replaced. Faster construction is generally preferred by players in play-by-email campaigns as these games tend to be shorter and require a faster tempo to keep the game moving and players properly engaged.

### 5.5.5 Mass Production $\Delta$

A colony's factories must be retooled before every construction project. Retooling planetary industry takes time but speeds military unit production once the necessary retooling is completed.
// max \# of each class a colony can purchase each turn is $X+1$, where $X$ is the number of units of that class that were under construction in the system last turn
// the construction time of units reduced by $10 \%$ per unit of the same class currently under construction at the colony (max 50\% reduction, round fractional construction times up

### 5.5.6 Supply Range

Supplies are produced using colonial Industry and are then automatically delivered to nearby units by an empire's civilian shipping network. A colony's supply range is equal to its utilized Industry divided by 3 (round down). This is the maximum distance that the colony can resupply friendly military units. This includes units that belong to powers that the colony's owner has signed a military treaty with. Colonies with higher utilized Industry values possess the administrative and industrial capacity to coordinate logistics, both production and transport, in nearby areas of space. Colonies that don't have any utilized Industry don't produce any supplies at all and can't be used to resupply friendly units.

Any colony that has at least 1 Industry utilized can produce enough supplies to resupply friendly units that are located in its own system even though it still has a supply range of zero. This gives the colony an effective supply range of 0*, with the asterisk denoting that the system can only resupply local units and that its supply lines don't trace out to any other nearby systems.

As mentioned previously, units can be resupplied by either their own empire's colonies or colonies belonging to military treaty partner. The supply sharing component of a military treaty can be very valuable for empires that need to dispatch military forces to frontier locations that are located beyond the supply ranges of their own colonies. It also allows friendly powers to remain in supply when they are assisting one another, such as when allies or mutual defense partners fight together during wartime.

Empires must continually establish new supply bases to extend supply into new territories along their frontier. This can be accomplished either by expanding existing colonies and investing in
colonial Industry or by establishing supply depots along the border that can push supply into these new regions. Colonial supply sources are usually more useful, as their industrial infrastructure can be used to build military units as well as manufacture supplies and consumables. In contrast, supply depots are more expensive to build and maintain and only serve a single purpose: to extend supply outwards into systems that might otherwise be outside the supply range of an empire's colonies. The effectiveness of supply depots isn't tied to the size of a colony's population, however, and despite their cost they are still an extremely efficient way of expanding an empire's supply range.

Example: A colony in the Beta Caeli system is utilizing 5 Industry, giving it a supply range of 1. All friendly units located within two jumps of Beta Caeli will be automatically resupplied during the Supply Phase each turn.
If this colony's utilized Industry value were to be increased to 6, its supply range would increase to 2 and it would be able to trace supply routes out to every system that is within two jumps of Beta Caeli.

### 5.8 Agriculture

All imperial populations, regardless of their species or biology, must consume food to survive and grow. Food is produced by an empire's colonies using Agriculture infrastructure in systems that have Biosphere values greater than zero. Powers can use their food production to feed their own Census or trade it to other empires. Any excess food production is converted into population points that the player can use to purchase population increases on future turns.

### 5.8.I Food Production

Colonies use Agriculture infrastructure to convert local Biosphere into food. Every system has an agriculture output equal to its Biosphere times its utilized Agriculture. This is the amount of food the colony produces for its empire each turn. This food is used to feed the colony's population, and any excess food is automatically shipped to the empire's other colonies via the civilian shipping network.

A colony's morale state has a palpable effect on its agricultural production. Colonies that are in good order produce their full agriculture outputs each turn. Unrest halves a colony's utilized Agriculture value for purposes of calculating its food production (round fractional Agriculture up).

Colonies that are in a state of rebellion don't produce any food for their owners. Rebel colonies continue to produce food for the rebel Census at the colony as if it were still in Unrest, however. This can sometimes prevent rebel colonies from experiencing starvation.

Empires can supplement their normal planetary food production using Orbital Farms. Each of these facilities that an empire owns produces an amount of food equal to its system's Biosphere value. Orbital Farms don't require Census to operate them, so there is no food cost associated with operating Orbital Farms and they aren't affected by a system's morale state.

### 5.8.2 Food Consumption

The food produced at an empire's colonies is used to feed its own planetary populations. Each Census normally consumes 3 food per turn. The total amount of food that a colony needs each turn is therefore equal to its Census $\times 3$. This is called the colony's food cost.

Colonies that don't produce enough food to cover the food cost of their own Census must transport food in from other farming worlds to survive. Any excess food that a colony produces is automatically shipped off to an empire's other colonies using its civilian shipping network. Any colony that can't meet its food cost because it's being blockaded or otherwise cutoff experience 5.8.4 Starvation and can lose Census and Morale. This is the biggest threat of being unable to fulfill a colony's food cost.

### 5.8.3 Trading Food

Empires that can't produce enough food at their own colonies to feed all of their Census can negotiate to import food from their trading partners. This is done by signing a special trade contract that stipulates how much food the buyer is purchasing each turn and what they are giving the seller in consideration for the food shipments. A fair price for food is 1 EP per point of food sold, but the players should feel free to negotiate the price that is in their own best interests. A player that is feeling charitable might give a neighbor that is hard on his luck a break on food prices, while a more unscrupulous player might demand free food from a weaker adversary as a form of tribute.

Empires can only import food from colonies that are located within its commerce range. This restricts the maximum amount of food an empire can import from a trade partner to the total food production of the partner's colonies that are
within the commerce range of its colonies or starports.

Empires that experience a reduction in their food production capabilities might not have enough excess food to satisfy all of their trade contracts. Nations won't ever let their own people starve, however, and their own colonies always take precedence whenever food shortages occur. A power will make a good faith attempt to honor its food export contracts using its remaining food supplies by splitting its remaining excess food production proportionately between its food export commitments.
The food that an empire sells to one of its trade partners is deducted from its total food production before calculating the number of population points it earned that turn. Empires can't eat food that they no longer possess!

### 5.8.4 Starvation

Empires that don't produce or import enough food to feed all of their Census will experience starvation at one or more of their colonies during the Agriculture Phase. To know how many of an empire's colonies are starving, the player must first calculate the size of its food shortage. This is done by taking the total food cost of the empire's colonies and then subtracting the amount of food it produced or received from its trade partners this turn. Blockaded colonies don't contribute their food production this turn, but their food costs are ignored, too. The result is the amount of food that the empire was short this turn.

Once the size of the empire's food shortage is calculated, the player must randomly select one or more colonies whose combined food cost is greater than or equal to its food shortage. Each of these colonies must roll on the Starvation Table to see how their populations reacted to the lack of food.

## Starvation Table (2D6)

| Roll | Effect |
| :--- | :--- |
| 2 or less | -1 Census, -1 Morale |
| $3-5$ | -1 Morale |
| $6-12$ | No Effect |
| Modifiers: |  |
| -1 per 2 Census (round down) |  |

Colonies can also face starvation when they are blockaded by enemy fleets. Blockaded colonies can't import food to feed their people, nor can they export food to other friendly colonies to keep them fed. Any blockaded colony that has a food cost greater than its food production are starving and must roll on the Starvation Table.

Colonies that are in a state of rebellion continue to produce food for the rebel faction as if they were still in a state of unrest even though their current morale state effectively reduces their food production to zero. Rebel colonies aren't required to roll for starvation unless their food cost is greater than half their food production.

A colony can only make one roll on the Starvation Table per campaign turn. This limits the amount of Census or Morale that a colony can lose each turn from a lack of food. It also prevents a single colony from being hit by multiple starvation rolls in a single turn.

### 5.9 Research

Research infrastructure represents the various laboratories, universities, skunkworks, and various other institutions that a nation uses to carry out research and development (R\&D). Developing new technologies can give an empire a military edge over its opponents and it's important for empires to continue investing resources into R\&D to keeping from falling behind their neighbors.

### 5.9.I Research Capacity

A colony's research capacity is the maximum number of tech points that can be purchased there each turn and is equal to its utilized Research $x$ Census. The maximum number of tech points an empire can purchase each turn is then equal to the total research capacity of its colonies.

### 5.9.2 Tech Level Overview

Every empire, colony, and unit in a campaign is assigned a tech level (TL) that demonstrates how advanced it is. Tech levels are divided into two distinct categories: Interstellar and PreInterstellar. Interstellar empires, colonies, and units are assigned numerical tech level values that describe how far advanced they are from the baseline Interstellar power that has just developed FTL drives (TL 0). Each tech level increase that an Interstellar civilization achieves allows it to design, prototype, and produce more powerful military units, and the strength of these military units normally doubles every 10 tech
levels the empire advances beyond TL 0. When recording Interstellar tech levels, players can simply record the asset's tech level as "TL X", where $X$ is the applicable tech level. This is shortened notation is possible because only Interstellar level empires, colonies, and units are assigned numerical tech levels.

Pre-Interstellar tech levels are limited to four specific, pre-defined tech levels: Pre-Industrial, Industrial, Information, and Interplanetary. Each of these discrete steps forms a chain that takes a civilization from technological barbarity to the precipice of interstellar flight. The types of military units that a Pre-Interstellar colony can produce is limited by its current tech level.

### 5.9.2.I Pre-Industrial

Pre-Industrial civilizations range in technological sophistication from primitive Stone Age savages to fairly advanced Iron Age city-states. These powers are not sufficiently advanced to have a major impact on a campaign, and their chance of achieving industrialization (let along spaceflight!) during the course of the campaign is remote.

Pre-Industrial colonies are extremely primitive and don't possess the factories or other infrastructure required for most military construction projects and can only be used to produce ground forces. Native ground forces fielded at a Pre-Industrial tech level are horribly inefficient and largely impotent when it comes time to protect their world against a planetary invasion.

### 5.9.2.2 Industrial

The Industrial tech level spans the gap of history between the dawn of a civilization's Industrial Revolution through to the point just before it begins building its first permanent orbital structures. Early Industrial empires possess a level of technology roughly equivalent to that of late 18th century Europe, having mastered the art of modern warfare with their equivalents of firearms, artillery, cavalry, etc. By the end of this era, however, the power will have achieved a level of technological sophistication equivalent to that of the present day (i.e., early 21st century) and will be capable of building relatively sophisticated ground combat units.

Industrial colonies can only produce ground forces and Atmospheric flights. Non-Atmospheric flights or any other type of military unit remain out of their reach, unfortunately. This forces Industrial powers to rely on ground-based flights and planetary Fighter Garrisons to defend their home systems against enemy attack. Luckily the
ground forces these nations can field are just strong enough to make an opponent think twice before committing to an invasion.

### 5.9.5.3 Information

Empires that reach the Information age demonstrate the technical skill to build basic orbital space stations and small craft. These constructs are primitive compared to those built by interstellar nations, but they at least allow low tech powers to fortify their planets against alien attack or invasion.

Colonies at an Information tech level can produce ground forces, flights, and starbases. Despite their ability to build orbital and suborbital structures, they still aren't capable of manned interplanetary spaceflight and can't build starships of any type. This important innovation won't be achieved until a nation progresses to the Interplanetary era.
Information level civilizations are the first PreInterstellar empires that can pose a significant threat to Interstellar militaries. While the units that these nations can build are feeble and antiquated by Interstellar standards, an Information level empire that can build enough of them stands a good chance of repelling all but the most dedicated attacks by early Interstellar powers that possess similarly sized economies.

### 5.9.5.4 Interplanetary

An Interplanetary power has achieved a level of technological sophistication that finally allows them to build manned spacecraft capable of interplanetary travel. This breakthrough allows an empire to begin actively exploring the worlds of its solar system, conducting detailed planetary surveys first hand rather than relying on data collected by robotic probes. Colonization teams often follow these surveyors, establishing an empire's first off world colonies on the various planets and moons in their solar system that they deem worthy of scientific study or material exploitation.
Interplanetary colonies have unrestricted access to all unit types, but they can't build units with the FTL special ability because they lack the technical skill to reproduce this technology.
Interplanetary empires are further restricted from purchasing any type of facility or other technology that they could use to perform jump lane movement. These powers can purchase FTL-capable starships or flights from other powers or contract with them for the construction of Jump Gates in their systems, they just can't build these on their own.

### 5.9.5.5 Interstellar

Interstellar empires represents the pinnacle of technological achievement. The defining features of these civilizations is that they have successfully developed some form of faster-thanlight travel that allows them to build spacecraft that are capable of traveling from one star system to another via the galactic jump lane network.

While all Interstellar empires possess FTL drives, the difference in capabilities from one starfaring empire to the next can be vast. Fledgling nations that are just taking to the stars are still vastly outmatched by the ancient powers that lurk in the shadows and wield unspeakable powers thanks to their intimate understanding of advanced technologies. The gulf that separates these two polar opposites of the Interstellar tech level can be truly frightening. Consider for a moment that a TL 100 power can field units that are more than 10 times as powerful as those that a TL 0 power can build.

> It's usually assumed that most if not all the empires in a campaign are going to be Interstellar civilizations if for no other reason that only these powers are capable of traveling from one star system to another. To put it more bluntly, a campaign in which all of the powers were Pre-Interstellar and trapped in their own home systems would be decidedly boring. This is the principle reason why the rules focus so much on the abilities of Interstellar empires. However, while Interstellar empires are the focus of the game, it's still important for the rules to be able to simulate Pre-Interstellar tech levels so that players can interact with such planet-bound civilizations. The "pre-spaceflight native" trope is especially thickly engrained in space opera, and its important for the rules to be able to properly address these types of powers.

The Pre-Interstellar tech levels are intended to be fairly static, and it's rare for one of these powers to earn more than one tech advance during a campaign because of their extremely high tech advancement costs. For example, a Pre-Industrial empire with 3 Census would need 3,000 tech points to satisfy its tech advancement cost. If we assume that the empire can purchase 3 tech points per turn, it could take up to 1,000 turns for the power to purchase enough tech points to advance to the Industrial tech level. This is the equivalent of 100 campaign years - a considerable length of time, and only the most devoted players would ever play in a campaign that lasted that long. On the other end of the Pre-Interstellar spectrum, under the same
circumstances it would take an Interplanetary up to 33 turns (a little over 3 years) to complete its research and become a TL 0 Interstellar power.

Low tech powers that are on the cusp of a tech advance when they are first discovered are more likely to achieve tech advancement during a campaign. One of the more interesting situations that a player can be faced with is finding a PreInterstellar civilization that is only a few years away from advancing its tech level. This is doubly true if the power is already at an Information or Interplanetary tech level as these powers have a better chance of actually developing FTL drives at some point during the campaign. Upon discovering one of these powers, the player must decide whether to welcome them with open arms and try to befriend them or else neutralize them as a potential future threat.

### 5.9.3 Empire Tech Level

Each empire is assigned an empire tech level that describes its overall level of technological development.

It is important to differentiate empire tech levels from colony tech levels because empires can control colonies that have tech levels that either higher or lower than their own empire tech levels. This is actually quite common as, over the course of a campaign, a player is likely to favor certain colonies and keep them upgraded with the latest technologies while leaving other colonies to just get by with their existing level of technology.
Powers can only design and build units that have tech levels that are less than or equal to their own empire tech level, and then only at colonies that have tech levels that are high enough to accommodate that construction.

The tech points that an empire purchases at its colonies are used to purchase

Empires use tech points to upgrade their empire tech levels. The number of tech points a power has to spend to increase its tech level by

Tech Advancement Cost Chart

| Tech Level | Tech Advancement Cost |
| :---: | :---: |
| Pre-Industrial | $1,000 \times$ Census |
| Industrial | $500 \times$ Census |
| Information | $250 \times$ Census |


| Interplanetary | $100 \times$ Census |
| :---: | :---: |
| Interstellar | $10 \times$ Census |

Pre-Interstellar powers are required to invest more tech points into research to achieve a tech advance than interstellar empires do, as shown on the accompanying chart. This is because each tech advance that a pre-interstellar civilization purchases represents a massive leap in technology that has a profound impact on its capabilities. Pre-Industrial advances to Industrial, Industrial to Information, and Information to Interplanetary. Interplanetary powers that purchase a tech advance become TL 0 interstellar powers that can build spacecraft with the FTL ability. This transition marks the end of the empire's existence as a preinterstellar power and the beginning of its life as a member of the galactic community.

One of the primary benefits of advancing an empire's tech level is that it allows it to design and build more advanced military forces. High tech units receive more mass units to spend on combat factors and special abilities during unit design and as a result they are more effective in combat. Empires that fall behind in technology may find their militaries outclassed on the battlefield by other, more advanced enemy forces.

### 5.9.4 Colony Tech Level

Colonies are assigned tech levels that appraise how advanced their infrastructure is. New colonies always start with a tech level equal to that of the capital system that purchased them.
A colony can only build or repair units that have tech levels that are less than or equal to its own colony tech level. For example, a TL 3 colony could build a TL 3 unit but it couldn't build a TL 4 unit because its technology base isn't sophisticated enough.
Empires can spend economic points to modernize a colony's infrastructure and increase its tech level. The cost to increase a colony's tech level by 1 tech level is equal to 10 times its current Census value. A colony can only receive one colony tech level upgrade per turn and no colony can have its colony tech level increased beyond its empire's current tech level. Colony tech level upgrades cannot be purchased at colonies that are in a state of rebellion. Colony tech level upgrades take effect during the Tech Phase.

It's natural for an empire to end up in control of colonies that have tech levels that are different
than its own empire tech level. Important industrial colonies will always take precedence when it comes times to purchase colony tech level upgrades, and there is little reason for a player to upgrade infrastructure in systems that aren't used to support military construction.

### 5.9.5 Unit Tech Levels

### 5.9.6 Reverse Engineering

Reverse engineering is the process of studying the function and principles behind a new form of technology. This is normally achieved by taking a piece of advanced technology apart to see how it works. Empires have the opportunity to reverse engineer technologies from any advanced technology source that they come into possession of. The level of technological sophistication that a unit or colony demonstrates is based on its own tech level as it compares to the tech level of the empire that is attempting to discover how it works.

An empire can attempt to reverse engineer an advanced alien unit by scrapping it at one of its colonies. Scientists and engineers are on hand while the unit is torn apart and will scavenge any pieces of advanced technology that might be worth taking back to their labs for further research. The number of tech points that an empire receives from scrapping a more advanced unit is calculated by taking the difference between the unit's tech level and the empire's tech level and multiplying it by the unit's construction cost. This tech point bonus is in addition to economic points a player normally earns from scrapping.

Example \#1: The Kili (TL 4) have discovered an advanced alien derelict (C\$ 8, TL 13) that they have returned to a colony to be reverse engineered. Scrapping this derelict provides the Kili with (13-4) x $8=72$ tech points.

Empires can also study advanced infrastructure at their colonies that have colony tech levels greater than their own empire tech levels. Each turn spent studying the colony's infrastructure provides the empire with a number of tech points equal to the colony's Census times the difference between the colony and empire tech levels. Reverse engineering planetary infrastructure is a destructive process, however, and the colony's tech level is also reduced by 1 for every turn that scientists are actively studying its technology.

Powers can't reverse engineer technology at colonies that are currently in a state of rebellion.

## Example:

When calculating the technology differential for a Pre-Interstellar empire, each Pre-Interstellar "step" adds +10 to the difference between the two tech levels. For example, an Industrial empire studying a TL 14 unit or colony would have +30 added to the base TL 14 for a total tech difference of 44 . This is +10 for Industrial $\rightarrow$ Information, +10 for Information $\rightarrow$ Interplanetary, and +10 for Interplanetary $\rightarrow$ Interstellar.

## X.X Incidental Tech Advancement $\Delta$

If at the end of a campaign year an empire has not received any tech advancements, the player will make a roll in the Tech Phase of the final campaign year to see if any of its projects have come to fruition. The percentage chance that the empire will receive a tech advance is equal to its current Tech Pool total divided by twice its normal tech advancement requirement. Empires that pass their incidental tech advancement attempt will roll once on the Tech Advancement Table for effect and then reduce their Tech Pool to zero. There is no effect for empires that fail an incidental tech advancement roll, however.

This optional rule ensures that even empires with limited Tech infrastructure or large amounts of Census will still be able to receive new tech advancements, just at a much slower rate than wealthier empires that operate more Tech infrastructure at their colonies.

Example: An empire has 540 TP in its Tech Pool on the last turn of the campaign year and its tech investment requirement is 600. This empire has not receive a tech advancement this campaign year. An incidental tech advancement roll is made with a target value of $540 \div 1200=$ $45 \%$. The player rolls a $32 \%$, which is a success. The player's Tech Pool is reduced to zero and the player rolls once on the Tech Advancement Table to determine the effects of its tech advancement.

## X.X Crash Tech Advancement $\Delta$

A player can order his empire to attempt a crash tech advancement program in a coordinated attempt to secure a key technological advancement. This order is resolved during the Tech Phase and has a chance of success equal to the empire's current Tech Pool total divided by twice its normal tech advancement requirement. A success on this roll allows the empire to either receive a +1 tech level bonus or develop a new
special technology of their choice. The empire's Tech Pool is then reduced to zero.

Empires that fail crash tech advancement rolls not only don't gain a tech advance, they also halve the number of tech points in their Tech Pool (round fractions tech point totals down). This penalty makes any crash tech advancement attempt a potential gamble. An empire could potentially walk away from this check with a vital tech advancement, but it could just as easily set back its research many months if it fails.

Example: An empire has 310 TP in its Tech Pool on the last turn of the campaign year and its tech investment requirement is 1600 . The player has ordered the empire to attempt a crash tech advancement this turn, and it has a $310 \div 1600$ $=19 \%$ chance of success. The player rolls a $68 \%$, which is a failure. The player's Tech Pool is reduced to half its current total, dropping it to 150 TP.

## 5.IO Intel

Intelligence is the art of information warfare.

Players empires' intelligence resources to gather vital information regarding an opponent, directly damage enemy assets, or influence popular opinion at home or abroad.

## 5.IO.I Intel Capacity

The maximum number of intel points that can be purchased at a colony each turn is determined by its intel capacity, which is equal to its utilized Intel value. The intel points that an empire purchases at its colonies are placed into its Intel Pool during the Intel Phase and can be used to stage intel missions on future campaign turns.

## 5.IO.2 Offensive Intel

In addition to being used to purchase intel points, a system's utilized Intel infrastructure is used to perform intel missions. The total amount of offensive intel available in a system is equal to its utilized Intel value. Offensive intel is assigned to intel missions to increase their odds of success. Each point of offensive intel can only aid one intel mission per turn and every mission must have at least 1 offensive intel assigned to it in order for it to have any chance of succeeding. The number of intel missions that a system can perform each turn is therefore limited by its available offensive intel.

Multiple systems can contribute offensive intel towards the same intel mission, but each system after the first increases the mission's difficulty by 1. The distance between the farthest participating system and the destination is used to calculate the mission's range-based mission difficulty modifier.

## 5.IO.3 Defensive Intel

Systems rely on defensive intel to protect themselves against an opponent's intel missions. A system's base defensive intel is equal to 1 plus its utilized Intel value divided by 2 (round down). For example, a system with 5 utilized Intel would have 3 defensive intel.

When resolving intel missions, systems receive defensive intel bonuses based on the difficulty level of the intel mission being performed and the distance between the source and target systems (mission range).

Defensive intel won't interfere with missions that an empire attempts against its own systems. A system's defensive intel is reduced by 1 in these instances.

## 5.IO.4 Intel Missions

Intel missions are offensive applications of intelligence resources that players can use to gather intelligence (Espionage), damage enemy assets (Sabotage), or affect popular opinion at home or abroad (Propaganda).
It is assumed that a nation's spy service is constantly carrying out intelligence operations in the background without the player's direct involvement, and intel missions are just the culmination of months or years of prior intelligence work. The intel points in an empire's intel pool aren't just sitting idle, they're out on assignment gathering intelligence, bribing officials, cultivating contacts, and any number of other related activities in preparation for their next intel mission.

Pre-Interstellar empires can only perform intel missions against targets in other star systems if its star system is part of another Interstellar empire's trade network.

## 5.IO.4.I Mission Difficulty Level

An intel mission's difficulty level determines how many intel resources (both intel points and offensive intel) an empire must commit to successfully complete an operation of that type. The cost to perform an intel mission is 5 intel points times its difficulty level. An empire would have to spend 15 intel points to conduct a 3
difficulty mission, for example. The intel points spent to perform an intel mission are paid out of the empire's Intel Pool. Intel points purchased during the current turn can't be used to fund intel operations on the same turn.

Missions can generally be divided into five different difficulty levels: Very Easy (1), Easy (2), Average (3), Hard (4), and Very Hard (5). Very Easy and Easy intel missions have low enough intel point costs that empires that run them routinely from turn to turn without seriously taxing their intel capabilities. The greater expense associated with running more difficult missions, especially Hard or Very Hard ones, normally restricts empires from performing them very often. Most empires have to invest in intel points for several turns just to afford to perform one of these high level missions.

## 5.IO.4.2 Mission Range

The distance between the colonies that are performing an intel mission and their target has an effect on its overall difficulty because each additional jump after the first provides the target system with a +1 defensive intel bonus when resolving that mission. This represents that intel missions that are conducted across long distances are more prone to error because of the additional number of individuals involved and the logistics of coordinating all of their activities during the operation.

## 5.IO.4.3 Resolving Intel Missions

Intel missions are resolved simultaneously during the Intel Phase of the turn. Each intel mission has a percentage mission success chance (MSC) that is calculated by taking the amount of offensive intel that was assigned to it divided by the target system's effective defensive intel. Systems receive a bonus to their defensive intel based on the difficulty level of the intel mission being performed and its mission range.

Intel missions are resolved by rolling a D100 against their MSC. A mission is successful if the result is less than or equal to its MSC, otherwise it fails. Missions always succeed on a ' 1 ' and always fail on a '100'. This means that a mission's success or failure is never entirely guaranteed and its possible for an intel mission to fail even if its MSC is greater than 100\%, you just wouldn't want to bet your empire on those long odds.

## Intel Mission Success Chance <br> Offensive Intel $\div$ Defensive Intel <br> [round down]

Example: A power is performing an Espionage: System (difficulty 1) mission using 3 offensive intel against a system with 2 defensive intel that is located 3 jumps away. The target system has an effective defensive intel total of 5 for this mission ( +1 difficulty level, +2 mission range). The mission success chance is 3 (offensive intel) $\div 5$ (defensive intel) $=60 \%$. The power rolls a '08' on a D100 - a success!

## 5.IO.4.4 Mission Detection

An empire has a chance of detecting any intel mission that is performed against one of its systems. A mission's detection chance is $5 \%$ times the sum of the mission's offensive intel and effective defensive intel. Roll a D100 against this detection chance. A mission is detected if the success roll less than or equal to its mission detection chance. Detecting an intel mission reveals the type of mission's type, target, its outcome (success or failure) and the name of the empire that performed it. As with success/failure rolls, intel missions are always detected on a '1' and always concealed on a '100'.
Diplomatic penalties apply to relationships when an empire detects the other performing intel missions on its systems. Detection of an intel mission reduces the empires' relationship by an amount equal to the mission's difficulty level. This relationship penalty doubled if the mission was completed successfully.

Example: The Espionage: System mission from the previous example had 3 offensive intel and 5 defensive intel. This gives the mission's target a $5 \% \times 8=40 \%$ chance of detecting the mission. The player rolls a '30' on a D100 and detects the mission. This detection causes a minor diplomatic incident, and the two empires receive a -2 relationship penalty. This penalty is twice the mission's difficulty level because the mission was both detected and successful. If an unsuccessful Espionage: System had been detected the penalty would only be -1 .

## 5.IO.5 Espionage

Espionage missions are information gathering operations that are used to gather intelligence on rival empires. Players can use this information to plan their future actions, be it planning their next great military campaign or simply keeping tabs on their neighbors.

## Espionage: Army

## Difficulty Level: 1

This mission provides current information on the number and type of ground forces that are
currently in the target system and this empire receives a +2 bonus to any ground detection rolls it makes in the system this turn.

## Espionage: Fleet

## Difficulty Level: 1

This mission provides current information on the number and type of space combat units (starships, starbases, flights) that are currently in the target system and this empire receives a +2 bonus to any space detection rolls it makes in the system this turn.

## Espionage: Commerce

## Difficulty Level: 1

This mission reveals the target system's commerce value and the names of all of the empires that currently have active trade routes connecting to the system.

## Espionage: System

## Difficulty Level: 1

Intelligence assets can be used to gather information about other star systems. This mission reveals a star system's current statistics, including its Carrying Capacity, RAW, Biosphere, Jump Lanes, Census, Morale, Economy, Industry, Agriculture, Research, Intel, and colony tech level. This empire receives a +1 bonus to any detection rolls it makes in the system this turn.

## Espionage: Exploration

## Difficulty Level: 1

Agents can be called on to serve as expendable forward scouting parties that go out ahead of an empire's other exploration fleets to collect cursory navigation and survey data that the fleet can use to refine its own search patterns. All exploration attempts made in the system this turn receive $a+1$ bonus to their rolls this turn.

## Espionage: Diplomacy

## Difficulty Level: 1

This mission provides an empire with information about which other nations the target is currently in contact with and their basic level of diplomatic contact based on their current relationship value (see X.X Diplomatic States). This mission can only succeed if it targets an opponent's capital system.

## Espionage: Subversion

## Difficulty Level: 1

Governments routinely investigate their military and civilian personnel in a system to see if there are any signs that individuals may have been compromised. This mission allows a power to discover the number of its units in the target system that have been subverted by another power. Sabotage: Subversion missions are required to eliminate these personnel.

## Espionage: Counter-Intel <br> Difficulty Level: 1

Counter-intelligence missions are used to root out enemy operatives and make it more difficult for opponents to conduct intel missions against a system. This mission provides the target system with a +1 defensive intel bonus this turn.

## Espionage: Intel

## Difficulty Level: 2

Spies can shadow enemy agents to find out how many of there are and what they're up to. This mission tells the player how much defensive intel is in the target system and what missions the system allocated offensive intel to this turn.

## Espionage: Infiltration

## Difficulty Level: 2

Empires can infiltrate foreign systems using specially-trained operatives or recruiting local assets that are sympathetic to their cause. Successful infiltration places a new operative in the target system (see 5.10.8 Operatives).

## Espionage: Tech

## Difficulty Level: 3

This is an attempt to infiltrate an opponent's research laboratories with the intent of stealing their technological secrets. This mission provides an empire with a bonus to its total research capacity on the following turn equal to the target system's utilized Research value times the difference between the target's colony tech level and the tech level of the empire that is performing this mission. Pre-Interstellar empires receive a flat 10 times research capacity when performing these missions against more advanced powers. Espionage: Tech missions that target colonies that have tech levels lower than the performing empire's own have no effect.
The research capacity bonus that this mission provides remains in play until used, and an empire can wait several turns before investing economic points into tech investment to make
use of the bonus. This represents that its scientists had to wait for additional funding before they can leverage the stolen research data.

Example: A TL 3 empire performed a successful Espionage: Tech mission against a TL 11 colony with a research capacity of 6 . This empire will receive $a+48$ research capacity bonus next turn.

## Espionage: Unit Class

## Difficulty Level: 3

This mission returns stolen engineering plans that provide an empire with statistics for a single unknown unit class that is in the target system.

## Espionage: Movement

## Difficulty Level: 5

// returns information on fleet movements through a system, or returns major military information

## 5.IO.6 Sabotage

Sabotage missions are used to damage or destroy an opponent's assets. During peacetime, an empire generally conducts Sabotage missions in an attempt to prevent a rival from gaining a decisive advantage. Meanwhile, in times of war, an empire will use Sabotage missions to eliminate key enemy infrastructure and keep their enemy off balance.

## Sabotage: Fleet

## Difficulty Level: Varies

This mission destroys one or more space combat units in the target system whose total command cost is less than or equal to the mission's difficulty level.

## Sabotage: Army

## Difficulty Level: Varies

This mission destroys one or more ground forces in the target system whose total command cost is less than or equal to the mission's difficulty level.

## Sabotage: Subversion

## Difficulty Level: Varies

After compromised personnel have been discovered using an Espionage: Subversion missions, a nation has the option of using Sabotage: Subversion missions to track down and eliminate these enemy assets, either by detaining them to await trial or by assassinating them. A successful mission removes subversives
from one or more randomly selected units this empire controls in the system whose total command cost is less than or equal to twice the mission's difficulty level. The names of the affected units and the foreign governments that subverted them are also revealed.

## Sabotage: Takeover

## Difficulty Level: Varies

Covert operatives that have successfully infiltrated an enemy unit can assist in staging a takeover attempt of the unit by overriding security protocols so that friendly commando teams can quickly move in and take it over. This mission targets a subverted unit in the target system and its difficulty level is equal to the command cost of the subverted unit that the empire is attempting to capture. If successful, the targeted unit is immediately captured and becomes property of the power that performed this mission.

## Sabotage: Exploration

Difficulty Level: 1
Spies can falsify exploration data and send scouts off on wild goose chases. All exploration attempt rolls made in the target system this turn are at a -1 penalty.

## Sabotage: Infiltration

## Difficult Level: 1

This mission directs agents to seek out and eliminate enemy operatives that are present in a system. An empire must have previously detected the operatives' presence in the target system using an Espionage: Counter-Intel mission. and eliminates one enemy operative currently stationed in the system. The name of the government whose operative was killed is revealed by this mission.

## Sabotage: Economy

Difficulty Level: 2
Secretive attacks against civilian shipping and commercial institutions disrupts the target system's economy and halves its utilized Economy value next turn (round down). Each additional Sabotage: Economy mission extends this penalty for an extra turn.

## Sabotage: Industry <br> Difficulty Level: 2

Sabotage attempts can be used to damage units that are under construction or otherwise slow their progress. This mission halves the target
system's utilized Industry value next turn (round down). Each additional Sabotage: Industry mission extends this penalty for an extra turn.

## Sabotage: Agriculture <br> Difficulty Level: 2

A system's food production can be damaged by killing livestock, tainting food stores, or destroying food shipments. The target system's utilized Agriculture value is halved next turn (round down). Each additional Sabotage: Agriculture mission extends this penalty for an extra turn.

## Sabotage: Research <br> Difficulty Level: 2

The target system's utilized Research value is halved next turn (round down) as spies successfully erase vital data from enemy computer systems or kill important high-level scientists. Each additional Sabotage: Research mission extends this penalty for an extra turn.

## Sabotage: Intel <br> Difficulty Level: 2

An empire's spies can stymie an opponent's own intelligence service by interfering with their operations or forcing them to chase down false leads. The target system's utilized Intel value is halved next turn (round down) Each additional Sabotage: Intel mission extends this penalty for an extra turn.

## Sabotage: Piracy <br> Difficulty Level: 2

Nations can fund piracy in an opponents territories in order to keep its military forces tied up performing anti-piracy duties. 2D6 economic points of pirate forces are placed in the target system.

## Sabotage: Facility <br> Difficulty Level: 4

This mission instructs friendly agents to infiltrate and destroy a facility of the attacker's choice in the target system. This mission will destroy a random facility if its intel mission order didn't specify a facility to attack or the target system doesn't contain a facility of that type. The targeted facility is immediately removed from the system.

## Sabotage: Infrastructure <br> Difficulty Level: 4

Spies can be directed to destroy a point of infrastructure of the attacker's choice in the target system. This mission will destroy a random point of infrastructure if its intel mission order didn't specify an infrastructure type or the target system doesn't have any infrastructure of that type left to destroy. The infrastructure is immediately removed from the system.

## Sabotage: Population

## Difficulty Level: 5

This is a cruel attack conducted against a system's civilian population using lethal nuclear or biological weapons. The target system's Census and Morale values are each reduced by 1.

## 5.IO.7 Propaganda

Propaganda missions are used to influence opinion in accordance with a specific agenda. Traditionally, missions of this type are used to either raise or lower a colony's Morale values, but other more specialized Propaganda missions can be used to affect even individual loyalties.

## Propaganda: Subversion

## Difficulty Level: Varies

This mission inserts covert operatives into another power's armed forces. These moles are moved into position during normal personnel rotations so as to avoid discovery. If successful, a friendly agent is placed in a total number of random opposing military units (space or ground) whose combined command cost is less than or equal to the mission difficulty.

## Propaganda:Infrastructure

## Diffictlty-Level; 4

Empires can appeal directly to factory workers, longshoremen, seientists, and other laborers to encourage them to work towards their cause. If successful, this mission provides a +1 bonus to an infrastructure value of the player's choice in the target system this turn. The maximum bonus that a colony can receive is equal to its current infrastructure value. for example, a colony with 4 Productivity could receive at most a +4 Productivity bonus from Propaganda: Infrastructure missions each turn.

## Propaganda: Infrastructure Difficulty Level: 2

-1 Census for purposes of calculating utilized infrastructure this turn

## Propaganda: Infiltration <br> Difficulty Level: 2

Operatives are known to switch their allegiances for a number of reasons, be they ideological or out of a sense of personal ambition. This mission captures an opposing operative in the target system. An empire must know that the opponent has an operative in a system before it can perform this mission and it can only be used to turn these known operatives.

## Propaganda: Diplomacy

## Difficulty Level: 3

Propagandists can be called upon to smear an opponent

## Propaganda: Counter-Insurgency

## Difficulty Level: 3

Governments can direct their intelligence bureaus to issue counter-insurgency propaganda to combat local dissent by discrediting their political opponents and/or suppressing the opposition's message. This mission increases the target colony's Morale by 1.

## Propaganda: Insurgency

## Difficulty Level: 3

A nation's operatives can be directed to incite rebellions at an opponent's colonies. Undermining a colony's Morale in this manner can impact its efficiency, or even spark a secessionist movement. This mission reduces the target colony's Morale by 1.

## Propaganda: Population

## Difficulty Level: 5

Colonies that are in a state of rebellion are prone to having their independence movement coopted by outside forces that wish to manipulate them for their own benefit. This mission is used to capture an opponent-controlled rebel colony, converting it into a conquered colony under the propagandist's control.

### 5.10.8 Operatives

Operatives are loyal intelligence assets that an empire can place in foreign star systems to keep tabs on the locals and coordinate future intelligence missions. Espionage: Infiltration
missions are used to place operatives into an opponent's systems. Once in place, an operative can provide a +1 Offensive Intel bonus to any one friendly intel mission that is targeting its system that turn. Players must choose which missions to have their operatives support as activating assets puts them in jeopardy. Operatives are killed whenever the mission they are supporting is discovered by the target.
Empires periodically receive intelligence reports from their undercover operatives. To represent this, each turn an empire rolls a D10 for every system in which it has one or more operatives. If the die result is less than or equal to the number of operatives it controls in the system then those agents have smuggled out intel to their owners. Roll a D6 for type: 1-2, Espionage: System; 3-4, Espionage: Fleet; 5-6, Espionage: Army.

Operatives are expensive to maintain, costing their owners 1 EP per turn. This money is used to pay the contact and his network of informants as well as to bribe corrupt government officials so that they'll turn a blind eye to the operative's activities. An empire can't maintain operatives in its own systems. However, should a power come into possession of any operatives in its own territories (such as from a Propaganda: Infiltration mission), these operatives are automatically sold off at the end of the Intel Phase and the empire receives 2 intel points per operative sold.

## 5.IO.9 Implication

When running intel missions, an empire can attempt to implicate another power and frame them for the mission. The decision to try to implicate another power on an intel mission is made when a player records an intel mission order. Players spend intel points to improve their chances of successfully implicating another power. The mission implication chance starts at $0 \%$ (no chance) and is increased by $+10 \%$ per 5 IP the player allocates towards this goal.

The success or failure of an implication attempt is determined by rolling a D100 against its mission implication chance. An implication attempt is successful if the die result is less than or equal to this value. This leaves behind enough clues to successfully implicate the other power. Otherwise, if the roll is greater than the mission implication chance, not only fail to implicate the intended power but also reveal the implication attempt to the target if it passed its own mission detection roll. The normal diplomatic penalties are doubled when an empire is caught trying to frame another power via implication.

When choosing a power to implicate, a player may only choose a nation that his empire has previously made contact with. The one exception to this contact rule, subject to CM approval, is that an empire can implicate an "imaginary power" as the perpetrator behind the intel mission. This elaborate fiction would attempt to convince the targeted power that an unknown empire launched an intel mission against it! Obviously, it will be difficult to convince the mission's target that some mysterious boogeyman is responsible for this intel mission, but the option is available nonetheless.

## 5.IO.IO Falsified Intelligence

It is possible for an empire's operatives to fail so spectacularly that their opponent not only knows exactly what they were planning to do but are also given ample opportunity to feed them falsified intelligence.

When a mission detection roll is less than onequarter its mission detection chance, the mission's target is given the opportunity to pass falsified intelligence to the other player. The target can report that the mission succeeded or failed, regardless of the mission's true outcome. In the case of espionage intel missions, the target can fabricate the information that the intel mission was supposed to retrieve and pass it back to them. Obviously, any fake data the player chooses to send should at least be plausible so that his opponent won't immediately question its veracity.

Any power that chooses to pass falsified intelligence back to another power must forego any diplomatic penalties that would have been applied to its relationship with the other empire because applying these penalties would be a giveaway that the mission had been discovered.

## 5.II Colony Importance

Colonies are assigned colony importance levels based on their total Census. A colony's importance is based on its Census because colonies with larger populations almost always have more infrastructure and higher production that those with lower Census values do.

## Colony I mportance Chart

| Census | Colony Importance |
| :--- | :--- |
| 1 or less | Outpost |
| $2-3$ | Settlement |
| $4-5$ | Major Colony |


| 6 or more | Core World |
| :--- | :--- |

## 5.II.I Outpost

Outposts are extremely small colonies with limited populations (usually 100,000 or less). All newly colonized systems start out as outposts with 0 Census. These colonies are largely unproductive because their Census values don't allow them to utilize very much infrastructure.
Colonies of this importance are largely unimportant unless their systems are of special strategic or economic value. Empires can typically afford to abandon outposts in the face of an enemy advance, leaving them to be invaded or destroyed by orbital bombardment, because the cost to replace them is less than the cost in men and equipment to defend them.

## 5.II.2 Stttlement

New colonies that survive the early years of colonization eventually become settlements. These colonies have populations in the hundreds of thousands and support limited amount of infrastructure. The manufacturing and industry at these worlds is rarely enough to accommodate major construction projects, but it's still better than what an outpost could provide.
From a strictly military perspective, settlements are the first colony importance level where a player can expect to use the colony for light military construction or repair. Even then, colonies of this size generally can't build or repair ships bigger than a light cruiser.

## 5.II. 3 Major Colony

Colonies are considered to have achieved major colony status once their populations increase to 4 Census. These colonies have populations exceeding half a million, and the largest may even harbor several hundred million inhabitants. These population figures ensure that these can operate substantial amounts of infrastructure.

## 5.II. 4 Core World

Core worlds are the oldest, richest, and most densely populated colonies in the galaxy. These colonies are so named because they are usually found at the center ("core") of an empire's sphere of influence. Uneven colonization efforts do sometimes lead to the development of core worlds on an empire's border or high frontier, in which cases these colonies usually serve as
sector capitals to extend imperial influence into the untamed frontier.

A colony must have a Census value of $6+$ to be considered a core world. Colonies with this level of population typically are quite large, selfsufficient, and capable of making significant material contributions to their empires. The political and economic stability that these worlds enjoy allows them to serve as major administrative centers. An empire can only establish new sector capitals at core worlds.

Imperial populations react negatively when one of their nation's core worlds is conquered or destroyed. All of an empire's colonies receive a 1 penalty to their loyalty chance rolls on any turn that the power loses control of a core world. Conversely, the liberation or capture of a core world provides the victorious empire with a +1 bonus to its colonies' loyalty chance rolls on the turn that the colony is captured.

## 5.I2 Rebeluions

## X. 4 Rebel Forces

Rebel militia forces form whenever a colony that is currently in rebellion suffers an additional loss of Morale. The total construction cost of rebel ground forces that appear at a colony after a Morale loss is equal to 1D6 $x$ Census. These economic points are used to purchase ground units off of the owner's force list. If necessary, new partisan units can be created to give the rebel forces additional purchasing options.

These rebel forces will engage loyalist ground forces during the Encounters Phase of future campaign turns. They can also be used to perform bombardment against loyalist units or facilities in the system during the Bombardment Phase.

## X. 5 Secession

Rebel colonies become independent during the Loyalty Phase if there aren't any loyalist ground forces left on the ground in their systems. This act of secession creates a new empire that will be forced to find its own place of the galaxy while resisting its former owner's attempts to retake control of its wayward colony.

After any successful rebellion, a player must ask a few questions to address what the rebel's longterm goals are after secession. First, does the colony generate enough food to feed all of its Census? The colony must be able to produce
enough food to feed all of its Census and, if it can't, it needs to quickly align itself with another power that can meet its agricultural needs.

Another question to ask is whether or not the colony has a large enough population to have a viable economy? More importantly, can the former rebel colony act as an independent state and have enough income or other qualities to add anything to the campaign experience? Empires with very low income totals and limited infrastructure aren't much fun to interact with or maintain because the impact that they can have on a game is so minimal. There is a point at which a minor power becomes an insignificant power, and any colony that produces less than 5 EP per turn should definitely be absorbed by another nearby power rather than be allowed to carry on as its own nation.

Finally, rebel colonies that spawn from the same empire will share social and cultural bonds that may encourage them to work together after they secede. When colonies belonging to the same empire secede, players should consider allowing them to form a single political union instead of establishing each as a separate independent state. Geography is the most important factor here, as rebel colonies that are close to one another are much more likely to form natural alliances than those on opposite sides of an empire. Colony size is also an issue, as rebel colonies that have achieved core world importance are probably going to prefer going it alone even if they are in close proximity to one another. Smaller, less populous colonies however tend to coalesce into a single entity to increase their chances of surviving a protracted revolutionary war scenario against their colonial master.

Newly-independent rebel colonies start with an empire tech level equal to their colony tech level. Their forces also take control of any facilities that the colony's previous owner had in the system. The presence of enemy fleets in the system will ensure that these facilities will be destroyed during the Bombardment Phase of the next turn unless the state can find some way to stop them.

A secessionist state's force list includes all of the unit classes for units it currently fields plus every unit off of its former owner's force list that the rebel colony is currently capable of building. This provision restricts smaller colonies to starting with limited force lists that only include units that they are actually capable or purchasing after the rebellion is over. Rebel colonies in systems without shipyards are at a disadvantage because they won't have any non-atmospheric starship classes on their force lists. This makes sense,
though, because these colonies wouldn't have possessed any of the required technical schematics to build such vessels due to a shipyard not being present in the first place.
On the diplomatic front, the former rebels and their former owner both receive a war declaration against the other party. This triggers a war for independence that only ends with the signing of an armistice treaty or the conquest of the rebel colonies.

## 5.I3 Blockades

Fleets can establish military blockades in enemy systems to cutoff outside aid to opposing units and colonies that are trapped within the blockade. Blockades can only be established when an attacking fleet has a total command cost greater than or equal to twice than the command cost of the defender's own space combat forces. Defenders receive a bonus to their total command cost equal to the total Blockade Runner value in their fleet. This test is used to determine whether or not an empire has enough units in the system to enforce a blockade. Only inhabited systems can be blockaded.
Colonies that are trapped under an enemy blockade are subject to a number of special rules that limit what they can do:

- An empire can't increase or decrease population or infrastructure at blockaded colonies, nor can it purchase new facilities in the system.
- Blockaded colonies receive a -1 penalty to their loyalty checks to represent that their citizens are being panicked by the blockade.
- Its economic capacity is disrupted, which reduces its colony income and trade value to zero. Its owner won't earn any economic points from it while it's blockaded, nor will any trade partners be able to earn income from trading in the system.
- The colony's industrial capacity is unaffected by the blockade, but the maximum construction cost of purchases that can be made there each turn is equal to the colony's normal economic capacity. In other words, while the colony can't generate income for its owner, it can still spend the economic points it would normally produce to feed its local industry.
- A blockaded colony can't trace supply to friendly units in other nearby systems regardless of its current supply range. Colonies that have a supply range of 2 or less have an effective supply range of 0 when blockaded, while those with supply range of 3 or higher have an effective supply range of $0^{*}$. The asterisk denotes that the blockaded colony can still resupply friendly units in its own system.
- Food production at a blockaded system is reduced to zero, but its owner also doesn't have to expend food to feed its Census, either. The colony won't experience starvation as long as its agriculture capacity is greater than or equal to $3 \times$ Census. Otherwise, the colony will be forced to roll for starvation each turn that it is blockaded (see X.X Starvation).
- Research and Intel infrastructure can't be utilized when a colony is blockaded. Scientific work is suspended during the emergency, and the colony's spies are too busy trying to coordinate defensive actions and can't escape the colony to sustain any off world operations.

None of a defender's starships or flights are allowed to leave a system while its blockaded. They must remain in the blockaded system until the blockade is lifted or they are destroyed.

A defender has two options to end a blockade. The first is to wait until friendly reinforcements can arrive in the system. This increases the total Command Cost of space combat units the defender has in its system and can disrupt the enemy blockade. The second option is to attack the blockading fleet directly using an Interception or Deep Space scenario. These breakout scenarios pit the embattled defenders against the numerically-superior blockaders. A blockading force can't refuse these scenarios without retreating from the system and abandoning their blockade.
Defenders that survive a breakout scenario have the option of retreating from the system at the end of the encounter. As with normal retreats, defenders that choose to retreat are required to move out of the system during the Movement Phase of the following turn.
Meanwhile, the only space combat scenario that a blockading force can generate against the opponent he's blockading is a Defensive scenario. This represents that the blockading force is effectively pinning up the defenders and
the only way to force a confrontation is by launching a direct assault on the defender's colony.

Blockades are automatically established at the start of the Supply Phase whenever an empire has sufficient Command Cost of space combat units in an inhabited enemy system. Similarly, blockades are automatically lifted if a player no longer has enough units left in a system to enforce them. These effects take place before units check their supply states. This clan place blockaded units that were previously out of supply back in supply, preventing them from receiving additional OSL.

## 5.I5 Conauered Colonies

Colonies are conquered once all of the defending ground forces in the system have been eliminated. Ownership of a colony is transferred to the occupying power once this condition has been met. When two or more empires are fighting together to conquer a system, the power with the highest construction cost of ground forces embarked to the system will take ownership of it when its conquered.

A colony's Morale is reduced by 1D6 on the turn that it is conquered. This sudden, catastrophic loss of Morale represents that resistance cells are forming at the colony and that the colony's inhabitants are prepared for a long, drawn-out fight against the occupying enemy forces.
A conqueror can't exert complete control over a conquered colony until he has eliminated enemy resistance fighters and fully integrated it into his own empire's political and bureaucratic system. Conquered colonies must roll on the Colony Integration Table during the Morale Phase each campaign turn until a Integration Completed result is rolled, at which point they are no longer considered to be conquered colonies.

## Colony Integration Table (2D6)

| Roll | Effect |
| :---: | :--- |
| 3 or less | Partisans: A total construction <br> cost of rebel ground forces equal <br> to 1D6 times the colony's Census <br> value are formed to challenge the <br> occupying force. |
| $4-5$ | Resistance Cells: The colony's <br> Morale is reduced by 1 as <br> resistance grows. |
| $6-9:$ | Status Quo: No Effect |


| 10-11 | Partial Integrated: The colony <br> receives a cumulative +1 bonus <br> to its future rolls on this table |
| :---: | :--- |
| 12 or higher | Integration Completed: The <br> colony is no longer considered to <br> be conquered and is now an <br> integral part of the conqueror's <br> empire |

Modifiers:
-1 Unrest
-2 Rebellion

Conquered colonies receive a -1 penalty to their loyalty checks for as long as they remain in a conquered state. This reflects the reactionary nature of the colony's population and their repeated attempts to undermine the occupying authority.

A conquered colony is liberated when it is recaptured by friendly ground forces and all enemy ground forces at the colony have been eliminated. Rebel militias that form at the colony are considered to be friendly ground forces. Liberating a colony restores full control of the conquered colony to its rightful owner. Any rebel ground forces at the colony become the property of the liberating power.

### 3.10 Facilities

Planetary and orbital facilities provide a system with capabilities that go beyond traditional colonial infrastructure. Each type of facility provides a unique effect, ranging from providing colonies with orbital dry docks that they can use to build starships (shipyards) to establishing powerful vortex generators that allow non-FTL units to perform jump lane movement (jump gates).

## 3.IO.I FACIIITY Types

The following is an overview of the various types of facilities that empires can build during a campaign. Many of these facilities may not be appropriate to your particular campaign setting, however, and players should decide before the game if they are going to omit one or more of them from play. Players may also choose to create new facility types that reflect capabilities specific to their campaign setting.

## Asteroid Fort

Asteroid forts are massive, armored fortresses that are created by towing an asteroid to a key defensive position, hollowing it out, and converting it into a battle station. The asteroid's outer shell provides natural armor that can absorb substantial amounts of fire during a battle, and these fortifications are renowned for being able to hold out under heavy enemy fire for a considerable length of time.

Defenders receive a +2 advantages during all Defensive scenarios fought in systems that are protected by asteroid forts. This bonus is doubled to +4 advantages if the asteroid fort system also contains the Asteroids system terrain.

## Command Post

A command post serves as a central strategic planning location for an empire's military forces. These bases are used to coordinate military operations in nearby territories. All friendly task force flagships that are located within 2 jumps of a Command Post receive a +2 Command Rating bonus in all combat scenario during both space and ground encounters.

## Embassy

Embassies are permanent diplomatic missions that empires establish at foreign capitals so that their ambassadorial delegations can conduct diplomacy directly with the host government as
well as any other nations that maintain embassies at the same location.
//+1 offensive intel to diplomatic missions targeted against this capital system

## Jump Gate

Jump gates are orbital constructs that are used to create an artificial wormhole or vortex that units can use to travel between two points in space. Starships and flights that lack the FTL ability can use jump gates to perform jump lane movement and move from one system to another via a jump lane as long as both of the systems contain an operational jump gate.

Units that use jump gates to move from one system to another are at a tactical disadvantage compared to those that have FTL drives because an enemy can picket the jump gate and attack them as they emerge into the system. To simulate this, any unit that uses a jump gate to move into a system halves its combat factors (rounding down) on the first round of combat that it fights during space encounters that turn. This reflects the units' reduced combat readiness in the moments immediately after they make the jump into the destination system and are set upon by the waiting defenders.

## Jump Relay

Jump relays are massive jump gates that facilitate movement over longer interstellar distances. Starships and flights can use a jump relay to move to another system that contains a jump relay that is located up to 10 jumps from their current system. Units that use jump relays to move between systems are subject to the same combat penalties as those that apply to units that use jump gates to perform jump lane movement.

Jump relays can only be purchased in systems that already contain a jump gate. Any damage scored against the jump gate is repeated against the jump relay, and the relay is also lost if the jump gate is destroyed.

## Fighter Garrison

Fighter garrisons are bases from which an empire can sortie flights of fighters, shuttles, or other small craft to engage enemy forces that attack their systems. These flights can be included in task forces that are created in the same system, giving players the opportunity to field flights even if they don't have any carriers in the system. These flights usually won't win
battles on their own but they can still offer critical fires support during encounters.
Each fighter garrison can base 10 CC of flights, plus an additional 5 CC per Census in their systems. A fighter garrison in a 7 Census system could base up to 45 CC of flights, for example.

## Listening Post

Many governments operate listening posts along their borders. These posts are used to gather vital intelligence information about fleet movement in their own systems as well as to coordinate offensive intel missions into surrounding territories. If used properly, listening posts can increase the security along an empire's borders.

Listening posts increase a system's utilized Intel value by 2 . This utilized Intel can be used to purchase additional intel points and provide offensive intel bonuses to intel missions that are being run from the system.

## Luxury Resort

Empires can establish luxury resort accommodations in select systems to promote local tourism. These festive vacation destinations offer visitors a chance to rest and unwind and take in the sites. Systems with luxury resorts gain +1 Morale when they roll a natural 19+ on their system loyalty checks.
While resorts are a welcome addition to any star system, the cost of operating these facilities make them a situational expense.

## Mining Base

A mining base coordinates remote mining operations in a system. Short range work craft are sent out from a mining base to extract resources from nearby planets or asteroids and then bring their cargoes back to be prepared for onsite processing or shipment to other colony worlds.

Mining bases generate additional income for their owners. Each base produces 2 EP per turn plus a bonus number of economic points equal to its system's RAW value. Mining bases that are built in systems with the Asteroids system terrain provide twice as much income for their owners.
Example: A mining base is built in a system that has 4 RAW. This mining base will produce $6 E P$ per turn for its owner. If this system possessed the Asteroids terrain, its income would increase to 12 EP per turn.

## Orbital Factory

Orbital factories are space-borne manufacturing facilities that take advantage of the benefits of zero- or micro-gravity construction environments to aid in the production of goods and equipment that can't be built using planetary industry.

An orbital factory increases a system's industrial capacity by 10. Orbital factories that are located in uninhabited systems can use their industrial capacity to build or repair starbases, flights, or non-atmospheric starships, but they can't build or repair ground forces due to a lack of manpower.

## Orbital Farm

Orbital farms are massive space stations that are built to support artificial biospheres that workers can user to cultivate high-yield crops. Many orbital farms rely on hydroponics as a primary tool for food production.
Each orbital farm produces an amount of food equal to its system's Biosphere value. Unlike planetary Agriculture infrastructure, however, orbital farms don't consume any food themselves. This ensures that they will always provide food for their owners.

## Orbital Habitat

Orbital habitats are vast structures built in orbit of a planet or at Lagrange points. They allow settlements to grow beyond a planet's normal Carrying Capacity restraints, and they even allow colonies to be established in the depths of space in systems that don't have any Carrying Capacity.
Orbital habitats provide a +2 Carrying Capacity bonus to the system where they are built. A player can use this extra Capacity

## Planetary Defense Guns

Systems can be protected by large surface-based weapon systems (rockets, missions, mass drivers, particle beams, lasers, etc.) that are designed to target orbiting vessels. Planetary defense guns (PDG) engage enemy task forces at the beginning of the Bombardment Phase (see X.X Planetary Defenses). This attack scores 2D6+Census damage against starships in the enemy task force. PDG fire is resolved before bombardment points are calculated, and every enemy unit that it cripples or destroys reduces the number of bombardment points the enemy can generate this turn.

## Planetary Defense Shield

Planetary defense shields (PDS) protect a colony from the effects of bombardment, specifically orbital bombardment, by projecting a force field across the inhabited regions of a planet.
A PDS halves the number of bombardment points that an enemy produces during the Bombardment Phase (round down). PDS systems also prevent an enemy from deploying weapons of mass destruction (WMD) against a system.

## Research Lab

These dedicated research facilities are used to conduct sensitive scientific experiments or study remarkable local points of interest. Research labs usually are manned by a small number of scientists, analysts, and technical support staff members. The nature of their work keeps them largely sequestered from the rest of the system's population. More importantly, research labs are designed for maximum self-sufficiency so that they can continue to function for an extended period of time even if forced into an emergency quarantine or protective lockdown.

A research lab increases its system's utilized Research value by 2 . This gives an empire a boost to its research capacity that it can use to accelerate its research and development efforts and speed up the rate that it achieves new tech advancements.

## Sector Capital

Sector capitals serve as provincial administrative bases that are used to extend an empire's political influence beyond the reach of its imperial capital into new sectors of space. Colonies that aren't located within the zone of control of one of its empire's capitals (imperial or sector) are subject to loyalty check penalties. Sector capitals can also be converted into imperial capitals in the event that an empire's original capital is lost or destroyed.

Empires can only build sector capitals in inhabited systems that they control that have achieved core world status (6+ Census). Minor powers that don't have an imperial capital are allowed to build a single sector capital in a noncore world system, however, to ensure that they'll be able to purchase a new capital that they can promote to an imperial capital (see X.X Capitals).
Sector capitals are automatically destroyed if this system's Census drops below 3. This represents that the loss of population at the colony has
caused the administrative center there to be abandoned as the bureaucrats either fled from the system or were killed by whatever event triggered the Census loss.

## Shipyard

Shipyards are used to build and repair starships. These dockyards range in size from small installations capable of building a single corvette or frigate all the way up to massive fleet bases that are capable of supporting the construction of multiple battleships or dreadnoughts.

Non-atmospheric starships can only be built in systems that contain shipyard facilities. Starships usually return to shipyards for repair, too, though dedicated Repair tenders are capable of performing field repairs when a friendly shipyard isn't available.

While shipyards can be purchased in uninhabited systems, they are reliant on industrial capacity to actually function. Players must purchase an orbital factory in these systems to provide a source of industrial capacity to power their production. Alternatively, mobile manufacturing units with the Construction special ability can also provide a shipyard with industrial capacity. Shipyards built in uninhabited systems can only build units that have a tech level that is less than or equal to their owner's own empire tech level.

Capturing an enemy shipyard not only captures the shipyard facility itself but also all of the starships currently under construction there. The attacker assumes the maintenance costs for these units and can choose to scrap, scuttle, or finishing building them, at his discretion. As with other captured units, these starships will need to be refit after completion to fully convert them for the new owner's use (see X.X Captured Units).

## Starport

Starports are travel hubs that act as scenters commerce for one or more star systems. The number of people that pass through the shopfilled throughfares of your average starport is enough to boggle the mind. This constant ebb and flow of alien visitors invigorates the local economy through a combination of duties, tariffs, and docking fees.

Any system that contains a starport receives a +1 bonus to its commerce range and has a minimum commerce range of 2 . This extends the distance that an empire's merchants can travel to engage in foreign trade, opening up new markets and possibly even contact with new potential trading partners.

## Supply Depot

A supply depot is a logistics center that stores ammunitions and other war materiel for distribution out to an empire's military forces in nearby systems. Empires use supply depots to extend their supply range beyond the normal reach of their colonies.

Any system that contains a supply depot receives a +1 bonus to its supply range and has a minimum supply range of 2 .

Players commonly build supply depots in frontier or border systems to keep their forces in supply during periods of expansion. Military campaigns often rely on supply depots to keep friendly forces in supply while they make their initial pushes into enemy controlled space. Supply depots can also aid colonization efforts by allowing players to quickly extend supply to valuable uninhabited star systems, bypassing the need to build up major colonial infrastructure in systems that may not otherwise be viable candidates for colonization.

## Uplift Center

Uplift Centers provide technological assistance to Pre-Interstellar civilizations by teaching them how to manufacture and utilize advanced alien technologies to better prepare them for life as part of the galactic community.

An empire can only purchase an Uplift Center in a system that is inhabited by a Pre-Interstellar empire that has an empire tech level less than its own. This facility provides the system owner with a number of free tech points each turn equal to the system's Census value. This tech bonus significantly accelerates the PreInterstellar empire's rate of tech advancement.

An Uplift Center is automatically scrapped once the empire whose colony it is assisting advances to an Interstellar tech level. The proceeds from the scrapping go to the system's owner and not the empire that is operating the Uplift Center.

## 3.IO.2 FACILITY Construction

Facilities have a fixed construction cost of 50 EP , cost 1 EP per turn to maintain, and take 10 turns to build. Facility construction is advanced during the Construction Phase. Empires can purchase facilities in any star system that is located within the supply range of one of its colonies, as long as that system isn't claimed or controlled by a power it doesn't have a military treaty with.

Empires that have a tech level lower than Interplanetary can't purchase facilities because they lack the technological capability to do so.

## 3.IO. 3 FACILIties \& Combat

Unlike colony infrastructure, facilities are just as vulnerable to enemy attack as any other space or ground combat unit is. In fact they are even more vulnerable because they are incapable of evading enemy attacks and their position in a system is well-known to an attacker.

Facilities are excluded from traditional space and ground combat scenarios. Enemies that hope to destroy a facility must instead rely on bombardment or intel to eliminate them from the game. Anti-Facility bombardment is used to take out critical enemy facilities in contested systems while Sabotage: Facility intel missions allow an empire to destroy enemy facilities at a distance (and with a chance of plausible deniability should an empire's spies escape without detection). Any units that are based by or under construction at a facility when it is destroyed are also lost. For example, all of the starships under construction at a shipyard are destroyed with the shipyard and any flights based at a fighter garrison are destroyed along with the garrison.

## 3.IO.4 CAPturing Faciuities

The conquest of a star system automatically transfers ownership of all of the system's facilities facility to the attacker. Facilities in uninhabited systems can also be captured by an enemy fleet if their owners don't have any space combat units remaining in the system to protect them. These facilities won't provide any benefits until the next turn, however, as crews must repair them and deal with any surprises the former owner left behind prior to their capture.

## B.0 Military

"The unresting progress of mankind causes continual change in the weapons; and with that must come a continual change in the manner of fighting -- in the handling and disposition of troops or ships on the battlefield."

- Alfred T. Mahan, The Influence of Sea Power Upon History

Space combat units / ground combat units

## 8.I StARSHIPS

| Classification | Abbr | Command <br> Cost |
| :--- | :---: | :---: |
| Gunboat | GB | 1 |
| Corvette | CT | 1 |
| Frigate | DD | 1 |
| Destroyer | CL | 2 |
| Light Cruiser | CA | 3 |
| Heavy Cruiser | BC | 4 |
| Battlecruiser | BB | $5-6$ |
| Battleship | DN | $7-8$ |
| Dreadnought | TN | $11+$ |
| Superdreadnought | SD | $9-10$ |
| Titan | CVE | 1 |
| Escort Carrier | CVL | 2 |
| Light Carrier | CVA | 3 |
| Heavy Carrier | CVF | $4-5$ |
| Fleet Carrier | CVB | $6+$ |
| Super Carrier |  |  |

## 8.I.I Escorts

Gunboat (GB)
Corvette (CT)
Frigate (FF)
Destroyer (DD)

## 8.I.2 Cruisers

Light Cruiser (CL)
Heavy Cruiser (CA)
Battlecruiser (BC)
8.I. 3 Capital Ships

## Battleship (BB)

Dreadnought (DN)
Superdreadnought (SD)
Titan (TN)
8.I. 4 Carriers

Escort Carrier (CVE)
Light Carrier (CVL)
Heavy Carrier (CVA)
Fleet Carrier (CVF)
Super Carrier (CVB)
8.I. 5 Auxiliaries

### 8.2 StARBASES

Starbases are more economical to maintain, and their maintenance costs are half that of comparably-sized space combat units.

Satellites
Base Stations

## Battle Stations

### 8.3 FLIGHTS

### 8.3.1 Fighters

Fighters are small combat craft that

### 8.3.2 Bombers

Bombers are flights that have been designed for a dedicated anti-shipping role. They are usually larger and more expensive than your typical flight class and have significant Attack Strength.

### 8.3.3 Shuttles

Shuttles are flights that serve in a support role, exchanging weapons in favor of special abilities that allow them to support their task forces.

## X.3.4 Flight Basing

Flights rely on units with the Carrier special ability to transport and deploy them into combat. The number and size of flights that a carrier can base is determined by its own Carrier value and command cost. A carrier can base 1 CC of flights per point of Carrier value, but the maximum construction cost of flights that a carrier can base it equal to its Carrier value times its own command cost. Carriers with the Launch special ability receive a +2 bonus to the maximum construction cost of flights they can carry per point of Launch value they possess. For example, a 3 CC heavy carrier with 5 Carrier and 2 Launch could base up to 5 flights whose total construction cost was 19 or less.

Small carriers or those with limited hangar facilities can't accommodate larger, more expensive flights, and this gives empires a reason to field larger carriers that are capable of basing more powerful flights.
Flights always have a command cost of 1 regardless of their construction cost. This represents that even the largest flight of heavy bombers is still smaller than a light cruiser and require fewer command assets to direct them during battle.

Atmospheric flights can also be based at planetary fighter garrisons. These facilities are intended to provide a system with fighter support even if there aren't any friendly carriers present. Non-Atmospheric flights must still rely on traditional carriers for deployment, however.

When a carrier is added to a task force all of its flights are added to the task force at no command cost. The carrier is effectively covering the command costs of the flights it carries as it is using its own command and control facilities to direct flight operations and none of this command burden is being passed on to the task force flagship. This is one of the primary advantages of fielding flights.

## X. 3.5 Long Range Flights

Flights that are equipped with the FTL ability are called long range flights because they are capable of operating on their own without the need of a carrier. These flights are capable of solo interstellar flight and can traverse jump lanes without any outside assistance. These flights must still be based from a carrier or fighter garrison, however, and the maximum number of jumps that a long range flight can travel from its carrier without being out of supply is equal to its FTL value.

## X.3.6 Pre-Interstellar Flights

Flights with Pre-Interstellar tech levels must purchase the Atmospheric ability. Additionally, Industrial flights can't fight in space combat scenarios under any circumstances as they are strictly sub-orbital craft.

### 8.4 Ground Forces

Infantry

Armor

Ground Force Basing

### 8.5 Unit Classes

Unit classes establish the baseline statistics and capabilities of its class members. Any modifiers that affect the unit either positive or negative are added to these values to determine its actual unit statistics. A class' statistics are divided between four categories: economic factors, combat factors, command factors, and special abilities.

Every unit class is assigned a class name that uniquely identifies it on an empire's force list. A unit class can either be given an arbitrary name (ex: Halcyon) or a utilitarian name (ex: Destroyer-III) at the owning player's discretion, but no two unit classes on the same force list can be given the same class name. In the event that an empire receives a unit whose class has the same name as one of its existing units, the player must give the new unit class a different name to clearly differentiate it from the existing unit class.

### 8.6 Economic Factors

A unit's economic factors indicate how much a unit costs to build (construction cost) and maintain (maintenance cost), as well as how many turns it must be under construction after it is purchased before it is finally completed (build time).

## Construction Cost (C\$)

Construction cost is the amount of economic points that an empire must spend purchase a unit of this class. Construction cost is one of a unit's most important attributes as it is used to calculate a units command rating, command cost, and build time.

## Maintenance Cost (M\$)

Maintenance cost is the number of economic points an empire must spend every campaign year to maintain a unit. An empire pays $10 \%$ of a unit's maintenance cost each campaign turn (see X.X Maintenance).

## Unit Tech Level (TL)

A unit's tech level determines the minimum tech level that a colony must have to build a unit of this class.

### 8.7 Combat Factors

Combat factors are used to gauge a unit's combat effectiveness. These factors influence the amount of damage a unit can take before it is crippled or destroyed (Defense), how much damage it can do to other enemy units (Attack Strength), and how effective its small arms are at intercepting incoming fire or shooting down enemy small craft (Point Defense).
A unit's non-Defense combat factors are halved after it has taken enough damage to become crippled (round fractional remainders up). This reflects the unit's loss of combat effectiveness as
the result of the damage it has sustained. Defense is an exception to this rule because it is used to determine a unit's current damage state, e.g., whether or not a unit is damaged, crippled, or destroyed. Defense always remains at its full value regardless of the amount of damage a unit has sustained.

## X.7.I Defense (DV)

Defense determines how much damage a unit can take and still continue fighting. While a unit's basic structure integrity plays a major role in determining its Defense value, other factors including energy shielding, ablative armor, decoys, electronic defenses, and other various types defensive systems also contribute towards its overall survivability.

The amount of damage required to cripple a unit is equal to its Defense value, and a unit is destroyed when its damage total is equal to twice its Defense. Unlike other combat factors, Defense isn't halved when a unit is crippled.

## X.7.2 Attack Strength (AS)

Attack Strength measures a unit's offensive firepower. The more heavily armed a unit is, the higher its Attack Strength will be. Attack Strength is used to score damage against enemy warships or ground forces but it is completely ineffective against enemy fighter or shuttle flights.

## X.7.3 Point Defense (PD)

Point Defense encompasses all of the active defense mechanisms that a unit can be equipped with, including anti-fighter batteries, flak cannons, countermissiles, and sand casters. These weapons are used to shoot down inbound enemy targets, including flights, missiles, or drones.

Point Defense weapons aren't powerful enough to breach heavy armor belts, however, and this prevents them from being used against more powerful foes.

### 8.8 Command Factors

Units are assigned two command factors that influence how large of a force they can command (command rating) and how difficult they themselves are to command (command cost).

## Command Rating (CR)

Command rating is used to coordinate command and control operations at the task force level.

The maximum command cost of units that can be included in a task force is equal to its flagship's command rating. This means that units with high command rating values are better suited to lead fleets or armies into battle. A unit's command rating is halved when it's crippled (round fractional command ratings down).

## Command Cost (CC)

Units are assigned a command cost that defines how much command rating is required to integrate them into a military command structure. Larger combat units have higher command costs while smaller combat units have lower command costs. While this may seem counterintuitive on the surface, consider that while a large combat unit may have better internal command and control capabilities it can be much harder to coordinate its activities with other attached units. By comparison, smaller and lighter units have less "command overhead" that can get in the way of carrying out their assigned orders. The maximum number of units that can be added to a task force during scenario generation is equal to the flagship's command rating.

### 8.9 Special Abilities

| Special Ability | Mass Cost |
| :--- | :--- |
| Anti-Fighter | 2 |
| Armor | 1 |
| Assault | 3 |
| Atmospheric | Special (See Rules) |
| Blockade Runner | Command Cost |
| Cargo | 3 |
| Carrier | 3 |
| Command | 2 |
| Construction | 2 |
| Cyber Warfare | 2 |
| Fast | Command Cost |
| Firewall | Command Cost |
| FTL | 3 |
| Gunship |  |


| Interceptor | 3 |
| :--- | :--- |
| Launch | 1 |
| Marines | 2 |
| Medical | 3 |
| Repair | 3 |

## Anti-Fighter

Anti-Fighter units possess specialized point defense batteries that are designed to engage enemy flights during combat. These anti-fighter batteries are extremely effective at tearing apart enemy fighters, bombers, and shuttles but lack the ability to intercept incoming weapons fire.

A task force receives +1 PD per 5 Anti-Fighter value during the anti-fighter step of the Point Defense Phase (round down).

## Armor

// Increases the amount of damage a unit can take before it is crippled by 2 .

## Assault

Assault ships are designed to transport ground forces between systems and then deploy them into battle. Each point of Assault value allows a unit to base 1 CC of ground forces. For example, an assault ship with 4 Assault value can base 4 CC of ground force. The maximum construction cost of ground forces that a unit can base is equal to its Assault value times its own command cost.

Ground forces that perform invasions from Assault basing receive their full combat factors during the battle. See X.X Invasion Scenarios.

## Atmospheric

Atmospheric units are equipped with airfoils or anti-gravity propulsion systems that allow them to operate both in space and within a planetary atmosphere. The Atmospheric special ability can only be purchased once per unit. The benefits it provides a unit depends on its unit type:

- Atmospheric starships can be built at colonies as if they were ground forces without the aid of shipyards.
- Atmospheric flights are called aircraft and can fight in both space and ground battles.
- Atmospheric ground forces are troops that are equipped with the necessary equipment
and life support to leave a planetary atmosphere and fight in space. Mecha-style troops often possess such capabilities. These units are treated as flights when they participate in space combat scenarios.
Starbases can't be Atmospheric because they are fixed orbital structures that can't operate in an atmosphere under any circumstances.
Units that purchase this special ability don't add their Command Cost to their Construction Cost when calculating the number of mass units they have available to spend during unit design.

Example: A TL 8 starship with a Construction Cost of 13 has a Command Cost of 3 . Without the Atmospheric trait this unit would have (13 + 3) $x 180 \%=29 \mathrm{MU}$ to spend during unit design. With the Atmospheric trait this would be reduced to $13 \times 180 \%=23 \mathrm{MU}$ because the starship's Command Cost isn't added to its Construction Cost when calculating its maximum mass.

## Blockade Runner

Blockade Runners are used to break through enemy blockades and resupply friendly systems. Defenders add their Blockade Runner value to their command costs when calculating the size of their force for purposes of X.X Blockades.

Mass Cost: Command Cost

## Bombardment

(Mass Cost: 3)

## Cargo

Flights, ground forces, and other special forms of cargo can be embarked aboard units equipped with Cargo bays for transport to other planets or star systems. The maximum command cost of these units that a unit can embark is equal to its Cargo value. Multiple transports can combine their Cargo values to allow them to carry larger units. For example, a freighter with 3 Cargo has enough cargo capacity to embark up to 3 CC of flights or ground forces, but two of these freighters working in tandem could transport up to 6 CC of units.

Units can embark or disembark cargo at any friendly system or colony they visit during the Movement Phase. If transferring cargo between units in different fleets, the destination fleet must have sufficient cargo capacity available to cover the total construction cost of the inbound cargo. Crated flights can be disembarked directly to waiting carriers so long as those vessels have sufficient Carrier value available to base them.

Units that are transported as cargo can't participate in combat. The one exception to this rule is that ground forces that are stationed aboard transports can take part in X.X Invasion Scenarios during the Ground Combat Phase when they attempt a landing to establish a beachhead at an enemy colony. Ground forces that invade from Cargo suffer significant combat penalties compared to those that invade from Assault basing, however.

Cargo can be lost if the units that are carrying them are damaged or destroyed. During the Supply Phase players must check to see if each military force still has enough Cargo value available to accommodate the command cost of all the cargo they are currently transporting. Should the cargo's total command cost exceed the force's combined Cargo value, the owning player will be forced to destroy one or more units until the remaining cargo's total command cost is less than or equal to its Cargo value.
Cargo can also be disembarked via a special "jettisoning" action. Jettisoning cargo effectively destroys the cargo. Barring CM fiat, it is impossible to retrieve or otherwise recover jettisoned cargo. The decision to jettison cargo must be made during the Turn Orders Phase; it cannot be made in the middle of battle.
When not being used to move units from system to system, Cargo vessels are automatically employed as X.X Military Supply Ships that carry supply points that military forces can consume while out of supply to keep from taking damage. This logistics application makes it beneficial for players to assign supply ships to their military convoys to extend their operational ranges.

> Because units halve their Cargo values when they become crippled it is often in a player's best interests to target an opponent's military supply ships and troop transports in an attempt to eliminate their flights and ground forces before they can be committed to battle. Suicidal attacks against enemy troop ships in particular can buy an empire precious time to reinforce their own planetary defenses in anticipation of an enemy invasion.

## Mass Cost: 3

## Carrier

Carriers possess hangars that are designed to base flights (fighters, bombers, shuttles, etc.) and deploy them into combat. Each point of Carrier value allows a unit to base 1 CC of flights. The maximum construction cost of flights
that a carrier can base at any one time is equal to its Carrier value times its own command cost.

Flights can't possess the Carrier special ability. This prevents a "Russian doll" scenario in which flights can carry other flights ad infinitum.
(Mass Cost: 3)

## Command

Command units are dedicated command and control platforms that possess advanced communications and data processing facilities that allow military leaders to better coordinate combat operations during a battle.

Task forces can add an additional 1 command cost of units for every 5 Command value they possess (round down). These units are added to the task force after its created, and their own Command value doesn't affect the task force. The player doesn't have to use his Command value to add extra units to a task force if he doesn't want to.

Mass Cost: 2

## Construction

Construction units possess manufacturing and fabrication capabilities that can be used to increase a system's industrial capacity by 1 per 5 Construction value in the system (round down). Empires can use Construction units to supplement the industrial capacities of their own colonies or else perform X.X Remote Construction in uninhabited systems. This is the only way that an empire can build units in systems that they don't control.
Mass Cost: 2

## Cyber Warfare

Units that possess Cyber Warfare capabilities can hack into enemy computer systems and take control of vital electronic systems. Aggressors can use these compromised computer networks to lock out enemy access or even take direct control of the associated hardware, redirecting the unit's own weapons fire back upon its own task force. See X.X Cyber Warfare Phase.

## Deception

Some units are equipped with sophisticated electronic warfare systems that allow them to manipulate their energy signatures.

## Firewall

Firewalls are used to protect networked computer systems against enemy infiltration and intrusion. This ability provides an active defense against enemy cyber warfare attacks and makes it harder for an opponent to take control of friendly units during combat. Units receive a bonus to their formation levels during the Cyber Warfare Phase equal to their Firewall values.

## Fast

Fast units demonstrate exceptional maneuverability on the battlefield. This makes them well-suited for use as forward reconnaissance units prior to a battle and much harder to hit once battle is finally joined. Task forces receive +1 Advantage per 5 Fast value they possess (round down). When resolving combat strategically using the CSCR, Fast units receive a bonus to their formation level equal to their Fast value. This makes them harder to hit and gives them increased survivability in battle.

Mass Cost: Command Cost

## FTL

Mass Cost: Command Cost

## Electronic Warfare

Electronic Warfare systems serve two purposes. First, they make friendly units harder to hit by deploying electronic countermeasures to obscure their signatures or confusion enemy sensors. The second function is to cut through enemy interference to counter enemy Electronic Warfare activity. The number of electronic warfare points a player has available to spend each combat round is determined by his task force's total Electronic Warfare value.

Mass Cost: 2

## Endurance

(Mass Cost: 1)

## First Strike

First Strike weapons possess superior engagement ranges when compared to conventional weapon systems. Units equipped with these advanced armaments make a special attack at the start of the Attack Phase before other tacks are resolved. This gives units that have the First Strike ability the chance of crippling or destroying enemy units before they ever get a chance to fire!

While First Strike fire is extremely effective at weakening enemy task forces before they can return fire, the ability also costs twice as much as Attack Strength. Empires that want to make heavy use of First Strike weapons will be forced to pay dearly for the luxury.

Mass Cost: 2

## Gunship

Gunships are heavily-armed units that excel at scoring hits against any non-flight units. Concentrated weapons fire from a Gunship unit provides its task force with an extra AS hit for every point of Gunship value the unit has available. These hits are in addition to those generated by the task force's normal Attack Strength fire.

## Interceptor

Interceptors excel at shooting down incoming weapons fire. These advanced point defense systems provide superior protection because they are fully-automated and can leap into action immediately after a task force enters battle without any of the delay or variability associated with traditional point defense weapons.

Task forces receive +1 PD per point of Interceptor value during the interception fire step of the Point Defense Phase. This point defense fire is used to increase formation levels of non-flight units, reducing the amount of damage they'll take during the Attack Phase that round.

## Jammer

Jammers are specialized electronic systems that are used to jam enemy sensors and electronic warfare systems. Units with the Jammer ability reduce the number of electronic warfare points that an enemy has available to use each combat round.

Mass Cost: 2

## Launch

Units that are equipped with Launch bays have superior launch/land capabilities that allow them expedite flight deployment and recovery during a battle. Each point of Launch value provides a carrier with a +2 bonus to the maximum construction cost of flights that it can base. When resolving combat using the CSCR, a unit's Launch value is added to its Carrier value during the Carrier Phase.

## Marines

Marines are used to sabotage or capture enemy units during battle. They can also be used defensively to eliminate enemy marine contingents that have already infiltrated friendly units.

## *XX

Marines receive +1 bonuses to their Attack Strength and Point Defense values per point of Marine value when they are the attackers in Invasion or Fortress scenarios. This bonus represents the special training that these forces receive that make them better at breaking through enemy fortifications.

Marines that are stationed aboard starships, starbases, of flights supplement their own boarding and security forces. Each point of Marine value can provide its basing unit with either a +1 Boarding or +1 Security bonus (one or the other, but not both).

Only ground forces can receive the Marine ability.
(Mass Cost: 1)

## Medical

Medical units act as hospital ships or emergency combat triage teams that specialize in healing injured ground forces. Medical units are used to perform X.X Field Repairs on damaged ground forces. The maximum construction cost of field repairs that a Medical unit can coordinate is equal to its Medical value, and these units can combine Medical value to accomplish more expensive field repairs.

## Onslaught

Units with the Onslaught ability possess extremely powerful short range weapons that are effective at breaking through enemy defenses. Onslaught weapons fire is resolved at the end of the Attack Phase after all other weapons fire has been concluded, but attacks made using Onslaught value halve enemy formation levels (round fractional formation levels up). This bonus demonstrates that these units are at such short ranges that enemy escorts can't hope to protect their charges against the oncoming storm of enemy weapons fire.

Mass Cost 2
(Mass Cost: 1)

## Police

(Mass Cost: 1)

## Repair

The Repair special ability is used to perform X.X Field Repair operations on friendly space combat units (starships, starbases, and flights). The maximum construction cost of field repairs that a Repair unit can coordinate is equal to its Repair value, and these units can combine Repair value to accomplish more expensive field repairs.
(Mass Cost: 3)

## Scout

(Mass Cost: 2)

## Security

Security represents the presence of marine security detachments or other anti-personnel countermeasures that have been incorporated into a unit's design. These defenses are used to engage enemy boarding parties and prevent them from damaging or capturing friendly units.

Units with the Security ability have a chance of reducing the number of boarding points an enemy has available during the Boarding Phase of the combat round.

## Mass Cost: 2

## Stealth

Stealth encompasses a multitude of electronic countermeasures that are meant to make a unit harder to detect. This includes everything from anti-sensor hull coatings and heat collection/dissipation systems to full-blown cloaking technology.

Stealth units provide a penalty to enemy detection attempts in encounters. This increases the chances that a fleet or army will be able to take an opponent by surprise, placing them at a marked disadvantage in battle.

In combat, Stealth units can choose to forego weapons fire during a combat round (both antiship and point defense) in return for a bonus to their formation level equal to their current Stealth values. This function of the Stealth ability allows units to effectively cloak themselves and evade enemy fire so that they'll take less damage and possibly survive the scenario intact.

Mass Cost: 2

## Tender

Tenders possess external docking clamps or other apparatuses that allow them to transport and deploy smaller starships. Tenders sacrifice their own combat factors in exchange for the ability to base small, inexpensive fighting ships that are easily replaced between engagements.

Each point of Tender value allows a unit to base 1 CC of starships. The highest command cost starship that a tender can base is equal to onethird its own command cost (rounding up). Tenders with a command cost of 3 or less can only base 1 CC units, but a 4 CC tender could base ships that have command costs up to 2. Extremely large tenders are therefore capable of basing and transporting starships as large as a heavy cruiser.
Starships that are being based aboard another vessel using Tender value are subject to the same launch/land restrictions as flights that are based using Carrier value. This means that the maximum command cost of based starships that a tender can have launched at the start of a scenario is limited by its readiness state, and tenders can only launch one additional starship per combat round unless it possesses the Launch ability that increases its launch/land rate.

The most common type of tender that players will encounter in a campaign is the gunboat tender. These are starships that are designed specifically to base 1 CC gunboats and deliver them into battle.

One of the advantages that gunboat tenders have over fighter carriers is that a player can split an opponent's anti-ship fire between his cheap gunboats and his larger, more important targets. Another advantage of the gunboat tender strategy is that gunboats don't need FTL drives of their own because they can use their tenders' own FTL to move them from one system to another. The mass units that gunboats normally spend on FTL ability can instead be used to improve their other combat factors or purchase other special abilities.

Tenders can't base other tenders, and flights can't receive the Tender ability.

Mass Cost: 1

## Towing

Starships and flights that have the Towing ability are called tugs. These units can move other space combat units from one location to another using only their own powerful drives. The amount of Towing value required to tow a
starship or flight is equal to the unit's command cost. Individual tugs can combine their Towing values in order to be able to move more massive units.

Tugs are usually used to tow crippled units whose FTL drives have been damaged in battle back to colonial bases for repair after a battle. The tug's FTL value is used to determine the number of jumps that it and its towed unit(s) can make during the Movement Phase of the turn. Towing puts heavy stress on a tug's own propulsion systems, however, and its FTL value is halved while it is towing another unit (round fractional FTL values up).

Mass Cost: 2

## Ultralight

This unit requires half the normal basing capacity; allows twice as many units to be based
Unit's maximum mass is halved if it has the Ultralight special ability

## Flight/Ground only

## X.IO Prototyping

Engineers can design new unit classes to supplement an empire's existing classes and/or take advantage of new technologies. All new unit classes must be successfully prototyped before they can start construction. To purchase a new unit prototype, an empire must spend a number of economic points equal to twice the unit's construction cost. Only the unit's base construction cost counts against a system's industrial capacity for purposes of construction. The remainder of the cost covers the extraordinary technical expenses associated with developing a new unit class.

Prototypes can only be purchased at colonies that have Research infrastructure available to support the engineering and design portion of the prototyping process. The maximum number of unit prototypes that can be under construction at a colony at any one time is equal to the colony's utilized Reserach value. Prototyping is interrupted whenever the number of prototypes under construction at a colony exceeds its utilized Research value. The player must select one or more prototyping projects to put into stasis until the colony's utilized Research infrastructure can be restored or other prototyping projects are completed. Progress made towards completing a progress isn't removed, and engineering teams can pickup where they left off once prototyping resumes.

Starting on the turn that it is first purchased, each prototype rolls on the Prototype Table during the Construction Phase to determine what kind of progress the engineers assigned to the project have made towards completing the prototype's testing and design phase. Prototype units remain in an evaluation state until a Prototype Complete result is rolled on the table, at which point construction of the unit actually starts.

Prototype Table (2D6)

| Roll | Effect |
| :--- | :--- |
| $2-7$ | No Effect |
| $8-11$ | Promising Results. The prototype <br> receives a cumulative +1 bonus to its <br> future prototyping rolls. |
| $12+$ | Prototype Complete. The prototype <br> has been completed successfully. |

Multiple prototypes of the same unit class can be purchased and undergo prototyping simultaneously. Each prototype makes a separate prototyping roll, but any Promising Results outcomes rolled apply equally to all other prototypes of the same class. This often makes prototyping multiple units of a new class advantageous despite the added expensive because it allows the class to accrue prototyping bonuses at an accelerated rate. Prototyping is completed for all of the members of a unit class if any one of them rolls a Prototype Complete result on the Prototype Table.

Construction doesn't begin on a unit until after it's finished prototyping, and a unit that was successfully prototyped during the Construction Phase of the current turn won't start construction until the Construction Phase next turn. This represents that prototyping is an iterative process and that the original prototype is continuously being taken apart and put back together as engineers try to address and correct flaws in the unit's original design plans. Final construction can only begin once a unit class is officially approved as ready for production.

Even though units don't undergo construction while they're being prototyped, their command costs still counts against colonial planetary and/or shipyard construction maximums. These construction facilities are unavailable because they are being used to assemble the prototype and test new equipment prior to the start of actual construction.

Example: The human empire is going to prototype a new type of battlecruiser, the Lexington-class (C\$ 15). It costs 30 EP to initiate this prototyping project, but the prototype only requires 15 industrial capacity to accommodate its actual construction. The prototype makes its first roll on the Prototype Table during the Construction Phase of the turn it was purchased. It rolls a '9', which is Promising Results. This gives the class a cumulative +1 bonus to its future prototyping rolls.

Prototyping continues on the Lexington-class until the prototype rolls a '12' or greater on the Prototype Table, at which point the prototype is complete. Actual unit construction begins in the Construction Phase of the following turn.

## X.II Unit Refits

An alternative to prototyping new unit classes is to return a unit class to a planet to undergo a comprehensive refit. This creates a new class variant based off of the original design but that can incorporate new technologies or alter the original's capabilities.

A refit class always has the same construction cost as the unit class it is based on, but a player can change any of its other unit statistics, including its unit tech level. The easiest way of handling this is to design a new unit class with the same construction cost as the original and then apply the desired unit statistics to that new class. However, refitting a unit class is always less efficient than designing and prototyping an entirely new unit class. The refit's maintenance cost is increased by 1 for every 3 MU that were added or subtracted from the design during the refit (round up).

To begin refitting a new class variant, a player must first move a unit of the original class to a colony that has enough industrial capacity available to oversee the refit process. The economic point cost to perform the initial refit is equal to the unit's construction cost. This cost covers the expense of designing and implementing the desired changes to the base unit's configuration. Unit refits are also subject to the same technical limitations as prototypes and require utilized Research to support them during construction. The maximum number of unit refit projects that a system can maintain is equal to its utilized Research value, minus the number of unit prototypes that are already in development there.

Refitting a unit is much simpler than developing a completely new class from the ground up. Unlike prototyping a new unit class, construction
on the unit refit begins on the same turn that it is ordered. Tech infrastructure is still required to support unit refits, however, and the maximum number of unit refits that a colony can support at any one time is equal to its utilized Tech infrastructure (this is in addition to the normal prototyping limits). The same rules for handling the interruption of design work due to a lack of utilized Tech applies to unit refits as it does to prototyping.

Refit classes receive a special note that includes the name of the original unit class that it is a refit of. Units can only be refitted to class variants that are derived from the same base unit class. A unit can't be refitted into an unrelated unit class even if they have the same construction cost.

Additional units can be refitted to a new refit unit class starting on the turn after the lead member of the variant class is completed. The refit cost for each of these units is equal to half its construction cost (round up). The amount of construction time required to complete a refit is equal to half its normal build time (round up).

Example: The Lexington-class battlecruiser (TL 0, C\$ 15, M\$ 6, BT 8, DV 6, AS 5, PD 3, CR 8, CC 3, FTL 1) is being brought in to undergo an extensive refit to update it to TL 2 and convert it into a heavy carrier. The resulting class is the Lexington-class heavy cruiser (TL 2, C\$ 15, M\$ 11, BT 8, DV 7, AS 1, PD 4, FTL 1, Carrier 6, Refit (Lexington). A new unit class with these same stats would have a maintenance cost of 7, but because this unit refit added $8 \mathrm{MU}(+1 \mathrm{DV}$, +1 PD, +6 Carrier) and removed 4 MU (-4 AS) it receives a maintenance penalty of $12 \div 3=+4$ M\$. This makes the Lexington refit over 50\% costlier to maintain than a new unit class with the same stats, but the refit didn't require any prototyping so it could be produced quicker.
A special "Refit (Lexington)" note is added to the class' stat block to indicate its design lineage. Any unit of the Lexington-class or one of its derivatives can receive this refit.

## X.X Damage E Repairs

The universe is a dangerous place, and it's inevitable that at some point during a campaign a player's forces will take damage, either as the result of a being out of supply or being attacked by a hostile enemy force. This section describes the levels of damage that a unit can receive during a game as well as rules for how this damage can be repaired.

### 5.4.I Damage States

There are four damage states that describe the current level of damage that a unit has incurred: undamaged, damaged, crippled, and destroyed. The relationship between the amount of damage a unit has sustained ands its Defense value is used to determine its damage state.

Undamaged: A unit that hasn't received any damage is undamaged. Undamaged units function normally and aren't subject to any special penalties or restrictions.

Damaged: A unit is damaged if it has received one or more points of damage but its total damage is still less than its Defense value.

Crippled: A unit is crippled when the amount of damage it has received is greater than or equal to its Defense value. All of a unit's combat factors (excluding Defense but including special abilities) are halved when it is crippled (round fractional remainders up). This penalty represents that the unit has sustained enough damage to negatively affect its combat performance.

Destroyed: A unit is destroyed once its damage total equals twice its Defense value. Destroyed units are removed from play after they have received enough damage to destroy them.

### 5.4.2 Repairs

Injured units can be repaired at their empire's colonies. The cost to repair a unit is based on its current damage state. The cost to repair a damaged unit is equal to $25 \%$ of its construction cost, while the cost to repair a crippled unit is equal to $50 \%$ of its construction cost. Round fractional repair costs up in both cases.

Repairs usually take multiple turns to complete. The completion time for a repair operation is equal to half the repair cost (round up). The command costs of units that are undergoing repairs count against a colony's normal production or shipyard capacity limits while they are undergoing repairs.

A player can cancel repairs after they are ordered. Half of the economic points spent on the repairs are returned to the empire's economic pool (round down) and the unit that was undergoing repairs is left with the same amount of damage as when the repair order was initiated. Any repair work that crews had performed on the unit prior to the repair cancellation are lost under the assumption that for every system that was repaired another one was left partially disassembled when the order
came down to halt repairs and return the unit to service.

### 5.4.3 Field Repairs

Special units can be used to perform field repairs on units that are operating away from their owners' colonies. Units equipped with the Repair ability can be used to repair friendly space combat units (starships, starbases, and flights), while units that possess the medical ability can be used to repair friendly ground forces. These units provide 1 industrial capacity per point of Repair or Medical value that they possess.

Repair and Medical units can only perform field repairs if they are in supply and didn't move during the Movement Phase this turn. Field repairs are cancelled if the unit performing the repairs are forced out of supply or the field repair units moved this turn. All of the economic points spent on field repairs are lost when these operations are interrupted.

### 5.4.4 Scrapping

Units can be scrapped at a colony to remove them from play and recover a portion of their original construction cost. The colony's owner receives $50 \%$ of a unit's construction cost when scrapping undamaged or damaged units, or $25 \%$ of a unit's construction cost when scrapping crippled units (round down). Units that have received heavy damage are worth less as scrap than those units that are still in good fighting condition.

Any units or other cargo that are based aboard a unit when it is scrapped are automatically scrapped along with it. The player must be sure to disembark these units and goods prior to their basing unit being scrapped if they wish them to remain in service.

A unit's maintenance state has no impact on its ability to be scrapped. This allows players to scrap reserve and mothballed units without first reactivating them.
Units that have been purchased but are still under construction can be scrapped at any point during the construction process; the player does not have to wait for them to be completed before he can order them scrapped. These units always return $50 \%$ of their original construction cost (round down).

### 5.4.5 Scuttling

Players can voluntarily destroy units by scuttling them. Empires usually scuttle units to reduce
their maintenance burden or prevent units from being captured by an opponent. Scuttling functions much like scrapping with the exception that the unit's owner doesn't recoup any of the units original construction cost when a unit is scuttled. Units can be scuttled at any location, however, whereas units can only be scrapped in inhabited systems.

## X.I2 Maintenance

Empires must pay economic points each turn to maintain their military forces. These maintenance expense expenditures represent the cost to produce replacement parts, train personnel, and provide all of the other consumables that a nation's armed forces need to continue functioning at optimal levels.

Units can operate in one of three maintenance states: active, reserve, or mothballed. A unit's current maintenance state defines what actions it is allowed to perform as well as what percentage of its listed maintenance cost an empire must pay to maintain it.

Maintenance State Chart

| Maintenance State | Maintenance Cost \% |
| :---: | :---: |
| Active | $100 \%$ |
| Reserve | $50 \%$ |
| Mothballed | $10 \%$ |

## Active

Active units are fully-operational and available to receive orders. This is the default maintenance state for units in a campaign and all new units begin in an active state. Active units pay their full maintenance cost each turn and can be ordered to perform any legal action, including performing movement, loading or unloading cargo, conducting exploration, etc.

## Reserve

Reserve units are maintained at less than fullreadiness. These units can't be issued movement orders and their combat factors are halved when they are drawn into combat (e.g., they fight as if they were crippled). Task forces that are commanded by a reserve unit receive a -1 penalty to their rolls on the Surprise Table.
The trade off for these combat penalties is that an empire only has to pay half a reserve unit's normal maintenance costs each turn. Placing units into the reserves is therefore a quick and
easy way for a player to reduce his empire's maintenance costs.

## Mothballed

Mothballed units are out of service and aren't combat ready. These units can't participate in encounters that are generated at their locations and are automatically captured if their location is conquered by another power. The only action that a mothballed unit can take is to be reactivated. A power only pays $10 \%$ of a mothballed unit's normal maintenance costs each turn, however, so they cost an empire almost nothing to maintain. This reduced maintenance cost allows an empire to economically maintain a combat reserve that can be activated during times of crisis to bolster their existing forces.

Empires commonly mothball older units that aren't as effective as their modern equivalents to reduce their overall maintenance costs. For military hardware, mothballing involves prepping the equipment for long-term storage at planetary or naval facilities in anticipation of future reactivation. Personnel, meanwhile, are furloughed or otherwise returned to their lives in the general civilian population until such time as their nation requires them to return to active service.

Mothballed units can be scrapped or scuttled without first being reactivated. This allows empires to destroy unwanted units without first going through the hassle of reactivating them. Mothballed units that are to be sold to another power must first be reactivated to Active status, however, before they can be traded away.

## Activations \& Deactivations

Players can order their units to change maintenance states during the Turn Orders Phase. Activation orders are given to units in reserve or mothballed status, recalling them to an active maintenance state. Deactivation orders are given to units in active status to transition them to either reserve or mothballed status, as indicated by the player's deactivation order. It isn't possible to convert a reserve unit into a mothballed unit or vice versa; they must be brought back to active status first before they can be deactivated into reserve or mothballed status. Any units that are being transported aboard another unit are activated or deactivated along with their carrying unit.

As with normal unit construction, activation and deactivation orders often require multiple campaign turns to complete. The build time for a unit activation or deactivation order is equal to
$25 \%$ of its completion time for reserve units or $50 \%$ of its completion time for mothballed units (round fractional completion times up). Mothballed starships require shipyard capacity equal to their command costs
Mothballed units require production or shipyard eapacity equal to their construction costs during the deactivation/reactivation process as if they were new units under construction. Starships require shipyard capacity in addition to their production capacity. Deactivating or reactivating Mothballed units will tie up a colony's industry and shipyards and prevent the colony from building any new units while Mothballed units are being worked on. This requirement also limits the rate at which the units can be transitioned into or out of mothballs, which in turn prevents a player from quickly reactivating all of its Mothballed units at the onset of a crisis of deactivating them all after a war is over. Another implication of this rule is that a colony with atrophied infrastructure may not be able to demothball units that have been-stored there in the past due to a lack or production and shipyard eapacities.
Fleet tenders that possess the Repair ability can use their spare Repair ratings to mothball of demothball space combat units (starships, flights, or starbases) at their location. The amount of shipyard capacity available to perform these actions is equal to their total unused Repair rating. Likewise, hospital ships or ground teams with the Medical ability can be used to mothball or demothball ground combat units (troops, aircraft, or installations). The amount of production capacity these units provide for use with these actions is equal to their total unused Medical rating. Repair or Medical units that are being used in this manner must remain in the system and can't move until the reactivation of deactivation orders are completed.

Orders to mothball or demothball a unit are delayed if there isn't enough production of shipyard capacity available at its location to support them. Enemy attacks or sabotage missions are often to blame for these interruptions. The completion time for the affected activation or deactivation order won't progress until there is enough production of shipyard capacity available to continue work mothballing or demothballing the unit.

## X.I3 Supply

Supply is an important concern for any empire. A player must keep his military forces in supply to maximize their combat efficiency and prevent
them from taking damage due to lack of upkeep. To achieve this goal, players must be mindful of the size and reach of their logistics networks as they expand their empires into new star systems. Colonies can only trace supply out so far, and units that travel beyond their supply range will find themselves out of supply.

## X. 2 Supply States

Units can exist in one of two supply states: in supply or out of supply. A unit is in supply if it is within the supply range of a friendly colony during the Supply Phase and can trace a supply route back to that colony. Supply routes can't pass through contested systems or systems that are controlled by a power with which your own power hasn't signed a military treaty. Units that are in supply are able to receive a regular flow of replacement supplies and personnel from these nearby colonies that keeps them functioning in good order without penalty.
Units that aren't located within the supply range of a friendly colony during the Supply Phase are out of supply that turn. Units with the Endurance special ability reduce their effective Endurance value by 1 at this time. All other units that Endurance values of zero earn a number of out of supply levels (OSL) equal to their Command Costs each turn that they are out of supply. For example, a CC 1 frigate would receive 1 OSL per turn it is out of supply while a CC 4 battleship would receive 4 OSL per turn. Being out of supply for an extended period of time leads to equipment failure and crew attrition and units take 1 damage for every 2 OSL they earn. This gives small units a slight advantage as they take less damage overall from being out of supply, however larger units that have high Command Costs also typically have proportionately higher Defense values that allow them to take more damage. Consider this example: a CC 1 frigate with DV 2 could be out of supply 4 turns before it's destroyed, but a CC 4 battleship with DV 15 could be out of supply 15 turns before receiving enough OSL damage to destroy it.
There are two ways that a unit's OSL can be removed and its Endurance value restored. The first occurs when the unit moves back within the supply range of a friendly colony and can once again trace a supply route to that colony. The second is when a military supply ship expends Supply value to resupply the ship (see X.X Military Supply Ships). Clearing a unit's OSL doesn't repair any damage that it took as a result of being out of supply, however. The damaged unit must return to a colony for refit and repairs before it can be restored to an
undamaged state. Starships that are sent on deep range patrol missions will commonly return with damage, and the costs to repair these units cover the replacement of equipment that failed during the cruise.
Example: A light cruiser (CC 2) with 3 Endurance is operating outside the supply range of any friendly colonies and has been out of supply for eight turns. Thanks to its Endurance value, it can be out of supply for three turns before earning any OSL. On its third turn out of supply, the cruiser's Endurance value is reduced to zero. On each subsequent turn it receives 2 OSL. Of the eight turns the cruiser has been out of supply, it only earned OSL on five of them (the first three were covered by its Endurance). This gives the unit a total of 10 OSL at the end of the Supply Phase on its eighth turn out of supply.

If this light cruiser moves back into supply on the next turn, its 10 OSL would be removed and its Endurance value restored to its starting value. The ship took 5 damage during its voyage, however, and the ship must return to a colony to have this damaged repaired.

## X. 3 Military Supply Ships

When military forces are forced to operate beyond their lines of supply, they rely on military supply ships to keep them in supply. Military supply ships, often called fast combat support ships (AOE) in modern naval parlance, are vessels with the Supply special ability that can be used to refuel, rearm, and resupply friendly military units in the field. The Supply cost to resupply a friendly unit is equal to its Command Cost. A CC 3 heavy cruiser would require 3 Supply to replenish it, for example. Resupplying a unit removes all of its OSL and restores its Endurance to its original starting value.

Supply value that is used to resupply a unit is exhausted after use. It remains exhausted until the military supply ship moves back into supply, at which point its Supply values is restored. Exhausted Supply isn't restored if a military supply ship resupplies another military supply ship, however; the exhausted supply ship must be able to trace a supply route back to a friendly colony before its Supply value can be replenished.

Freighters can perform ad hoc military supply duties, using their Cargo value in place of Supply value, but they aren't as effective in this role and the amount of Cargo value required to resupply a unit is equal to twice its Command Cost. The CC 3 heavy cruiser from the previous example would require 6 Cargo to be resupplied.

Unlike military supply ships, standard freighters are completely exhausted after they are used to resupply another unit regardless of the amount of Cargo value expended. Exhausted freighters can't be used to resupply any other units until they are back in supply, though they can continue to load and unload cargo and troops while they're in this state.
Example: A military supply ship (Supply 4) rendezvous with the light cruiser (CC 2) from the previous example on its eighth turn out of supply. It costs 2 Supply to resupply the light cruiser, removing its 10 OSL and returning it to 3 Endurance. The military supply ship now has 2 Supply available and 2 Supply exhausted. It could resupply up to 2 CC of units before all of its Supply value is exhausted. The military supply ship could even use this Supply to clear its own OSL from being out of supply, but its Supply value would remain exhausted because Supply is only restored when a military supply ship can trace a supply route back to a friendly colony.

If the military supply ship wasn't available and the player was forced to dispatch a basic military freighter (Cargo 6) to meet up with the light cruiser instead, that freighter would have to expend 4 Cargo to resupply it because the Cargo cost to resupply a unit is twice that of conventional Supply. The military freighter is completely exhausted after performing this resupply even though it only used 4 of its 6 Cargo value. It couldn't resupply another unit until it moves back in supply and de-exhaust its Cargo value.


#### Abstract

7.0 Diplomecy "Diplomacy is a disguised war, in which states seek to gain by barter and intrigue, by the cleverness of arts, the objectives which they would have to gain more clumsily by means of war."


## - Randolph Bourne

Conducting diplomacy is one of the most vital enterprises an empire can engage in. While some nations can survive and even thrive in a state of "Splendid Isolation," the futures of all empires even those that are staunchly non-interventionist - are determined by the whirlwind of diplomatic intrigue and real politick that is carried out within the shadowed halls of foreign capitals and embassies.

## X.I Diplomatic States

Diplomatic states describe the level of diplomatic contact that exists between two opposing empires. Empires that have never met or have lost contact with one another are in a state of no contact. Relations progress to normal relations after contact is established. Finally, powers that are engaged in an armed military conflict are in a state of war.

## X.I.I No Contact

Two empires are considered to be in a state of no contact if their spheres of influence don't border one another or if they don't control embassies at the same foreign capital. Powers that have no contact with each other can't sign treaties or issue declarations against each other because they aren't aware of the other's existence (or continued existence, in the case of empires that once were in contact with each other but subsequently lost contact later on). First contact will advance the two empires' to either a diplomatic state of normal relations (peaceful first contact) or war (hostile first contact).

It is possible for two empires to return to a state of no contact despite having previously established contact. Loss of contact is usually the result of two empires being cut off from one another by an enemy invasion. Normal relations is restored after the empires rediscover each other. Any treaties or declarations that the two empires shared prior to losing contact are reinstated once contact is reestablished.

## X.I.2 Non-Intercourse

A state of non-intercourse exists when two empires have established diplomatic contact but one or both of the powers are incapable of offering or signing a border treaty with the other power. This demonstrates that rising political tensions have prompted the powers to sever official diplomatic channels. Normal relations can only be restored once relations have had a chance to thaw.

Empires that enter a state of non-intercourse will automatically attempt each turn to break or withdraw their highest-level treaty with their opponent until all their treaties with that power have been successfully abrogated.

## X.I. 3 Normal Relations

Empires that are in contact with each other inevitably enter into a state of normal relations. Powers in this diplomatic state are allowed to conduct unrestricted diplomacy with each other. They may establish embassies in the other's sphere of influence; offer, sign, or break treaties; issue declarations; or any other diplomatic actions as appropriate.

Most empires remain in a state of normal relations with their neighbors unless intervening events force them into another diplomatic state.

## X.I. 4 War

Issuing a declaration of hostilities, war, or final war against another empire automatically transitions both powers into a state of war. Nations remain in this diplomatic state until they sign an armistice treaty to end the conflict. They can't sign any other treaties while they are still in a state of war.

## X. 2 Diplomatic Relations

Relationship values are used to track the current state of diplomatic relations between empires in a campaign. Each unique diplomatic relationship is assigned its own relationship value. Relationship values are measured on a sliding scale with a maximum of +100 , a minimum of 100 , and a true neutral balancing point of $\pm 0$. Positive relationship values indicate that powers enjoy a friendly relationship while negative relationship values betray the underlying hostility and political tension that can lead to open conflict or even war.

As relationships between two powers deteriorate, as demonstrated by a decrease in their relationship value, the powers will find it more
difficult to offer or sign treaties. However, the chance of successfully breaking treaties or issuing declarations against an opponent increases as an empire's relationship with the target decreases.

## Sample Diplomatic Relationship Matrix



A diplomatic matrix similar to the example depicted above is used to track diplomatic relationships during play. This sample diplomatic matrix depicts diplomatic relationship values for four empires, lettered A through D. Note that each pair of empires share a relationship value. For example, Empire A and Empire B are currently at -16 Relationship indicating poor diplomatic relations but nothing that some attention couldn't remedy. Any two powers will always share the same relationship value because a single relationship value is tracked for the diplomatic relationship. Because a single relationship value is applied to each diplomatic relationship in a campaign, a total of six unique diplomatic relationships and corresponding relationship values are depicted in this matrix.

## X.2.I Diplomatic Shifts

Diplomatic relations are always in a state of flux. Webs of political intrigue are constantly being woven in the shadows by either side's power brokers. While the nature of these intrigues is not readily discernable, their effects can nevertheless shape the fates of empires. To simulate this constant ebb and flow of political discourse, players are required to make a roll on the Diplomatic Shift Table at the beginning of the Diplomacy Phase for each relationship in their
campaign to see if relations have improved, worsened, or stayed the same.

## Diplomatic Shift Table (2D6)

| Roll | Relationship <br> Modifier |
| :---: | :---: |
| 2 | -10 |
| 3 | -5 |
| $4-5$ | -1 |
| $6-8$ | No Effect |
| $9-10$ | +1 |
| 11 | +5 |
| 12 | +10 |

Diplomacy shifts aren't rolled for empires that made first contact with each other on the current campaign turn.

## X.2. 3 Relationship Modifiers

Specific campaign events can trigger a change in diplomatic relations between two empires. In particular, atrocities committed during times of war can have a major impact on how two powers view one another.
The following is a list of event-based modifiers, categorized by type, which can affect relationship values. The value in parenthesis is the relationship modifier. These relationship modifiers take effect immediately after the event that caused them occurs.

Most relationship modifiers are diplomacy-based and can be resolved en masse at the end of the Diplomacy Phase after all other diplomatic activities have been completely resolved. Other relationship modifiers, specifically intel mission modifiers, must be applied immediately. This ensures that relationship values are properly updated by the start of the next Diplomacy Phase.

## Intel Mission Modifiers

Empires that are caught running intel missions against an opponent receive relationship penalties based on the mission's difficulty level and whether or not the mission was successful.

The base relationship penalty for a detected mission is equal to the mission's difficulty level, but this penalty is halved if the mission was unsuccessful (round fractions up).

Missions that go undetected don't incur diplomatic penalties regardless of their success or failure.

## Territory Modifiers

The exchange of territory in the form of star system claims or actual colonies benefits diplomatic relations by increasing the powers' relationship value. Empires often agree to exchange territories as part of a negotiated settlement intended to settle border disputes and prevent future conflicts.
Penalties for capturing or destroying enemy systems or colonies don't exist because such activities are expected during times of war and applying additional relationship penalties for such territorial losses would make it all but impossible for two empires to ever end a conflict peacefully via an armistice treaty.

- The power has ceded claim of a Very Low importance star system to you. (+2)
- The power has ceded claim of a Low importance star system to you. (+4)
- The power has ceded claim of a Moderate importance star system to you. (+6)
- The power has ceded claim of a High importance star system to you. (+8)
- The power has ceded claim of a Very High importance star system to you. (+10)
- The power has ceded an Outpost to you. (+5)
- The power has ceded a Settlement to you. (+10)
- The power has ceded a Minor Colony to you. (+15)
- The power has ceded a Major Colony to you. (+20)
- The power has ceded a Core World to you. (+25)


## Diplomatic Modifiers

Negotiations never exist in a vacuum and the treaties and declarations that an empire agrees to will affect its relationships with other powers. Relationship bonuses are applied when an opponent signs treaties with a nation's mutual defense partners or issues declarations against common enemies. Alternatively, relationship penalties are applied when an opponent signs treaties with an enemy or issues declarations against an empire's mutual defense partners.

For the purposes of these modifiers, an enemy is any power with which an empire is currently in a state of war, and a friend is any power that an empire has signed a mutual defense treaty with.

- The power has signed a border or trade treaty with an enemy. (-2)
- The power has signed a border or trade treaty with a friend. ( +2 )
- The power has signed a non-aggression treaty with an enemy. (-5)
- The power has signed a non-aggression treaty with a friend. (+5)
- The power has signed a mutual defense treaty with an enemy. (-10)
- The power has signed a mutual defense treaty with a friend. $(+10)$
- The power has signed an alliance or cobelligerency treaty with an enemy. (-15)
- The power has signed an alliance or cobelligerency treaty with a friend. (+15)
- The power has issued a hostilities declaration against an enemy. (+5)
- The power has issued a hostilities declaration against a friend. (-5)
- The power has issued a war declaration against an enemy. (+10)
- The power has issued a war declaration against a friend. (-10)
- The power has issued a final war declaration against an enemy. (+20)
- The power has issued a final war declaration against a friend. (-20)
- The power has eliminated another empire or species that this empire didn't consider an enemy (-10)


## X. 3 FIRST CONTACT

A first contact situation occurs whenever assets belonging to two different empires encounter each other for the first time. This initial contact can take several different forms. The most common scenario occurs when one of an empire's fleets moves into a system containing military forces or colonies controlled by the other power. First contact can also be made by a diplomatic introduction via a third party, such as when two empires control embassies at the same foreign capital.

## X.3.I Initial Relationship

Those individuals that participate in a first contact scenario are responsible for establishing initial diplomatic relations with a newlydiscovered power. Their actions and observations during this encounter will set the tone for relations between the two empires.

At first contact, the players must assign the powers' initial relationship value using the formula below. This value determines how the powers feel about one another based on first impressions and the outcome of the first contact encounter.

$$
\begin{gathered}
\text { Initial Relationship } \\
50-\left(\mathrm{XE}_{1}+X \mathrm{E}_{2}+1 \mathrm{D} 100\right) \div 3 \\
{[\text { round down }]}
\end{gathered}
$$

Example: The Senorians (XE 18) and Tirelons (XE 39) made contact with each other this turn. With a D100 roll of '12', the two powers have an initial relationship value of $50-(18+39+12)$ $\div 3=+27$.

## X.3.2 First Contact Hostilities

First contact situations usually have peaceful results but, on rare occasions, two empires may find themselves engaged in a "first contact war" after the commander on one side or the other (or both) decides to engage in hostilities with the other force.

When two empires make first contact scenario, a hostilities check must be made to determine if the first contact situation goes sour. Each power makes a separate D100 die roll to determine its force commander's reaction to the situation. If the percentile die result is less than or equal to $10 \%$ of its Aggressiveness (round up) the power will automatically issue a hostilities declaration against the opposing empire, and its military forces may initiate hostile actions against the opposing alien force this turn.

Example: Both the Senorians (AG 53) and the Tirelons (AG 80) are required to make first contact hostilities checks to test if either of them have hostile intentions. The Senorians have a 6\% chance of declaring hostilities, while the Tirelons have a $8 \%$ chance of doing the same. The die rolls are '97' and '44', respectively, so neither decides to declare hostilities during first contact.

## X. 4 Diplomatic Missions

// Capital systems have diplomacy points values equal to $5 \times$ Census. Can use intel as diplomacy points
// diplomacy points are used to perform diplomacy missions. Cost to run diplomacy mission is equal to difficulty $\times 5$
// diplomacy points assigned divided by (difficulty + range) $=$ chance of success
Build Relations (1)
increases relationship with the other power by D10

Influence Relations (2)
increases the target's relationship with another power by D10

Influence Relations (3)
decrease the target's relationship with another power by D10

Empires can dispatch diplomatic teams to conduct negotiations with foreign powers in an attempt to modify its relationship with them. These diplomatic missions are paid for using intel points and can be used to improve relations by establishing a productive dialogue (relationship bonus) or escalate tensions by espousing dangerous rhetoric (relationship penalty). Every full 10 IP allows a player to increase or decrease his empire's relationship with the target power by 1. A player must declare if he is trying to improve or undermine his empire's relationship with the target when he records his diplomatic mission orders.

Diplomatic missions can't be used to interfere with an opponent's relationships with other powers. A power must use Sabotage: Diplomacy or Propaganda: Diplomacy missions to influence these relationships. Players should be aware, however, that these missions carry a significant risk of exposure that could adversely affect their empires' relations with other powers in the campaign.

## X. 5 Treaties

Treaties are diplomatic agreements that confer specific rights, privileges, and obligations to the signatories. The ultimate goal of any treaty that
an empire offers or signs is to strengthen its own political position.

## Armistice

An armistice treaty is used to put an end to a military conflict and return two empires to a state of normal relations. Empires or alliances must currently be in a state of war before they can sign an armistice. Signing an armistice treaty removes any declarations that the belligerents have issued against each other and provides them with $a+10$ bonus to their relationship values.
The standard armistice is a neutral "no-fault" agreement - it does not officially place guilt for the conflict on any one party, and there is no requirement for one party or the other to surrender any additional resources to their enemy in order to secure the signing of the armistice. However, players are free to offer or negotiate armistice treaties that carry special conditions or limitations. For example, a victorious player might force his opponent to accept peace terms that require him to immediately sign a tribute treaty, cede claims to disputed systems, or release one or more of its colonies as new, independent states.

When negotiating armistices with an enemy alliance, the alliance leader is ultimately responsible for negotiating the terms of an armistice treaty and decides whether the alliance will accept an armistice treaty when it is offered to the alliance. Other members of the alliance aren't allowed to sign separate armistices with an enemy without first withdrawing from or breaking their alliance treaty.
It is impossible for an empire to "break" an armistice treaty. An empire must instead issue new conflict declarations against an enemy if it wants to return to a state of war with the target power.

## Reparations

One element common to historical armistice treaties is the consideration of reparations. Reparations are resources or monies awarded to one nation, payable by another, as a form of restitution for losses incurred during the war. Players may also wish to provide for provisional border arrangements when negotiating an armistice treaty so that post-war reconstruction can commence without any additional conflicts erupting along the newly-established border. It is extremely difficult to determine just what kind of
effect reparation requests should have on an armistice treaty's chance of success. Players and CMs must be the final arbiters of what is appropriate in all situations.

## Tribute

## Border

A border treaty is a formal agreement that establishes a recognized border between two empires. An empire can't voluntarily move any of its units into another power's sphere of influence if they have signed a border treaty. In the event that forces accidentally end up crossing the border, the offending units are required to move back across the border on their next turn.

## Trade

A trade treaty open up an empire's borders and centers of trade to foreign commercial traffic. The amount of commerce income that an empire earns every turn is equal to the commerce value of all its trader partners' colonies that are located within the commerce range of its own colonies and trading posts (see X.X Commerce).
Signing a trade treaty also allows an empire to build trading posts in its trade partner's systems. Trading posts are used to extend an empire's commerce range to increase the number of systems it can trade at. The trading posts established in another empire's sphere of influence are destroyed when the trade treaty is broken.

## Non-Aggression

A non-aggression treaty prevents two empires from generating space or ground combat scenarios against each other when they are both present in an encounter. Signing a nonaggression treaty demonstrates that the powers wish to avoid conflict and instead focus on cultivating a peaceful relationship.

## Co-Belligerency

A co-belligerency treaty is used to establish a temporary alliance between powers that share a common enemy. Treaties of this type are used to create ad hoc alliances so that powers can work together militarily to combat a mutual threat.

When signing a co-belligerency treaty, the players must stipulate which enemy power the treaty is targeting. The co-belligerency treaty remains in effect for as long as the players'
empires are in a state of war with the selected enemy nation.

Co-belligerents are allowed to include each others' military forces in their task forces as if they were allies when generating scenarios against their mutual enemy. The task force flagship has to be one of the empire's own units, but all of the other units in the task force can be drawn from the fleets or armies of other cobelligerents in the system. The only way that a player can prevent a co-belligerent from including his units in its task force is to break the co-belligerency treaty.

A player can move his empire's military forces into systems that are owned by other members of a co-belligerency treaty as if they have a military treaty, but only if those systems were previously owned by their mutual enemy. This exception allows co-belligerents to continue to fight side by side in enemy space while at the same time preserving their borders in case one of their co-belligerents should decide to betray them.

As with a military treaty, an empire's colonies automatically resupply any co-belligerent forces within their supply range.

Unlike the members of alliance, co-belligerents are allowed to sign separate armistice treaties with an enemy, and a co-belligerency treaty is automatically broken when either co-belligerent signs an armistice treaty with the enemy.

## Military

A military treaty opens the door to greater military cooperation between two powers. Empires that have signed a military treaty are allowed to move units across the border into each others' spheres of influence. An empire's units are automatically resupplied if they are within the supply range of the other power's colonies.

Another benefit of a military treaty is that it allows empires to sell/gift units or unit class schematics to each other. Great powers can use this ability to sell off their older military hardware to other powers in return for cold, hard credits that they can then use to finance new unit or infrastructure construction. Minor powers also benefit from this arrangement as it gives them access to military hardware that they themselves are usually unable to replicate due to economic or technological inferiority. A power does have to be careful who he sells units to, however, as it is not unheard of for current friends to turn into future enemies, at which
point the empire could find itself being attacked by its own warships and ground equipment.

## Mutual Defense

A mutual defense treaty is a collective defense agreement wherein powers agree to go to each other's aid if they are attacked by a third party. When an enemy declares against a mutual defense partner, a player is given the option of either honoring his treaty and reciprocating the declaration against the aggressor, or he can dishonor the treaty. Dishonoring a mutual defense treaty breaks the treaty and reduces his empire's relationship with his former defense partner by 10.

The percentage chance that a NPE will honor its mutual defense treaty is equal to its Integrity plus its relationship with its defense partner.

Empires can enter into mutual defense treaties for any number of reasons. Minor powers rely on them for protection against stronger adversaries that their own military forces are unable to defend themselves against. Other powers view their mutual defense treaties as a deterrent mechanism that makes invading their spheres of influence costly enough to be avoided. Mutual defense treaties also give great powers a good excuse to intervene militarily when one of their satellite states is attacked by an outside aggressor.

## Alliance

## Protectorate

A protectorate treaty is used to vassalize a minor power and convert it into a protectorate or satellite state. Protectorates are nominally independent nations that operate under the protection and direct authority of another more powerful state. They are still treated as a separate political entity for all purposes, but the major power in a protectorate relationship is given full control over the minor power. This allows a player to issue orders to the protectorate as if it were his own. Additionally, half of the protectorate's income is automatically redirected to the major power (round down), another symptom of the asymmetrical relationship that exists between a protectorate and its protector.

Two empires can only sign a protectorate treaty if the greater of the two has a per-turn income that is five times the less power's own. This represents that powers won't willingly give up
their sovereignty unless they aren't in a position to resist.

Protectorates are considered to be part of any alliance that their masters sign with other powers even though they aren't technically signatories to the treaty. Alliance members also can't prevent other alliance members from bringing their protectorates into the alliance. A protectorate remains a de facto member of the alliance until their major power breaks or withdraws from the treaty or the protectorate itself breaks its protectorate treaty.
NPEs always offer a protectorate treaty in lieu of an alliance treaty if their income is one-fifth that of the power that they are offering a treaty to.

## Unification

Unification is the final step in diplomatic relations. Empires that sign a unification treaty agree to amalgamate into a single political union.

## Treaty Acceptance Chance

Each treaty is assigned a base chance of success, as shown on the following chart. A border treaty has a 50\% chance of success, for example. An empire's relationship with a target is then added to this base chance to calculate its actual treaty acceptance chance for a treaty of that type. Xenophobia provides a modifier to this relationship value equal to $50-X E$.

Several treaties have negative success chances. These treaties require empires to establish a certain level of diplomatic rapport before they can consider signing a treaty of that type. Treaties with higher base treaty chances offer fewer political entanglements that can invite resistance from a nation's leaders. This makes them easier to sign, and empires that have adopted a cautious stance at the negotiating table usually can still convince their leaders back home to sign things like border and trade treaties.

These variable treaty acceptance chances help to prevent powers that have either just met or don't particularly like each other from signing treaties that require a much deeper level of trust and commitment. Two feuding states would never consider negotiating a mutual defense or alliance, for instance, but they might still be interested in recognizing mutual borders and engaging in interstellar trade.

## Base Treaty Chance Chart

| Treaty | Base Treaty Chance |
| :--- | :--- |


| Armistice | $50 \%$ |
| :--- | :--- |
| Border | $50 \%$ |
| Trade | $25 \%$ |
| Non-Aggression | $25 \%$ |
| Co-Belligerency | $0 \%$ |
| Military | $0 \%$ |
| Mutual Defense | $-25 \%$ |
| Alliance | $-50 \%$ |
| Protectorate | $-50 \%$ |
| Unification | $-75 \%$ |

Treaties that include withdrawal options receive a +25 bonus to their treaty acceptance chances. This bonus can sometimes be used to offer a treaty that an empire might otherwise not be able to offer because its relationship with the target is too low.

Example: The Kili (XE 84) have a relationship of +26 with the Brindaki. The Kili's Xenophobia gives them an effective relationship of $26+(50-$ 84) $=-8$ with the Brindaki, however. At this relationship level, the Kili have treaty acceptance chances of $42 \%$ for border or armistice; and $42 \%$ for trade or non-aggression. The empire's treaty acceptance chances for all other treaty types are less than or equal to $0 \%$ and can't be offered or signed.
In comparison, the Brindaki (XE 40) have an effective relationship of $26+(50-40)=+36$ with the Kili. The highest-level treaty that the Brindaki are willing to offer or sign with the Kili is a mutual defense treaty (11\%). However, as demonstrated above, the Kili aren't willing to accept such a restrictive treaty; the most they are willing to offer or sign is a non-aggression treaty.

## Offering Treaties

Negotiating new treaties with foreign powers is one of the primary concerns of a nation's diplomatic corps. Empires can exist and even thrive in isolation, but signing treaties with your neighbors provides greater political and economic stability by preventing war, opening up trade, and nurturing friendships that can lead to the creation of defensive alliances.

An empire can only offer one treaty to each opponent per turn, and it can only offer treaties that it is itself willing to sign. Therefore, the only treaties that an empire can offer to another
power are those for which it has a treaty acceptance chance greater than or equal to zero. When ordering a treaty offer, the player must include the foreign power that the treaty is being offered to and the type of treaty being offered. Once a treaty is offered, the offer is forwarded on to the target who must then decide to either sign or reject it.

Treaty offers can be "sweetened" by promising to give the other power something of value if it agrees to the treaty. An empire can offer economic points, military units, star systems, or colonies to another power, and the value of these gifts determines the bonus that is added to the treaty's normal treaty modifier.

- Economic Points: Powers can offer their peers currency payments in order to entice them into signing a treaty. Empires receive a treaty modifier bonus equal to $25 \%$ times the number of economic points offered as lump sum payments; or $15 \%$ times the number of economic points offered for payments that are paid over time. Round fractional bonuses down in both cases. The treaty modifier bonus conferred by ongoing payments is reduced because there is a good chance that a power might break or withdraw from the treaty before the stipulated number of economic points has been paid out.
- Units: A nation can transfer military hardware to another power to convince them to sign a treaty. Empires receive a treaty modifier bonus equal to $10 \%$ times the total construction cost of units gifted to another power by the treaty.
- Claimed Systems: It is common for empires to offer to relinquish claims on star systems located in their own sphere of influence in order to make their opponents more willing to sign a treaty. The treaty modifier bonus provided by handing over a claimed system to another power is equal to the system's total Carrying Capacity, RAW, and Biosphere.
- Controlled Systems: In extreme cases, a power can offer to give up ownership of one of its controlled systems if that is what it takes to secure an important deal. These systems contain colonies, so their loss means a long-term loss of income and resources for the offering power. controlled systems provide the same basic treaty modifier bonus as claimed systems (see above), but this bonus is increased by an
amount equal to five times the system's total Census. Even minor colonies with small populations can provide a major boost to a treaty's acceptance chance.
- Withdrawing: When offering a treaty, a power may also stipulate terms under which signatories can peacefully withdraw from the treaty without any negative diplomatic repercussions. A treaty's withdrawal options include either a simple time limit for when the treaty will expire, perhaps with an option for renewal; or a set of conditions that can be met to allow a signatory to withdraw. If a treaty doesn't specifically enumerate any withdrawal options the powers that sign the treaty won't be able to withdraw from it at a later time; they will have to attempt to break the treaty instead if they wish to dissociate themselves from its provisions.


## Signing Treaties

After a treaty is offered, the recipient must decide to either sign or reject it. Before this decision can be made, the player must calculate his empire's treaty acceptance chance for the treaty to see whether or not the power is willing to entertain the treaty offer in the first place. An empire will automatically reject a treaty offer if it is incapable of reciprocating the offer (i.e., its own treaty acceptance chance for that treaty is less than or equal to zero). This prevents a power from signing a treaty that it is itself is unwilling to offer.

Treaty offers that are not rejected outright for political reasons can either be signed or rejected by a power. When a valid treaty is offered to a player empire, that player decides to sign or reject the treaty. Non-player empires, meanwhile, must make a D100 roll against their treaty acceptance chance to see if their leaders are willing to ratify the treaty. The NPE will accept the treaty if its die result is less than or equal to its treaty acceptance chance. Finally, non-aligned empires automatically sign any offered treaties if their treaty acceptance chance is greater than zero.

Signed treaties take effect during the Diplomacy Phase they are offered and signed. For example, if two warring parties sign an armistice treaty then their military forces will be bound to the terms of that armistice during the Encounters Phase of that same turn.

A treaty is rejected when an empire refuses to sign a treaty that was offered to it by another
power. The act of rejecting a treaty has no effect on the empires' relationship.

Example: The Senorian Republic (AG 53, IN 76, XE 18) has been offered a trade treaty (difficulty 20) this turn by the Loran Imperium. The Senorian's relationship with the Lorans is +8 . This gives the Senorian Republic a treaty acceptance chance of 100-18+8-20=70\%. If the Senorians are a player empire the player could sign or reject the treaty at his discretion. If the Senorians are a non-player empire they would instead roll a D100 and would sign the treaty on a 70 or less or reject it on a 71 or more. If the Senorians are a non-aligned empire they would automatically sign the treaty.

## Breaking Treaties

As diplomatic relations with a neighbor become strained, an empire may come to the conclusion that maintaining its treaties with the opponent is no longer in its best interests. Players can order their empires to attempt to break any treaty that they have signed with other powers. The chance that an empire will successfully break a treaty is called its breaking chance and is calculated as follows:

## Breaking Chance

$$
100 \text { - Relationship }
$$

An empire's effective relationship value is modified by its Integrity value, adding 50 - IN to its relationship for the purposes of breaking treaties only.

During the Diplomacy Phase, empires automatically attempt to break any treaties that they are no longer capable of signing (e.g., the treaty acceptance chances for these treaties is less than or equal to zero).

Whenever an empire breaks a treaty with another power, the opponent receives a bonus to its own attempts to break or declare against the power equal to its Integrity value. This bonus is reduced by 10 per turn until it reaches zero, starting at the end of the Diplomacy Phase on the following campaign turn. This makes it easier for the slighted empire to get its revenge on the offending power, especially if the opponent has a high Integrity value. The time sensitive nature of this casus belli means that an opponent must act upon it quickly before the bonus disappears completely.

Example: The Loran Imperium (AG 68, IN 70, XE 51) is attempting to break a non-aggression treaty it signed with the Tirelons. Their relationship is -16 and a non-aggression treaty
has a treaty difficulty of 40. The Loran's breaking chance is $100-(70+40-16)=6 \%$. The Lorans roll a 45 and the breaking attempt fails.

Had the breaking attempt succeeded, the Holy Tirelon Empire (AG 80, IN 45, XE 39) would have received a +45 bonus to its own attempts to break or declare against the Lorans on the following campaign turn. This bonus would had dropped to +35 in 2 turns, +25 in 3 turns, +15 in 3 turns, and +5 in 4 turns.

## Withdrawing from Treaties

Treaties that contain withdrawal clauses allow signatories to withdraw from them without breaking them. All that a player must do to withdraw from a treaty that contains a withdrawal clause is record a withdrawal action in his empire's turn orders. His empire will then withdraw from the treaty during the Diplomacy Phase of the same turn. Withdrawing from a treaty has the same effect as breaking it except that a breaking casus belli is not generated by the diplomatic action.

An empire automatically withdraws from a treaty once its treaty acceptance chance for that treaty is reduced below zero, a condition that would otherwise lead to the empire attempting to break the treaty, so long as all of the treaty's stated prerequisites for withdrawal (if any) are met.

## X. 6 Declarations

Declarations are used to start or escalate wars with other powers.

Issuing a declaration against another power immediately transition the two empires into a state of war

Powers remain at war until they sign an armistice treaty to end the conflict.

Declarations take effect immediately during the Diplomacy Phase of the same campaign turn they are issued.

A declaration's chance of success is calculated by taking its base success chance minus the empire's relationship with the declaration's target. [Relationship modifier of declarer's AG 50 applies]

A successful declaration automatically breaks all of the treaties that an empire previously signed with the power it declared against.
Declarations are reciprocal

Declaration chance is at $-10 \%$ penalty per treaty the powers have signed; breaking treaties makes it easier to declare

Example: The Loran (AG 68) are attempting to declare a limited war against the Kili. The Lorans and Kili currently have a relationship of -3. The Loran's AG modifies this relationship to -21. A limited war declaration has a base success chance of $25 \%$. The poor relationship increases the declaration's chance of success to $46 \%$.

## Declaration Chart

| Declaration | Base Chance |
| :--- | :--- |
| Hostilities | $50 \%$ |
| War | $0 \%$ |
| Final War | $-50 \%$ |

There are four different conflict levels that empires can declare at: hostilities, limited war, total war, and final war. The types of hostile actions that an empire's forces can perform are defined by

Each successive declaration type expands the scope of a conflict by providing players with additional hostile actions

There are four declarations that empires: hostilities, war, and total war. Each successive conflict declaration broadens the scope of a conflict by allowing additional types of actions to be performed. Refer to the conflict declarations themselves for more details.

## Hostilities

A declaration of hostilities authorizes the use of military force against another power. It allows two powers to generate
// bombardment: anti-troop, anti-infrastructure
// can only invade colonies with 3 or less Census, and can't invade capitals.
// can't use WMDs

## War

A clear and formal war declaration broadens the scope of a conflict beyond that of a simple hostilities declaration.
// all bombardment options
// can invade colonies

## Final War

Final wars are declared when a power won't rest until its enemy has been exterminated from the face of the galaxy. The kind of genocidal fury that is required to declare a final war is extraordinary, and an empire must be either very aggressive or have exceedingly poor relations with an enemy before it would ever entertain the concept. The very idea of a final war is anathema to most sentient species.

A war that reaches this stage can't be ended via an armistice treaty. The affected empires will remain in a perpetual state of war until one of them is completely annihilated and removed from the game.
As with total war, there are no limitations to the level of destructive depravity that an empire can unleash on its enemies during a final war.

## X. 7 Special Agreements

## Limited Military Access

## Tribute

A tribute treaty is an economic agreement between two states in which one of the parties agrees to pay the other a specified number of economic points each turn. Tribute treaties often have a limited duration, but this isn't a requirement.

## Soft Power vs. Hard Power

In its diplomatic exchanges with other powers, an empire must balance its use of both soft and hard power. Soft power is the utilization of diplomatic and cultural means to effectively influence other national actors towards your way of thinking. An example of the application of soft power in a diplomatic relationship would be a situation in which a power requests that a rival give up control of a few claimed systems along its border in exchange for signing a mutual defense treaty. The offering power is therefore using its ability to help defend the other nation as a bargaining chip to secure ownership of the star systems it wishes to control.

In contrast, hard power relies on military or economic coercion (or the threat thereof) to
bend an opponent's will and influence their policies. The exercise of hard power in diplomacy doesn't require subtlety of action, but it certainly benefits from it. Perceived threats can be just as effective at achieving your goals as actual threats. Players should be careful, however, as an empire must be able to back up its threats upon the inevitable eventuality that an enemy calls their bluff.
Major powers often take hard power a step further and employ a deterrence theory strategy in their dealings with rival nations. Deterrence theory creates a political stalemate in which both opposing sides know that any significant act of aggression by the other will result in an immediate escalation that will lead to unacceptable losses for both sides in the conflict. In a worst case scenario, conflict escalation can lead to a Mutually Assured Destruction (MAD) scenario in which both empires will fight a brutal war that will result in the complete obliteration of their respects spheres of influence.

## Genocide

Adding withdrawal options also increases the chance that an opposing non-player empire will be able to accept and sign the treaty when it is offered. Treaties that are offered with a withdrawal option receive a bonus to their treaty modifier that makes the treaty easier to offer and sign.

## NPE DIPLOMACY

## Offering Chance

$10 \% \times$ (100 - XE + Relationship) [RU]

## Breaking Chance

$10 \% \times$ (100-IN - Relationship) [RU]

## Hostilities Chance

10\% x (AG - Relationship - Highest Treaty Difficulty Level) [RU]

AG 77, IN 89, XE 45 empire with +3 relationship with another power;
offering: 6\%
breaking: 1\%
hostilities: 7\%

AG 94, IN 77, XE 76 empire with +26 relationship with another power;
offering: 6\%
breaking: 0\%
hostilities: 7\%

AG 55, IN 23, XE 60 empire with - 25 relationship with another power;
offering: 2\%
breaking: 13\%
hostilities: 8\%

## NAE DIplomacy

## B.II Piracy <br> "Forbid a man to think for himself or to act for himself and you may add the joy of piracy and the zest of smuggling to his life."

\author{

- Elbert Hubbard
}

For as long as merchants have plied their trade, unscrupulous souls have preyed upon them for their own monetary gain. History is replete with tales of highwaymen and high seas raiders that grew rich from pillaging merchant caravans and shipping, respectively. In an age of accessible interstellar space travel, a conceit common to most sci-fi milieus, piracy continues to pose a threat to military and civilian shipping interests.

## Piracy Checks

Each system must make a piracy check during the Piracy Phase to see whether or not any new pirate fleets appeared there this turn. Roll a D20 for each system. The target value for a piracy check is equal to a system's Census +1 . This target is increased by the following conditions that might affect the system this turn:

- The colony contains one or more facilities (-1 per Facility)
- This system is an imperial or sector capital (+1)
- The system is outside the zone of control of a friendly capital (-1)
- The colony's empire doesn't have an imperial capital (-1)
- The colony's empire is experiencing a civil war (-1)
- Military fleets are patrolling the system ( +1 per 2 CC of non-pirate space combat units [round down])
- Friendly space combat units with the Police ability are in the system ( +1 per 5 Police value [round down])

A new pirate force enters a system if its D20 roll is less than or equal to this target value. Roll on the Pirate Fleet Table for any system that experiences an increase in piracy to find out the number of economic points the player has available to spend on units for the new pirate fleet. A pirate fleet can purchase units off of the force lists of any empires that have the pirate system within thee commerce range of one or
more of their colonies. Should pirates appear in a system that is beyond the commerce range of the nearest empire, players should instead purchase units off of the geographically closest empire's force list.

Piracy Fleet Table (D6)

| Roll | Construction Cost |
| :--- | :--- |
| $1-2$ | 1 D6 EP |
| $3-4$ | 2 D6 EP |
| $5-6$ | 3 D6 EP |

## Pirate Fleets

Pirate fleets are hostile raider forces that take up residence in star systems as the result of failed piracy checks. Pirates are a constant threat to merchant traffic and can eat into an empire's revenues as long as they remain active. A pirate fleet automatically performs a commerce raid against its system each turn (see X.X Commerce Raiding). These raids earn the pirates a number of economic points equal to half their command cost (round up). Pirate fleets use this income to cover their maintenance costs, perform repairs, and purchase new units from the black market.

Any units that a pirate fleet can't pay to maintain earns an out of supply level during the Supply Phase. Lack of maintenance can be a problem for larger pirate fleets or those that contain advanced units that are more expensive to maintain.

Pirate forces that accrue significant wealth from their piracy operations will attempt to take over
// can only purchase units with a CC of 3 or less; In the case of starship selection, this limits pirates to units with the strength and/or firepower of a heavy cruiser - pirates do not and cannot field capital ships!

## Commerce Raiding

Fleets can conduct commerce raids against civilian shipping in enemy star systems. These attacks are used to disrupt trade routes and deprive an opponent of valuable commercial revenue. An empire loses a number of economic points each turn equal to half the total Command Cost of commerce raiders operating in its sphere of influence (round fractions up). This loss is recorded as a miscellaneous expense for the turn and represents the cost in lost shipping and
revenue incurred by the enemy commerce raiders.

Fleets that are ordered to perform commerce raids this turn can't participate in invasions or embark/disembark troops during the Ground Combat Phase, nor can they perform bombardment during the Bombardment Phase. These restrictions apply because these units are devoting all of their time to hunting down enemy commerce.
// the system's owner can't have any fleet units in the system; retreated units aren't considered to be in the system

## Black Market

Pirates and other underworld elements rely on the black market for the goods, equipment, and personnel they need to carry out their illegal enterprises. Systems that are plagued by Piracy are thriving centers for black market activities and offer a pirate force the opportunity to make purchases discretely without attracting unwanted attention.

Systems that have a Piracy value greater than zero provide pirate forces with production, shipyard, and intel capacities equal to their current Piracy value. In this way the system serves as a pseudo-colony that the pirate forces can use to purchase new units, repair existing units, and/or buy intel points.
When purchasing units off the black market, pirate forces can purchase units of any class that appear on the force list of the empire whose sphere of influence includes the system where the purchase is to be made. New pirate unit purchases can't be made in systems that exist outside any one empire's sphere of influence as they lack the connections to secure these new units. Repairs of existing pirate units can still be facilitated in these systems, however.

The amount of production and shipyard capacity that is available to pirate forces (which is equal to the system's Piracy value) additionally limits the kinds of units that pirate forces can purchase using the black market. Piracy levels typically remain below 5 in most systems, so pirates will almost always be restricted to small combat units that have a command cost of 1. Particularly lawless system can possess enough Piracy to allow a force to purchase more powerful units that are the equivalent of a light cruiser, but such systems are sure to be exceedingly rare. Few empires would ever allow one of their systems to achieve that level of Piracy within its
borders before first interceding and eliminating the raider threat.

While most pirate forces will restrict their use of the black market to building and repairing combat units, they can also use the black market to purchase intel points. Pirate forces that purchase intel points can use them to conduct intel missions against other targets in order to further their own interests just as any other empire would.

A pirate force is required to have at least one unit present in a system before it can make purchases from its black market. This prevents a pirate force from making purchases in a system that it has no connection to. Additionally, the pirates must maintain a military presence in the black market system for the duration that new units are under construction in the system. Pirates that are driven off or destroyed lose control of any units they own that are under construction in the system. These abandoned units are effectively destroyed, having been commandeered by rival pirate gangs or destroyed by government agents before they can be activated.
// this income can be used to repair existing units or purchase new ones. The costs of these units are twice that of normal
// if a pirate force in an uninhabited system accrues 50 EP in its economic pool, it expends these points to form a new colony and become a new de facto government; this colony starts with a tech level equal to the average of the empire's units.
// if in an inhabited system instead, the pirate force instead purchases as many ground units as it can afford and attempts an invasion of the colony. If successful, the pirate force will take ownership of the colony and become a new empire
// new pirate empires start with each of the unit classes they have fielded now or in the past on their force list; it can continue to build these units

## Sample Pirate Units

Here are some sample pirate units that you can use in your campaigns. These are TL 0 units that might be seen operating in any star system or setting.
Alpha-class light fighter

C \$ $1 \quad \mathrm{M} \$ 1 \quad \mathrm{CC} 1$<br>Beta-class medium fighter<br>CC 1<br>Corsair-class destroyer<br>CC 1<br>Dragonship-class light cruiser<br>CC 2<br>Galleon-class heavy cruiser<br>CC 3<br>Battlewagon-class battleship<br>CC 4<br>Jackal-class mercenaries<br>CC 1

### 5.6.2.5 Pirate Force Purchases

Pirate forces are allowed to purchase new campaign units or repair existing units using the economic points they earn as income. However, pirate forces must pay twice the normal costs for unit purchases and repairs because they must go through the black market to acquire the goods and services they desire.

As during force creation, pirate forces can purchase units from the force lists of any empire that can trace a supply route to their current system location. When purchasing new campaign units, players must remember that pirate forces can only purchase units that have a Command Cost of 3 or less.

Players in unmoderated campaigns and use the following set of guidelines and administer the pirate forces that appear in their campaigns. A pirate force's first priority will be to repair its damaged units, and a force will only purchase new campaign units once all of its existing ones are in an undamaged state. If all of the pirate force's are undamaged, the players can make a roll on the Pirate Unit Size Table (see above) each turn to determine the Command Cost of the new unit that the pirate force is intending to purchase. The players will then randomly select a unit with that Command Cost from the force lists of any empire that can trace a supply route into the pirate force's current system location. If the pirate force cannot afford to purchase a new unit of the indicated Command Cost, then the pirate force will make no new unit purchases on the current turn. Its remaining economic points will
remain in its Economic Pool for use on a future campaign turn.

### 5.6.4 Pirate Migration

Players must roll a D6 for each pirate force at the start of the Piracy Phase of every campaign turn to see if that pirate force has decided to abandon their current system. If a "6" is rolled, the pirate force will begin moving to a random star system that is adjacent to their current location. Destination systems that contain trade links are preferred to those that don't as they offer a ready source of income for the pirates. Affected forces will continue acting on these movement orders until they arrive in their destination system. Upon arriving in their new system, that system's Piracy value will automatically be increased by an amount equal to the total construction cost of units in the migrating pirate force.

The main consequence of pirate migration is that, if left unchecked, pirate activity can slowly expand into nearby star systems and make it that much harder for the player to eliminate the raider presence in the future.

### 5.6.5 Pirate Ascension

Any pirate force that successfully conquers another empire's colony will automatically be converted into an empire in their own right. This is called "pirate ascension." The new state founded by the pirate force will be a neutral empire if its GDP is less than or equal to 10; otherwise it will become a new non-player empire.
This new empire's initial force list will contain all of the units that it was fielding at the time of its ascension. This allows the new power to continue building and fielding units of these classes even after the establishment of their new state.

On the tech side, the empire's initial tech level in each research field will be equal to the average of the tech levels of all empires that can trace a supply route into the empire's sphere of influence. This formula represents that the ascendant pirate state is able to draw on the technical knowledge of the surrounding empires, conscripting scientists and engineers to help it establish its initial tech base. The new empire also begins with all of the special technologies that its campaign units are equipped with, plus one additional special technology per point of Tech infrastructure present at the conquered colony. These special technologies are selected from the list of special technologies that the
colony's previous owner possessed at the time of the colony's conquest.

## Pirate Force Diplomacy

Other empires (including other pirate forces) are always considered to be in a state of War with pirate forces, and in that regard they serve as a "neutral enemy" presence that everyone loves to hate. Because of this, any star systems that contain pirate units are in a Contested state. This disrupts trade links and colonies in affected systems.

Empires can contract with pirate forces to secure either an armistice or alliance. The duration of such agreements depends on the size of the pirate force and how many economic points an empire is willing to offer them in return for their cooperation. Once a pirate force contract expires, the pirate forces will resume raiding local shipping and generally making a nuisance of themselves just has they had prior to the agreement.
Players must be mindful that buying off pirate forces increases their long-term threat level because it gives the pirates extra economic points they can spend to purchase new units and expand their forces. Repeated payments to the same pirate force could easily fuel the creation of an unstoppable paramilitary force that could become a major threat to the empires whose territories it prowls.

## Pirate Force Armistices

Opponents can secure a temporary armistice with a pirate force in exchange for economic points. Pirates that are bought off in this manner will agree to stop attacking that empire's assets so long as the armistice remains in effect. Pirates can't attack any of the empire's units or colonies during the armistice period, nor will the presence of its units force any of the power's systems into a Contested state.

The length of the armistice treaty that a pirate force signs with the empire that is buying it off is calculated by taking the number of economic points paid to the pirate force and dividing it by the total construction cost of units under the pirate's control (rounding fractions up). This is the number of turns that the armistice will last, starting on the turn the armistice is signed.

## Pirate Force Alliances

Rather than buying off a pirate force to prevent attack an empire can instead elect to pay a pirate force a larger sum of money to conscript them to fight alongside its own forces for a time. The number of economic points spent to hire a pirate force in a mercenary capacity helps to determine how long the arrangement will last. Take the number of economic points spent on the alliance offer and divide it by twice the total construction cost of units under the pirate's control (rounding fractions down). The result is the number of turns that the pseudo-alliance treaty will remain in effect between the conscripting empire and the pirate force.

## X.X.3.8 Pirate Ascension

Pirate forces that become especially powerful can end up establishing themselves as true empires in their own right. This act of conversion from a pirate force to a legitimate government is called pirate ascension, and it occurs whenever a pirate force takes ownership of a colony.
There are two ways that a pirate force can make the transition from a group of lawless brigands into a legitimate political power. The first and most likely is to successfully conquer an existing colony world owned by another government. A pirate force can achieve this goal by purchasing one or more ground combat units to carry out an invasion. Any ground units that a pirate force purchases must be able to be based aboard its existing space combat units, however, which means that a pirate force must first possess one or more units with Assault or Cargo equipment before it can start purchasing ground units. A pirate force that is intending to invade a colony must therefore purchase assault ships or troop transports before it can purchase any mercenary ground units.

The second option for pirate ascension is for a pirate force to colonize an uninhabited planet. New colonies cost 50 EP by default, so it will take a pirate force a considerable amount of time to build up enough economic points to found their own colony. Anti-piracy military patrols will typically eliminate a pirate force before they are rich enough to establish a colony, but pirate forces that find themselves operating uncontested in a distant system with a high Piracy value might have enough time to make this a realistic strategy.

The decision to have a pirate force transition into a legitimate empire is ultimately left up to the player or CM that is controlling their actions. As a guideline, however, a pirate force will not consider preparing to conquer a colony until its total construction cost of space combat units is
equal to 5 times the system's Commerce value. Depending on the situation, a pirate force might opt to invade a colony sooner rather than later, but it should have achieved a certain degree of critical military mass before proceeding with invasion or colonization plans in order to increase the odds that it will be able to hold onto the colony after they take control.

Depending on its initial gross domestic product, a pirate force will become either a non-player or non-aligned empire once it realizes its goal of controlling a colony. Most pirate forces are likely to become non-aligned empires due to their low starting incomes. This is usually beneficial for the players or CM, as it is easier to resolve diplomacy with NAEs than it is with NPEs which means that there generally will be less bookkeeping involved when a new pirate NAE appears in a campaign.

The new empire's initial force list will contain all of the unit classes that the pirate force fielded at the time of its ascension. This allows the new power to continue building and fielding units of these classes even after the establishment of their new state.

Pirate forces that invade a colony will start with an empire tech level equal to the tech level of the colony they invaded. Meanwhile, pirates that found their own colony will have their empire and colony tech level set equal to the current tech level of the empire that previously held claim to the system (or the nearest empire, if the colonized system was Neutral at the time of its colonization). The new empire also receives access to all of the special technologies that the units on its force list are equipped with.

## Pirate Reformation

Those pirate forces that no longer possess any units, having lost them in combat or to simple attrition, can recover from this setback by using their remaining economic resources to purchase new units.

### 9.0 Interstellar Warfare

"Cry havoc, and let slip the dogs of war."

- William Shakespeare, Julius Caesar


## X.I Encounters

An encounter occurs whenever military forces belonging two or more empires move into the same system or across the same jump lane during the Movement Phase.
There are two different types of encounters that can be generated in a system each turn. Space encounters occur when two opposing fleets enter the same star system, and ground encounters occur when armies belonging to two powers occupy the same system. These encounters are resolved during the Space Combat Phase and Ground Combat Phase, respectively. Both types of encounters can take place in a system during the same turn.

## I2.I Detection

At the start of an encounter, every power makes a separate roll on the Detection Table against each opposing force, taking into account any applicable modifiers, to determine its detection state in relation to that opponent. If there are three empires involved in an encounter, then each must make two detection rolls (e.g., one for each encountered force). The resulting detection level tells the player how much information his force has gathered about the size and composition of the opposing force.

Detection Table (2D6)

| Roll | Detection Level |
| :--- | :--- |
| 2 or less | No Detection |
| $3-5$ | Limited Detection |
| $6-8$ | Normal Detection |
| $9-10$ | Significant Detection |
| 11 or higher | Complete Detection |

> Modifiers:
> +1 per Defensive Intel
> +1 per 20 Command Cost
> Scout/Stealth Modifier (see rules)

No Detection: The force is completely unaware of the opponent's presence and is at a distinct disadvantage during the encounter. The player doesn't learn anything about the disposition of the opposing force and can't generate scenarios against the opponent unless it generates a scenario against his own forces first. The power receives a -2 penalty to rolls on the Surprise Table for this encounter.

Limited Detection: The power knows that another force is in the system, but it doesn't know anything about the size or composition of the opposing force. This lack of intelligence gives the power a -1 penalty to rolls on the Surprise Table for this encounter.

Normal Detection: The power only knows the total Command Cost of space combat units (space encounter) or ground combat units (ground encounter) its opponent has in the encounter, but nothing more.
Significant Detection: The total number and Command Cost of all opposing space combat units (space encounter) or ground combat units (ground encounter) in the system are revealed to the power. The power receives a +1 bonus to rolls on the Surprise Table for this encounter.

Complete Detection: The total number, Command Cost, and unit class of all opposing space combat units (space encounter) or ground combat units (ground encounter) in the system are revealed to the power. Unit statistics aren't revealed unless the power has previously engaged or stolen information about the unit classes. This high level of detection gives the power a +2 bonus to rolls on the Surprise Table for this encounter.

## I2.2 Intensity

Intensity determines the number and scope of battles that players can fight during a single encounter. Players spend intensity points to generate scenarios against enemy forces. Each scenario type and commitment level is assigned an intensity cost. This is the number of intensity points that a player must spend to generate that scenario.

Each player can contribute intensity to an encounter, up to an amount equal to 1 per 10 Command Cost of units his empire has in the encounter (round fractions up). For space encounters this limit is based on the player's total Command Cost of space combat units, while for ground encounters it is instead based on the player's total Command Cost of ground combat units.

An encounter automatically ends once its total intensity is reduced to zero. No additional scenarios can be generated after an encounter's intensity is exhausted, as there isn't any intensity left for the players to spend.
Example: Fleets belonging to three different empires move into the same star system during the Movement Phase and generate a space encounter. These fleets have Command Costs of 42, 18, and 29. They can contribute a maximum of 5,2 , and 3 intensity to the scenario, respectively. Let's assume that the first empire contributed 4 intensity, the second 0 , and the third 2. This produces a total of 6 intensity for this encounter.

## I2.3 Combat Scenarios

Combat in the Victory by Any Means Campaign System occurs during an encounter whenever a player generates a scenario against an opponent. Scenarios provide definition and context to the battles that empires fight during a campaign. There are many different types of space and ground combat scenarios that players to choose from, and each provides a different set of starting conditions that determine how a scenario is setup and resolved.
The participants in a scenario take on the distinct roles of attacker and defender. The attacker is the power that initiated the combat scenario using an initiative action and the defender is the power or alliance of powers that are the target of that scenarios. The scenario generation rules consistently refer to these roles to eliminate confusion as to what actions or modifiers apply to each side in a battle.

This section provides an overview of the elements common to all scenarios. Players should refer to these rules to acquaint themselves with these basic scenario terms and their effects on scenario generation and resolution. Specific space and ground combat scenarios and their associated rules can be found in X.X Space Combat and X.X Ground Combat, respectively.

## I2.3.I Commitment Level

Every scenario can be fought at one of three different commitment levels: Minor, Normal, or Major. These levels describe how dedicated the combatants are to the battle and determine how much intensity that a player must spend to generate a scenario of that type.
Minor scenarios are low-intensity engagements between opposing forces. Minor scenarios are
rarely decisive due to their limited scenario lengths, but they can be successfully employed as delaying actions to weaken an enemy force and burn off scenario intensity in order to prevent an enemy from generating a more intense combat scenario.

Normal scenarios are standard engagements, as the name implies. This commitment level offers reasonable limits to command limits and scenario length that allow both sides to field a reasonable number of ships per side.

Major scenarios are epic confrontations between opposing forces that can be used to determine the fates of empires. Major scenarios are normally used to force a showdown between two enemy forces, especially if one side has clear numerical superiority and wants to capitalize on its advantage.

## I2.3.2 Command Bonus

A scenario's command bonus is added to the command rating of each task force flagship in the encounter and increases the total command cost of units that can participate in the scenario. The best command bonuses are provided by high intensity scenarios. In these scenarios, the command bonuses ensure that large fleets or armies can be drawn into the battle. Players that want to force more decisive military actions must be willing to spend extra intensity on scenarios with higher commitment levels.

## I2.3.3 Scenario Length

Scenario length determines how long a confrontation can last before the two sides retire from the field to dress their wounds and prepare for the next scenario. A scenario's length is determined by the type of scenario that is being resolved, and all scenarios have a minimum scenario length of 1.
Players can increase or decrease scenario length using X.X Advantages during scenario generation. This gives players the ability to exert some control over the length of combat. A player that feels optimistic about a scenario's outcome can extend the scenario's length while a player that wants to avoid a complete slaughter can try to reduce the scenario's length to minimize his force's losses.

The maximum number of combat rounds in a combat scenario resolved using the included X.X Campaign Strategic Combat Resolution (CSCR) rules is equal to its scenario length. Players that use a tactical combat game to resolve combat can choose to interpret scenario length as they
see fit. The easiest option is to have the maximum number of game turns match a scenario's length. Another is to have scenario length influence the distance between starting forces so that the shorter the scenario the farther away the two forces will start, which demonstrates that they are far enough away from each other that they could easily break off and retreat from the battle.

## I2. 6 Scenario Selection

Players take turns generating scenarios against each other. If the encounter is taking place in an inhabited system, the system's owner is given the first opportunity to select a scenario to resolve; otherwise, scenario selection starts with the player whose unit has the highest command rating in the encounter. The player with the largest military force (by command cost) wins any ties. This player can either choose to spend intensity to generate a scenario against an opponent or else pass the initiative on to the next player whose military force has the next highest command rating.

Most space combat scenarios allow their targets to refuse to participate in them, but by doing so the target's fleet is forced to retreat from the encounter and won't be able to generate any more scenarios during the remainder of the encounter (see X.X Retreating). The targets of Pursuit or Breakout scenarios can't refuse these scenarios as they represent special cases where a fleet can force another into combat. A system owner also can't refuse a Defensive scenario if he still has starbases in the system.
Players can refuse any non-Fortress ground combat scenarios that their opponents generate against their forces, but only if there is enough friendly Assault or Cargo value in orbit to so that all of the ground forces can be evacuated aboard the waiting transports. An army's avenues of retreat are strictly limited and they simply can't delay the inevitable when their opponent's tanks, infantry, and aircraft are actively trying to hunt them down. Ground forces can't retreat from Fortress scenarios under any circumstances because the defending units are trapped within their fortifications and are left without any avenues of escape.
Scenarios must be fully resolved before initiative is passed on to the next player. Once the player with the lowest command rating has generated a scenario or passed, initiative is returned to the first player and play continues in initiative order until all players have either consecutively passed initiative or intensity is exhausted.

## I2. 4 Space Сомbat

## I2.4.I Interception Scenario

Interception scenarios are low-intensity battles that are typically used to probe an enemy's defenses, gathering information on enemy unit classes and fleet strengths, or to weaken an enemy force in preparation for a major offensive. Interception scenarios can also be used as delaying actions by players that want to "burn off" intensity from an encounter in order to prevent an opponent from forcing a major confrontation that would devastate their own forces.
Unlike a Deep Space Scenario, neither of the parties involved in an Interception scenario are particularly committed to the engagement and this results in a shorter scenario length. This encourages Interceptions to be resolved quickly and maintains a threat level commensurate with their low intensity cost.
The attacker in an Interception scenario receives +1 Advantage to represent that its task force is choosing the time and place for the engagement. A player can use this advantage to force an interception against a specific enemy vessel, such as a vulnerable troop transport or a wounded enemy cruiser.

## I nterception Scenario Chart

| Commitment <br> Level | Intensity <br> Cost | Command <br> Bonus | Scenario <br> Length |
| :--- | :---: | :---: | :---: |
| Minor | 1 | +0 | 1 D6 |
| Normal | 2 | +2 | $1 D 6+1$ |
| Major | 3 | +4 | $1 D 6+2$ |

## I2.4.2 Deєp Space Scenario

Deep Space scenarios are used to generate a standard fleet engagement where two forces meet in open space away from any other fixed defenses and exchange fire until one side is eliminated or decides to retire from the field of battle. Battles fought in Deep Space are more intense than simple interceptions because they involve opposing lines of battle engaging one another in brutal combat. The goal of a Deep Space scenario is to annihilate the opposition, not simply weaken them or test their resolve. This is one of the reasons that the intensity costs of Deep Space scenarios are double that of Interception or Pursuit scenarios.

Neither the attacker nor the defender in a Deep Space scenario receives any special advantages or disadvantages. This is considered the standard space combat scenario for this reason and is the closest thing to a fair fight that two players will find when conducting space combat.

## Deep Space Scenario Chart

| Commitment <br> Level | Intensity <br> Cost | Command <br> Bonus | Scenario <br> Length |
| :--- | :---: | :---: | :---: |
| Minor | 2 | +4 | 1 D6+2 |
| Normal | 4 | +8 | 1 D6+4 |
| Major | 6 | +12 | 1 D6+6 |

## I2.4.3 Defensive Scenario

Defensive scenarios are fought near important locations where the defender might have built orbital fixed defenses, such as in orbit of a colony or at the mouth of a wormhole. This is the only space combat scenario that starbases can be included in. Systems that are protected by a series of powerful starbases can be almost impregnable to enemy invasion or bombardment.

If the defender has any units left in the encounter system after space combat is complete, only those attacking units that survived a Defensive scenario will be allowed to perform orbital bombardment or land ground troops in the system that turn. This provides attackers with a clear reason to assault an enemy colony world and starbases a worthwhile investment.

A system's defenses are always on alert status, waiting and watching in case of an enemy attack. This gives the defender in a Defensive scenario an extra advantage that it can use during the scenario.

System owners can't refuse a Defensive scenario if there are any starbases in the system. Their forces are compelled to protect the fixed defenses in the system and won't be able to retreat from the system until all of its starbases have been destroyed.

A system is automatically blockaded when a system owner attempts to generates a Defensive scenario against an opponent and that player refuses the scenario, so long as the opponent's total construction cost of space combat units in the system is twice or more the defender's own total. Once blockaded, the only type of space combat scenario the system owner is allowed to attempt is a Breakout scenario.

Defensive Scenario Chart

| Commitment <br> Level | Intensity <br> Cost | Command <br> Bonus | Scenario <br> Length |
| :--- | :---: | :---: | :---: |
| Minor | 3 | +6 | 1 D6+2 |
| Normal | 5 | +10 | $1 D 6+4$ |
| Major | 8 | +16 | $1 D 6+6$ |

## I2.4.4 Pursuit Scenario

Pursuit scenarios allow an attacker to track down and engage enemy forces that are attempting to retreat from the encounter. Retreating units can only be attacked using a Pursuit scenario and can't otherwise be drawn into battle for the remainder of the turn. Retreating forces can't refuse a Pursuit scenario when one is generated against them.

The defender in a Pursuit scenario receives +1 Advantage because it is fully aware of the enemy threat and its units are doing their best to avoid or evade enemy pursuit.

## Pursuit Scenario Chart

| Commitment <br> Level | Intensity <br> Cost | Command <br> Bonus | Scenario <br> Length |
| :--- | :---: | :---: | :---: |
| Minor | 1 | +0 | 1 D6 |
| Normal | 2 | +2 | 1 D6+1 |
| Major | 3 | +4 | $1 D 6+2$ |

## I2.4.5 Hyperspace Scenario

Hyperspace scenarios are battles that are fought in the void between stars when opposing fleets that are attempting to cross the same jump lane meet during the Movement Phase. As the name implies, this scenario assumes that engagements are being fought in hyperspace or some other similar environment that fleets enter when they move between star systems using jump lanes. While the specifics of what jump lane movement entails differs from setting to setting, the following rules are used to resolve any space combat that results from a X.X Jump Lane Encounter.

Hyperspace combat is extremely unpredictable and deadly. Both task forces receive a -4 Surprise modifier to their surprise rolls to demonstrate that neither of them were prepared for this chance meeting and are struggling to come to battle stations. The inherent uncertainty that comes with fighting battles in the depths of hyperspace gives each task force a -1 penalty to all of the die rolls its makes during the combat
scenario. These two penalties make it very difficult for either task force to score damage against its opponent. Success in a hyperspace scenario requires a fair bit of luck, and even then any victory isn't likely to be decisive.
Players are free to adjust any of the above effects to better represent the combat environment that units in their campaign setting encounter when they meet in a jump lane. One alternative that players might consider is to use the standard deep space scenario instead of the special hyperspace scenario for jump lane encounters if their universe indicates that jump lane battles are fought in deep space and not in an exotic hyperspace location.

Hyperspace Scenario Chart

| Commitment <br> Level | Intensity <br> Cost | Command <br> Bonus | Scenario <br> Length |
| :--- | :---: | :---: | :---: |
| Minor | 1 | +0 | 1 D6+2 |
| Normal | 2 | +4 | 1 D6+4 |
| Major | 4 | +8 | $1 D 6+6$ |

## I2.5 Ground Combat

Bombardment and blockades can only achieve-se much, and eventually an empire must commit its troops to the fight if it hopes to wrest control of enemy colonies from their rightful owners.

## I2.5.I Invasion Scenario

Invasion scenarios are used to establish a beachhead in an enemy system so that an empire's remaining ground forces can land in the system at the end of the Ground Combat Phase. An empire can't embark or disembark troops in an enemy controlled system during the Movement Phase of the campaign turn unless it has a beachhead in the system. Beachheads are created when one or more friendly ground forces survive an Invasion scenario and make a landing in a system, and they remain in place as long as at least one friendly ground unit remains on the ground in the system. An empire that loses its beachhead in a system must attempt another invasion to reestablish it.

Only those ground forces that the attacker currently has based aboard orbiting starships can participate in an invasion scenario. Any friendly ground forces already on the planet's surface can't participate in an Invasion scenario. Troops that are being transported using Assault value receive their full combat factors during an Invasion scenario while units invading from

Cargo holds halve their combat factors during the battle (round fractional combat factor values up). This bonus reflects that units invading from Assault bays are receiving tactical support from their assault ships that improves their chances of conducting a successful planetary invasion.

The defender in an Invasion scenario gains an automatic +1 Advantage to represent that its forces are dug in and ready for the invasion.
Invasion scenarios can only be generated by the player that is attempting to invade a system. A planetary defender can't force an opponent to invade until he is ready to commit his forces to the attack.

Invasion Scenario Chart

| Commitment <br> Level | Intensity <br> Cost | Command <br> Bonus | Scenario <br> Length |
| :--- | :---: | :---: | :---: |
| Minor | 2 | 4 | 1 D6+2 |
| Normal | 4 | 8 | 1 D6+4 |
| Major | 6 | 12 | $1 D 6+6$ |

The only reason that a player might generate an Invasion scenario against a system where friendly forces have already established a beachhead and landed is if his empire moved additional troops into the system during the Movement Phase of the current turn and he wants them to attack now instead of waiting until the Ground Combat Phase of the next turn. Invading from transports this turn might weaken the opponent's forces enough to ensure that the player's beachhead in the system will be preserved until the end of the phase when his remaining ground forces and make a landing.

## I2.5.2 Skirmish Scenario

Skirmish scenarios are short, low intensity ground battles that usually represent hit-and-run attacks against enemy positions. These attacks are used to weaken an opponent's army in preparation for an all-out attack against its main force.

The attacker in a Skirmish scenario receives +1 Advantage to demonstrate that its forces are picking the time and place that the battle is fought, giving them an operational advantage in the fight.

Skirmish Scenario Chart

| Commitment | Intensity | Command | Scenario |
| :--- | :--- | :--- | :--- |


| Level | Cost | Bonus | Length |
| :--- | :---: | :---: | :---: |
| Minor | 1 | +0 | 1 D6 |
| Normal | 2 | +2 | $1 D 6+2$ |
| Major | 3 | +4 | $1 D 6+4$ |

## I2.5.3 Field Scenario

A Field scenario is a pitched battle between two opposing armies as they meet on an open field of battle to settle their differences. This is considered to be the default ground combat scenario.

This scenario provides a fair battlefield experience where neither belligerent receives any special advantages over their opponent.

Field Scenario Chart

| Commitment <br> Level | Intensity <br> Cost | Command <br> Bonus | Scenario <br> Length |
| :--- | :---: | :---: | :---: |
| Minor | 2 | +4 | 1 D6+2 |
| Normal | 4 | +8 | 1 D6+4 |
| Major | 6 | +12 | 1 D6+6 |

## I2.5.4 Fortress Scenario

Fortress scenarios is an attack against an opponent's fortified defensive position, such as an assault against an enemy ground base or heavy combat in an urban warfare environment.

The defender in a Fortress scenario receives +1 Advantage as a defensive bonus that reflects that its forces are dug in and prepared to defend their position against the enemy attack.

## Fortress Scenario Chart

| Commitment <br> Level | Intensity <br> Cost | Command <br> Bonus | Scenario <br> Length |
| :--- | :---: | :---: | :---: |
| Minor | 3 | +6 | 1 1D6+2 |
| Normal | 5 | +10 | 1 D6+4 |
| Major | 8 | +16 | 1 D6+6 |

## I2.5.5 Evacuation Scenario

Evacuation scenarios are used to attack retreating ground units as they are withdrawing to orbiting transports. The attacker may include any of his ground-based armies in the scenario, but the defender can only include retreating ground forces in its task force.

The defender in an Evacuation scenario receives +1 Advantage because it is prepared for a fighting retreat to cover the evacuation of its ground forces from the system.

## Evacuation Scenario Chart

| Commitment <br> Level | Intensity <br> Cost | Command <br> Bonus | Scenario <br> Length |
| :--- | :---: | :---: | :---: |
| Minor | 1 | +0 | 1 D6 |
| Normal | 2 | +2 | 1 D6+1 |
| Major | 3 | +4 | 1 D6+2 |

## I2. 7 TAsk Forces

A task force is a collection of one or more units that are fighting alongside one another in a scenario. Players create new task forces at the start of each scenario. The first step in creating a new task force is to select a task force flagship. This flagship must have a command rating greater than or equal to the scenario's intensity cost. Players that can't satisfy this requirement must use their highest command rated unit as flagships instead. It's usually better to pick a unit that has a higher command rating as the total command cost of units that can be included in a task force is based on this value.

The next step is to add a total command cost of units to the task force equal to the flagship's command rating plus the scenario's command bonus. A player can only include fewer units to a task force if there aren't enough friendly units in the encounter to meet this requirement. Only units that have a command cost equal to or less than the flagship's own can be added to its task force. This prevents a 1 CC escort from commanding a much larger 2 CC light cruiser. The command cost of flights that are based aboard carriers that have already been included in a task force don't count against the task force's command limits.

Fighters and shuttles have enough endurance that they can operate away from their carriers for a limited amount of time, so flights can be added to a task force even if their carriers haven't been included in a player's task force. A flight can even be chosen to serve as a task force flagship during task force generation, but if this is done then all of the other units added to the task force must flights, too. While this is an uncommon decision, it allows players to simulate a force dispatching a wing of fighters or shuttles to go out and perform scout or escort missions in its system. Examples of this behavior include the carriers from the Wing Commander series that
relied on fighter wings to clear waypoints within a system (with each waypoint effectively equivalent to a single minor space combat scenario in these rules); or the titular space station from Babylon 5 that would dispatch fighters to combat pirates and investigate local disturbances.

Military forces that belong to empires that are members of the same alliance, mutual defense, or co-belligerency treaty can fight together in a space combat scenario. Players can choose to add allied units to their task forces during task force creation, but the task force flagship must be one of his empire's own units. The remainder of the units added to the task force can belong to other friendly powers, however.

Realistically, the command element that leads an army into battle wouldn't be called a flagship nor would its army be called a task force; however, these naval terms are used to maintain consistency between space and ground combat and the naval terminology is given preference because the majority of combat operations in a campaign will be space combat scenarios where the naval terminology is the most appropriate of the two. Players can substitute other terms for flagship or task force as they see fit when referring to their ground combat forces.

Task forces that contain units with the Command special ability can add an extra 1 CC of units per 5 Command value already in the task force (round down). This gives players the opportunity to increase the size of their task forces after the main task force has been assembled. The Command value of units added to the task force at this time is ignored and can't be used to add even more units to the task force. It is up to the player to decide whether or not to exercise this ability during task force generation, and a player can choose to forego the bonus if he doesn't want to add any additional units to the current scenario.

## I2.8 Surprise

Before a scenario begins, each player must roll on the Surprise Table to determine his task force's readiness state. Modifiers are added to this roll based on the empire's detection level (see X.X Detection). A task force's readiness state indicates its level of military preparedness at the start of the battle. Task forces with superior readiness gain extra advantages that they can use to turn the battle in their favor.

## Surprise Table (2D6)

| Roll | Readiness State |
| :---: | :--- |
| 3 or less | Disastrous |
| $4-5$ | Bad |
| $6-8$ | Normal |
| $9-10$ | Good |
| 11 or higher | Superb |

Modifiers:
-2 No Detection
-1 Limited Detection
+1 Significant Detection
+2 Complete Detection
-1 per 5 Stealth in enemy task force (round down)
+1 per 5 Scout in friendly task force (round down)
+1 if Defender is in a system with Asteroids
Disastrous: Task forces that begin a scenario in a Disastrous state have been taken by surprise by their opponent and are completely unready for combat. The opposing task force receives +2 Advantages. This task force receives a -2 penalty to all its combat rolls on the first round of combat.

Bad: The task force has been caught off guard and is still scrambling to reach battle stations. The opposing task force receives +1 Advantage. This task force receives a -1 penalty to all its combat rolls on the first round of combat.

Normal: The task force is at battle stations and is prepared for the fight. It receives +1 Advantage. This is the most common readiness state.

Good: The task force is prepared for the fight. It receives +2 Advantages, a +1 bonus to all its combat rolls on the first round of combat.

Superb: The task force knows exactly what to expect in the battle and is prepared to press its advantage. It receives +3 Advantages, a +2 bonus to all its combat rolls on the first round of combat.

## I2.9 AdVANTAGEs

An advantage is a demonstration of superior tactical planning or simple dumb luck that can potentially give a player an edge over his opponent. The number of advantages that a task
force receives in each scenario is determined primarily by its readiness state, but other scenario modifiers can provide additional advantages.

Task forces that contain units with the Fast special ability receive +1 Advantage per 5 Fast value they possess.

Advantages are used to purchase command actions that confer bonuses to his forces during the scenario. Command actions are used prior to combat and affect scenario generation itself. A player must select and declare his task force's command actions before the scenario begins. Players take turns selecting actions, starting with the player whose task force flagship has the highest command rating. Ties are awarded to the task force whose flagship has the highest command cost. Further ties are resolved by a die roll, the highest result going first. Each player then selects an action, after which the next player selects an action, and so on. This process is repeated until all available advantages have been spent and command actions selected and declared.

Not all command actions are created equal, and some command actions cost more than others. The number of advantages that a player must spend to select a command action is located in parenthesis after the action's name.

Ambush (Special): The player may add an additional enemy unit of his choice to the opponent's task force. The advantage cost of this action is equal to the selected unit's command cost.

Deadly Pursuit (1): This action increases the scenario length by 1.
Emergency Repairs (1): This action can be used to immediately repair 2 points of damage in the task force.

Evasive Maneuvers (2): One friendly unit receives a +1 formation level bonus for the duration of this scenario.

Fighting Retreat (1): This action reduces the scenario length by 1.
Flanking Attack (2): One enemy unit receive a -1 formation level penalty for the duration of this scenario.

Maximum Firepower (1): This task force receives $a+1$ bonus to all of its combat rolls on the first combat round.

Reinforcements (Special): The player may add an additional friendly unit to his task force.

The advantage cost for this action is equal to the selected unit's command cost.

Sneak Attack (1): The enemy task force receives a -1 penalty to all of its combat rolls on the first combat round.

Example: A task force that is in a Good readiness state with 14 Fast value is fighting a scenario against an enemy task force that has Bad readiness. This task force receives 2 Advantages from its own readiness state (Good) and 1 Advantage from its opponent's readiness state (Bad). The 14 Fast value in the task force provides an extra 1 Advantage. This gives the task force a total of 4 Advantages.

Supposing that the enemy has 1 Advantage but the friendly task force flagship has the best command rating, the friendly player would be the first one to spend advantages to purchase a command action, then the opponent would spend his single advantage on a command action. This purchase spends all of the opponent's advantages, so the friendly player can then spend all of his task force's remaining advantages.

The task force's Good readiness also gives it a +1 bonus to all combat rolls on the first round, and allows it to have $75 \%$ of its flights launched at the start of the battle (round down). If the task force had 10 flights, it would start with 7 of them launched. The remaining three would have to be launched during the battle.

## I2.IO Combat Resolution

Combat scenarios can be resolved using either the included Campaign Strategic Combat Resolution (CSCR) engine or a separate tactical system of your choice. The Victory by Any Mean Campaign System assumes that most (if not all) scenarios will be resolved using the CSCR, but there is no reason that players couldn't use their preferred tactical system to resolve all combat in a campaign if they wanted to.

Because playing out each and every combat scenario that is generated in a campaign using a tactical system can become quite tedious, players are recommended to use the CSCR to resolve smaller scenarios. These smaller engagements by definition are less important and their outcomes have minimal impact on the campaign. Gaming time is usually at a premium as it is, so it just makes more sense to resolve these minor battles strategically and reserve the use of your preferred tactical system for the resolution of only the most important, climactic battles in your campaign.

When using third-party tactical systems to resolve combat scenarios, the players should try to integrate as many of the strategic combat concepts into their tactical system as possible. Namely, players should find a way to translate scenario length and advantages into mechanics that can be used with their tactical rules.

## I2.II Retreating

Any fleet that refuses a space combat scenario that an opponent generates against it is forced to retreat from an encounter. Retreating fleets can't participate in combat for the remainder of the encounter unless they are the target of a Pursuit scenario. Retreating units must move to another system next turn; they can't remain in the encounter system even if their empire or alliance ended up in control of the system at the end out of the encounter they retreated from.
Retreats should only be used when a player actually wants to extricate his forces from a system, not just as a tool to move them out of harm's way. A player might order his forces to retreat if he feels that their chance of survival is marginal should they remain in the system. While an enemy could still generate a Pursuit scenario against it, the player's force would stand a better chance of surviving the current encounter.

Ground units can only retreat from an encounter if there owner has one or more empty freighters or troop transports in the system. Retreating ground forces effectively evacuate their position on the planet and return to these waiting transports. Any ground force that retreats into orbit can't participate in ground combat scenarios for the remainder of the campaign turn. An empire will lose its beachhead in an enemy system if no friendly ground forces remain on the ground there after a retreat. A successful Invasion scenario will be required to re-establish a beachhead in that system.

## I2.I2 LANDINGs E Deployments

Once all ground combat scenarios in a ground encounter have been resolved, ground forces that are being carried aboard transports in the system can be deployed to the system. An empire can always disembark ground forces to systems that it controls or that are controlled by a power that it has an alliance or mutual defense treaty with. However attackers can't disembark ground forces to a system unless they have already established a beachhead in the system and still have one or more ground forces deployed to the system. Ground forces that are
already deployed in the system can also be embarked aboard waiting transports if those starships have enough Cargo or Assault value available.
Ground forces that disembarked this turn or performed an Invasion can't be embarked on the same turn. They must wait until the end of the Ground Combat Phase on the following turn before they'll be given the opportunity to board the orbiting transports.

## IO.O BOMBARDMENT

Military forces can conduct bombardment in enemy systems during the Bombardment Phase after all space and ground encounters have been resolved for the turn. This bombardment is used to weaken an enemy colony, often in preparation for a full-scale planetary invasion.
There are two different types of bombardment:

- Orbital bombardment is performed by fleets that have achieved orbital superiority in a system. Units that survive a Defensive scenario in a system achieve orbital superiority. Fleets also have orbital superiority if there aren't any enemy space combat units left in the system during the Bombardment Phase.
- Planetary bombardment is performed by troops that have already made landfall in a system prior to the Bombardment Phase. Troops that are still aboard transports in orbit can't contribute to planetary bombardment.
The amount of damage that units can score against system targets using a combination of orbital and planetary bombardment is determined by the number of bombardment points (BP) that the attacking force and use to perform bombardment missions this turn.

An empire's bombardment point total is calculated by totaling its Attack Strength and multiplying the total by D6 and then dividing the result by 10 (round fractions up). Units with the Bombardment ability provide their owners with a fixed +1 BP bonus per point of Bombardment value they possess.
Example: An empire moved a fleet into a contested system this turn. Space combat in the system was indecisive and there are still enemy space combat units in the system. As a result, only those units in the attacker's fleet that survived a Defensive scenario this turn will get to
perform orbital bombardment (if the entire enemy fleet had been destroyed they all would have got to bombard). The attacker's space combat units that have achieved orbital superiority have a total of 24 Anti-Ship and 4 Bombardment. The attacker also landed troops in the system this turn. These ground forces have a total of 15 AS and 2 Bombardment. This gives this empire a grand total of 39 AS and 6 Bombardment.

The player rolls a '5' on a D6, giving the empire a total of $39 \times 5 \div 10=20$ BP from its Attack Strength. The force's Bombardment value (6) increases this to $26 B P$.

## I3.I Planetary Defenses

Systems can be protected by various forms of planetary defenses, a special class of facilities that affect units that attempt to attack a system during the Bombardment Phase. Two examples of these types of facilities are included in this book: X.X Planetary Defense Guns and X.X Planetary Defense Shields.

Planetary Defense Guns (PDG) are planetary weapon systems that engage enemy ships when they move within firing range. These weapons attack before bombardment and can eliminate enemy units before they get a chance to bombard the defended system.

Planetary Defense Shields (PDS) are be used to protect systems against enemy bombardment. An attacker's bombardment point total is halved (round down) when bombarding a system that is protected by a planetary shield.
While rules for only two planetary defense facilities are included in this book, additional planetary defense facilities are sure to appear in future campaign books. Players can also create new planetary defenses for use in their own campaigns to represent any kind of defensive structures that would affect enemies at the start of the Bombardment Phase.

## I3.2 Bombardment Missions

Players spend bombardment points to perform bombardment missions. These missions are used to attack an opponent's assets in a star system, including its ground forces, facilities, and colonies. Concentrated bombardment is even capable of degrading a system's basic resource values. One thing that all bombardment missions have in common is that they are all destructive and result in some asset being damaged or destroyed.

A player may spend his force's available bombardment points on bombardment missions during the Bombardment Phase. Each mission has its own mission cost and effect. A list of available bombardment missions is provided in this section, arranged in ascending order from the least expensive (Anti-Troop) to most expensive (Anti-System).

Any bombardment points that an empire doesn't spend on the current turn are carried forward to the next campaign turn, but the power can only use them if its forces are still capable of bombarding the system (see X.X Sustained Bombardment).

Example: An empire's space and ground forces produced a total of 26 BP this turn. The empire has enough bombardment points to perform one infrastructure bombardment mission (20 BP) and three troop bombardment missions (6 BP). This exhausts the empire's available bombardment points.

If the empire's player really wanted to perform a population bombardment mission (40 BP), he could choose to forego performing bombardment this turn so that his 26 BP could be carried forward to the next turn. Assuming this power earns 26 BP next turn, too, it would end up with 52 BP to spend - more than enough to pay for a population bombardment mission.

## I3.2.I Anti-Troop Bombardment

Anti-Troop bombardment is an all-out, concerted strike against an opponent's ground forces that is used to damage or destroy enemy troops. These attacks are usually used to weaken enemy ground forces in preparation for ground combat scenarios next turn.

This mission costs 2 BP and scores 1 damage against an enemy ground force of the defender's choice. Anti-Troop bombardment missions can only damage ground forces that have already been disembarked in the system, not those that are based on orbiting transports.

## I3.2.2 Anti-Facility Bombardment

Anti-Facility bombardment is used to eliminate enemy facilities in a system. These immobile installations, located on planetary surface or near-planetary orbits, are more susceptible to enemy bombardment that traditional colonial infrastructure.

This mission costs 10 BP and destroys one enemy facility of the attacker's choice. Any units that are based by or under construction at a facility when it is destroyed are also lost.

## I3.2.3 Anti-Infrastructure Bombardment

Anti-Infrastructure bombardment is used to disrupt a system's economy by damaging or destroying its infrastructure. Coordinated strikes against an opponent's infrastructure can reduce its income, delay production, sever supply lines, and force it to finance costly rebuilding programs to repair the damage done to its colonies.

This mission costs 20 BP and permanently reduces one of the system's infrastructure value by 1 (attacker's choice).

## I3.2.4 Anti-Morale Bombardment

Anti-Morale bombardment is a sadistic terror bombing campaign that isn't meant to do any real damage to a system's infrastructure but instead instill a sense of panic and fear in its population. Anti-Morale bombardment is conducted in a cruel fashion, with an empire's forces striking purely at random targets of interest or opportunity.

This mission costs 20 BP and lowers a colony's Morale by 1.

### 13.2.5 Anti-Population Bombardment

Anti-Population bombardment is a cruel assault against a colony's population. Rather than eliminating strategic enemy industrial or economic assets, a bombardier's guns ignore these obvious targets and instead focus their fury on civilian population centers to inflict the maximum amount of damage possible.

This missions costs 40 BP and reduces the system's Census and Morale values by 1.

## I3.2.6 Anti-System Bombardment

Anti-System bombardment is an attempt to completely annihilate not just a colony and its inhabitants but to cause long-term damage to a planet's surface with the intent of rendering it uninhabitable. Missions of this type are used to eliminate an enemy's resources by reducing a star system's statistics.

This mission costs 60 BP and its effects are determined by rolling on the following table. None of a system's resource values can be reduced below zero by the effects of Anti-System bombardment. None of a system's colony values can exceed its Carrying Capacity, and players may need to reduce these values when inhabited systems are targeted by missions of this type.

## Anti-System Bombardment Table (D10)

| Roll | Effect |
| :--- | :--- |
| $1-6$ | -1 Carrying Capacity |
| $7-8$ | -1 RAW |
| $9-10$ | -1 Biosphere |

### 13.3 Sustained Bombardment

A player can choose to carry over bombardment points from one turn to the next in order to perform more expensive bombardment missions. Any bombardment points that a force doesn't spend on bombardment missions on the current turn are automatically added to its bombardment point total on the following turn. This sustained bombardment allows a smaller force to perform costlier bombardment missions that it might not otherwise be able to achieve using the number of bombardment points that it can generate in a single turn.

One major limitation on sustained bombardment is that unused bombardment points are only carried over from one turn to the next and all of these bombardment points are lost if the attacker is incapable of performing bombardment in the system on the following turn. Reserving bombardment points for future use is therefore a tricky proposition. Sustained bombardment is a safe bet if you're sure you'll still be able to bombard a system next turn. A fleet that is threatened by a possible enemy counter attack, however, might think twice about saving up bombardment points and instead use them to attack targets of opportunity in case it is driven out of the system next turn.

### 13.4 Collateral Damage

Attackers can cause unintentional collateral damage to non-mission specific targets as the result of their normal bombardment missions. Roll once on the Collateral Damage Table for every full 25 BP of bombardment missions that a system was subjected to during the Bombardment Phase of the current turn.

It should be noted that collateral damage can inadvertently damage an attacker's own ground forces. The defender scores all damage that results from collateral damage rolls.

## Collateral Damage Table (D10)

| Roll | Effect |
| :--- | :--- |


| $1-3$ | No Effect |
| :--- | :--- |
| 4 | 5 damage to friendly ground forces |
| 5 | 5 damage to enemy ground forces |
| 6 | Facility Destroyed |
| $7-8$ | -1 Morale |
| 9 | -1 Infrastructure |
| 10 | -1 Census, -1 Morale |

### 13.5 Weapons of Mass Destruction

Weapons of mass destruction (WMD) are the absolute scourge of planetary warfare. These terrifying weapons are designed to inflict the maximum amount of damage possible in a brief span of time. The effects of traditional bombardment pale in comparison to the devastation that can be wrought by weapons of mass destruction.

Units with the Bombardment ability are equipped with weapons of mass destruction as a standard aspect of their weapons arsenal. The decision to deploy weapons of mass destruction against a system is made after a player has resolved all of his other bombardment missions. The maximum number of WMD attacks that a player can make against an enemy system each turn is equal to 1 WMD per 5 Bombardment value in his force (round down). Weapons of mass destruction can't be used against systems that are protected by planetary defense shields (PDS) because these sophisticated defenses make a system immune to WMD attack.

Roll on the WMD Bombardment Table for each WMD strike to determine the effects of the bombardment. WMD score damage indiscriminately and the player can only hope that he has deployed enough of these weapons to achieve the desired effect. The defender scores WMD damage and determines which ground forces or infrastructure are damaged by these attacks.

## WMD Bombardment Table (D10)

| Roll | Effect |
| :---: | :--- |
| $1-2$ | Roll Twice |
| $3-4$ | Friendly ground force destroyed |
| $5-6$ | -1 Infrastructure |
| 7 | -1 Census, -1 Morale |
| 8 | -1 Carrying Capacity |


| 9 | -1 RAW |
| :---: | :--- |
| 10 | -1 Biosphere |

Weapons of mass destruction represent such a serious threat to galactic peace that most civilized powers outlaw their use. Empires that persist in using them against their enemies will almost assuredly have to deal with the political implications of their actions once their neighbors learn of the atrocities that they are committing against other sentients.

Example: An empire whose bombarding units have a total of 7 Bombardment value between them could deploy at most one WMD against the target system this turn. The power would need another 3 Bombardment to earn a second WMD.

The player decides to unleash this weapon against the target system. He rolls a '2' on the WMD Bombardment Table. This result indicates that he should roll two additional times on the table. His next two rolls are '5' and '7'. The elects to take the infrastructure hit to the system's Economy. The system's Census, Morale, and Economy values are each reduced by 1.


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## Formation Levels

Every unit in a task force is assigned a formation level (FL) that describes how well protected they are within the overall task force formation. The number of weapon hits required to score a point of damage against a unit is equal to its current formation level. It would take 3 hits to score 1 damage against a ship that has a formation level of 3 , for example.

All units start at formation level 1, and their formation levels can't be reduced below this value. Specialized units can use electronic warfare to raise or lower unit formation levels. Point Defense fire can also be used to raise a unit's formation level. In both cases the number of points required to raise or lower a unit's formation level is equal to the unit's command cost.

Formation levels don't protect a unit from cyber or electronic warfare attacks.

## Damage Resolution

Weapons fire and other task force actions during the combat round can generate hits that can damage enemy units. There are two methods that players can convert these hits into damage: directed damage, which is scored by the attacking player; and standard damage, which is scored by the defending player.

## Standard Damage

The standard method for resolving damage against an enemy task force is to total the number of hits being directed against an enemy force. Your opponent then applies this hits to units of his choosing until all of the hits have been converted into damage. This gives him the opportunity to decide which of his task force's units will be damage or destroyed by incoming fire. The number of hits required to score 1
damage against a unit is equal to the unit's current formation level.

In the event that a defender has hits leftover that can't be applied because all of his units have a formation level greater than the number of remaining hits, the defender will be forced to score 1 damage against a unit of his choice. This rule ensures that an attacker can score at least a single point of damage against an opposing task force even if it couldn't generate enough hits to exceed the task force's lowest formation level.

## Directed Damage

Directed damage allows the attacker to allocate his force's hits directly against specific enemy targets rather than allowing his opponent to score those hits himself, as is the case with standard damage. Directed damage is usually used to damage, cripple, or destroy high-priority enemy targets. For example, a player might use directed damage to finish off heavily-damaged enemy units, eliminate enemy support units so they no longer provide their normal advantages, or sew confusion in the enemy command structure by firing on enemy command elements.

While directed damage gives the firing player control over which enemy units receive damage, it is less efficient than standard damage. Holes in an enemy's lines may present themselves during combat but the attacker's single-minded purpose to lash out at specific enemy targets prevents him from exploiting them. As a result, all units are considered to be in a formation level one level higher than normal for the purposes of directed damage. This makes it so that the attacker must expend more hits to score a single point of damage against its target.

The inefficiency of directed damage is purposeful, as it dissuades players from exclusively using directed damage in battle. Without a disadvantage, there would be no reason for a player not to use directed damage to take out enemy command elements, troop transports, or other targets of opportunity as doing so would deny his opponent the chance to score any of the hits as standard damage.

Players can choose to resolve some, all, or none of their total hits as directed damage. Any hits not applied as directed damage are instead resolved by the defender as standard damage.

## Combat Round

Combat Sequence

While the combat round sequence may look intimidating, the fact of the matter is that most of these phases are used to resolve the effects of special abilities that very few units will be equipped with in the first place. Most of the action during the combat round occurs during the Point Defense and Attack Phases as units exchange fire with each other.

## Command Phase

Declare Retreats

## Declare Ramming Attacks

The player must publicly declare which of his units are attempting to ram this turn. Ramming attacks are resolved during the X.X Ramming Phase but they must be declared now so that an opponent will have the opportunity to destroy these units before they have a chance to ram.

## Cyber Warfare Phase

## Electronic Warfare Phase

## Point Defense Phase

## Attack Phase

## Boarding Phase

## Ramming Phase

Retreat Phase

## End of Round Phase

## Carrier Phase

Task forces launch and land flights during the Carrier Phase at the beginning of the combat round. Take the total Carrier and Launch Bay value in the task force and multiply it by the result of a D6 roll, then divide it by 10 (round to nearest). This is the maximum Command Cost of flights that the player can activate or deactivate that round. Active flights are those that have been launched into battle while inactivate flights are those that have been landed on their carriers. Only active flights contribute their combat factors or special abilities towards a task force during the combat round, and they're also
the only flights that can take damage from enemy point defenses during the Point Defense Phase.

Flights that are being based by carriers that aren't participating in the current scenario (e.g., the flights were included in the scenario but their carriers weren't) always remain in an active state during a battle and can't be transitioned back to inactive status during the fight. This prevents a player from rebasing these independent flights during a scenario.

A task force relies on strength of numbers to improve their formation levels. This represents that these fighters are escorting one another, suppressing enemy fire, or distracting the enemy during the battle to improve their collective odds of survival. One flight of the player's choice receives a +1 formation level bonus for every 5 active flights in his task force. Flights with the Escort special ability excel in this function, and provide an additional +1 formation level bonus for every 5 Interceptor value available from currently active flights. This flight Interceptor bonus is in addition to the Interceptor effects applied during interception fire.

Players generally want to keep as many of their flights "in the air" and active as possible during a battle. The rare exception is when a carrier is preparing to retreat from a battle. Any of the retreating carrier's flights that aren't landed in its hangars when it retreats from the battle are orphaned and will be destroyed unless there are other carriers in the battle capable of basing them. This forces carriers to wait to retreat until they have safely landed as many flights as possible to prevent them from being lost.

## Cyber Warfare Phase

Cyber warfare is an intrusive attack against enemy computer systems that is used to infiltrate and assume control of enemy computer networks. Units with the Cyber Warfare ability generate cyber warfare points (CW) that a player can use to hack into enemy computer networks. The total number of cyber warfare points a task force has available each round is equal to its total Cyber Warfare value times D6 divided by 10 (round to nearest). These cyber warfare points can be used to control, disable, or damage enemy units.

Cyber warfare attacks can be disrupted by a combination of advanced software and hardware defenses called Firewalls. A unit receives a bonus to its Command Cost equal to its Firewall value when it is the target of an enemy cyber warfare attack.

Example: A task force has a total of 16 Cyber Warfare. During the Cyber Warfare Phase this round, the task force produces [D6] $3 \times 16 \div 10$ $=5$ CW that can be spent to attack the enemy force.

These cyber warfare points could be used to take control of a single enemy unit that has a Command Cost of 2 or less; to disable units with a total Command Cost up to 5; or score 2 damage against a unit that doesn't have any Firewall defenses to impede the attack.

## Controlling Units

Cyber warfare points can be used to take complete control of an opposing unit. This allows the attacker to turn the target's weapons against its own task force. The number of cyber warfare points required to take control of an enemy unit is equal to twice the target's Command Cost. Opposing units whose systems have been subverted using cyber warfare points contribute their combat factors to the attacker's task force for the remainder of the combat round.

Players can elect to fire upon their own units during the Point Defense or Attack Phases if the units are under enemy control, however they must rely on directed damaged for these attacks.

## Disabling Units

Taking total control over an enemy unit isn't always possible. Instead, a player can attempt to just force a shutdown of key enemy systems to prevent them from participating in combat. A player must spend a number of cyber warfare points equal to the target's Command Cost to reduce its combat factors are reduced to zero for the rest of the combat round.

## Damaging Units

A player can use his force's illicit access to enemy networks to erase vital software, such as by formatting key computer systems, or remove the safety overrides that prevent equipment from entering a critical state (and then pushing them into the danger zone). These kinds of attacks are simulated by using cyber warfare points to score directed damage against enemy units. Targets are considered to have a formation level of 1 plus their Firewall values for the purposes of this directed damage. In other words, it normally takes 2 CW to score 1 damage against a target. Each point of Firewall increases the number of cyber warfare points required to score a point of damage by 1. A starship with 3

Firewall would require 5 CW to score 1 damage against it, for example.

## Electronic Warfare Phase

Electronic warfare is a key element in both space and ground combat, and empires often employ units that are equipped with sophisticated electronic warfare systems that are used to aid their own forces or disrupt enemy systems. The ability to deceive enemy sensors while at the same time seeing through enemy deception is a necessity to keep your forces alive during a battle.

At the start of the Electronic Warfare Phase, each player takes his force's total Electronic Warfare value and multiplies it by D6, then divides the result by 10 (round to nearest). This is the number of electronic warfare (EW) points that the player has to spend on electronic warfare actions this combat round.

Jammers in the enemy task force meanwhile reduce the number of EW points a player has available by an amount equal to D6 times the enemy's total Jammer value divided by 10 (round to nearest). Each player adjusts his task force's EW total to reflect the effectiveness of enemy jamming at this time.

Task forces that have EW totals greater than zero can spend them to perform electronic warfare protection, attack, or support missions.
Example: A task force contains a total of 12 Electronic Warfare and 9 Jammer. The force receives [D6] $2 \times 12 \div 10=2$ EW from its Electronic Warfare and reduces the enemy task force's EW total by [D6] $4 \times 9 \div 10=4$ EW during the Electronic Warfare Phase this round.

Assuming the opposing task force didn't jam any of its electronic warfare systems, the task force has 2 EW it can spend on missions this round. This would be enough to increase or decrease the formation level of a 2 CC unit (EWP and EWA, respectively), or score one additional hit during the Attack Phase (EWS).

## Electronic Warfare Protection

Electronic Warfare Protection (EWP) missions are used to increase a unit's formation level by 1 and have an EW point cost equal to the target's Command Cost. A unit's formation level can only be increased once per round using EWP.

## Electronic Warfare Attack

Electronic Warfare Attack (EWA) is an offensive application of EW points that allows a player to
lower an enemy unit's formation by 1 at an EW point cost equal to the target's Command Cost. As with EWP, a unit can only have its formation level reduced once per combat round using EWA. This prevents a larger force or one with overwhelming EWA rating from stripping an enemy completely defenseless.

## Electronic Warfare Support

Electronic Warfare Support (EWS) acts as an "electronic shield" for a task force as it reduces the number of hits that an enemy can score against its units. Every 2 EW point spent on EWS reduces the number of enemy hits an enemy scores during the Attack Phase by 1.

## Point Defense Phase

Point defenses engage enemy targets during this phase of the combat round. These short-range weapons can be used to shoot down enemy flights or intercept enemy fire, at the player's discretion. The amount of point defense fire (PD) that a task force generates each round is is calculated by taking its total Point Defense value times D6 and dividing the result by 10 (round to nearest). Interceptors provide a bonus to their task forces' total PD equal to their total Interceptor value.

Weapons fire in the Point Defense Phase is split into two distinct sup-phases: Interception Fire and Anti-Fighter Fire. Players must resolve all interception fire before moving on to the antifighter fire step.

## Interception Fire

A task force can use its Point Defense to shoot down incoming enemy weapon salvoes. Examples of interception fire include a task force concentrating its defensive fire against an incoming wave of enemy missiles or kinetic rounds to destroy them before their reach their targets; or using sandcaster-style weapons to disperse directed energy weapons fire. Interception fire simulates these defensive actions by giving players the opportunity to spend PD to increase the formation levels of nonflight units in their own task forces. The PD cost to increase a friendly unit's formation level by 1 is equal to its Command Cost.

It is important to point out that while interception fire doesn't reduce the number of hits that a force receives during the Attack Phase it does increase the number of weapons hits required to score a point of damage against units that have their formation levels increased by the
friendly interception fire. Units that receive substantial formation level upgrades as a result of interception fire can take more hits and have a greater chance of surviving an encounter than those that like the Point Defense coverage to defend them against enemy fire. This encourages players to field units with sufficient Point Defense value to intercept incoming fire and protect their task forces.

Unlike electronic warfare protection missions, interception fire can be used to increase the formation level of friendly units multiple times during the same combat round.

## Anti-Fighter Fire

Point defense fire that isn't used to intercept enemy weapons can be used to engage enemy flights. Each point of PD used to perform antifighter fire scores a hit against active flights in the enemy task force. The attacker can allow the defender to score these hits as standard damage or else assign some or all of the hits as directed damage against specific enemy flights. Inactive flights that are currently aboard their carriers can't be damaged by anti-fighter fire.
Units with the Anti-Fighter ability provide their task forces with an additional +1 PD per 5 AntiFighter. This is guaranteed PD that can only be spent on anti-fighter fire.

## Attack Phase

Task forces fire upon enemy non-flight units during the Attack Phase using their combined Attack Strength values. The number of AS hits a task force generates during this phase is calculated by taking its total Attack Strength times D6 and then dividing by 10 (round to nearest). AS hits are scored against enemy starships and starbases (space combat) or enemy ground forces (ground combat). The heavy weapons that are used to generate AS hits are ineffectual against enemy small craft and can't be used to engage enemy flights.

Gunship units are exceptionally skilled at scoring hits against enemy units during the Attack Phase. A task force receives +1 AS per point of Gunship value its units possess.

In addition to conventional weapons, units with the First Strike or Onslaught special abilities also perform attacks during this phase. First Strike fire occurs before normal attack fire is resolved while Onslaught fire is resolved at the end of the Attack Phase.

## First Strike Fire

Units that have the First Strike ability make a special attack at the start of the Attack Phase. Total the task force's First Strike value and multiply it by the result of a D6 roll, then divide the result by 10 (round to nearest). This is the number of hits generated by the attacking task force that can be scored against its opponent from long range.
The damage scored by unit with the First Strike ability is applied immediately. Enemy units that are crippled by First Strike fire will have their combat factors halved when it comes time to perform standard weapons fire during this phase, and units that are destroyed by this fire won't be able to fire at all.

## Onslaught Fire

At the end of the Attack Phase after all other units have fired, any surviving units with the Onslaught special ability perform short range attacks against their opponents. Total the task force's Onslaught value and multiply it by D6, then divide the result by 10 (round to nearest). This is the number of hits that the attacker scores against the defending task force. Because of the extremely short ranges involved with Onslaught attacks, all of the defender's formation levels are halved for the purposes of this attack (round up).

## Marine Phase

Marines are often deployed during combat to damage, capture, or destroy enemy units. Breaching pods or transporters can be used to deliver marine boarding parties to targets during space combat. Elite special forces can move behind enemy lines during a ground battle to achieve similar effects during ground combat. Total a task force's Marine value and multiply it by D6 and then divide the result by 10 (round to nearest). This is the number of marine parties (MP) that the task force has available to conduct boarding missions this round.
Marine parties can be used either offensively or defensively. Marine parties used in a defensive mode are deployed to friendly units to protect them against enemy boarding or infiltration attempts. On the attack, marine points can instead be used to attempt to capture or sabotage enemy units.

Units with the Security special ability are equipped with special anti-personnel defenses or well-trained police forces that are adept at securing against enemy marines. These units
gain a bonus to their formation level equal to their Security values for purposes of marine combat during this phase.

Enemy flights are too small to be attacked by marine contingents and marine boarding parties can't be used to defend or attack flights.

## Securing Units

Before marine points are assigned to capture or sabotage missions, each player is given the opportunity to spend MP to increase the internal security of one or more units. The MP cost to increase a unit's formation level by 1 for purposes of marine combat is equal to its Command Cost.

## Capturing Units

One of the principle purposes of marine combat is to capture enemy units. This is achieved by scoring a special type of directed damage against non-flight units in the enemy task force. Instead of damaging the enemy ship, each point of directed damage instead deposits a MP aboard the unit. A unit is then captured when the number of MP aboard the unit plus the amount of damage it has already sustained is greater than or equal to twice its Defense value.
Marine parties that have been delivered to an enemy unit can be destroyed if the target takes damage. Roll a D6 for each point of damage a boarded unit takes. 1 MP is removed from the unit on a roll of 4+.

Captured units change ownership during the Marine Phase if a player has enough MP aboard it to secure it and these units become part of the attacker's task force. All of a captured unit's combat factors and special ability values are reduced to zero for the remainder of the campaign turn. It is subject to additional penalties after the battle, as outlined in X.X Captured Units.

## Sabotaging Units

Marines can damage or destroy enemy units by performing lightning raids with the goal of sabotaging the target instead of capturing it outright. These sabotage operations are represented by allowing the player to spend MP to score directed damage against units in the enemy task force. This kind of attack is less efficient than normal weapons fire, but marine operations are a perilous and less reliable enterprise.

## Ramming Phase

In desperate situations, a command may find himself forced to order his men to make the ultimate sacrifice to protect their nation for utter defeat. While ramming is not a viable tactic for winning a war, it can sometimes be the only option left to an empire that has exhausted all other alternatives.

Units that were ordered to ram during the Command Phase that survived weapons fire during the Point Defense and Attack Phases can attempt to ram in the Ramming Phase. These ramming attempts are resolved in two steps. A task force's flights resolve their ramming attempts first, then once those attacks are resolved the force's remaining units can resolve their attempts. For each step, total the construction cost of all ramming units and multiply it by D6, then divide the result by 10 (round to nearest). This is the number of hits scored against the enemy task force. Kamikaze units provide an additional number of hits to this total equal to their Kamikaze value.

Unfortunately for the rammer, the same number of hits must be repeated against ramming units in the player's own task force. This represents that these units are themselves taking damage when they ram the enemy.

Unlike the weapons fire conducted earlier in the combat round, the hits produced by ramming attacks are always scored by the attacker, not the defender. This is essentially free directed damage without the normal formation level penalty.

When resolving ramming damage, only hits generated by ramming flights can be scored against other flights. Non-flight units are simply too big to ram these small craft. Additionally, when resolving hits against his own task force, the ramming player can only damage units that participated in the current ramming attack. This prevents a player from applying this damage against units that didn't actually ram anything this round.

Example: In a task force containing six starships (with construction costs of 13, 12, 12, 8, 4, and 4) and eight flights (all construction cost 1), the three smallest starships and all eight flights have been ordered to ram.

The flight ramming attempts are resolved first. Their total construction cost is 8 EP. Our D6 roll is a '3', which generates $8 \times 3 \div 10=2.4$ hits, which rounds down to 2 hits. The ramming player scores these 2 hits against enemy units, including enemy flights, then repeats the
damage against his own task force. The only valid targets in his own task force for these hits are the eight flights as they are the units that just rammed. Assuming a formation level of 1, two of the flights are destroyed.

Next, the non-flight units perform their ramming attempts. The three smallest starships have a total construction cost of $8+4+4=20$. Our D6 roll is a '4', scoring $20 \times 4 \div 10=8$ hits against the enemy force. The ramming player must then score 8 hits against the ramming starships.

## Retreat Phase

Task forces that were ordered to retreat this combat round make a 2D6 roll during the Retreat Phase to determine the results of the retreat attempt. A task force receives a cumulative +1 bonus to its retreat roll for each previous round it attempted to retreat, but it also receives a -1 penalty for every full 5 Interdictor value in the opponent's task force.

Task forces successfully disengage from a scenario if their retreat roll is 12 or greater. A scenario ends automatically once one of the participating task forces successfully retreats from battle.

## FTL Retreats

Starships and flights that are equipped with FTL drives can attempt to use them to escape a scenario. This gives these specific units a bonus to the retreat roll equal to half their FTL value (round up). A unit that is using its FTL drive to improve its chances of retreating will successfully retreat from combat during this phase if adding its FTL retreat bonus to its task force's normal retreat roll is greater than or equal to 12 .

FTL retreats carry a significant risk for units that attempt to spin up their FTL drives prematurely during battle. Units that are unsuccessful in their attempts to retreat from a scenario using their FTL drives must roll a D6 to see if they've suffered a catastrophic drive failure. The unit is destroyed on a 1 or crippled on a 2-3 (or destroyed if already crippled). There is no effect on a roll of 4+.

Units with the FTL or Fast special abilities can retreat from combat if their

2D6 + FTL or Fast (whichever is greater); on $12+$, the units successfully disengage and retreat

The maximum number of ground forces that can retreat from a scenario is limited by the availability of Cargo or Assault value aboard orbiting transports. A ground force can't retreat if there isn't any space available to base them aboard those orbiting transports.

## End of Round Phase

Any flights that were based from carriers that were destroyed this round must find alternative basing within the task force or be destroyed. Flights that are being based by a carrier that's not directly involved in a scenario don't have to worry about finding alternate basing; their carrier is operating safely out of harms way, and the flights can safely sortie back and forth from the carrier during the battle without fear of their carrier being attacked.

## After a Battle

Launched flights are automatically recovered at the end of a combat scenario. Orphaned flights whose carriers were destroyed in the battle must be reassigned to new carriers at this time. In the event that an empire doesn't have enough Carrier value remaining in his own fleet to base all of his flights, the player can transfer ownership of the flights to another allied power in the system that does have available Carrier capacity to accommodate them. Any flights that can't be based after a battle are simply destroyed.
Any units that have enemy marine contingents aboard them at the end of the battle take 1 damage for every two marines that infiltrated them (round up). This represents the damage the surviving marines managed to score against the unit before they could be tracked down and eliminated by friendly security forces after the battle was over.

## R.O Scenarios

## Victory Conditions

## Military

* have a total construction cost of military forces of a certain amount
* conquer all of your opponents


## Economic

* total system income
* total commerce income
* total income
* trading with the most colonies


## Diplomacy

* ally with a set number of other players
* sign a certain number of treaties


## Technology

* achieve a set tech level
* have a certain number of colonies at a set tech level
* prototype X number of unit classes
* prototype a unit with a set tech level


## Manifest Destiny

Manifest Destiny is a campaign scenario that replicates the classic 4 X space strategy concept where each empire starts in control of its own home system and expands outwards from there. A vast, unexplored frontier awaits these empires as they push back the boundaries of known space and begin establishing themselves as true interstellar powers.

Exploration plays a major role in this scenario as all of the jump lanes on the campaign map begin in an unexplored state. Players must send fleets out to explore these unexplored jump lanes to discover new systems.

## Appendix A: <br> Map Generation

"The quality of a map is also in part an aesthetic matter. Maps should have harmony within themselves. An ugly map, with crude colors, careless line work, and disagreeable, poorly arranged lettering may be intrinsically as accurate as a beautiful map, but it is less likely to inspire confidence."

- John Kirtland Wright

Players often need to create new campaign maps for their games. Maps can be created in a number of different ways, and this appendix attempts to address the most common mapping options that players can use to create their maps.

Hex Map Generation

Jump Map Generation

## Converting Existing Maps

## Appendix B: System Generation

Players can use the following rules to randomly generate new star systems. These rules break down system generation into a series of discrete steps that are resolved in sequence, starting with determining the system's type and ending once the system's special traits have been applied (if applicable).

## B.I System Type

Roll on the System Type Table to reveal the system's type. The table result determines how many special traits the system will receive during a later step of system generation.

## System Type Table (2D6)

| Roll | Effect |
| :--- | :--- |
| $2-7$ | Single Star System |
| $8-9$ | Binary Star System |
| $10-11$ | Multiple Star System |
| 12 | Black Hole |

System generation immediately ends if a Black Hole result is rolled on this table. Black hole systems always have Carrying Capacity, RAW, and Biosphere values of zero and six jump lanes connecting to them.

## B.2 Spectral Class

Roll on the Spectral Class Table to determine the spectral class of the system's primary component. A star's spectral class influences the system's RAW and Biosphere values.

## Spectral Class Table (2D6)

| Roll | Spectral Type |
| :--- | :--- |
| 2 | Class O Extremely Bright Blue Giant |
| 3 | Class B Bright Blue Star |
| 4 | Class A Blue-White Star |
| 5 | Class F White Star |
| 6 | Class G Yellow Star |
| 7 | Class K Orange Star |
| $8-10$ | Class M Red Star |
| $11-12$ | Class D White Dwarf |

## B. 3 Luminosity Class

Roll on the Luminosity Class Table to determine the star's luminosity class. Young, hot stars of classes $O, B, A$, and $F$ receive modifiers to their rolls on this table and are more likely to be larger and brighter than other stars.
Roll a D6 for every class I supergiant that is rolled on this table. On a roll of ' 6 ' the star is actually a class 0 hypergiant. Hypergiants have Carrying Capacity, RAW, and Biosphere values of zero and the maximum of six jump lanes.
Class D white dwarfs don't roll for their luminosity class because they are always Type VII white dwarfs and can't exist as any other luminosity class.

Luminosity Class Table (2D6)

| Roll | Luminosity Class |
| :--- | :--- |
| $3-$ | VI - Subdwarf |
| $4-7$ | V - Main Sequence (Dwarf) |
| $8-9$ | IV - Subgiant |
| 10 | III - Giant |
| 11 | II - Bright Giant |
| $12+$ | I - Supergiant |

Modifiers:
Class O: +4
Class B: +3
Class A: +2
Class F: +1

## B. 4 Carrying Capacity

A system's Carrying Capacity is determined by rolling on the following table and cross referencing the result rolled against the star's luminosity class.

Carrying Capacity Table (2D6)

|  | Carrying Capacity (by Luminosity Class) |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| RoII | I | II | III | IV | V | VI | VII |
| 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3 | 0 | 0 | 0 | 0 | 2 | 0 | 0 |
| 4 | 0 | 0 | 0 | 2 | 2 | 2 | 0 |


| 5 | 0 | 0 | 2 | 2 | 4 | 2 | 0 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 6 | 0 | 2 | 2 | 4 | 4 | 2 | 0 |
| 7 | 2 | 2 | 4 | 4 | 6 | 4 | 2 |
| 8 | 2 | 2 | 4 | 6 | 6 | 4 | 2 |
| 9 | 2 | 4 | 6 | 6 | 8 | 6 | 4 |
| 10 | 4 | 4 | 6 | 8 | 8 | 6 | 4 |
| 11 | 4 | 6 | 8 | 8 | 10 | 8 | 6 |
| 12 | 4 | 6 | 8 | 10 | 10 | 8 | 6 |

## B. 5 RAW

A system's RAW is determined by rolling on the following table and cross referencing the result rolled against the star's spectral class.

|  |  | RAW Table (2 D6) |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Roll |  |  |  |  |  |  | O |
| B | A | F | G | K | M | D |  |  |
| 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 3 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 |
| 4 | 3 | 2 | 2 | 2 | 1 | 1 | 1 | 1 |
| 5 | 3 | 3 | 2 | 2 | 2 | 2 | 1 | 1 |
| 6 | 4 | 3 | 3 | 3 | 2 | 2 | 2 | 1 |
| 7 | 4 | 4 | 3 | 3 | 3 | 2 | 2 | 2 |
| 8 | 4 | 4 | 4 | 3 | 3 | 3 | 2 | 2 |
| 9 | 5 | 4 | 4 | 4 | 4 | 3 | 3 | 2 |
| 10 | 5 | 5 | 4 | 4 | 4 | 4 | 3 | 3 |
| 11 | 5 | 5 | 5 | 5 | 5 | 4 | 4 | 3 |
| 12 | 5 | 5 | 5 | 5 | 5 | 5 | 4 | 4 |

## B. 6 BIOSPHERE

A system's Biosphere is determined by rolling on the following table and cross referencing the result rolled against the star's spectral class.

Biosphere Table (2D6)

|  | Biosphere (by Spectral Class) |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Roll | O | B | A | F | G | K | M | D |
| 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| 4 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 |
| 5 | 0 | 0 | 0 | 1 | 2 | 1 | 1 | 1 |
| 6 | 0 | 0 | 1 | 1 | 2 | 2 | 1 | 1 |
| 7 | 0 | 0 | 1 | 2 | 3 | 2 | 2 | 1 |
| 8 | 0 | 0 | 1 | 2 | 3 | 3 | 2 | 2 |
| 9 | 0 | 1 | 2 | 3 | 4 | 3 | 3 | 2 |
| 10 | 0 | 1 | 2 | 3 | 4 | 4 | 3 | 2 |
| 11 | 1 | 2 | 3 | 4 | 5 | 4 | 4 | 3 |
| 12 | 1 | 2 | 3 | 4 | 5 | 5 | 4 | 3 |

## B. 7 Jump Lanes

The number of jump lanes that connect to a system is determined by rolling on the following table and cross referencing the result rolled against the star's luminosity class.

Jump Lanes Table (2D6)

|  | Jump Lanes (by Luminosity Class) |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Roll | I | II | III | IV | V | VI | VII |
| 2 | 3 | 2 | 2 | 1 | 1 | 1 | 1 |
| 3 | 3 | 3 | 2 | 2 | 1 | 1 | 1 |
| 4 | 3 | 3 | 3 | 2 | 2 | 1 | 1 |
| 5 | 4 | 3 | 3 | 3 | 2 | 2 | 1 |
| 6 | 4 | 4 | 3 | 3 | 3 | 2 | 2 |


| 7 | 5 | 4 | 4 | 4 | 3 | 3 | 2 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 8 | 5 | 5 | 4 | 4 | 4 | 3 | 3 |
| 9 | 5 | 5 | 5 | 5 | 4 | 4 | 3 |
| 10 | 6 | 5 | 5 | 5 | 5 | 4 | 4 |
| 11 | 6 | 6 | 6 | 6 | 5 | 5 | 5 |
| 12 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |

## B. 8 System Special Traits

Star systems are required to make one or more rolls on the Special Traits Table to find out what kind of unusual qualities the system possesses. Single star systems roll three times, binary star systems roll twice, and multiple star systems roll once. Black hole systems don't make any rolls on this table.

## System Special Traits Table (2D6)

| Roll | Effect |
| :--- | :--- |
| 2 | Roll Twice |
| $3-4$ | System Terrain |
| $5-6$ | +1 Carrying Capacity |
| 7 | +1 RAW |
| 8 | +1 Biosphere |
| 9 | +2 Carrying Capacity |
| 10 | +2 RAW |
| 11 | +2 Biosphere |
| 12 | Strategic Resource <br> (or +3 RAW) |

The results of these special trait rolls are applied to the system and generally provide a bonus to its base statistics. Strategic Resource or System Terrain results are different in that they apply additional special effects to a system based on the type of resource or terrain present. Systems that receive either of these special traits must roll on the appropriate table below to determine the exact type of strategic resource or system terrain that they possess. A system can't receive more than one of the same resource or terrain, and any duplicates should be re-rolled.

If you're not using the X.X Strategic Resources optional rule in your campaign, a roll of Strategic

Resource on the Special Traits Table instead gives the system +3 RAW to represent the system's bountiful resources.

Strategic Resource Table (D10)

| Roll | Resource |
| :--- | :--- |
| 1 | Population |
| 2 | Morale |
| 3 | Economic |
| 4 | Industrial |
| 5 | Agricultural |
| 6 | Scientific |
| 7 | Intel |
| $8-10$ | Special |

System Terrain Table (D10)

| Roll | Effect |
| :--- | :--- |
| $1-2$ | Asteroids |
| 3 | Dark Nebula |
| 4 | Dust Cloud |
| 5 | Flare Star |
| 6 | Maser Nebula |
| $7-8$ | Nebula |
| 9 | $?$ |
| 10 | Radiation Field |

## B. 9 SYstem Importance

The final step of generating of new star system is to assign it a system importance. Total the system's Carrying Capacity, RAW, and Biosphere values and then refer to the following chart to determine the system's importance. Strategic resources provide a system with a +3 bonus to its total to indicate that these systems are generally more important.

## System I mportance Chart

| Total | System Importance |
| :--- | :--- |
| 7 or less | Very Low |
| $8-11$ | Low |
| $12-15$ | Moderate |
| $16-18$ | High |

Star systems that contain class $M$ red stars and have system importance values of Very Low or Low receive the Flare Star system terrain at this time. This is in addition to any other system terrain features that the system received during the previous step.

## Appendix C: <br> Colony Generation

## C.I Colony Size

Colony Size Table (2D6)

| Roll | Census | Importance |
| :--- | :---: | :--- |
| $2-4$ | 0 | Outpost |
| $5-6$ | 1 | Outpost |
| 7 | 2 | Settlement |
| 8 | 3 | Settlement |
| 9 | 4 | Colony |
| 10 | 5 | Colony |
| $11+$ | 6 | Core World |

## System I mportance Modifiers:

$$
\begin{aligned}
& \text {-2 Very Low } \\
& \text {-1 Low } \\
& \text { +0 Moderate } \\
& \text { +1 High } \\
& \text { +2 Very High }
\end{aligned}
$$

Every colony rolled on the Colony Table begins with a Census value as listed, Morale equal to its Census +1 , and a total amount of infrastructure equal to twice its Census value. For example, a 2 Census settlement would start with 2 Census, 3 Morale, and 4 infrastructure. An empire's home system receives twice the normal amount of starting infrastructure to represent the extra level of investment its owner has given it. The player allocates the colony's infrastructure as he sees fit between the system's Economy, Industry, Agriculture, Research, and Intel values before moving on to the next colony generation step.

## C.2 Colony Special Traits

Next, each colony rolls on the Colony Special Traits Table to see what kind of special bonuses it might receive. The number or rolls each colony makes is based on its colony importance. Outposts and settlements roll once, colonies roll twice, and core worlds roll three times.

Colony Special Traits (2D6)

| Roll | Special Trait |
| :--- | :--- |
| $2-3$ | Roll Twice |
| 4 | Overpopulation (+1 Census) |
| $5-6$ | Fair Government (+1 Morale) |
| 7 | Light Investment (+1 Infrastructure) |
| 8 | Low Unemployment (+1 Morale, +1 <br> Infrastructure) |
| 9 | Moderate Investment <br> Infrastructure) |
| 10 | Heavy Investment (+3 Infrastructure) |
| $11-12$ | Populous (+1 Census, +1 Morale) |

## Appendix D: <br> Gmpire Generation

The following rules can be used to create new empires
// if empire is being created as the result of a successful empire discovery roll during exploration, check to
// check to see if contact system

## D.I Empire Tech Level

The first step in creating a new empire is to roll on the Empire Tech Level Table to determine how technologically advanced it is. The results on this table are skewed in favor of discovering other spacefaring species because the alternative is to populate the campaign with dozens of prewarp civilizations that would have little influence on the game.

## Empire Tech Level Table (2D6)

| Roll | Tech Level |
| :--- | :--- |
| $2-4$ | Pre-Industrial |
| 5 | Industrial |
| 6 | Information |
| 7 | Interplanetary |
| $8-9$ | Interstellar (TL 0) |
| $10-12$ | Interstellar (TL >0) |

When resolving the discovery of new empires as the result of jump lane exploration, any power that has a tech level of Interstellar (TL 0) or lower is indigenous to the system in which they were discovered. Interstellar powers with tech levels greater than TL 0 aren't native to the contact system and their home systems are located elsewhere. The tech level assigned to these more advanced Interstellar empires is found by rolling on the Interstellar Tech Level Table. Their starting tech levels are relative to the tech level of the empire that discovered them. Use a contact tech level of TL 5 in situations where the contacting power is preinterstellar or when an empire is being generated by players before a campaign and not being activated as the result of in-game exploration.

I nterstellar Tech Level Table (2D6)

| Roll | Tech Level |
| :--- | :--- |
| 2 | $25 \% \times$ Contact TL |
| 3 | $33 \% \times$ Contact TL |
| 4 | $50 \% \times$ Contact TL |
| 5 | $66 \% \times$ Contact TL |
| 6 | $75 \% \times$ Contact TL |
| 7 | $100 \% \times$ Contact TL |
| 8 | $125 \% \times$ Contact TL |
| 9 | $150 \% \times$ Contact TL |
| 10 | $175 \% \times$ Contact TL |
| 11 | $200 \% \times$ Contact TL |
| 12 | $300 \% \times$ Contact TL |

Players should feel free to adjust the starting tech levels of any newly-activated empire if they feel that the random tech level the power received is too extreme compared to the tech levels of the other empires already in the campaign. In particular, while a high tech interstellar power might make a good foil for the protagonists in a campaign it might also prove to be too powerful an opponent that could end up steamrolling the players' empires. That obviously isn't much fun for the players who are forced to deal with the threat.
When in doubt, players can always err on the side of caution and just give each new power a pre-interstellar level. This eliminates most of the remaining empire activation steps and makes the new powers much easier to setup.

## D. 2 Home System

Generating an empire's home system and homeworld statistics in the next step in empire generation. An empire's initial tech level influences and the size and importance of its homeworld and determines where its home system is located relative to other powers or the contact system where the power was first discovered.

## D.2.I Home System Placement

Pre-Interstellar and early Interstellar (TL 0) powers are always native to the system in which they were discovered. More advanced Interstellar empires (TL > 0) require players to select
another nearby system to act as the empire's home system.

The best way to find an Interstellar power's home system is to randomly select an unexplored system one jump away from the contact system and roll a D100 against the system's Carrying Capacity x Biosphere. A die roll less than or equal to this target indicates that the system is the empire's home system. Players continue to select jump lanes and test star systems in this manner until they find a system that rolls a success. If all of the available unexplored systems in a chain are exhausted without finding a home system for the power, the player can instead select the system with the highest Carrying Capacity x Biosphere total and make that the empire's new home system.
All of the above supposes that the new empire is being added to the campaign as the result of a successful empire activation check during exploration. When creating new empire before a campaign, players can simply choose a system on the map to act as the empire's home system. It is best if this system is at least five jumps from the nearest opposing homeworld, but this isn't always an option and players should use their best judgment to determine if homeworlds are too close to each of other.
Players can use the random system generation rules from earlier in the appendices to create the home system if system statistics aren't readily available. Home systems are required to have a minimum of 3 Biosphere in order to support subsistence-level agriculture and keep their populations from starving, however. An empire's home system should have its Biosphere increased to 3 if it's currently less than that value. The sole exception to this rule is situations where the empire in question doesn't require food to survive or uses a system resource other than Biosphere to satisfy its food requirement. Notable examples of this exception include the silicon, hydrogen, and synthetic life forms presented in The Menagerie.

## D.2.2 Home System Colonies

The size and importance of a new empire's homeworld is determined by its tech level as shown on the Empire Home System Chart. Low tech powers have smaller populations and less infrastructure in their home systems, reflecting a combination of factors including their advancement in the agricultural sciences and the amount of solar colonization that they have completed prior to their entry into the campaign.

Empire Home System Chart

| Tech Level | Importance | CEN | MOR | INF |
| :--- | :--- | :--- | :--- | :--- |
| Pre-Industrial | Outpost | 1 | 2 | 4 |
| Industrial | Settlement | 2 | 3 | 8 |
| Information | Settlement | 3 | 4 | 12 |
| Interplanetary | Colony | 4 | 5 | 16 |
| Interstellar | Core World | 6 | 7 | 24 |

Next, roll three times on the Homeworld Special Traits Table and add to the results to the home system's base statistics. This chart is largely identical to the normal Colony Special Traits Table except that the infrastructure results found on this table are doubled to better reflect the level of infrastructure investment a homeworld would receive compared to its other colonies.

Homeworld Special Traits (2D6)

| Roll | Special Trait |  |  |
| :--- | :--- | :--- | :---: |
| 2 | Roll Twice |  |  |
| $3-4$ | Overpopulation (+1 Census) |  |  |
| $5-6$ | Fair Government (+1 Morale) |  |  |
| 7 | Moderate Investment <br> Infrastructure) |  |  |
| 8 | Low Unemployment (+1 Morale, +2 <br> Infrastructure) |  |  |
| 9 | Heavy Investment (+4 Infrastructure) |  |  |
| 10 | Massive <br> Infrastructure) |  |  |
| $11-12$ | Populous (+1 Census, +1 Morale) |  |  |

The empire's home system starts at a colony tech level equal to the empire's own tech level. A TL 14 empire's homeworld would also be TL 14, for instance.

None of a system's colony statistics can exceed its Carrying Capacity, and any offending values should be reduced to a level equal to the home system's Capacity.

## D. 3 Pre-Contact Exploration

Interstellar empires can start a campaign with one or more star systems already explored. An empire's base exploration chance in its home system is $25 \%$. This is increased by $+25 \%$ for every five full tech levels that the empire's tech level is above TL 0 . Each jump lane that connects to the home system has a percentage chance of having been previously explored equal to the empire's exploration chance. Each explored lane indicates that the empire has visited the star system at the other end of the lane.

This process is repeated for each newly explored system that an empire discovers during its precontact exploration, but the empire's effective exploration chance is reduced by $-25 \%$ per jump the current system is away from its home system. For example, a system three jumps from an empire's home system would be subject to a 75\% penalty.

After traveling far enough out from an empire's home system its exploration chances will eventually drop below zero. This indicates that none of the government's scouts have ventured any further than the current system and it hasn't explored any of the other jump lanes in the system.

Players must make additional empire activation checks for every unexplored system that is explored during pre-contact exploration as it is possible for a newly-discovered empire to have previously made contact with other unknown powers prior to its entry into the campaign. These powers' current relationships and diplomatic history is resolved during a later step of empire activation.

## D. 4 Pre-Contact Colonization

The number of colonies that an Interstellar power starts with is equal to 1D100\% times the number of systems it explored during precontact exploration. (round fractions down). These colonies are placed in uninhabited systems that the empire has explored. Use the random colony generation rules from C. 0 Colony Generation to create these colonies.

## D. 5 Pre-Contact Diplomacy

Pre-contact diplomacy is used to ascertain a new empire's relationships with other powers that it starts in contact with.

## D.5.I Culture

New empires must be assigned their three culture values (Aggressiveness, Integrity, Xenophobia) before proceeding with pre-contact diplomacy. Players can either use pre-selected values for the empire's culture values or else roll a D100 for each statistic and assign the die results accordingly.

## D.5.2 Pre-Contact Relationships

Players must assign relationship values to each of the pre-contact relationships. These initial relationships values are determined by having both powers add 1D10 + (Offering Chance $x$ 100) to the relationship and then subtracting 1D10 + (Hostilities Chance $\times 100$ ). For example, an empire that has a $5 \%$ offering chance and $8 \%$ hostilities chance would add 1D10+5 to the relationship before subtracting 1D10-8 from it. The D10 dice act as randomizers that make initial relationships more unpredictable, though empires that are very outgoing will still tend to start with higher relationship values than those that have higher hostilities chances.

## D.5.3 Pre-Contact Treaties

Empires with relationship values of $\pm 0$ or higher enjoy friendly relations with one another and enter play having already signed all treaties that have treaty difficulty levels less than or equal to their current relationship value.

Powers that start with negative relationship values are antagonistic towards one another and won't have signed any treaties with each other. They may start in a state of war against their opponent, however (see below).

## D.5. 4 Pre-Contact Hostilities

A newly-activated NPE must roll against its hostilities chance for each other power that it made contact with during pre-contact diplomacy. A successful hostilities check indicates that the two powers have fought one or more wars in the past. The effects of these pre-contact hostilities are determined by comparing the relative economic strength of the two powers as follows:

Empire Conquered: Any power whose opponent's total colony income is twice its own automatically loses the pre-contact war. Despite a valiant attempt to hold back the enemy advance, the power has already been conquered by the enemy and all of its colonies become the property of the victorious empire. The war has left the winner economically fatigued, however,
and its starting force points are reduced by $30 \%$. Round fractional starting force points down.

Losing the War: When an empire's opponent has a total colony income that is $75 \%$ greater than its own (but less than 100\%), the war is still raging but the defender is slowly losing ground. The weaker power has already lost 50\% of its colonies (rounding down) to the enemy advance. These colonies are still considered conquered colonies as the invaders haven't had time to fully assimilate them yet. Inhabited systems lost to the enemy must be adjacent to existing enemy or enemy allied territories. Both powers lose $20 \%$ of their starting force points to reflect the cost of the war materiel that has been expended during the war. Round fractional starting force points down.
The Conflict Continues: When an empire's opponent has a total colony income that is $50 \%$ greater than its own (but still less than 75\%), the military campaign has been heated but neither side has made any substantial gains. The weaker power has already lost $25 \%$ of its colonies (rounding down) to the enemy advance. These are all treated as conquered colonies. Inhabited systems lost to the enemy must be adjacent to existing enemy or enemy allied territories. Both powers lose $10 \%$ of their starting force points to reflect the cost of the war materiel that has been expended during the war. Round fractional starting force points down.

Low Level Conflict: When an empire's opponent has a total colony income that is $25 \%$ greater than its own (but still less than 50\%), the fighting has not escalated beyond the point of no return and the territorial losses have been minimal. The weaker power has lost $10 \%$ of its colonies (rounding down) to the enemy advance. These colonies are treated as conquered colonies. Inhabited systems lost to the enemy must be adjacent to existing enemy or enemy allied territories. Resource losses are minimal, so neither party receives a penalty to its starting force point totals.
Stalemate: A stalemate occurs when an empire's opponent has a total colony income that is less than $25 \%$ greater than its own. Neither party side loses any colonies or starting points as a result of the conflict.
Allied powers combine their total colony income values for the purposes of these comparisons while mutual defense partners only add half their total colony income to a friendly power's total. When blocs of one or more powers are on the losing end of a conflict, territorial losses are spread proportionately between them by their
total colony income values but all combatants suffer from the full starting point penalty.

Empires that have engaged in pre-contact hostilities with one another and still have negative relationship values are considered to still be at war with one another. The active declaration is the highest difficulty level declaration that the two powers could declare against one another based on their current relationship value.

## D. 6 Pre-Contact Research

D100\% of tech advancement cost already paid (round down)

## D. 7 Starting Forces

$5 \times$ Colony Income to spend on designs can only design units it is capable of building purchase shipyards

The number of space combat unit classes that an empire will have designed and available for purchase at the start of the campaign is equal to half its total Shipyards value (round up). Similarly, the number of ground combat unit classes that an empire will have designed and available for purchase at the start of the campaign is equal to half its total Census value (round up).
However, not all of these unit classes will incorporate the most modern technologies. Onethird of the player's initial units of each type will be modern units ( $\pm 0$ TL modifier); the second third will be last-generation units ( -1 TL modifier), and the final third will be antiquated unit classes that are nearing the end of their useful life ( -2 TL modifier). Round fractional unit class totals down. Any unassigned unit classes resulting from this rounding are actually even older units with a -3 TL modifier.

A player is not required to use all of the available unit class "slots" for his empire during empire setup. In fact, designing less than the maximum number of units classes will reduce the amount of unit statistics that the players will have to track during the campaign.

One of the reasons that players might want to design a greater number of unit classes is so that there will be more second- and third-tier campaign units to choose from when assembling new X.X Pirate Forces. The increased unit
selection will keep anti-piracy actions from getting too familiar, which can happen if there are only one or two older unit classes for them to choose from during pirate force generation.

## Starting Forces

New empires begin with a reserve pool of economic points that they can use to purchase their starting forces. The size of this pool is equal to five times the empire's total income. For example, an empire that starts the game with a system income of 36 EP per turn and a commerce income of 4 EP per turn would have 5 $x 40=200$ EP available to spend on its starting forces. These points are used to purchase starships, starbases, flights, ground forces, and facilities that the power will have available on the first turn of the campaign.
Unless otherwise specified by your campaign scenario, players are given the opportunity to design their empires' unit classes at the start of each game. It's recommended that the maximum number of unit classes that empires typically start a game with be equal to the total utilized Industry infrastructure values of their starting systems. In pickup games, this limitation forces players to make hard decisions as to what kind of units they really need at the start of the game and which they'll wait to develop and prototype once the campaign begins. It also encourages development of new unit classes or variants as a player unlocks new technologies and expands his empire during the early stages of the game.
Scenarios are free to override this unit class limit, giving empires either more or fewer unit classes than the recommended total. Campaign scenarios that are set in a "historical" context are the best example of ones that would eschew any starting unit class limits in order to properly simulate the full slate of unit classes that would be available to each of the empires in the scenario at the start of the game. Such scenarios usually include extensive force lists detailing all of the different unit classes that each faction fielded over a significant period of time, offering players a mix of old and new units that they can purchase with their starting points.

There are several archetypical mission roles that players should keep in mind when they are designing their military forces at the start of a campaign. The following is a discussion of these various archetypes and how they affect play. The purpose of this section is to emphasize the types of units that have universal value and should
appear on an empire's force list in some form in order to provide a player with a balanced order of battle. Empires that start with major holes in their force lists will spend precious time and resources prototyping stopgap replacement to fill this operational roles during the early phases of a campaign. Resources spent on these projects are resources that aren't being devoted to economic growth and can have a long-term negative effect on the empire's ability to compete in the game.

Warships are combat units that are optimized for attacking enemy fleets. Cruisers, destroyers, carriers, and fighters can all fall into this broad category. Every empire should start with one or more warship unit classes on its force list so that it'll be prepared in case they come up against any hostile opposition during the campaign.

It is generally recommended that any new empire have at least one cruiser (CC 2-4) or capital ship (CC 5+) available at the start of a campaign. This gives the power a solid offensive unit that it can use to protect its interests in the short term until new units can come online.

Small ships of the Escort type are also very useful for an empire to have available at the start of a campaign. Escorts are usually small corvettes, frigates, or destroyers (CC 1) that are optimized to provide fleets with heavy point defense fire to protect them against incoming fire and flights (fighters, shuttles, etc.) or supplement their warships' anti-shipping firepower.
Minor powers with limited economies often can't afford true warships and must rely on escorts as the backbone of their nascent fleets. When designing fleets for these powers, a player should make sure that their escorts are equipped with enough offensive weapons to make them viable against enemy warships.
There are several auxiliary unit types that new empires should also include on their force lists.
Freighters are useful for transporting cargo, flights, and troops between an empires star systems. Because new colonies often have limited industrial capacities, it is common for an empire to build ground forces or flights in one system and then move them via freighter to its outer colonies.

Assault Ships are another auxiliary unit type that are often desirable to have available at the start of a campaign. Assault ships are starships or flights that are designed to transport and deploy ground forces. Unlike freighters, troops that are based from assault ships receive their
full combat factors when they invade enemy systems. Players that anticipate fighting planetary campaigns should seriously considering adding an assault ship to their starting fleets.
Players have the option of designing warships or escorts with limited cargo or troop transport capacities in situations where an empire has limited resources and needs to start a campaign with a freighter or assault ship that's ready to move cargo as soon as possible. These hybrid designs aren't as effective in combat, but the tradeoff can be worthwhile for smaller powers that simply don't have the luxury of building specialized unit classes because of the size of their starting forces.

Scouts are units that carry specialized longrange sensor equipment that makes them better at performing exploration missions or detecting enemy units in a system. Scouts are most important in campaigns where there are unexplored systems on the campaign map, but their detection bonus gives them some utility even in games where the entire map has already been thoroughly mapped and surveyed.
Beyond auxiliaries, any empire that plans on adopting a carrier doctrine should begin with one or more Flight designs in its arsenal. Flights are a catch-all term that refers to small craft fighters, shuttles, pinnaces, etc. - that are based from and deployed by carriers, bases, or fighter garrisons. Carriers and their flights are more resource intensive than conventional warships but are also more versatile.
A Space Station is a starbase that is used to defend inhabited systems against outside attack. These can be anything from a small defensive satellite to a massive orbital fortress. While an empire doesn't necessarily need to start with a starbase design in its arsenal, it does help to have one available just in case a player is put into a position where his empire needs a solid defensive base to protect its planets from outside attack.

Finally, Troops are ground forces that a player uses to garrison his own systems or invade an opponent's systems. Ground forces can come in a variety of shapes, sizes, and capabilities, not unlike the variety found in an empire's space combat forces. It is extremely important for a new empire to start with one or more ground force unit classes on its force list because the power will need them to help keep the peace at its own colonies.

To better illustrate these archetypes and how they apply to practical force list design, consider
for a moment an empire that is starting with 200 EP to spend on its starting forces and a total of 6 utilized Industry in its systems. Following our previous recommendations, this empire would start with up to six different unit classes. To put it another way, think of it as if the empire has six "slots" available on its force list, and each slot can hold a single unit class.

## Finishing Setup

// New empires start with total tech points equal to tech capacity, intel points equal to intel capacity, and economic points equal to total system and commerce income.

## Placing Initial Assets

After all asset purchases have been made, the player or CM can begin placing these assets at an empire's colonies or at star system or planet locations that the empire has already explored.

When placing a new empire's initial assets, the player or CM should attempt to ignore any implications stemming from the new empire's implication. In other words, the new empire's forces should not to placed in reaction to how or where it was activated, but rather in locations that make logical sense given the knowledge the player or CM has available about the new empire's pre-contact state.

## X.X Initial Economic Pool

A new power starts a campaign with a total number of economic points in its economic pool equal to four times its current colony income. For example, an empire that earns 48 EP of colony income per turn would start with 192 EP in its economic pool. This reserve of economic points is used to purchase military units, infrastructure upgrades, and other assets later during empire generation.

## X.X Initial Unit Classes

The unit construction rules found in the X.X Campaign Units chapter are used to design new unit classes. New empires use these rules to design their initial unit classes. The maximum construction cost of unit class designs that an empire can have on its force list at the start of a campaign is equal to the total production
capacity of its colonies. Furthermore, the maximum construction cost of non-atmospheric starship unit class designs that can appear on the initial force list is equal to the empire's total shipyard capacity.
Restricting the size of an empire's initial force list based on its economic strength allows larger empires to start with a higher construction cost of unit designs than smaller empires can. This represents that these powers have either had more time to design and field unit classes and so have more of them available at the beginning of a campaign.
Unless otherwise noted, all of the unit designs a player creates for an empire during this step will have a unit tech level equal to their empire's own tech level.

All of an empire's initial unit classes should be added to its force list for future reference. The empire's player will refer to this force list in the future to determine what units the empire is capable of building and what their statistics are.

## X.X Initial Purchases

Once all of an empire's available class designs have been added to its force list, the player can next spend economic points from the empire's economic pool to makes its initial purchases. These economic points can be used to purchase military units, trade links, infrastructure upgrades, intel or tech points, etc. as the player desires.

## X.X Place Initial Starting Forces

The last step in empire setup is to place all of the initial units and other assets that the power purchased during the previous step. Space and ground combat units must be organized into proper task forces and armies, respectively, trade links must be placed into star systems, etc.

# Appendix E: <br> Unit Design 

"A designer knows he has achieved perfection not when there is nothing left to add, but when there is nothing left to take away."

## - Antoine de Saint-Exupry

## Determine Construction Cost

// keep in mind the industrial capacity of your colonies

Unless otherwise noted, empires can't start a campaign in possession of unit classes that they are incapable of purchasing. The most expensive unit class that an empire can begin a campaign with will have a construction cost equal to the industrial capacity of its most industrious system. An empire whose most industrious system has an industrial capacity of 24 could start with unit class designs that have at most of a construction cost of 24 economic points, for example.

## Determine Unit Tech Level

## Calculate Command Factors

A unit's command factors are derived from its construction cost and can be calculated at this time. A unit's Command Rating is equal to its construction cost divided by 2 and its Command Cost is equal to its construction cost divided by 5. Round fractions up in both cases.

## Set Base Defense Value

All units have a base Defense value equal to their Command Costs. This ensures that all units of a certain size can take a minimum amount of damage to cripple or destroy. It also reduces the number of mass units a player has to spend on Defense during the next design step.

## Purchase Combat Factors $\mathcal{G}$ Special Abilities

Next, players spend mass units to improve a unit's combat factors and purchase special abilities for the class. The maximum number of mass units that a player can spend during this step is determined by a combination of the unit's construction cost and tech level as shown below:

$$
\begin{gathered}
\text { (Construction Cost + Command Cost) } \\
\times(100 \%+10 \% \times \text { Tech Level }) \\
\text { [round to nearest }]
\end{gathered}
$$

## Calculate Economic Factors

Maintenance $=$ MU spent $/ 3$ [RU]

When designing new unit classes, pre-interstellar empires design them as TL 0 units and then apply a modifier to their construction and maintenance costs based on their tech levels. Round fractional costs up. For example, consider a ground force built at TL 0 that has a construction cost of 4 and maintenance cost of 2 . If this unit is designed and built by an Industrial power ( $+100 \%$ cost modifier), it would instead have a construction cost of 8 and maintenance cost of 4. It's combat effectiveness remains the same, but it economic factors are artificially increased to reflect the Industrial power's inferior level of technology.

Units designed by pre-interstellar powers are assigned tech levels equal to their own empire tech levels. That is to say, the ground force that the Industrial power designed in the preceding example would be assigned a tech level of Industrial instead of TL 0, even though the unit class was technically designed as if it were TL 0 . This distinction allows players to differentiate between units that were built by low tech powers and those built by high tech powers. As before, a colony can only build a unit whose tech level is less than or equal to its own, so this Industrial unit could only be built at a colony with a tech level of Industrial or higher, and it couldn't be built at a Pre-Industrial colony.

## Unit Class Randomizer

Random Unit Type Table (D10)
Roll Unit Type
10 or less Ground Force

## 11-12 Flight

13-14 Starbase (or Starship, if Interplanetary or higher)
15 or more Starship
Modifiers
+0 Pre-Industrial
+2 Industrial
+4 Information
+6 Interplanetary
+8 Interstellar
Unit Command Cost (D10)

| Roll | Command Cost |
| :--- | :--- |
| $1-3$ | 1 |
| $4-5$ | 2 |
| $6-7$ | 3 |
| 8 | 4 |
| 9 | 5 |
| 10 | 6 |

## Appendix f: <br> Sample Gmpires

The following are six pre-generated empires that players can use in their campaigns. These empires are balanced against one another so that while they each enjoy an advantage in one or more areas of play they all remain competitive opponents in a campaign.

It is recommended that new players use these pre-generated empire and unit statistics in at least one or two tutorial games before using the rules from Appendix X : Empire Generation to create their own custom empires. This allows players to get a feel for the campaign system before they have to worry about creating new empires from scratch.

## Brindaki Commonwealth

## AG 48, IN 57, XE 40

## Homeworld \& Physiology

The Brindaki are jacks of all trades, owing in large part to their highly adaptable nature. Their homeworld, Brindakar, is a hot world dominated by arid steppes. In this environment the Brindaki thrived. Other lifeforms on Brindakar evolved specialized responses to the sometimes-hostile climate, but over specialization doomed many of them, leading to their extinction.

The Brindaki are roughly humanoid. They possess of fleshy mounds that run along their spinal column. These formations are analogous to the fatty humps found in Terran camels and serve a similar purpose.

An omnivorous species, the Brindaki feast on a mix of native flora and fauna. Staples of the Brindaki diet include a low-growing shrubbery that protects itself from the Bindakari heat by secreting a smelly, gelatinous coating that is effective at blocking out harmful solar rays; and a small rabbit-sized creature with chameleon-like defense capabilities.

## Government

A representative forum known as the Commonwealth governs the Brindaki people. Each member state has an equal vote on all affairs, though all major referendums must be ratified at the local level through popular vote. This diplomatic process can become troublesome, as it can take time for each local government to hold votes on pending proposals and treaties.

Foreign governments are often incensed by the inordinate amount of time it takes for the Brindaki people to come to a general consensus on new proposals. Luckily, the diplomatic arm of the Commonwealth is quite skilled at pacifying these disgruntled empires.

## Military

The Brindaki have tried to not focus their designs on any one area in order to remain versatile but unlike the Jains their ships come in a variety of sizes. Because of this their ships are average in most respects, lacking both overwhelming strength and glaring weaknesses.

## Jain Empire

AG 56, IN 45, XE 67

## Homeworld \& Physiology

Jathayn is a glorious blue gem of a world covered in lakes of all shapes and sizes. The planet lacks a single world ocean; rather, numerous lakes dot the landscape.

The Jains have evolved from an amphibious species of bog dwellers native to Jathayn. To outsiders they look like a queer mix of a giant toad and an elephant. Jains are not overly large creatures, but they are not small, either. The average Jain is the same size and relative girth as cattle, however they are built far closer to the ground and with large, sturdy feet designed for walking through deep marshes and bogs.

Under the overcast skies of Jathayn, the Jains learned all of the secrets of civilization. Ultimately this knowledge and its accompanying technologies allowed the Jains to take to the stars.

It is generally regarded by the Jain population that they will never find a world as perfect as their own world.

## Government

A single hereditary sovereign, either male or female, rules the Jains. This sovereign holds an official title that translates roughly as "grand keeper of the many watery lakes". Besides the sovereign, political power is held only by a small cabal of loyal generals and close associates, all of whom serve as advisors to the sovereign.
Coups, military or otherwise, are rare in Jain history. The last such coup was two hundred years ago and resulted in the current royal
dynasty. The Jain people have been largely happy with this family's rule over their world, so no one has taken steps to forcefully topple their legacy to this point.

## Military

The Royal Jain Star Force administers the empire's military space and ground forces. The head of this command, the Imperial Star General, is one of the closest advisors to the sovereign (and also historically the one most likely to stage a coup to oust a troublesome sovereign).

The focus of Jain military construction is on large, multi-purpose vessels. This makes their ships potent in combat but also very expensive to produce. They attempt the same with their fighters but with less them optimal results.

## Federated Repubuic of Kili

## AG 35, IN 37, XE 84

## Homeworld \& Physiology

The Kili are an arboreal species descended from small mammal-like creatures. The demands of civilized existence have forced the Kili out of their forest homes, but much of the general population continue to live in the dense canopies of their homeworld's rain forests.

Kili are on average 1 meter in height. They have four limbs, two arms and two legs, and exhibit bilateral symmetry. Their entire bodies are covered in a soft, felt-like fur. This fur come in numerous shades and tones, but regardless of color all Kili are covered in dark, black bands.

This species is known for its innate insecurity and paranoia towards the unknown. Even under the best circumstances, a Kili is skittish around outsiders. This is especially true of aliens, and has made diplomacy difficult.

## Government

As an outbranching of their intrinsic paranoia, post-Contact Kili founded the Federated Republic of Kili to help protect their homeworld from outside threats. Being Kili of the world, they knew that all aliens would be extremely friendly and accommodating, up until the time their huge, death-dealing war fleets shows up in orbit of Kil and began raining down flaming plasma death upon the entirety of the planet!
At the top of the Kili government is an executive council of politicians appointed by lower branches
of the government. One member of this council (the one that draws the shortest straw!) is designated Emissary and is given the task of interacting with other alien species. Emissaries always serve until their inevitable committal to a mental health institution or suicide, whichever comes first, at which point the council selects a new Emissary.

## Military

The Kili have focused on defensive technologies to increase the survival of their ships. After all, they know that the other aliens are out to get them, so they have to be ready when the inevitable invasion of their territories by their good alien friends comes to pass. This defensive focus makes the Kili fleet very hard to destroy. Meanwhile, while the enemy attempts to destroy them in a violent and unpleasant manner, the Kili craft can try to slowly whittle away at their opponents own, less protected fleets.

## LORAN IMPERIUM

AG 68, IN 70, XE 51

## Homeworld \& Physiology

When an alien looks into the face of a Loran, they are not looking into the face of a Loran at all. Instead, they are only looking into the face of a gemhan, the Loran host species. The Lorans are in actuality a species of worm-like parasite. Lorans are born in the intestinal systems of individuals unfortunate enough to have consumed one or more of the mother's egg sacs. If the infected host is an acceptable host species, the Loran hatchlings will continue to grow inside the victim's digestive tract, eventually migrating from there to the creature's spinal column or other central nervous system hub. At this point the mature Loran takes full control over its host. Lorans whose hosts reject them are passed outside the body with other bodily waste material and subsequently perish.
It is impossible for a mature Loran to be transferred from one host because only the Loran's larval forms are capable of joining. Significant physiological changes occur after a Loran matures and takes control of a host, including the ability to take control of a new host.

## Government

Loran society is a collective wherein all Loran are viewed as equals. Individuality is still valued, but not emphasized. The Lorans realize that the
survival of their species and way of life depends on the proper cultivation of viable hosts. This goal could be hampered by selfish motivations, jeopardizing everything that the Lorans have worked so hard to achieve.

## Military

The Lorans seek to create the perfect fighter. Thus it is no surprise that fighters form the bulk of their offensive power. Loran fighters are individually more powerful than those fielded by other powers, but are usually fielded in smaller numbers.

## Senorian Republic

## AG 53, IN 76, XE 18

## Homeworld \& Physiology

Few species consider the biting cold and violent climate of Senor Prime a welcoming embrace. The Senorians call this planet home and are used to its fickle temperament.
The Senorians are insectoid in basic body shape, resembling something like a giant praying mantis. Appearances can be deceiving however, as beyond outward appearance the Senorians have very little in common with insects. Their bodies are covered by ivory-like plated armor. Beneath this armor is a thick, heavily insulated blubbery hide that protects against Senor Prime's cold climate.

Most of Senor Prime's land area is covered by vast stretches of tundra biomes. However the equatorial territories are temperate, and some areas even support near-tropical environments. The Senorians evolved on their homeworld's southern continent. This continent was one of the coldest places on the planet and, during the especially harsh winter months, the early Senorians were forced to take refuge in one of the many networks of subterranean caverns that crisscrossed the region. Geothermal vents in these caverns maintained a constant and comfortable environment for the early Senorians. Most of the largest cities on Senor Prime have been built around these ancient cavern systems for exactly that reason.

## Government

The Senorian government is segmented into seven different legislative bodies, each with a higher level of authority than the next. Each level of government is concerned with different operations, however, so only the most important
of action items will reach the highest level of government. The lower arms of government will resolve all other items.

Senorian leaders are elected by popular vote of the land-owning members of Senorian society. The disenfranchisement of the lower class has caused increasing tensions between them and the upper class.

## Military

Senorian ships and fighters tend to specialize towards one role, although they by no means ignore other aspects of combat. This makes Senorian fleets very dangerous in situations they were designed for.

## Holy Tirelon Empire

AG 80, IN 45, XE 39

## Homeworld \& Physiology

The desert planet of Tirekamaba circles the lesser of its system's three suns, Miche. The planet is not terribly hot, but conditions on the planet have conspired to make it mostly inhospitable for more common forms of sentient life.

The Tirelons are descended from nomadic pack hunters that prowled the deserts of Tirekamaba as they followed their migrating prey. The development of crude agricultural technologies allowed the Tirelon nomads to retire from their hunter/gatherer existence and begin down the long road towards civilization.

The best visual Terran analog to the Tirelons would be the aardvark. They have a very similar appearance, though their snouts are longer, their ears shorter, and their body built more comfortably for bipedal motion. The Tirelon diet is primarily carnivorous and their mouths are filled with many short, sharp teeth. This dentition is more suited for sawing than biting or tearing. In the past, the Tirelon's primary prey animals were slow herbivores that could not hope to outrun a Tirelon. Without hope of escape, the animals would be eaten alive by ravenous Tirelon packs.

## Government

The foundation of Tirelon is the Tirekamaba Holy Convocation of Elders. The Convocation is comprised of representatives of all major Tirelon religions. The number of representatives of each faith that are offered membership in the

Convocation is based on the religion's total registered membership.

The Tirekamaba Holy Convocation of Elders acts as the ultimate moral and political authority on Tirekamaba. All sovereign nations bow to the Convocation's authority and are quick to react to its edicts.

One of the most troubling aspects of alien contact was the realization that members of other alien species were not particularly open to religious conversion to any of the Tirelonic faiths. The largest problem facing Tirelon evangelists is that most of their native faiths espouse the supreme perfection of the Tirelon people. Missionary work among the stars has been slow and is seen as an impractical undertaking.

## Military

Tirelon ships are generally small and fragile and operate in what are most accurately called swarms. This philosophy extends to their fighters, with quantity more important than quality and most Tirelon ships carry at least one flight of fighters.

## Companion Notes

Jump Relays
// massive jump gates, much more expensive to build and maintain
// ships can travel from a system with a jump relay to any other system within 10 jumps of their current system

Roll Effect
1-2 Fair Climate (+1 Carrying Capacity)
3-5 Mineral Rich (+1 RAW)
6-7 Fertile (+1 Biosphere)
8 Good Climate (+2 Carrying Capacity)
9 Ultra Rich (+2 RAW)
10 Roll Twice

Inferno World
Special rule: -2 Biosphere

## Planet Types

Telluric World
Special rule: roll Twice on the special traits table

## Special Traits Table (D10)

Roll Effect
1-2 Fair Climate (+1 Carrying Capacity)
3-4 Mineral Rich (+1 RAW)
5-6 Fertile (+1 Biosphere)
7 Good Climate (+2 Carrying Capacity)
8 Ultra Rich (+2 RAW)
9 Verdant (+2 Biosphere)
10 Roll Twice

Adaptable World

## Special Traits Table (D10)

Roll Effect
1-2 Fair Climate (+1 Carrying Capacity)
3-5 Mineral Rich (+1 RAW)
6-7 Fertile (+1 Biosphere)
8 Good Climate (+2 Carrying Capacity)
9 Ultra Rich (+2 RAW)
10 Roll Twice

Barren World
Special Rule: -1 Biosphere

Special Traits Table (D10)
Roll Effect
1-2 +1 Carrying Capacity
3-4 Mineral Rich (+1 RAW)
5-6 +1 Carrying Capacity, +1 RAW
7-8 Ultra Rich (+2 RAW)
9 Super Rich (+3 RAW)
10 Roll Twice

Dead World
Special Rule: -2 Biosphere
Special Traits Table (D10)
Roll Effect
1-3 +1 Carrying Capacity
4-7 Mineral Rich (+1 RAW)
$8 \quad+2$ Carrying Capacity
9 Ultra Rich (+2 RAW)
10 Roll Twice

## X.Z Mine Warfare

## Minefields

Mines are expendable area denial weapons that are designed to destroy enemy starships. A single minefield is comprised of anywhere from several hundred to a thousand individual mines.

Minefields automatically engage enemy starships when they enter a star system, scoring damage both to the arriving starships and the minefield itself (see X.X Minefield Attacks).

Unlike other types of units, minefields don't cripple and are instead destroyed as soon as they have taken damage equal to their Defense values. Minefields also can't be repaired, they can only be replaced with new minefields.

## Deploying Minefields

Minefields are automatically deployed to the system where they are built unless otherwise specified in a player's turn orders. These minefields can either be left in position to defend their systems or else loaded aboard freighters or minelayers (using Cargo or Minelayer abilities, respectively) so that they can be transported to another system.

Freighters can only deploy minefields to systems that already contain a friendly colony. Minelayers are required to deploy minefields in uninhabited or enemy star systems. The maximum command cost of minefields that a minelayer can place in a system each turn is equal to its own command cost.

## Minefields \& Task Forces

Minefields can be included in task forces in the same manner as other units are.

## X.2.I Minefield Attacks

Units that move into a system that is protected by enemy minefields are automatically attacked by them. These attacks occur during the Movement Phase before combat scenarios are generated and resolved.

Before resolving damage from enemy minefields, fleets that contain dedicated minesweepers can use them to attempt to clear the minefields. Multiply the fleet's total Minesweeper value by D6 and divide by 10 , rounding fractional results to the nearest whole number. This is the amount of damage the fleet scores against the enemy minefields before they can attack. Minefields that are destroyed by minesweepers are removed from play and don't attack ships this turn.
Enemy minefields roll for their attack against the intruding fleet after all minesweeping operations are complete. The amount of damage minefields score against an enemy fleet is calculated by totaling the minefields' Defense values and multiplying this total by D6, dividing the result
by 10 , and rounding fractions to the nearest whole number. The defender scores this damage against starships in his fleet. The damage can't be scored against flights because they are too nimble and can easily change course to avoid mines.

Minefields suffer attrition when enemy fleets move into them and detonate mines. The amount of damage scored against enemy fleets is repeated on the minefield. Minefield attacks are resolved simultaneously, however, and this damage isn't applied to the minefields until the end of movement after all of the minefield attacks for that turn have been completely resolved. Because the amount of damage minefields receive is equal to that scored against an enemy fleet, minefields usually suffer the most attrition after a successful minefield attack.

It is natural for the number of minefields in a system to decay over time after successive minefield attacks weaken and eventually destroy the defending minefields. A player will need to build additional minefields at his colonies and then deploy them using minelayers to reinforce these weakened minefields and prepare them for the next enemy incursion.

All minefields are equipped with friend-or-foe targeting systems that prevent them from accidentally attacking friendly craft. Minefields will only attack fleets that belong to powers that their owners are currently at war with.
X.2.3 Deploying Minefields

## Minesweeping Phase

Minesweepers try to clear enemy mines during this phase of the combat round. Total a task force's Minesweeper value and multiply it by D6, then divide by 10 , rounding fractions to the nearest whole number. This is the amount of damage that the task force has scored against enemy minefields this round.

## Minesweeper

Minesweepers are designed to counter enemy mines and are equipped with systems that allow them to detect and deactivate enemy mines. Units with the Minesweeper ability are given the opportunity to clear enemy minefields during the minefield attack step of the Movement Phase. Minefields that are neutralized by minesweepers are removed from play before they can attack.

In combat, minesweepers will attempt to destroy any minefields that an opponent has included as part of his task force during the Minesweeping Phase of the combat round.

Mass Cost: 1

## Minelayer

Minelayers are starships or flights that are specifically designed to transport and deploy minefields. While colonies can deploy minefields in their own systems, minelayers are required to plant minefields in other systems.

A minelayer can carry 1 CC of minefields per point of Minelayer value, and the maximum number of minefields it can deploy in a system during the Movement Phase each turn is equal to its own command cost.

Mass Cost: 1
Example: A 3 CC starship with 4 Minelayer could carry up to 4 CC of minefields at once and deploy 3 CC of minefields per turn.

## JUNK

Contested movement occurs when units that are ordered to make multiple jumps during a single turn and one or more of those moves will take them into a system that contains opposing units or otherwise be visited by opposing units are moving through this turn.
// two opposing units have the same system in their movement orders
// the problem is that we have to know which order the units moved into or out of the system
// units that make multiple jump lane movements per turn could run into other forces during movement, and not necessary in their destination systems
// movement stops when they enter a system that contains an enemy fleet that has the same or greater construction cost
// detection rolls made for each system the fleet visits during movement
// after each detection the player can choose to cancel the unit's remaining movement orders and remain at their current location

Contested movement occurs when units with high FTL values are ordered to move across multiple jump lanes during a single Movement Phase. Each star system that a unit visits during its movement offers an opportunity to be attacked by an opposing force,
but it also gives the unit a chance to gather information on the number and type of assets an opponent currently has in that system.

These units will gather intelligence information on all of the systems that they visit during their movement and can engou

These movement orders are resolved one jump at a time, with space and ground detection rolls being made for each system as the units move into them (see X.X Detection). The player uses these detection results to decide whether he wants the unit to continue moving or else cancel its movement orders and force it to remain at its current location.

This sequence of advancing units one jump at a time and rolling detection continues until all of the units that were ordered to perform multiple jumps this turn have completed their movement.

Contested movement is invoked when opposing units are issued movement orders that will cause them to move through the same system during the Movement Phase but end their movement in different systems. This scenario creates the possibility that the units will end up occupying the same system in the middle of their movements,

Units that are ordered to move across multiple jump lanes per turn have the possibility of meeting enemy forces in each of the star systems it visits during the turn. This effect is exacerbated when two opposing forces might end up visiting some of the same systems during their movement on their way towards different destination systems. These movement situations require players to invoke the following contested movement rules.

Contested movements are resolved by advancing movement one jump at a time until all units have completed their movements or their remaining movement orders have been cancelled. Space and ground encounters are generated in systems after each contested jump lane movement if at least one unit moved into the system during that impulse. Only those units that are currently in a system during the current contested movement step can participate in these encounters. A player may have ordered reinforcements to move to a system this turn, but encounters can take place in the system before they arrive.

At the end of each encounter a player can choose to cancel the remainder of a unit's movement orders if they no longer want it to complete the rest of its ordered movement for that turn. Players can use this option to prevent a damaged unit from moving into a system that they no contains an overwhelming enemy force.
Any units that retreat from an encounter remain in retreat for the remainder of the Movement Phase and an enemy can only be targeted by Pursuit scenarios.

Contested movement specifically doesn't apply to situations where opposing forces have been ordered to move to the same final destination system, a common scenario for players that are trying to move as many of their forces into
// move one jump at a time, generating encounters and resolving scenarios
// player can choose to cancel movement after any encounter if they no longer want to complete the remainder of their movement orders. This prevents a fleet that sustains heavy damage in the current battle from being force to move further into harm's way.

Fleets can move freely within their own sphere of influence or the sphere of a power that their empire has signed a military treaty with. Movement through neutral systems is likewise unimpeded. However, a fleet's movement automatically ends whenever it enters an opponent's sphere of influence ora contested system. These movement restrictions slow the rate at which a player can advance forces into an enemy's territories during times of war, but it also limits his opponent's ability to do the same. This in turn allows empires to realistically adopt a "defense in depth" military strategy to delay the advance of enemy warships into their territories, buying the beleaguered power time to marshal its forces and attempt to repulse the
opposing force even if it means yielding territory in the short-term.

Cloning Lab<br>// allows production of Clone ground forces<br>// can purchase population points in the system, max per turn equal to utilized Economy

## Clone

The Clone ability denotes that a ground unit is comprised of units that have been artificially grown using cloning technology. Clone troops are genetically modified to accelerate cell growth, shortening their gestation times considerably. Most species use advanced neurological techniques to imprint clones with predefined mental templates so that they'll emerge from the tanks with all the skills they'll need to serve as competent soldiers on the battlefield.

Ground forces with the Clone ability can only be purchased in systems that contain a X.X Cloning Lab. A Clone unit's build time is half that of normal (round fractions down, minimum build time of 1 turn) and its construction cost is increased by an amount equal to the difference between the two built time values. These modifiers shorten the number of turns that a Clone unit must be under construction before it's completed with the disadvantage of making them initially more expensive.

This ability is only available to empires that have completed research of cloning lab facilities and can only be applied to ground force unit classes.

Example: A shock troop unit class has C\$ 9 and BT 5 before applying the Clone trait. It's build time is reduced to 2, and its construction cost increases to 12.

## Synthetic

XXX
Synthetic ground forces have build time that are half that of normal (round fractions down, minimum build time of 1 turn), reflecting that they can be easily mass produced at planetary factories. Their robotic systems make them cost more to maintain, however, and their maintenance costs are increased by an amount equal to the difference between their two built time values.

Example: A heavy infantry unit class has M\$5 and BT 6 before applying the Synthetic trait. It's built time is reduced to 3 while it's maintenance cost is increased to 8.

## Remote Controlled

XXX

## Commerce

Empires routinely engage in interstellar trade, transporting goods between their own colonies or to those owned by its foreign trading partners. Trade provides an empire with an additional source of revenue that it can use to supplement its normal system income.

Commercial operations in the Victory by Any Means Campaign System are heavily abstracted. Instead of building trade fleets and sending them out to trade in specific systems, a player's systems naturally establish trade routes to systems that are within range. Empires earns commerce income for each system that is connected to one of its trade routes during the Economic Phase.

## Commerce Value

Each system has a commerce value equal to its utilized Economy $x$ Census that describes the level of commercial activity in the system. The size of a system's population plays a key role in determining its commerce value. Populous systems produce more exportable goods while at the same time offering a strong import market for exotic foreign merchandise.

## Commerce Range

A system's commerce range is the maximum number of jumps away that its civilian shipping can travel to trade with other nearby systems. Large colonies that have extensive space ports, warehouses, refueling facilities, and financial centers are capable of supporting a greater number of civilian shipping interests. This makes them natural centers of trade. As such, systems have a commerce range equal to its utilized Economy values divided by 3 (round down).

Starport facilities can also be used to increase a system's commerce range, even in systems that are uninhabited or have little or no utilized Economy infrastructure. Systems that contain a starport receive a +1 commerce range bonus and have a minimum commerce range of 2 .

## Trade Routes

Trade routes connect star systems together for the purposes of engaging in interstellar commerce. Merchant vessels rely on trade routes
to move their goods from one port to the next. Empires profit from this trade,

A system can establish trade routes to other inhabited systems that are located within its own commerce range. A system with a commerce range of 3 could establish trade with systems that are up to 3 jumps away from it, for example. An empire can always trade with its own colonies, but it must have a trade treaty with a foreign power in order to establish trade routes to any of its systems.

Trade routes can't be traced into or through contested systems, nor can a system maintain trade routes if it's currently being blockaded by enemy forces or located in a cut off region. A well positioned enemy strike can disrupt an empire's trade routes and reduce its commerce income for the turn. Disrupted trade routes are automatically restored once these enemy forces are removed, however.

## Commerce Income

An empire's trade routes produce commerce income via the money that a power earns from taxes, tariffs, duties, and other fees that it levies against merchant traffic that operate in its territories. Systems that are connected to the empire's trade network via a trade route generate income equal to $10 \%$ of their commerce values. The empire totals the income from this system and then rounds fractions up to calculate its commerce income for the turn.

## Commerce Raiding

Fleets can conduct commerce raids against civilian shipping in enemy star systems. These attacks are used to disrupt trade routes and deprive an opponent of valuable commercial revenue. An empire loses a number of economic points each turn equal to half the total command cost of commerce raiders operating in its sphere of influence (round fractions up). This loss is recorded as a miscellaneous expense for the turn and represents the cost in lost shipping and revenue incurred by the enemy commerce raiders.

Fleets that are ordered to perform commerce raids this turn can't participate in invasions or embark/disembark troops during the Ground Combat Phase, nor can they perform bombardment during the Bombardment Phase. These restrictions apply because these units are devoting all of their time to hunting down enemy commerce.

## Integrated Commerce Example

Sol currently has 10 Census, 8 Economy, and a starport. This gives the system a commerce value of 80 and a commerce range of 4 (3 base, +1 from the starport).
kind of necessary to illustrate the rules

## Supergiant

| Roll | Carrying <br> Capacity |
| :--- | :--- |
| $2-6$ | 0 |
| $7-9$ | 2 |
| $10-12$ | 4 |

Bright Giant

| Roll | Carrying <br> Capacity |
| :--- | :--- |
| $2-5$ | 0 |
| $6-8$ | 2 |
| $9-10$ | 4 |
| $11-12$ | 6 |

## Giant

| Roll | Carrying <br> Capacity |
| :--- | :--- |
| $2-4$ | 0 |
| $5-6$ | 2 |
| $7-8$ | 4 |
| $9-10$ | 6 |
| $11-12$ | 8 |

## Subgiant

| Roll | Carrying <br> Capacity |
| :--- | :--- |
| $2-3$ | 0 |
| $4-5$ | 2 |
| $6-7$ | 4 |
| $8-9$ | 6 |


| $10-11$ | 8 |
| :--- | :--- |
| 12 | 10 |

Main Sequence (Dwarf)

| Roll | Carrying <br> Capacity |
| :--- | :--- |
| 2 | 0 |
| $3-4$ | 2 |
| $5-6$ | 4 |
| $7-8$ | 6 |
| $9-10$ | 8 |
| $11-12$ | 10 |

## Subdwarf

| Roll | Carrying <br> Capacity |
| :--- | :--- |
| $2-3$ | 0 |
| $4-6$ | 2 |
| $7-8$ | 4 |
| $9-10$ | 6 |
| $11-12$ | 8 |

White Dwarf

| Roll | Carrying <br> Capacity |
| :--- | :--- |
| $2-6$ | 0 |
| $7-8$ | 2 |
| $9-10$ | 4 |
| $11-12$ | 6 |

## RAW

Class 0 Extremely Bright Blue Giant

| Roll | RAW |
| :--- | :--- |
| 2 | 1 |
| 3 | 2 |
| $4-5$ | 3 |
| $6-8$ | 4 |
| $9-12$ | 5 |

## Class B Bright Blue Star

| Roll | RAW |
| :--- | :--- |
| 2 | 1 |
| $3-4$ | 2 |
| $5-6$ | 3 |
| $7-9$ | 4 |
| $10-12$ | 5 |

Class A Blue-White Star

| Roll | RAW |
| :--- | :--- |
| 2 | 1 |
| $3-5$ | 2 |
| $6-7$ | 3 |
| $8-10$ | 4 |
| $11-12$ | 5 |

Class F White Star

| Roll | RAW |
| :--- | :--- |
| $2-3$ | 1 |
| $4-5$ | 2 |
| $6-8$ | 3 |
| $9-10$ | 4 |
| $11-12$ | 5 |

Class G Yellow Star

| Roll | RAW |
| :--- | :--- |
| $2-4$ | 1 |
| $5-6$ | 2 |
| $7-8$ | 3 |
| $9-10$ | 4 |
| $11-12$ | 5 |

Class K Orange Star

| Roll | RAW |
| :--- | :--- |
| $2-4$ | 1 |
| $5-7$ | 2 |
| $8-9$ | 3 |
| $10-11$ | 4 |


| 12 | 5 |
| :--- | :--- |

Class M Red Star

| Roll | RAW |
| :--- | :--- |
| $2-5$ | 1 |
| $6-8$ | 2 |
| $9-10$ | 3 |
| $11-12$ | 4 |

## Class D White Dwarf

| Roll | RAW |
| :--- | :--- |
| $2-6$ | 1 |
| $7-9$ | 2 |
| $10-11$ | 3 |
| 12 | 4 |

Biosphere

## Class O Extremely Bright Blue Giant

| Roll | Biosphere |
| :--- | :--- |
| $2-10$ | 0 |
| $11-12$ | 1 |

## Class B Bright Blue Star

| Roll | Biosphere |
| :--- | :--- |
| $2-8$ | 0 |
| $9-10$ | 1 |
| $11-12$ | 2 |

Class A Blue-White Star

| Roll | Biosphere |
| :--- | :--- |
| $2-5$ | 0 |
| $6-8$ | 1 |
| $9-10$ | 2 |
| $11-12$ | 3 |

Class F White Star

| Roll | Biosphere |
| :--- | :--- |


| $2-3$ | 0 |
| :--- | :--- |
| $4-6$ | 1 |
| $7-8$ | 2 |
| $9-10$ | 3 |
| $11-12$ | 4 |

Class G Yellow Star

| Roll | Biosphere |
| :--- | :--- |
| 2 | 0 |
| $3-4$ | 1 |
| $5-6$ | 2 |
| $7-8$ | 3 |
| $9-10$ | 4 |
| $11-12$ | 5 |

Class K Orange Star

| Roll | Biosphere |
| :--- | :--- |
| $2-3$ | 0 |
| $4-5$ | 1 |
| $6-7$ | 2 |
| $8-9$ | 3 |
| $10-11$ | 4 |
| 12 | 5 |

Class M Red Star

| Roll | Biosphere |
| :--- | :--- |
| $2-4$ | 0 |
| $5-6$ | 1 |
| $7-8$ | 2 |
| $9-10$ | 3 |
| $11-12$ | 4 |

Class D White Dwarf

| Roll | Biosphere |
| :--- | :--- |
| $2-4$ | 0 |
| $5-7$ | 1 |
| $8-10$ | 2 |
| $11-12$ | 3 |

Jump Lanes
Supergiant

| Roll | Jump <br> Lanes |
| :--- | :--- |
| $2-4$ | 3 |
| $5-6$ | 4 |
| $7-9$ | 5 |
| $10-12$ | 6 |

Bright Giant

| Roll | Jump <br> Lanes |
| :--- | :--- |
| 2 | 2 |
| $3-5$ | 3 |
| $6-7$ | 4 |
| $8-10$ | 5 |
| $11-12$ | 6 |

Giant

| Roll | Jump <br> Lanes |
| :--- | :--- |
| $2-3$ | 2 |
| $4-6$ | 3 |
| $7-8$ | 4 |
| $9-10$ | 5 |
| $11-12$ | 6 |

## Subgiant

| Roll | Jump <br> Lanes |
| :--- | :--- |
| 2 | 1 |
| $3-4$ | 2 |
| $5-6$ | 3 |
| $7-8$ | 4 |
| $9-10$ | 5 |
| $11-12$ | 6 |

Main Sequence (Dwarf)

| Roll | Jump |
| :--- | :--- |

## The Companion

## Helium 3 fuel

## Advanced Star Sustems

"Come friends, it's not too late to seek a newer world."
— Alfred Lord Tennyson

## Orbital Zones

The interior of a star system is divided into four distinct orbital zones. These zones, from innermost to outermost, are as the inner zone, middle zone, outer zone, and outskirts. With the exception of the outskirts, planets can be found orbiting a star in any of these orbital zones. A planet's orbital zone influences its planet type. Planets that are located farther from their star usually have a lower chance of possessing hospitable climates. Star systems that contain one or more planets in their inner zone are the best candidates for finding life bearing worlds.

### 5.4.I Inner Zone

As the name implies, the inner zone is the innermost orbital zone in a star system. This zone encompasses the star itself and extends to the outermost edge of the star's habitable zone. The size and distance of a star's habitable zone differs from system to system, and is based on the luminosity of the system's stellar components. Hot, luminous stars have large inner zones, while cooler, dimmer stars have comparatively shorter inner zones.

### 5.4.2 Middle Zone

The middle zone is a band of orbital space that lies beyond a star's habitable zone but is still close enough to the system primary so that it is possible to encounter worlds with stable climates.

### 5.4.3 Outer Zone

A star's outer zone is a desolate solar region which is located far enough away from the local star that it is impossible for life bearing worlds to exist there. The outer zone is dominated by a mixture of cold dead worlds, plutoid dwarfs, and large giant worlds.

### 5.4.4 Outskirts

The outskirts of a system are defined as beginning at the inner edge of its Kuiper belt and terminating at the outer extents of its Oort cloud. This vast expanse of space has a radius measured in the tens of thousands of light years. Sol's own Oort cloud is hypothesized to be located 50,000 AU from the Sun.

The gravitational forces exerted by local stellar mass bodies are at their weakest in the system's outskirts. Civilizations are capable of developing faster-than-light (FTL) drive systems which exploit this fact in order to allow their forces to travel between the stars. Units may only enter or exit a system via its outskirts.

## Planets

Planets are celestial bodies that orbit a star or stellar remnant. Their defining feature is that they are massive enough to have achieved a round shape by the force of their own gravity, yet are not so massive as to have initiated thermonuclear fusion in their cores and become stars themselves. For the purposes of these rules, only planets with diameters greater than $2,000 \mathrm{~km}$ are tracked as individual planets. Smaller planets, including the majority of dwarf planets, are too small to be provide players with a meaningful source of raw materials or living space to exploit.

Each planet in a star system is assigned its own set of system statistics (Carrying Capacity, RAW, Biosphere). Empires consider each planet to be its own "system" for purposes of colonization. This means that empires will compete for reasons on a planet-by-planet level instead of system-by-system.

When building facilities a player must specify which planet in a system the facility is being built at. Facilities that are built in systems without planets must instead specify their orbital zone locations (inner, middle, or outer). Facilities can never be built in a system's outskirts.

Planet types serve as broad archetypes that are used to quickly identify and describe a planet's most basic characteristics. While no two planets of the same type are identical, they share more in common with one another than they do with planets of other types.

The included planet types can be broken down into three basic categories: terrestrial planets, giant planets, and asteroid belts.
Terrestrial planets are rocky worlds that have solid surfaces, central metallic cores, and are comprised mostly of silicate rock. Another distinctive feature of terrestrial planets is that they possess secondary atmospheres that developed after the planet's initial formation, usually as the result of geologic activity (such as volcanism) or comet strikes. Hospitable, Adaptable, Barren, and Dead Worlds are all terrestrial planets. Our solar system contains four terrestrial planets: Mercury, Venus, Earth, and Mars.

Giant planets represent the full range of large, gaseous worlds that a player might encounter during a campaign. These planets have solid rocky or metallic cores surrounded by a massive atmosphere composed of various gases, primarily hydrogen and helium. As you venture into the interior of a giant, compression forces these gases into liquid or solid states the closer you get to the core. Gas Giants, Hot Giants, and Ice Giants are the examples of this type that are included in this book. Our solar system contains four giant planets: Jupiter, Saturn, Uranus, and Neptune.

## Garden World

Hospitable worlds are mature, geologically-active terrestrial planets like Earth that possess stable atmospheres and varied planetary climates. These planetary conditions favor the development of life, and most Hospitable planets support native biospheres of varying complexities, from basic single-cell organisms to advanced multicellular lifeforms. Because of these factors, planets of this type are generally considered to be the best candidates for colonization for most orders of life.

In addition to their penchant for supporting life, both native and imported, Hospitable planets are usually rich in natural resources and will have higher RAW than their other terrestrial counterparts. The varied planetary climates found on these planets also provide more potential colony sites for an empire to exploit,
effectively increasing their Carrying Capacity. This is because most Hospitable Worlds are like Earth in that they do not have uniform planetary climates. Instead, they have torrid, temperate, and frigid climate zones of differing sizes spread across their surfaces. Such colonization options are not always available on other planets that have either more violent or more homogenous planetary climate conditions.
All Hospitable planets are located within their star's habitable zone, which limits their presence to the inner zone; they are not found in any other orbital zone. Younger, hotter stars or older stars that have already expanded to the giant stage are unlikely to possess any Hospitable planets. Yellow and orange main sequence stars offer empires that best chance of finding planets of this type.

## Adaptable World

Adaptable planets are in a state of transition. They may be young worlds that are slowly maturing towards Hospitable status, or else dying worlds whose conditions are on the decline due to the cessation of geologic activity or deteriorating planetary climate conditions. These worlds are massive enough to support a (generally) stable atmosphere, though this atmosphere may be slowly bleeding off into space. Once an Adaptable planet's atmosphere completely sublimates into space it will be unprotected from solar radiation and impacting debris, at which point it will become a Dead world. Luckily, this transition occurs beyond the timeframe of a campaign.

Many Adaptable planets possess rudimentary biospheres, although few are as advanced as those encountered on mature Hospitable planets. Still, particularly verdant Adaptable worlds can make good agricultural production centers for empires that have not been able to find any better candidates.

## Barren World

Barren worlds come in many shapes and sizes. For example, some (like Venus) are smothered beneath thick, toxic atmospheres, while others may only possess trace atmospheres. Similarly, depending on their distance from their local star, Barren planets can be hellish infernos or permanently frozen wastelands. The one defining feature common to all Barren worlds is that environmental conditions on these planets are extremely severe. The volatility of these conditions makes colonizing them potentially very difficult and expensive. Access to the planet
may be limited by seasonal storms or atmospheric events, and the environmental conditions might be so adverse as to make colonization impractical.

Barren planets may have begun their lives as Hospitable or Adaptable planets before runaway environmental effects triggered their decent into their current state. In our solar system, Venus is a near twin of Earth, having similar composition and mass. However, where Earth emerged as a life-bearing Hospitable planet, Venus suffered from a runaway greenhouse effect that has turned it into a Barren planet unfit for human inhabitation.

While it is uncommon for Barren planets to be amenable to life, players are sure to encounter a few such worlds that either possess native biospheres or else can support limited agriculture.

## Dead World

Dead worlds are lifeless planets and the least valuable of the terrestrial planets. Unfortunately, they are also the most common terrestrial planet type that players will encounter in a campaign (their ubiquity is only rivaled by that of Gas Giants). Dead planets possess only trace atmospheres that offer little protection against bombardment by asteroids, meteors, or other cosmic debris. Impact craters from these events pockmark the surfaces of Dead worlds.

Planets of this type often lack accessible resources and have few viable colonization sites. These factors contribute to Dead planets being of secondary interest to most empires. With the exception of the rare resource rich example, most powers would never voluntarily commit to a major military campaign in order to gain or retain ownership of one of these planets.

## Gas Giant

Gas Giants (also called Jovian planets, in recognition of Jupiter, the archetypical giant planet) are massive planets with metallic cores surrounded by dense layers of gas, especially hydrogen and helium. These gases account for nearly 90\% of a Gas Giant's total mass. Heavier elements account for the planet's remaining mass.

A Gas Giant's planet statistics are a representation of the amount of resources and living space available at its various moons. While all of the massive giant planets are skilled at using their mass to attract and capture natural satellites, Gas Giants have the greatest chance
of possessing one or more major natural satellites.

## Ice Giant

Ice Giants are planets that are similar in composition to Neptune or Uranus. The amount of hydrogen and helium in their atmospheres is lower than that of a typical Gas Giant. An Ice Giant's atmosphere is instead comprised by a greater percentage of ice, rock, and various other gases, including water vapor, ammonia, and methane. The atmospheres of Ice Giants appear very hazy, especially when compared to the striated bands of color observed in Gas Giants. This trace amounts of methane in an Ice Giant's atmosphere gives them an aquamarine or ultramarine coloration.

Ice Giants possess fewer major moons on average than Gas Giants. These moons are usually resource poor and have very little to recommend themselves as candidates for colonization.

Of the giant planets, Ice Giants are the poorest candidates for agricultural production. Almost half of all Ice Giants are incapable of supporting Biospheres of any kind. Those Ice Giant moons that can support life typically have very limited Biospheres comprised of singe cell or basic multicellular lifeforms.

## Hot Giant

Hot Giants (also called Hot Jupiters) are large giant planets that are found within 5 AU of their local star. It is believed that most Hot Giants originate in the outer star system and then later migrate inward until settling into a stable orbit near their star. Hot Giants tend to be larger than other giant planets, sometimes much larger. However, due to their close proximity to their star, Hot Giants are almost always tidally locked to their sun, which means that the same side of the planet is always facing the star. In some instances atmospheric currents may transport some of this heat energy to the dark side of the planet, but this is not always the case. As such, despite being physically larger than other giant planets, Hot Giants tend to have lower Carrying Capacity values.

Another byproduct of a Hot Giant's proximity to its local star is that it has a harder time capturing moons than other giant planet types. A Hot Giant must compete with the gravitational pull of its star if it hopes to capture any moons, and the star usually wins that battle. It is extremely rare to find a Hot Giant that possesses a substantial lunar system.

## Climate Traits

Temperature: Hot, Moderate, Cold
Atmosphere: Trace, Standard, Thick
Hydrosphere: Desert, Standard, Ocean
Gravity: Low, Standard, High

## +25\% per step variance

each step gives a species +1 point buy during species design
humans from a garden world with the Ocean trait would have a $+50 \%$ penalty on a garden world with the Desert and Thick Atmosphere traits. The penalty for a barren world with these same traits is $+100 \%$.

| Class O |  |  |  |
| :--- | :--- | :--- | :--- |
| Roll | Inner | Middle | Outer |
| $2-7$ | Hot Giant | Gas Giant | Ice Giant |
| $8-9$ | Dead | Gas Giant | Ice Giant |
| $10-12$ | Dead | Dead | Dead |

## Class B

| Roll | Inner | Middle | Outer |
| :--- | :--- | :--- | :--- |
| $2-6$ | Hot Giant | Gas Giant | Ice Giant |
| $7-8$ | Dead | Gas Giant | Ice Giant |
| $9-10$ | Dead | Dead | Dead |
| $11-12$ | Barren | Dead | Dead |

## Class A

| Roll | Inner | Middle | Outer |
| :--- | :--- | :--- | :--- |
| $2-5$ | Hot Giant | Gas Giant | Ice Giant |
| $6-8$ | Dead | Gas Giant | Ice Giant |
| $9-10$ | Barren | Dead | Dead |
| $11-12$ | Adaptable | Barren | Dead |
|  |  |  |  |
| Class F ??? |  | Middle | Outer |
| Roll | Inner | Gas Giant | Ice Giant |


| $5-6$ | Dead | Gas Giant | Ice Giant |
| :--- | :--- | :--- | :--- |
| $7-8$ | Barren | Dead | Dead |
| $9-10$ | Adaptable | Barren | Dead |
| $11-12$ | Garden | Adaptable | Barren |

Class G ???

| Roll | Inner | Middle | Outer |
| :--- | :--- | :--- | :--- |
| $2-3$ | Hot Giant | Gas Giant | Ice Giant |
| $4-5$ | Dead | Gas Giant | Ice Giant |
| $6-7$ | Barren | Dead | Dead |
| $8-9$ | Adaptable | Barren | Dead |
| $10-12$ | Garden | Adaptable | Barren |


| Class K ??? |  |  |  |
| :--- | :--- | :--- | :--- |
| Roll | Inner | Middle | Outer |
| $2-4$ | Hot Giant | Gas Giant | Ice Giant |
| $5-6$ | Dead | Gas Giant | Ice Giant |
| $7-8$ | Barren | Dead | Dead |
| $9-10$ | Adaptable | Barren | Dead |
| $11-12$ | Garden | Adaptable | Barren |

Class M

| Roll | Inner | Middle | Outer |
| :--- | :--- | :--- | :--- |
| $2-5$ | Hot Giant | Gas Giant | Ice Giant |
| $6-7$ | Dead | Gas Giant | Ice Giant |
| $8-9$ | Barren | Dead | Dead |
| $10-11$ | Adaptable | Barren | Dead |
| 12 | Garden | Adaptable | Barren |

Class D

| Roll | Inner | Middle | Outer |
| :--- | :--- | :--- | :--- |
| $2-5$ | Hot Giant | Gas Giant | Ice Giant |
| $6-8$ | Dead | Gas Giant | Ice Giant |
| $9-10$ | Barren | Dead | Dead |
| 11 | Adaptable | Barren | Dead |
| 12 | Garden | Adaptable | Barren |

## TERRAFORMING

Cost: $10 \times$ Carrying Capacity
Can't be done in systems with 0 Capacity (no planets)

Max 1 mission per system or planet at a time
Terraforming missions take 10 turns to complete. They are disrupted if a system is invaded.

Roll on the Terraforming Table during the Colony Phase of the tenth turn.

## Terraforming Table (2D6)

Roll Effect
2-5 No Effect
6-8 +1 Carrying Capacity
$9 \quad+2$ Carrying Capacity
10 +1 Biosphere
$11+1$ RAW
12 +1 CAP, +1 RAW, +1 BIO

### 6.6 Planetary Surveys

A planet's true value cannot be fully accounted for until after a planetary survey has been completed. These surveys will reveal planetary characteristics that a rough planetary survey can miss.

### 6.2.I Unsurveyed Planets

At the beginning of a new campaign, all of the planets that are located in Unexplored star systems receive the Unsurveyed trait to represent that they have not yet been surveyed by any of the active empires. Planetary survey rolls at these worlds will be deferred until an empire's scout forces complete a planetary survey.

Planets that lack the Unsurveyed trait have already been surveyed, and the effects of the survey are already reflected in their current planet statistics. All planets are surveyed unless stated otherwise. This removes the ambiguity over whether or not a planet has been surveyed.

### 6.2.2 Performing Planetary Surveys

To perform a planetary survey, an empire must dispatch one or more units with Science rating to an Unsurveyed planetary location. The cost in Scout rating to complete a survey of a planetary
location is equal to a planet's total combined RAW, Carrying Capacity, Moons, and Biosphere statistics. This is called the planet's survey requirement.

Planetary survey operations are resolved during the Exploration Phase of the campaign turn, prior to movement. Science units present at an Unsurveyed planet will automatically allocate their Science rating towards the planet's survey requirement. Units that have been ordered to move this turn can't participate in planetary surveys because they are too busy traveling to their destination and don't have the time to stop and conduct the kind of involved planetary science that is required by a detailed planetary survey.

Empires can conduct planetary surveys over non-consecutive turns. Players will have to keep track of any much Scout rating they have "spent" on planetary surveys so that they will know when they have met their planetary survey requirements.

A planetary survey is completed once the total amount of Scout rating allocated against the planet is greater than or equal to its survey requirement. The planet will lose the Unsurveyed trait, and the player will roll the requisite number of times on the Planetary Survey Table to determine the results of the planetary survey. All planets receive one roll on the Planetary Survey Table, but planets with Moons make one additional roll on the table for each of their moons. The effects of all Planetary Survey Table results are cumulative.

## Order of Life Modifiers

If a Silicon Life Form, replace Biosphere bonuses with additional RAW increase.

If a Hydrogen Life Form, replace Biosphere bonuses with Fuel increase (giants only)
If a Synthetic or Transcendent Life Form, replace Biosphere bonuses with Capacity increase

## Special Faciuties

## Cloning Lab

## Slave Shield

// built in systems to prevent the system's inhabitants from getting in or out of the system. System is completely cut off from the system and remains blockaded until the slave shield is destroyed.
// slave shields can't be destroyed by the system's inhabitants, they can only be destroyed by another power entering the system and removing the slave shield or the owner scrapping it.

## Dimensional Gate

A dimension gate is an artificial dimensional portal that allows fleets to travel between parallel universes.
//opens a portal to a specific system in the other dimension that can't be changed after the gate is created (short of destroying the gate itself)
// creates a dimensional portal in the other dimension that anyone can use to access the system where the dimensional portal exists
// dimensional portals can't be used to spawn dimensional portals in its own universe.

## Special Abilities

## Biological

Can be repaired using population points???

## Self-Repair

## Transdimensional

Transdimensional drives allows starships and flights to move between parallel dimensions without the need of dimensional portals or gates.

Units with the Transdimensional ability can move through any dimensional portal that is located within $X$ jumps of its current location, where $X$ is its Transdimensional value. The unit then moves through the dimensional portal to a system in the other dimension that is located within $X$ jumps of the portal's nexus point in that other reality.

Example: A unit with 4 Transdimensional could move through any dimensional portal located within 4 jumps of its current position and emerge in that other dimension in any system that is located within 4 jumps of the system that the portal connects to in the other dimension.

Mass Cost: Command Cost x1

## Stasis

Stasis attacks = puts target into stasis; unit can't attack this round, but neither can it be attacked.

## Suicide

Destroys activating ship, but also damages ships of same size. Suicide value required to destroy an enemy unit is equal to formation level. Very costly.

## Contagions

each contagion has an infection value; this measures how infectious the disease is and determines how lethal it is.

If Menagerie rules are used, each species receives a +1D6-3 modifier to the contagion value when first exposed. Census whose species have the highest effective contagion value are killed first when systems lose Census. Player chooses in the event of ties.

Species that have an effective contagion value that's negative are immune to the contagion.

Empires can develop contagions; cost to develop new contagion is 100 EP and the project takes 10 turns. At the end of the turn, the player rolls on table to determine lethality of the contagion.

Randomly encountered contagions roll 4D6 on this table.

Contagion Lethality Table (2D6)
Roll Contagion Value
2-4 0
5-7 1
8-10 2
11-13 3
14-16 4

17-19 5
$20+6$
Modifiers:
+1 per Utilized Research

A second roll is required to see if the contagion broke containment and infected one of the empire's colonies. Roll 2D6; contagion loose on a $13+$. Add +1 per 2 utilized Research to roll (round down)

Deployed against systems using special WMD (automatic infection as part of biological weapon strike) or using intel mission.
once broken out, requires D20 for each infected system or system that is adjacent to an infected system; target is equal to the contagion value + 1
adjacent system is infected ( -1 per system)
system blockaded (+1 per Census)
Hospital (+1 per 5 Medical value)
roll less than contagion value +1 indicates the system has lost 1 Census and 1 Morale if it's already infected, otherwise the system is now infected
infected systems that roll a natural '20' roll have developed an antidote to the contagion. All of the empire's systems are cured at the end of the turn. Their systems are now immune to this contagion. Empire can give away or sell the cure as they desire.
infected systems always lose Census and Morale on a natural '1'.

## The Menagerie

## Alien Species

point buy system
\# of points you have available is based on your homeworld type.

Garden: 2
Adaptable: 3
Barren: 4
Dead: 5
Gas Giant: 3
Hot Giant: 4
Ice Giant: 5

## Orders of Life

## Carbon Life Forms

Water worlds

## Silicon Life Forms

Barren worlds
Eat RAW instead of BIO

## Exotic Life Forms

Restricted colonization, but extra traits
Colonization more expensive

## Hydrogen Life Forms

Inhabit gas giants
Eat Fuel instead of BIO

## Synthetic Life Forms

No population points, must purchase population increases using economic points
Doesn't eat, no food production

## Transcendent Life Forms

Live in nebulae, stars, deep of space, etc.
Doesn't eat, but population growth is halved

## Cumate Preferences

Primary planet type (+0\%)
Secondary planet types (+25\%)
All other planet types (+50\%)
humans have primary of garden world and secondary of adaptable world

Preferred climate traits equal to those of their homeworld

## Homeworld Traits

Pick homeworld system type

## Transdimensional

This species is not native to this universe and originated from another parallel dimension.
// home system in another dimension, accessible only from a dimensional portal in its "normal" home system; either naturally occurring or via a dimensional gate facility.
// bonus traits when it operates in other dimensions???
// have access to Transdimensional drives at the start of the game.

## Large Home System

+2 Carrying Capacity

## Rich Home System

+2 RAW

## Verdant Home System

+2 Biosphere

## Low Gravity

## High Gravity

## Physiological Traits

## Atrophied

Ground force repair costs doubled

## Conditioning

Ground force repair costs halved

## Intelligent

-25\% tech advancement costs

## Symbiosis

+1 Social trait, lose extra Morale whenever a Census is killed

## Adaptive

Consider systems to have +1 Carrying Capacity

## Resilient

$+25 \%$ Defense bonus (round up) to ground forces

## [Unknown]

$+25 \%$ Attack bonus (round up) to ground forces

## Flight

$+25 \%$ Defense bonus (round up) to flights

## Psychological Traits

## Passive

-1 to all combat rolls

## Aggressive

+1 to all combat rolls

## Hivemind

Loyalty check targets are halved

## Completely Alien

Treaty difficulties doubled for this power

## Fearsome

## Psychic Traits

## Empathy

// mostly diplomatic benefits similar to those assigned to Mind Control; maybe even in place of it?

Empathy is an especially potent weapon in the field of diplomacy. (increases chances of compelling other empires to sign treaties, better manipulate relations with other powers)

## Mind Control

The percentage of an empire's units that are crewed by Mind Control species can be determined by taking the number of Census it controls that have the Mind Control trait and dividing by its total Census (round fractions ). Multiply this by the empire's total Command Cost of military units to find out how many units have Mind Control capabilities, making sure to note this fact in their special notes field.

Units that are crewed by species with Mind Control abilities have a Psychic value equal to their Command Cost. A task force's Psychic value is totaled during the Psychic Warfare Phase of the combat round and can be used to perform \{insert mission names here\}.

## Prescience

// may issue one additional order after the turn orders phase, or cancel one order that it had already issued; must be done before resolving any scenarios during the Encounters Phase
// +1 Surprise bonus if over half the units in the task force are controlled by a Prescient power

## Telepathic

// spying bonuses

## Psychic Immunity

// can't be targeted by offensive psychic powers
// task force has immunity if at least half the force (by Command Cost) is fielded by a power that has Psychic Immunity

## Reproductive Traits

The modifiers associated with reproductive traits are applied on a colony-by-colony basis. For each species at the colony, multiply the species' level in the applicable reproductive trait by the number of Census of that species. Divide the resulting total by the colony's total Census, rounding fractions down. This is the colony's effective value for this reproductive trait. The modifiers provided by mutually exclusive
reproductive traits are cumulative and can end up cancelling one another out if both traits have equal representation at a colony.

Example: A colony has 4 Census with two levels of Slow Population Growth, 2 Census with one level of Slow Population Growth, 3 Census with one level of Fast Population Growth, and 1 Census that don't have either trait.

This colony's effective Slow Population Growth level is $((4 \times 2)+(2 \times 1)) \div 10=1$ Slow Population Growth. Its effective Fast Population Growth level is $(3 \times 1) \div 10=0$ Fast Population Growth.

## Slow Population Growth

// high population increase costs
// colony is considered to have +1 Census for the purposes of calculating costs

## Fast Population Growth

// lower population increase costs
// colony is considered to have -1 Census for the purposes of calculating costs (minimum population cost of 10 PP )

## Absorption

// reproduce by converting other hosts into members of their species; can purchase population increase in a system in a system for half price if there is another species present. Census isn't increased but the Census becomes a member of the absorbing species and Morale increases by 1

## Void Young

// colony fleets are void young that crash into a planet's surface to terraform it and seed it with life. Terraforming done based on Void Young level; +1 Carrying Capacity per level?
// convert target into a Shattered system. All other species consider the system to have half its normal Carrying Capacity (round down).
// Automatically roll 1 terraforming result per level of Void Young the colonizer possesses and apply to the Shattered system.

## Karmic Traits

## Lucky

+1 Advantage in all scenarios

## Unlucky

Opponents receive +1 Advantage in all scenarios

## Governments

"In the various states of society, armies are recruited from very different motives. Barbarians are urged by the love of war; the citizens of a free republic may be prompted by a principle of duty; the subjects, or at least the nobles, of a monarchy, are animated by a sentiment of honor; but the timid and luxurious inhabitants of a declining empire must be allured into the service by the hopes of profit, or compelled by the dread of punishment."

## - Edward Gibbon, The History of the Decline and Fall of the Roman Empire, Chapter XVII

The way that an empire is ruled can have profound effects on its agenda and strategy as well as how it interacts with other members of the galactic community. The policies adopted by a peaceful democratic republic stand in stark contrast to those enacted by a totalitarian police state.

All empires are assigned a government type and political focus. The power's government type outlines its basic form of political organization while its political focus indicates what

In combination, these two factors what bonuses and/or penalties that that the empire receives during the campaign. Each unique combination of government type and political focus offers players a slightly different game experience. For example, an empire with a Military focus receives a bonus that reduces its overall maintenance costs, allowing it to maintain more units at a lower ongoing cost.

Government and political focus modifiers are cumulative (give example)

## X.I Government Types

A power's government type defines its basic political structure. Seven different government types are included in this supplement: Anarchy, Collective, Confederation, Decentralized, Meritocracy, Representative, and Totalitarian.

## XHIAnarchy

A government in a state of Anarchy has ne government at all; rather, it represents a complete lack of government, likely brought on by the collapse of the empire's previous administration (see $X . X$ Governmental Collapse). Empires that descend into Anarchy usually attempt to adopt a new government type at their earliest opportunity.

A deep sense of malaise permeates an Anarchical regime. The chance of unrest setting in at its colonies increases substantially as a result of this political turmoil. Due to the volatility of the political situation, both foreign and domestic merchant traffic begin to evacuate the area leading to a decrease in trade revenue.

Anarchical governments convey only disadvantages; there are no advantages to operating in a state of Anarchy, and no player in his right mind would choose Anarchy as his empire's government type.

## Anarchy Government Effect:

- This power cannot perform diplomatic actions with the exception that they may reciprocate Hostilities, War, or Total War Declarations against hostile opponents.
- Opponents consider all intel missions to have a mission difficulty of half that of normat when targeting this power's systems (round fractions up).
- The power's colonies receive a-2 penalty to their morale checks.
- Fech advancement costs are increased by 50\% (round fractions up).
- Colony income is halved (round fractions up)


## X.I.2 Collective

Collective governments exert unlimited authority over their citizenry, and the rights and privileges of the individual are completely subsumed by the state. It is every citizen's duty to contribute towards the goals of the state without concern for personal gain or advancement - or sometimes even survival.

Empires that adopt a Collective form of government usually do so in pursuit of a set of distinct utopian ideals that they believe will provide their population with a superior social or moral proposition. Once implemented, few of these "perfect societies" achieve their founders' professed goals or dreams. Far from it, most descend into a pitiable state of fevered dystopian misery.

The Collective form of government can also be used to simulate those political environments where individual thought is completely suppressed, such as for empires where an absolute hive mind or other singular intelligence controls the nation's actions.

Collective governments are extremely resistant to outside influence or manipulation. The tightknit, insular nature of their societies makes it more difficult for enemy agents to infiltrate them, and there are fewer individuals capable of independent thought and action to help foment rebellion or bring nefarious plots to fruition. Intel missions performed against this empire by opposing powers have their mission difficulties increased by 1.

The state's strict monitoring and control of the population makes it easier to weed out individuals that could threaten the safety and security of the Collective. Those that exhibit ideologies or a sense of individuality beyond the cultural norm can be detained for rehabilitation or elimination as deemed necessary by the overseers. This gives the power a +1 bonus to its morale checks. Unfortunately, this makes the cultivation of elite officers or crews extremely difficult for a Collective government, and they earn only half the normal number of experience points from all sources (round down).

This lack of independent thought also extends into a Collective empire's research and development programs. Innovation is driven by individual brilliance and ambition, something which is critically lacking in an utterly homogenized culture. This effective increases a Collective government's tech advancement costs by 50\%.

## Collective Government Effects:

- The power's colonies receive a +1 bonus to their loyalty checks.
- The mission difficulty of intel missions targeting this power's system is increased by 50\% (round up).
- Research capacity values at all of this power's colonies are halved (round down).


## Military Collective

The citizens of a Military Collective are born and bred to fight; there is no other purpose to their lives. Governments of this type breed formidable warriors and can field large numbers of troops and other equipment, but they are prone to technologic stagnation which puts their forces at a distinct long-term disadvantage.

## Religious Collective

Religious Collectives are governed by religious orders along largely monastic lines. Individuals are born into mandatory religious service and devote the entirety of their lives towards achieving spiritual goals, both public and personal.

These powers are remarkably stable, as they suffer from a reduced threat of domestic strife and are so insular that outsiders rarely find the support they need to successfully sew the seeds of doubt in the minds of the brothers and sisters of the faith.

## Scientific Collective

The population of a Scientific Collective government is expected to spend their lives learning, teaching, and expanding their shared knowledge of the universe that surrounds them. A strong academic meritocracy guides this nation's research efforts, ensuring that teams have the tools and personnel available to achieve their goals.

While Scientific Collectives are shielded from outside influence, their tech point bonus is only sufficient to cancel out the penalty that is applied to all forms of Collective government.

## Social Collective

The leaders of a Social Collective government are solely concerned with cultivating and maintaining their own private utopia. These oligarchs strive to insulate their populations against corruption from outside influence. The net effect is that it is extremely difficult to conduct intel missions against these governments, as their citizens have been conditioned to reject any worldview that challenges social norms.

## Trade Collective

This bizarre political construct is exclusively interested in trading goods and resources. Individuals establish themselves in their preferred trade or craft where they work until death. Laborers often take pride in their creations, but this is the limit of their personal ambition. There is no attempt to create monopolies or force competitors out of the market, and profit is not perceived as an end but rather as a means by which future ventures can be funded.

## X.I. 3 Confederation

Confederation governments are loose associations of sovereign, independent states that have joined together in common cause. Its members have agreed to the principles and legal framework established in its charter or constitution; however, they retain the right to withdraw from the Confederation at any point in the future should they choose to do so.

Confederation governments are special in that they double the normal bonuses associated with its selected political focus. For example, a Trade Confederation would receive a $+20 \%$ commerce income bonus, instead of the $+10 \%$ bonus normally conferred to governments with a Trade focus. This effect ensures that Confederations are extremely effective in their primary realm of authority, but they are subject to a number of substantial disadvantages that counter-balance this ability.
While a Confederation government's bureaucratic structure has much in common with that of a Representative government, the power of its central authority is decidedly limited because its members are unwilling to have their individual sovereignty challenged by a strong federal power. The Confederation government serves as a central body that can address critical issues of mutual interest to its members.

As with the Representative government type, one of the Confederation's greatest strengths is the ease with which member worlds can change its political focus. Once per campaign year a Confederation government can attempt to change its political focus without the necessity of a X.X Government Reform. This change in political focus represents a change in the elected leadership. If a Confederation government is ordered to make such an attempt, roll 2D6 during the Diplomacy Phase. The player's order to make this attempt should indicate what political focus he is attempting to shift his government to. A die result of 7+ indicates a successful change in political focus.

Should a Confederation government fail its attempt to shift its political focus, the consequences can be dire. Such a failure indicates that popular support for the government has been shaken. The morale check penalty applied for failing a government reform is doubled for Confederation governments, giving each of their colonies a -2 morale check penalty during the Morale Phase that turn.

All the empire's colonies receive an -1 morale check modifier during the next Morale Phase,
increasing their chances of experiencing a loss of Morale.

Divisive political, economic, and social policies lead to infighting between member worlds. As a result all of a Confederation power's colonies receive a - 1 penalty to their morale checks.

Confederations are extremely susceptible to outside intrigue. Intel missions conducted by opposing powers receive a $+10 \%$ intel point bonus (round up) to demonstrate how easy it is for an opponent to corrupt local officials and enflame existing political discord in the Confederation's systems.

## Confederation Effects:

- Political focus benefits are doubled
- Can attempt to change political focus without a government reform
- -1 morale check penalty
- Opposing intel missions receive a $+10 \%$ intel point bonus (round up)


## Military Confederation

Military Confederation governments are formed in an attempt to provide its members with a strong military defense force for use in protecting themselves from external threats. The central government is unconcerned with the social policies of its member worlds and instead focuses all of its time and resources on cultivating an effective military fighting force.

## Religious Confederation

Religious Confederation governments bind member states together under the banner of shared religious worship. The religious orders that administer these empires' territories share a common creed, but they may have differing (or even conflicting) interpretations of church dogma. Rumors of heresy can cause schisms in these governments, forcing them into periods of rebellions or even civil war.

## Scientific Confederation

A Scientific Confederation government is a federation of worlds that have joined forces in order to advance their shared pursuit of scientific knowledge by pooling their resources. These powers are capable of realizing amazing technological breakthroughs, but they are also more prone to the negative effects of political infighting and intrigue.

## Social Confederation

This political association is comprised of a group of nations that possess a shared cultural heritage that binds them together in common cause. Protecting and maintaining these strong cultural bonds is a major goal of a Social Confederation's leadership.

## Trade Confederation

Planets that are members of a Trade Confederation have joined together in order to increase their trade leverage with opposing powers. This gives them a superior position from which to negotiation new trade deals, ensuring that they earn more revenue from their trade routes together than they ever could alone as independent colonies.

## X.I. 4 Decentralized

Decentralized governments are notable for their lack of political unification. They consist of multiple sovereign entities that are combined together as a single administrative element within the campaign. Some or all of the powers that comprise this "government" may be hostile to one another, but these potential rivalries are abstracted into this form of government's inherent benefits and penalties. Examples of Decentralized governments include planets ruled by multiple national interests, feudal kingdoms or rival clans.

Foreign powers can find it difficult dealing with Decentralized governments. Treaties negotiated with a Decentralized power are binding only with a limited number of its constituent nations or clans, and it is not unheard of for other elements in its "government" to invalidate the treaty. This is represented by giving Decentralized powers a $+40 \%$ bonus to any attempts to signing, breaking, or declaring against opponents. Because of this bonus, Decentralized governments are not very reliable allies.

Opponents receive a $+10 \%$ intel point bonus to all intel missions that target a Decentralized power's systems or colonies. This penalty demonstrates that outsiders can play two local power blocs against one another, making it easier for spies to gather information or perform sabotage missions.

The competition between rival nation states in a Decentralized government leads to a great deal of wasteful or redundant spending. A Decentralized power's tech advancement cost is increased by $10 \%$, and its commerce income is reduced by $10 \%$.

Decentralized Effects:
$+25 \%$ modifier to signing, breaking, or declaring Enemy
-1 defensive intel (min 0 defensive intel)

## Military Decentralized

This government is a collection of nation states (many of them openly hostile to the others) that have spent a considerable amount of time and energy honing their weapons of war. Feudal warlords and militant clans are commonly associated with Military Decentralized governments.

## Religious Decentralized

A number of distinct theocratic states (likely of the same faith) have banded together to form a loose alliance of communities. This alliance's unifying goal is the promotion and protection of their shared religious beliefs, but differences in theological interpretation ensure that not all of the member states are on friendly terms with one another.

## Scientific Decentralized

Under this form of government, a group of sovereign states have formed a cooperative agreement to further their shared pursuit of knowledge. In theory, each has agreed to share the fruits of their technological labors with their peers. In practice, however, each nation continues to secretly fund research projects whose results they plan on jealously guarding once they come to fruition.

## Social Decentralized

An egalitarian league of nations has been formed to peacefully resolve international disputes. This loose association has limited authority, largely relegated to peacekeeping forces. Its primary concerns are with maintaining the peace between rival nations within the Decentralized government.

## Trade Decentralized

A commerce-minded organization binds together the disparate nations administered by this form of government. Fair trade between members is the ultimate goal of the Trade Decentralized government, creating an environment in which tariffs and legal barriers can be relaxed to the benefit the participants' native industries.

## X.I. 5 Meritocracy

Meritocracies are governments in which personal skill and achievement is so greatly valued that it is one of the core requirements for social or political advancement. Only the strongest warriors, devout clergy, smartest scientists, renowned social activists, or wealthiest merchants (depending on the meritocracy's political focus) can hope to achieve the highest political stations.

A special feature of the Meritocracy is that this type of government requires a player to select both a positive political focus and a negative political focus. The positive political focus provides its normal bonuses while the negative political focus gives the power a penalty equal to the opposite of the focus' normal bonus. Furthermore, the effects of both positive and negative focuses are doubled. This emphasizes the strengths and weaknesses of this form of government. For example, a Trade Meritocracy with a negative Military focus would receive a $+20 \%$ commerce income bonus instead of the $+10 \%$ bonus normally conferred to governments with a Trade focus. The negative Military focus then increases the power's maintenance expense by $20 \%$. A Meritocracy's primary (positive) focus and its secondary (negative) focus cannot be the same.

Meritocracies are more likely to produce elite officers and crews. They receive $10 \%$ more experience points than other powers from all experience sources.

## Military Meritocracy

Military Meritocracies epitomize the "warrior race" mentality. The cultures that spawn governments of this type put a special emphasis on combat, be it personal hand-to-hand dueling, ground warfare, or starship combat. These nations can give birth to some of the most dedicated and experienced soldiers in the galaxy, but they always sacrifice some other aspect of their society in order to achieve their awesome fighting potential.

## Religious Meritocracy

Skilled theologians form the political elite of a Religious Meritocracy. These learned scholars have spent their lives studying the texts and rituals of their respective religious orders and are now considered authoritative sources on these topics. It is believed that this deep knowledge of dogma will allow the theologians to govern their nation's population in a righteous manner that will please their god or gods.

## Scientific Meritocracy

This technocratic government is run by the nation's intelligencia with the sole purpose of forwarding the goal of pure scientific research. Although the scientists may not directly administer day-to-day government operations they will almost certainly be involved in all key decision making processes.

## Social Meritocracy

These governments are dominated by a complex web of administrators, bureaucrats, and other public servants that have a vested interest in ensuring imperial continuity. The leaders of a Social Meritocracy live by the maxim "bureaucracy expands to meet the needs of the expanding bureaucracy," and most of their time is spent attempting to bring stability to an overwrought political system.

## Trade Meritocracy

These plutocratic regimes are built on a hierarchy of greed. Those individuals that demonstrate the prerequisite skills to manipulate men and money for their selfish benefit are promoted into positions of power. While it is conceivable for anyone with skill and ability to rise through the ranks of government, there are only a limited number of positions to be filled and the vast majority of the nation's population will comprise a servile worker class.

## X.I. 6 Representative

Representative governments are governed by officials that have been elected either directly by the people or a group of duly appointed electors. The hallmark of a Representative government is the opportunity for social advancement, expansive personal freedoms, and a central authority whose revocable authority is derived from the population at large. Examples of Representative governments include any power where individuals are elected by their constituents or peers to represent their interests in government. This gives the population the ability to select the candidates that they wish to have serve them as public servants as well as remove unpopular politicians from office once they have outlived their usefulness.
Representative governments allow for the easy transfer of power between different political parties or factions. This allows an empire to change its focus without having to go to the time and expense of conducting X.X Government Reform. Once every campaign year, a player can
attempt to change its political focus. The player's order for this attempt should indicate what political focus he is attempting to shift his government to. To resolve the order, the player or CM must roll 2D6 during the Diplomacy Phase. A die result of 7+ indicates a successful change in political focus. A failed roll has not effect.

Democracies naturally abhor conflict and take great aims during peacetime to restrict military expenditures to strictly what is necessary to keep the peace. During peacetime, a Representative government's maintenance expense is increased by $10 \%$ (round fractions up) to limit the size of the military force it can field. This restriction is lifted whenever the power is in a state of War.

## Military Representative

Military Representative governments reserve special rights and privileges for armed service members and their supporters. Empires that are permanently organized along these lines may only allow military veterans to vote or participate in government, while others may simply put more stock in the advice that they have to offer.

Many democracies revert or attempt to revert to a Military Representative form during times of war in order to take advantage of the maintenance and construction bonuses that the Military focus confers.

## Religious Representative

Representatives from local synods serve as part of an elected body that governs a Religious Representative government. These elected individuals are typically religious scholars of some repute, but they can just as easily be pious politicians that have earned the church's faith and loyalty.
While organized religion plays a major role in Religious Representative government, the church does not directly control political discourse. This allows the government to take actions that may threaten or even undermine organized religious institutions in order to act in the best interests of the empire.

## Scientific Representative

Governments of this type place a special emphasis on academic pursuits. While scientists and scholars may not themselves serve as elected representatives, they are held in high esteem. These nations make sure that there is sufficient funding and grants available to further
pure scientific research in order to increase their technological edge over the competition.

## Social Representative

These progressive governments spend their time addressing domestic policy issues. These nations' elected leadership champions political causes that are generally supported by the underclass at the expense of support from the upper echelons of society.
While a Social Representative government may advertise that it intends to improve social conditions as part of its domestic agenda, most empires of this type spend most of their time attempting to adjust public perceptions through artful pro-state propaganda. Those social injustices that cannot be rectified by rule of law can be marginalized through subtle media manipulation.

## Trade Representative

The elected officials in this government represent the interests of various corporate or commercial concerns. This support can either be overt, with the representatives being chosen by industry or guild affiliation, or via shadier means, including forms of graft, corruption, and kickbacks.
All of the policy decisions that a Trade Representative makes are based on a desire to grow the wealth of their benefactors and their shareholders. These nations have been known to take actions that are wildly politically unpopular with the general public so long as they offer equally lucrative opportunities for personal gain.

## X.I. 7 Totalitarian

Totalitarian governments are controlled by a central authority that makes all national decisions. This central authority can take the form of a powerful committee or a single authoritarian leader. The hallmarks of a Totalitarian government are that individual citizens have little or no hope of social advancement (e.g., no chance of ascending to the upper echelons of the nation's central authority); there are few (if any) personal freedoms; and there is no means by which to check the central authority's power.
Strong, central governance provides a Totalitarian state with several marked advantages over their more egalitarian opponents. These powers receive a $+20 \%$ bonus to its chances of breaking treaties or issuing declarations against other empires, and their maintenance expense is reduced by $10 \%$.

Totalitarian governments divert an inordinate amount of resources towards their military forces. A lack of social spending depresses morale throughout the regime, realized as a -1 morale check penalty at all of a Totalitarian power's colonies. Pure research also remains under funded, increasing the power's tech advancement cost by 20\%. Draconian laws and corruption reduces the power's commerce income by $20 \%$.

## Totalitarian Effects:

- $+10 \%$ bonus to breaking or declaring actions
- $-10 \%$ maintenance expense
- -1 morale check
- $+10 \%$ tech advancement cost
- -10\% commerce income


## Industrial-Totalitarian

These governments are fascist states that are politically dominated by representatives of the military-industrial complex. Military spending is maximized to continue providing the plutocratic elite with lucrative defense contracts to improve their bottom line at the expense of the nation's long-term political health and solvency.

## Military Totalitarian

The classic military dictatorship, this government is controlled by a strict central authority that has strong ties to the national military. The despot or dictator that rules a Military Totalitarian state is usually a member of the military, or else is conferred an honorary military title.

Military Totalitarian government is most successful when it is conducting grand military campaigns against foreign foes. The intense martial spirit that pervades these states makes it easy for a leader to co-opt civilian production for military purposes, even if it means leaving millions to starve while the national war machine soldiers on towards the next conquest.

## Populist Fotalitafian

Broad popular support from a nation's underclass supports the near tyrannical rule of a ruling eouncil or despot that has promised to right social wrongs. Populist Totalitarian governments are often born from populist uprisings and eonservative counter-culture movements that are fighting back against rapid social or economic
ehange that has left their political base disenfranchised.

The political leadership in one of these states spends as much time fighting to establish and maintain political orthodoxy as they do crusading for the desired changes that brought them into power in the first place.

## Religious Totalitarian

This nation is led by a senior religious official or officials of a specific faith or spiritual system. This religious order has assumed dictatorial control over government. Depending on the circumstances, the government and the faith may be interchangeable. Citizens are expected to conform to the social and religious standards of their leaders. Those individuals who do not conform are subject to intense persecution.
Of the different forms of totalitarianism, a Religious Totalitarian government is the most successful at manipulating public morale.

## Scientific Totalitarian

Empires with the Scientific Totalitarian form of government do not gain any special bonuses to scientific development; however, they are not subject to the tech requirement penalties applied to other forms of Totalitarian government.

## Social Totalitarian

This socialist state is governed by a single ruler or party system whose declared aim is to achieve a state of social equality. In many cases, a central planning committee oversees national operations and enforces the policies of the political elite. Communism is considered one expression of Social Totalitarianism.
Social Totalitarian governments specialize in conducting intelligence operations both at home and abroad. Domestic agents use their skills to eliminate dissension on the home front, while operatives working abroad fight to protect their nation's security.

## Trade Totalitarian

Corporate oligarchs reign supreme under this form of government. All political power is held by those that control the nation's economic and industrial infrastructure, and the government serves solely to reinforce and protect their interests. The needs of the general population are secondary to this primary concern.

## X. 2 Political Focus

All governments are assigned a political focus which indicates their overriding political philosophy or mindset.

## Industrial

Nations that support an Industrial focus emphasize industrial efficiency for reasons fanging from base capitalistic greed to simple pride in a job well done.

Colonies that belong to a power with an Industrial focus receive a $+20 \%$ benus to their production and shipyard capacities (round up). This doesn't affect the colonies' economic output, it just increases the total construction cost of units the colonies can produce each turn.

## Military

Military governments are governed either directly by members of the nation's military forces or by political representatives whose loyalty has been duly purchased by the military-industrial complex. These powers place an emphasis on martial readiness and military service. Not all Military governments are dominated by hawks or warmongers. Nations with a more pacifistic bent can have a Military focus, although with an obvious bias towards self-defense.

Long-term experience with military logistics networks gives these powers a $10 \%$ reduction in their overall maintenance costs.

Colonies that belong to a Military power receive a $+10 \%$ bonus to their production and shipyard capacities (round up). This doesn't affect the colonies' economic output, it just increases the total construction cost of units the colonies can produce each turn.

## Military Focus Effects:

$+25 \%$ industrial capacity
$+25 \%$ manpower capacity

## Populist

Populist governments are interested in promoting the agrarian sectors of their economy through special social and economic programs. These progressive programs tend to benefit the poorest members of socicty, increasing their toyalty and giving them a stronger voice in government.
Colonies owned by a power with a Populist focus receive a $+10 \%$ agriculture capacity bonus (round up), and opponents receive a +1 mission
difficulty penalty when attempting Propaganda: Insurgency missions against them.
$+25 \%$ food production

## Religious

Religious governments (called theocracies) are controlled by an empire's predominant organized religion(s). While empires with a Religious political focus are often known for their fanaticism and zealotry, not all Religious governments possess such extreme political views. Some are quite tolerant, well-tempered republics.

Theocracies are able to exert an impressive amount of control over the hearts and minds of their planetary populations. Opposing powers will find it very difficult to affect public opinion at these empires' colonies.
+1 loyalty check bonus

## Scientific

Scientific governments (called technocracies) place a special emphasis on the development of new technologies. More often than not, these academic pursuits are fueled by intense curiosity and a devotion to pure scientific research. However, in some cases, an empire may develop a Scientific focus in reaction to a crisis event, such as a military conflict or social unrest.

Technocracies excel at assembling tech teams and providing them with the resources they need to carry out their research. These empires are noted for being able to develop new tech advances faster than their rivals. This reduces their tech advancement by $10 \%$, increasing the rate at which they can secure new technologic breakthroughs.

## $+25 \%$ research capacity

## Social

Governments with a Social focus specialize in the use of intelligence resources. These nations commonly use their state intelligence agencies to mollify their own populations (either through propaganda or political purges), gather information on foreign empires or protect the home front against foreign infiltration.
Social leaders run the gamut between extremes of liberalism and conservatism. Liberals are interested in instituting sweeping domestic reforms, conservatives want to maintain the status quo, and moderates fall somewhere in between.

Regardless of their political ideology, Social governments are in a perfect position to push through their favored social agendas. The costs of social reforms initiated by Social governments are reduced by $10 \%$ (round fractional costs up). This makes it easier for these governments to ehange social policies and institute the kind of "Great Society" that they have long dreamt of bring to fruition.
$+25 \%$ intel capacity

## Trade

Trade governments focus on earning income from their available foreign and domestic trade sources. These empires are commonly ruled by powerful cartels or industrial magnates that control some or all of the means of production. These titans of industry know how to extract every last possible credit out of commerce, which allows them to generate additional wealth from every trade route.

## $+25 \%$ commerce income bonus

## X. 3 Government Reform

The growth of empires oftentimes leads to changes in their political, social, and economic landscapes. These changes can in turn necessitate the reformation of a government's political structure or focus. In some cases these reforms represent a natural evolution of the power's original ideals, while other reforms may be sparked as the result of social upheavals or even revolution.

Government reforms can be initiated at any time and take 10 turns to complete. When ordering a government reform, the player must indicate whether his empire is attempting to change its government type, political focus, or both. An empire can only attempt one government reform at a time.

The success of a government reform is never guaranteed. Entrenched political interests will fight tooth and nail to prevent a shift in political governance using any and all resources at their disposal. A player must spend economic points towards a government reform to appease these opponents and increase the reform's chances of succeeding.

The amount of economic points that must be spent to guarantee a successful government reform depends on the size of the empire's population and how drastic the reform was. The reform cost to change political focus is equal to an empire's total Census times 5, and the reform cost to change government type is equal to an
empire's total Census times 10. A reform that an aim to change both its government type and political focus has a reform cost equal to the empire's total Census times 15.

When attempting to change a Meritocracy's political focus, each focus that a player is attempting to change (positive or negative) adds Census times 5 cost to the total reform cost. Therefore a government reform that establishes a Meritocracy that doesn't retain the original's political focus would have a reform cost of Census times 20. A Meritocracy that retains the original government's political focus (either as a positive or negative focus) would only have a reform cost of Census times 15.

Reform costs are halved for empires that already in a state of Anarchy. This improves these nation's chances of transitioning out of Anarchy and back into the role of a functioning state.

A check is made during the Diplomacy Phase of the tenth turn after initiating the government reform to determine its success or failure. Take the number of economic points spent on the government reform and divide it by the reforms cost. The result is the percentage chance that the reform will succeed.

A successful government reform prompts the empire to adopt the new government type and/or political focus indicated in the original government reform order. A failed government reform instead increases unrest in the empire's territories, giving all of its colonies a -1 morale check during the next Morale Phase. This penalty makes it more likely that one or more of the empire's colonies will experience a drop in Morale as the reform's supporters take to the streets to protest its failure.
Confederation and Representative governments can attempt to perform a limited government reform once every campaign year. These special government reforms allow these empires to change their political focus without having to go to the time and expense of a complete government reform. However, neither of these governments can use their free reform to change their government type, only their political focus.

These limited reforms are resolved on the same turn that they are ordered, and they cost nothing to perform. Instead, the player rolls 2D6 to see if the reform is successful. These governments succeed on a roll of $7+$. Both government types receive a morale check penalty if their reform attempts fail, but Confederation governments suffer a -2 morale check penalty instead of the normal -1 penalty.

As a rule, political factions despise change and will defend the status quo at all costs. The undiscovered country that visionary leaders imagine for their empires can frighten the stalwart conservatives that have nothing to gain and everything to lose from these proposed reforms.

Example \#1: A Social Totalitarian empire with 38 Census initiates a government reform with the intent of becoming a Social Representative government. Only the government type if changing, so this reform's cost is $38 \times 10=380$ $E P$. Over the next 10 turns this empire allocates a total of 164 EP towards the reform. The reform's chance of success is $164 \div 380=43 \%$. The player rolls a D100 against this target and rolls a '30,' which is a success. The empire is now a Social Representative government.

Example \#2: A Military Representative empire with 24 Census initiates a government reform that would turn it into a Trade Decentralized government. This reform's cost is $24 \times 15=360$ $E P$. Over the next 10 turns this empire allocates a total of 104 EP towards the reform. This gives the reform a $104 \div 360=28 \%$ chance of success. The player's D100 roll is a '54,' which is a failure. The empire remains a Social Totalitarian government, but all of its colonies will receive a -1 morale check penalty this turn because the reform failed.

Example \#3: A Social Representative government has recently found itself in a state of War and wishes to change its political focus to Military so that it may benefit from that focus' military bonuses. The player rolls 2D6 for this special reform check and will succeed on a roll of 7+. The die result is a '5', resulting in a failed reform and a -1 morale check penalty for the empire's colonies this turn.

## X.4-Government Collapse

It is possible for an empire's government to completely collapse due to a combination internal and external pressures. Such a loss of political control is obviously catastrophic, and even the best of players will find it difficult to restore order to their empire's territories after a eollapse.

There are two conditions under which a government can experience a total collapse: if the empire's imperial capital is captured of destroyed; or if two-thirds of the empire's eolonies are in a state of $X . X$ Rebellion. Any empire that meets one or both of these eonditions during the Update Phase of the
eampaign turn will instantly experience a government collapse.

When a government collapse occurs, the empire immediately transitions to the 7.2.2.1 Anarchy government type. On the following campaign turn, the player may have the empire initiate a 7.2.3-Government Reform to attempt to form a new government and restore some semblance of stability to their realm.

If at the end of the 12 turn reform process either of the collapse-triggering conditions still exists, then the reform attempt will automatically fail and the empire will remain in a state of Anarchy. It must then start the government reform process from scratch. Otherwise, if the government reform is a success, the empire will transition to the new government type and political focus indicated in its reform order.

An empire that controls one or more 7.3.2 Sector Capitals may elect to convert one of them into a new Imperial Capital (see 7.3.2.5 Promoting a Sector Capital). If this is done within the first 12 eampaign turns after the initial government eollapse event occurs, then the affected empire will immediately transition back to the same government type and focus that it had prior to the government collapse without the need for a government reform action.

As with political focus, the player is allowed to select a government type of his choosing for his empire at the start of the campaign. Otherwise, players or CMs may roll on the Government Type Table to randomly determine a government's type.

## Government Type Table (D6)

| Roll | Government Type |
| :--- | :--- |
| 1 | Collective |
| 2 | Confederation |
| 3 | Decentralized |
| 4 | Meritocracy |
| 5 | Representative |
| 6 | Totalitarian |

When creating a new player empire, the player is allowed to select a political focus of their choice for their empire. Alternatively, players or CMs
may roll on the Political Focus Table below to randomly determine a government's focus. X.X Meritocracy governments should roll twice on this chart - once for its positive political focus, and a second time for its negative political focus.

## Political Focus Table (D10)

| Roll | Political Focus |
| :--- | :--- |
| $1-2$ | Military |
| $3-4$ | Religious |
| $5-6$ | Scientific |
| $7-8$ | Social |
| $9-10$ | Trade |

## Society

"A nation's culture resides in the hearts and in the soul of its people."

- Mohandas Gandhi


## Science Experts

+10\% research capacity

## Contemplative

$+10 \%$ bonus to tech investment

## Production Experts

+10\% industrial capacity

## Gifted Explorers

+1 to exploration rolls

## Fanatical

## Spiritual

## Contended

+1 to all loyalty checks

## Civil Disturbances

-1 to all loyalty checks

## Artifact Aficionados

always find artifacts in systems with alien ruins

## Population Traits

## Population Quotas

$+10 \%$ population point production

## Slavery

// can spend population points as economic points; Slavery level increases percent of total that can be spent by $+10 \%$

## Cybernetic

Can spend economic points in place of population points on population increases. Each level increases the maximum cost that can be covered by economic points by 10\%

Ex: 3 Cybernetic colony could use economic points to purchase up to $30 \%$ of population increase cost

## ECONOMIC TRAITS

## Freє Trade

This power considers trade treaties to have a mission difficulty of 0 , making them easier to sign.
+1 commerce range to all colonies that have a commerce range greater than zero.

## Trade Barriers

This power considers trade treaties to have a mission difficulty of X 2 , making them harder to sign.
-1 commerce range to all colonies (min commerce range 0)

## Master Traders

$+10 \%$ boost to commerce income

## Corruption

-10\% to commerce income

## Pioneer Spirit

-10\% civilian fleet costs

## Diplomatic Traits

## Gregarious

Bonus to diplomatic missions, but penalty when others target them with diplomatic missions

## Warmonger

-25\% to armistice
$+25 \%$ to declarations

## Pacifist

$+25 \%$ to armistice
$-25 \%$ to declarations

## Cultural Adopters

???

## Attractive

+25 relationship bonus with all powers

## Repulsive

-25 relationship penalty with all powers

## Intel Traits

## Sabotage Experts

+1 offensive intel to sabotage missions

## Espionage Experts

## Propaganda Experts

+1 offensive intel to propaganda missions

## Mission Specialists

+2 offensive intel to a specific mission
trait cost is equal to half mission difficulty (round up)

## Closed Society

+1 Defensive Intel

## Open Society

-1 Defensive Intel

## Inefficient Operatives

-10\% intel capacity

## Efficient Operatives

+10\% intel capacity

## Military Traits

## Combat Respect

Start at -10 relationship with another power; this penalty is reduced by 1 per Command Cost of their own ships the other power. Can end up with +10 modifier if the opponent destroys enough of this power's units.

## Conscription

Manpower limits increased (+1 Census effective)

## Command Expert

+2 Command Bonus

## Strategists

+1 Surprise bonus

## Maneuver Experts

+- Scenario Length

## Scavengers

bonus to scrapping
Repair Experts
Reduced repair costs
Marine Experts
Bonus to Marine Warfare

## Kamikaze

Ramming bonus

## Bombardment Experts

$+10 \%$ bonus to bombardment points

## Galactic Organizations

## Advanced Warfare

## Psychic Warfare

Disruption - halves combat factors
Overwhelm - zeroes combat factors
Domination - adds enemy combat factors to the friendly task force, forcing the enemy to fire on each other

Brainwashing - captures units, and they immediately begin fighting for the power that took control of their minds.

Fear - forces them to attempt to retreat
Those Who Serve

LeADERSHIP

Tactics

## Poulics

## Science

## Piloting

## Officer Tupes

## Commander

## Soldier

## Pilot

## Wingman

1 Pilot
+25\% DV (Flight)

## Bombardier

1 Pilot
+25\% AS (Flight)
Dogfighter
1 Pilot
$+25 \%$ PD (Flight)

Wing Leader
1 Pilot, 1 Leadership
+1 FL (Flight)

Wing Commander
2 Pilot, 2 Leadership
+1 FL to all flights from carrier (Flight)

Test Pilot
2 Pilot, 1 Science
+1 to flight prototype rolls (Prototype)

## Diplomat

## Rogue

Discarded Rules

### 8.5 Civilian Fleets

## 1 FTL

Civilian fleets are composed of commercial transports that an empire has hired to serve a specific purchase.

### 8.5.I Colony Fleets

Empires use colony fleets to establish new colonies in uninhabited star systems.

A colony fleet is consumed when it colonizes a star system.

### 8.5.2 Transport Fleets

5 Cargo
20 EP
Each transport fleet can carry up to 5 Command Cost of flights, ground forces, or other types of cargo.

### 8.5.3 Assault Fleets

Assault fleets are specialized transport fleets that have been converted into troop transports for use in planetary invasions. These freighters have had their Cargo bays converted into Assault bays that are twice as effective at deploying ground forces into combat zones during planetary invasions.

Each assault fleet can carry up to 5 Command Cost of ground forces at one time. These troops are considered to be based out of Assault value (not Cargo) and receive their full combat factors when they participate in ground invasion scenarios.

### 8.5.4 Construction Fleets

Construction fleets contain several large commercial starships that specialize in remote manufacturing and fabrication. These units are equipped with extensive machine shops that allow them to serve as mobile factories that an empire can use to support remote construction projects in its systems.

A construction fleet increases a system's industrial capacity by 5 . This bonus is added to the system's base industrial capacity and is cumulative with industrial bonuses that the system is receiving from other sources such as Orbital Factories or Construction units.

### 8.5.5 Scout Fleets

Empires can contract with civilian deep range explorers to carry out jump lane exploration.

5 Scout
20 EP

### 8.5.6 Purchasing Civilian Fleets

Civilian fleets can be purchased in any inhabited system that has a tech level of Interplanetary or higher. Each type of civilian fleet is assigned its own construction cost, as shown on the chart below. Campaign scenarios can alter these costs to better represent the availability of civilian fleets in specific settings. The maximum cost of civilian fleets that an empire can purchase at one of its colonies each turn is equal to the colony's system income value. Major trading centers have the highest system income values and its easier for a nation to find shipping interests that are willing and able to commit their starships to government service. Civilian fleets cost 1 economic point per turn to maintain, starting on the turn that they are purchased.

Civilian Fleet Cost Chart

| Civilian Fleet | Construction Cost |
| :--- | :--- |
| Colony Fleet | 50 EP |
| Construction Fleet | 50 EP |
| Assault Fleet | 30 EP |
| Transport Fleet | 20 EP |
| Scout Fleet | 20 EP |

Colonies that have system income values that are too low to purchase a civilian fleet in a single turn can instead commit economic points over several turns (up to an amount equal to its system income per turn) towards the purchase of a more expensive civilian fleet. For example, a system that produces 9 economic points per turn could purchase a colony fleet (C\$ 50) but it would take 6 turns of investment before the colony fleet would be completed and ready for use. An empire loses any economic points it has applied towards the purchase of a new civilian fleet in a system if it becomes contested. The presence of enemy forces in the system causes civilian transports to scatter, and none of the merchants are going to stick around to honor their contracts no matter how much money they've received up to that point.

Unlike military units, civilian fleets are completed on the same campaign turn that they are purchased and don't take multiple turns to build. They also don't require industrial capacity because newly-purchased civilian fleets aren't being built using planetary industry but rather are being contracted from the pool of civilian freighters and other merchant craft that are already active in the system.

### 8.5.7 Civilian Fleet Movement

Civilian fleets that are purchased by interstellar civilizations are equipped with FTL drives that are the equivalent of FTL 1 military drives. These fleets are capable of moving at most one jump per turn. Civilian fleets that are purchased by interplanetary nations lack FTL drives, however, and their movement is restricted to moving between planets in the same star system.

### 8.5.8 Civilian Fleets \& Combat

It's not uncommon for civilian fleets to find themselves under attack by enemy forces. Civilian fleets are automatically included in space combat scenarios that are generated at their location during the Encounters Phase. The number of civilian fleets that are added to a scenario is equal to the scenario's intensity cost. These civilian fleets must be included in the battle if they are present, but the defender gets to choose which of his civilian fleets are drawn into battle. Civilian fleets are considered to have 10 Defense and a Command Cost of 1 for purposes of combat, but their Command Costs don't count against a task force's Command Rating limit during task force creation. This Command Cost is only used to determine the difficulty of improving a civilian fleet's formation level during combat.

A civilian fleet's base Defense value is equal to its construction cost divided by 5 (round up). Civilian fleets purchased by Interstellar powers receive a $+10 \%$ bonus to their Defense per tech level that their empire tech level is greater than TL 0 (round up). A transport fleet purchased by a TL 18 empire would have a Defense value of 12 instead of 4. Civilian fleets take damage like any other space combat unit except that a defender can't score standard damage against his own civilian fleets during a scenario. Civilian fleets can only be damaged using directed damage. This prevents a player from destroying his own civilian fleets before an opponent has a chance to capture them.

Space combat scenarios end once all of the military combatants in the scenario are
destroyed. If all of a civilian fleet's escorts have been destroyed the attacker has the choice to either capture the civilian fleets (and anything they're carrying) or destroy them entirely. Captured civilian fleets change ownership immediately after the end of the scenario in which they were captured.

## X.2.I NPE Strategies $\Delta$

Non-player empires can be assigned optional strategies

## Militarist

Militarists focus almost exclusively on military construction with the goal of building the most powerful armed forces they possibly can. These non-player empires are more concerned about quantity versus quality and they aren't afraid to spend a significant portion of their per-turn budget on maintenance for their large naval and land forces.

## Expansionist

Expansionists spend their available resources securing new territories and establishing new colonies in uninhabited systems. Whereas an Industrialist strategy advocates developing existing worlds to their maximum potential, the Expansionist strategy is more concerned with colonizing as many systems as economically feasible in as short a time as possible. Infrastructure investment is seen as a secondary concern and something to be done once all of the current candidates for colonization have been exhausted.

## Technologist

Technologists seek to finance rapid technological growth by funding massive research and development projects at their colony worlds. A Technologist empire will make sure that its colonies have the maximum amount of utilized Research infrastructure available and use it to generate a constant stream of tech points.

## Diplomat

Diplomats prefer to use words as weapons. They seek to master the art of diplomacy and prevent wars by assuaging their enemies and building strong alliances with friendly powers. In times of strife, non-player empires that have adopted this strategy are just as likely to use intel missions to strike back at their opponents as they are to
send out their fleets and armies to stand against them in battle.

## Industrialist

Industrialists invest heavily in system infrastructure projects. Every available economic point that the empire can spare is diverted to purchasing and improving infrastructure at its colonies. Economy and Industry infrastructure is especially important as these are used to fuel its economy, giving it more money to spend and more industrial capacity with which to build units. Industrialists tend to only colonize new systems once existing colonies are self-sufficient.

## D.5.2 NPE Strategies

NPEs can also be assigned strategies during this step by rolling on the following table. NPE strategies are an optional component of the NPE rules that players can use to decide what kind of actions these powers should focus on during a game.

## NPE Strategy Table (D10)

Roll NPE Strategy
1-2 Militarist
3-4 Expansionist
5-6 Technologist
7-8 Diplomat
9-10 Industrialist

## X. $\mathbf{Z}$ The EARTh/Centauran War

The year is 2148, and Earth has recently made a disastrous first contact with a hostile alien species called the Centaurans. Centauran forces recently attacked and destroyed an orbital refueling depot in the Proxima Centauri star system, and this appears to have just been the opening salvo in a greater military offensive.

## Number of Players

This scenario is designed for two players, with one player controlling the Terran Alliance and the other controlling the Centauran Empire.

Players that wish to run this scenario with more than two players can split each of the player positions into multiple teams. Each team member will control a colony at their faction's homeworld, and the homeworld's available

Census will be split between each team member. Each of these colonies will possess Morale and infrastructure values identical to those found in the normal two-player version of the scenario. The empires' other colonies should be split between the team members as the players' discretion.

## Campaign Scope

This scenario is a modified 4.6.1.4 System Campaign with action taking place in three star systems: Sol, Proxima, and Alpha Centauri. System maps for each of these star systems are included in the appendices.

## Victory Conditions

The Terran Alliance will score a major victory if they successfully conquer, capture, and maintain control over the Centauran homeworld for six consecutive campaign turns. A minor victory is scored if the Centaurans do not control any nonhomeworld colonies for twelve consecutive campaign turns. This secondary victory condition represents that the Alliance has broken the Centauran's will to continue fighting, forcing them to submit to peace negotiations.

The Centauran Empire will score a major victory if the Terran homeworld's Census value is reduced to zero. This condition can be achieved by conducting X.X Anti-Population orbital bombardment against Earth, or by conquering the planet and shipping its population off-world. The Centaurans will score a minor victory if its forces can conquer and hold Mars for six consecutive campaign turns. As with Terran's minor victory condition, this victory option is used to break the Terran's resolve and force them to surrender to the might of the Centauran nation.

## Starting Technologies

Both the Terrans and the Centaurans begin the campaign as Interstellar civilizations with very low tech levels. Each faction possesses its own technological advantages, as demonstrated by the associated technology lists. The Terran Alliance is generally better at carrier warfare and have superior FTL drives, while the Centauran ships are sturdier and can score more damage.


[^0]:    // Celestia or AstroSynthesis for map aids
    // Inkscape or Illustrator for map creation
    // online tools

[^1]:    Example: Pollux, Mira, Capella

