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Introduction and Game System

Introduction

For six long years, the Coalition of Worlds has been fighting a civil war against the Galactic Government, a totalitarian regime ruled by a group of 5 Generals (always 3 Human and 2 aliens) whose only goal was expanding their control over more and more worlds (should you believe the Coalition side of things). By some accounts, they are fighting a losing battle; by others, they are on the brink of victory. But it is not the accounts of others that matters; it is your account. You are the captain of a starship. And you are living in a galaxy at war. What story will you tell?

Welcome to the Burnt Skies Role-Playing Game.

This game is best suited to the Seven Years War era (except where noted, it assumes that you are in the trailing end of the war), as that is where most combat was involved and where there were clear-cut sides. Your Game Master may choose to run a session or campaign after the war. Though the exact materials in this document aren't specifically meant for that, they can be easily adapted if you have other materials in the Burnt Skies library.

This document assumes that you are familiar with role-playing games in general. There are no intentions to publish it, though if sufficient interest is shown, it may be expanded and become free-standing on its own. The game is played with d6 and d10 dice. All time intervals, unless otherwise stated, are Human (day length, 7 days in a week, etc.).

Character Creation

So, you've either read some Burnt Skies stuff or you've skipped ahead and read the second section, World Background. You're ready to go, right? Nope. You need a character. Let's take your sorry self and make you into a starship captain, shall we?

Concept

The first thing that you need is a *character concept*. What that means is that you can't just say to yourself, "I'm a starship captain!" You need to figure out just who your captain is, where he's from, and what he's doing. To take a historical figure, let's look at Morgan Locke, the captain of the cruiser *CV Aquasonic* (we will refer back to Locke and his vessel numerous times throughout this document for examples). To take the character of Morgan Locke and sum him up in a few sentences, he is **a Human who considers himself to be too old to be fighting in the war, but whose sense of duty keeps him going as he is asked to**. From there, we can add more details – that he's 91 years old, that he's from Athena, that he was previously retired before Athena joined the war and dropped him into a starship.

Take some time and look through the various species and worlds provided in the World Background. Come up with a short paragraph about your character. Once you have that, we can move on.

Human and Ginok are the standard playable species. While others are possible, they are either too rare (Gabon) or do not prefer to fight in the war (Xcilkraa, Ferorn).

Character Stats

Words on a sheet of paper are nice, but they won't help you in a tabletop game. So now we've got to take the concept and implement it with various statistics. These are broken up into two categories: Attributes and Skills.

Attributes

There are six Attributes that your Captain has, much like any role-playing game. They are:

Strength: How strong your character is.
Agility: How nimble or fast your character is.
Physique: How much punishment your character can withstand.
Intelligence: How smart your character is.
Keenness: How aware your character is of what goes on around them.
Willpower: How strong your character's mind is.

These stats can either be rolled by rolling 2d10 and dropping the lower die six separate times and the assigning as you see fit (for instance, roll a 2 and a 6, so the 6 can

be assigned to whichever stat you wish) or be deliberately generated by taking 40 points and distributing them as you wish. Your GM will tell you which method they'd prefer you to use.

General Skills

There are eight different skills that your Captain will find useful at various points throughout the game. Skills are statistics that are not inherent to your character from birth but rather that you have spent time training with since birth. Because of this, there may be skills that you haven't trained in so that you might get better development with another.

The skills are as follows:

Convince: Make someone believe something (for example, bluffing).
Coerce: Make someone do something (for example, intimidating).
Knowledge: A particular field of study that your character is proficient in (pick a field; discuss with your GM the benefits it might have).
Mechanics: You captain a huge warship, but do you have any ability to affect repairs on it? Chances are, you won't need to, but you never know.

Computers: How good your character is with computer systems. This covers most bridge console functions (sensors, communications, etc.) as well.
Stealth: Being where you're not supposed to be.
Melee: How good is your character in a hand-to-hand fight?
Sidearms: Skill with ranged handheld weapons.

A Captain is given 40 points to distribute among these nine skills.

Bridge Skills

Bridge skills are used for the secondary module of play – where all of the characters are bridge crew for one vessel. For more on using Bridge Skills, see the section labeled "Play Variant: One Ship, One Crew".

Command: How well you can command your vessel. The Captain gives bonuses to everyone else on the bridge.
Navigation: Your ability to maneuver your ship in space and through subspace.
Weapons: How well you can operate your ship's weapon systems.
Fighter Coordination: Ability to coordinate the fighters on board your vessel.
Sensors: How well you're able to aim and interpret your sensor package.
Communications: Anyone can answer the phone, but it takes someone with special skill to use a communications package for nonstandard uses.
Internal Diagnostics: Ability to read damage reports to the vessel and direct repair efforts.

A Captain has 15 points to assign among these skills.

Other Stats

A few other crucial stats can be generated once you've rolled your Attributes and distributed your Skills.

Hit Points: Though your captain is most comfortable, and arguably safest, on the bridge of a starship, there are sometimes situations you will find yourself in where you'll have to take a hit. That is what hit points are for. Figure out how many hit points you have by adding together your Physique and Willpower attributes.

Speed: The average character moves at 10 meters per round (five squares). A Physique of 3 or under lowers this to 8; a Physique of 8 or higher raises it to 12.

Defense: This stat is the same as your Agility Attribute. It represents how hard you are to attack in personal-scale combat. Cover can add to this stat (see Combat for more information on taking cover).

Initiative: Again, this stat is the same as Agility. It is added to initiative rolls in personal combat (not in space combat).

Let's look at our example character, Captain Locke.

Captain Morgan Locke

Strength: 3	**Agility: 8**	**Physique: 5**
Willpower: 9	**Intelligence: 7**	**Keenness: 7**

Convince: 9	**Coerce: 3**	**Knowledge (Athenian History): 7**
Mechanics:7	**Computers: 5**	
Stealth: 2	**Melee: 3**	**Sidearms: 3**

Command: 10	**Navigation: 8**	**Weapons: 3**
Fighter Coord.: 2	**Sensors: 5**	**Comms: 4**
Diagnostics: 3		

Hit Points: 14	**Speed: 10m**	**Defense: 8**

At 91 years old, Locke isn't that strong, but he makes up for it by being smart, aware of his surroundings, and to some extent stubborn. He has little experience with physical combat, but he knows a thing or two about the systems of his ship and is a scholar of his homeworld's history. Last year, he convinced two Government captains to defect, bringing two new ships into the Coalition's fleet.

Okay, so, now we've got ourselves a Captain. But what exactly is he captaining? Move on to the next section to create your ship, your vessel, your warhorse.
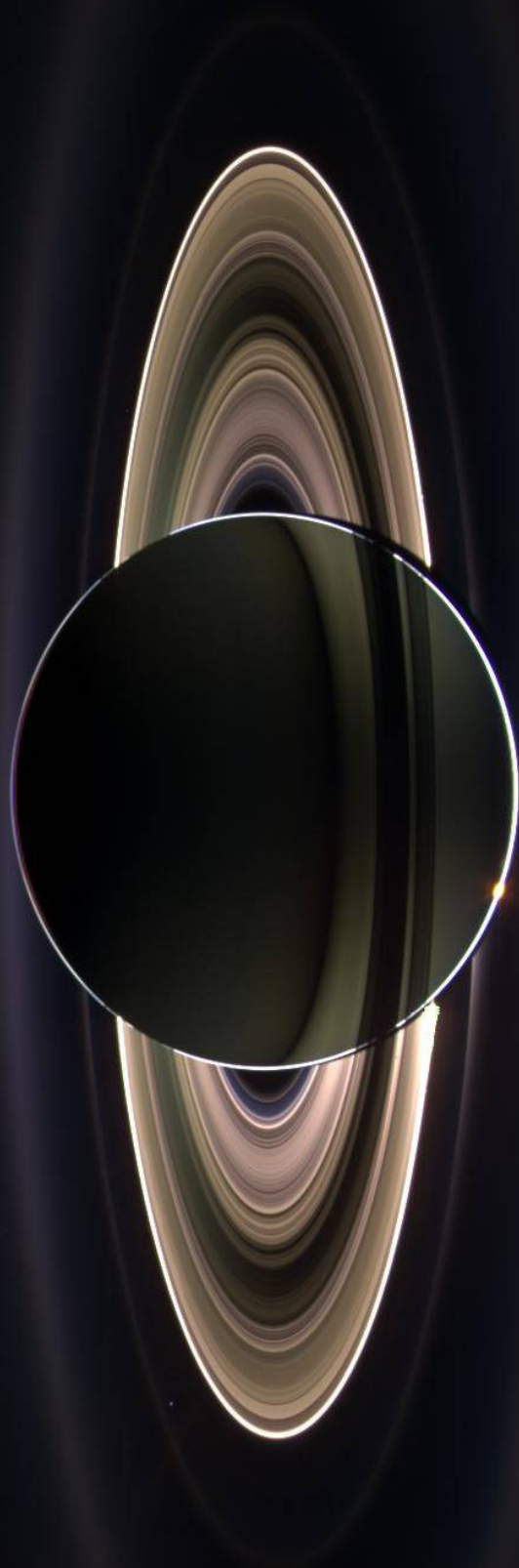
Ship Creation

The average ship in Burnt Skies is built around the concept of a single large mass driver cannon running along the entire spine of the ship. These weapons have the longest range and highest damage of any weapon system devised, and thus have the largest infrastructure devoted to them within ships. More on weapon systems as they come up, but for now, know that the larger the ship, the larger the MAD cannon, and thus the longer the range and damage of the weapon.

Most of this portion will deal with the game mechanics of the ship. It is recommended to read the pertinent sections in World Background before creating a ship.

Ship Scale

The scale of your ship will determine much. First is length – 100 meters to 250 meters for a frigate, 250 to 500 meters for a cruiser, and a battleship measures from 500 meters to 1,000 – a full kilometer.

The second is power output. Each class of ship has more reactors than the smaller types in order to power their larger and more numerous systems. Each reactor grants the ship 10 energy per turn. Frigates have one reactor, cruisers have two, and battleships have four (meaning that each turn, a frigate gets 10 energy, a cruiser gets 20, and a battleship gets 40). The number of reactors also determines initiative (more in the Combat section).

Lastly, the size of your ship determines how many hit points it has. Hit Points are obviously not on the same scale as on the personal scale; a personal sidearm won't affect a capital ship at all, and a weapon that can damage a starship will obliterate any person it's turned against. A ship has a hit point for every ten meters of length, meaning that a 300 meter ship has 30 HP.

Weapon Systems

What follows are weapon systems on a standard vessel. The last section will go over some ways that this could be customized to suit the needs of a particular captain.

MAD

The Mass Driver is the central weapon system on almost any starship in service today. Its power is determined by the length of your ship. For every 50 meters of your ship, you get an additional d6. This die is used for both attack rolls and damage rolls (more on this in the combat section). For example, a 200 meter long ship gets 4d6; a 310 meter long ship gets 6d6. Usual rounding applies, so a 424 meter long ship gets 8d6 while a 425 meter long ship gets 9d6. The theoretical range of a MAD cannon is infinite, but realistically most combat takes place within the 25-30 kilometer mark down to 5 kilometers, where it gets too difficult to point the vessel at the target.

In order to fire, a MAD needs six energy for every die of damage it will do; our 425 meter cruiser, with 9d6 damage, must accumulate 54 energy to fire. Because a cruiser only gets 20 energy per turn, it takes a few rounds for charge to be built back up. More on targeting can be found in the Combat section.

Secondary Emplacements

Most ships today use Point Defense cannons on their secondary emplacements. PD cannons start working at the 5 kilometer mark where MAD cannons stop and can work truly up close and personal with other vessels. Because of the massive damage incurred by broadside combat, it has fallen out of favor, but is still used by some captains.

Point defense cannons require 2 energy to fire offensively (they require no power defensively, i.e. against starfighters and missiles; see Combat for details). Like with MADs, more information on targeting can be found in the Combat section.

Some vessels equip missile launchers on their emplacements instead of point defense cannons. Though the odds are stacked against them – the advent of PD cannons has rendered missiles obsolete – the occasional captain will find a use for them. A single emplacement can hold 5 missiles. Missiles do not require any energy to fire, but have the obvious drawback of limited ammunition.

A vessel has one secondary emplacement for every 25 meters of length. As rounding can get annoying, see the following table for the calculations.

Ship Length	Secondary Emplacements	Length	Emplacements
100-112	4	563-587	23
113-137	5	588-612	24
138-162	6	613-637	25
163-187	7	638-662	26
188-212	8	663-687	27
213-237	9	688-712	28
238-262	10	713-737	29
263-287	11	738-762	30
288-312	12	763-787	31
313-337	13	788-812	32
338-362	14	813-837	33
363-387	15	838-862	34
388-412	16	863-887	35
413-437	17	888-912	36
438-462	18	913-937	37
463-487	19	938-962	38
488-512	20	963-987	39
513-537	21	988-1000	40
538-562	22		

Engine Arrays

        Engine arrays allow the vessel to move and maneuver. A typical ship has two engine arrays. Vessels meant for faster operations, such as a scouting frigate, may have up to four. Because engines scale with the size of the vessel, it takes more energy to power the arrays of larger vessels. A single frigate engine array takes one energy to power; cruiser takes 2, battleship takes 4.

        Powering an engine array can speed up a vessel by one kilometer a turn, slow it down by one kilometer a turn, or turn the direction of the vessel's movement 45 degrees (a ship cannot change its direction by more than 45 degrees a turn, even if you put more than one engine array into it). Note that Newtonian space physics are in place; if you use both engines to accelerate to two kilometers per turn, the next turn you can drift at the same speed without power or even accelerate to four kilometers per turn. Your GM may cap maximum speed in order to keep the play area manageable; a recommended starting point is 10-12 depending on mat size.

        Every array past the second takes a certain amount of energy to simply have the arrays on standby. For frigates, this is 1 energy per array, cruisers 2, and battleships 4. This amount is subtracted from your energy output each turn. (For instance, a frigate with four arrays has only 8 energy output, as two are taken for the two extra arrays even when they're not being actively used.) A ship can have no more than four arrays.

        Maneuvering Thrusters

        Maneuvering thrusters are used to steer your ship while "drifting" (moving across the board without power from the engines). If you aren't using your engine arrays to affect your velocity (speed up, slow down, change direction), you can turn to face your ship in any direction at no energy expense (for example, to get an optimal MAD firing angle). Once you decide to move under power again, it is assumed that you've used your maneuvering thrusters to face back to the direction you are moving in; you cannot use them to position yourself in such a way that you change your direction of travel by more than 45 degrees.

Fighter Squads

        Fighter squads are another tool at the disposal of a capital starship. Frigates typically carry a single squad of six, cruisers carry three squads, and battleships can carry up to a dozen six-fighter squads. They do very little damage on the capital ship scale. They originally came about as additional defensive screens against missiles, but as missiles fell out of favor, fighters themselves became an offensive action, though they often ended up fighting only other fighters. More on the use of fighters can be found in the Combat section.

Sensors

Most things are easy to detect in space, given enough time. When something that is hard to find needs to be found, a single d10 is rolled against the target's stealth value plus 10% of the distance (a probe with Stealth Value 5 that is 20 kilometers distant needs a roll of 7 to detect).

Most vessels under power have a default Stealth Value of 0. Stealth Armor and running in Stealth Mode will each increase SV by 2. It is up to the GM to determine the SV of various objects (for instance, the probe has a 5 Stealth Value because its power output is incredibly tiny – essentially the base SV of 2 – it is very small, adding another +2, and it has rudimentary Stealth Armor for a +1).

Additional Upgrades

In addition to the standard equipment, vessels often have additional upgrades, especially those that were custom-created and not mass-produced. Talk with your GM about what upgrades you might like; a brief list of equipment follows. Install times vary and are listed together with Repair times on the Combat section. Rep cost is standardized across all ship scales; while it is more expensive to install most of these on a larger ship, larger ships also get priority, negating the cost issue.

Armor: Each armor upgrade adds 10% to the base HP of the vessel (a 1000m vessel gets 110 HP, then the next is 120, not 121). The first upgrade costs 100 Rep, with each subsequent upgrade costing twice as much as the last (100 rep for Armor 1, 200 for Armor 2, 400 for Armor 3, etc.).

Energy Bank: Your vessel is able to store excess energy when the MAD capacitor is fully charged. Each bank costs 200 Rep and can store half a turn's reactor output (standard frigate gets 5, cruiser gets 10, battleship 20). This can be used to kickstart MAD recharging after it has been fired. The first bank can be installed with no modifications to the ship; the second requires a 50m modification, or removal of 1d6 MAD (see Modifications).

Engine Array, Additional: Installing an additional engine array requires additional structural support throughout the chassis (though not on the level of Structural Reinforcement). However, its benefit of added acceleration is not to be underestimated. An additional engine array costs 300 Rep; again, a vessel can not have more than 4 engine arrays.

Power Distribution: Your vessel has an advanced power distribution system, for whatever reason. Such systems usually cost around 400 Rep for the extensive amount of work that goes into retooling the power systems of the ship, but the practical upshot is a 20% increase in reactor output.

Reactor, Additional: You have had an additional reactor put into your vessel. This has such benefits as (obviously) increasing power output as well as giving you an additional d10 for initiative rolls. It does *not* increase your vessel's hit points. This is no small undertaking, as it completely changes the power system of your vessel and requires

a lot of shifting around of internal parts. It costs 750 Rep and requires the removal of 1d6 MAD (see Modifications). Only one additional reactor can be installed on any ship.

Sensor Package, Advanced: Upgrading the sensors allows you to more easily detect things that may wish to be undetected. Roll an additional d10 for each sensor package upgrade in your vessel. Each upgrade costs the same amount as Armor upgrades (100 for the first, 200 for the second, 400 for the third, and so on).

Stealth Armor: This one-time upgrade allows you to be less easily detected. It gives your vessel a Stealth Value of +2 on top of the normal stealth mode bonus (more on Stealth in the Combat section). Stealth Armor causes slower repair times due to the care that must be taken with the outer armor level. It costs 300 Rep.

Structural Reinforcement: This one-time upgrade adds 30% of your ship's base HP by increasing the number of support beams throughout the ship. This procedure is costly, as it involved a lot of work and a lot of material, coming in at 400 Rep.

Reputation

Upgrades are bought with Reputation. As you are part of a regular military, you are not expected to spend your own money on upgrades to the ship. Rather, Rep is earned by completing mission objectives and by defeating enemy vessels.

Rep figures listed are the total Rep earned; in a group, it must be split up evenly between Captains. For instance, killing a Cruiser and a Frigate gets the battle group 150 Rep; if there are five members, each member gets 30 Rep.

> Frigate: 50 Rep
> Cruiser: 100 Rep
> Battleship: 200 Rep

In addition to merely killing, Rep can be earned through roleplaying through other situations, both on the ground and in space. It is similar to the Experience system of most RPGs, except that once you spend Rep, it's gone (of you have 140 Rep and get your first Armor upgrade, you're down to 40). Most of this is up to the GM's discretion, but general roleplaying Rep should not go above 100 unless the battle group has done something *really* special. This Rep can be awarded individually instead of to the whole group; say, if one character talks the group out of a hostile situation, the Rep would go to that player.

In addition, you can gain Rep from completing certain levels of missions. Some suggested mission types and their associated size are provided later on in this document.

> Small mission success: 100 Rep
> Medium mission success: 200 Rep
> Large mission success: 400 Rep

Money

Because of the Rep system, you shouldn't need money. However, should you go pirate, it is up to the GM to figure out costs for various commodities and how much money you would be rewarded. For ship upgrades, add three 0s to the end of the Rep value (Armor 1 becomes 100,000 credits), and a x2 and x4 multiplier applies to cruisers and battleships respectively.

Modifications

The main modification that most vessels can undertake is removal of a part of their MAD cannon to make room for something else. Any removal of the MAD can be done in increments of 50 meters (and thus 1d6 removed from attack and damage). In the resulting space, numerous things can be put in place. Suggestions are an additional fighter squad or storage space for 100 missiles (including a more efficient missile distribution system allowing for a central reservoir instead of separate missile racks for each emplacement).

Another modification is splitting your MAD array into two smaller arrays. Very few captains do this, however some like the ability to fire faster over the ability to hit harder. Take the number of dice that your MAD would normally have and split it in half, rounding down; recalculate the energy they take to fire based upon the new number of dice. If you end up rounding down, the extra space can be considered free space for a modification that would normally deduct a die from the MAD array.

The modifications listed before, and others you may come up with, are assumed to be a part of your vessel from the start. Some modifications are to make room for equipment (such as an energy bank or reactor) cost 500 rep on top of the equipment cost in order to do the extensive amount of work to the MAD cannons.

With all of this in mind, let's take a look at our example vessel, the *Aquasonic*.

CV Aquasonic
Cruiser
Length: 460 meters   **Reactors: 2**   **Energy Output: 24***
HP: 46   **MAD: 9d6**   **Energy Required: 54**
Secondary Emplacements: 18   **Engine Arrays: 2**
Init: 2d10   **Sensors: 1d10**
***Special: Ferorn Power Distribution (+20% reactor output)**

The *Aquasonic* was Athena's primary defense ship, the flagship of its home fleet. The Ferorn that helped to colonize Athena also helped with its construction, giving it an immediate power distribution boost. Constructed three centuries ago, it's a beautiful ship of flowing blue lines, stark contrast to today's mass-produced utilitarian designs.

Now we've got our character and our ship, and we know how we're able to upgrade our ship. Now, let's get to that pesky Combat section we've heard so much about.

Combat

There are two different types of combat that your Captain will be involved in. The most common type is space combat. However, we're going to get personal combat out of the way first, quickly.

Personal Combat

Personal combat is when two people are fighting each other… well, personally. Be it with guns, knives, or fists, personal combat is close-quarters and not something that most Captains are comfortable with.

Combat is fought in rounds; in the case of personal combat in the Burnt Skies RPG, each round is five seconds long. At the beginning of each round, all participating parties roll initiative. This is a d10 plus your Initiative stat (which should be the same as your Agility stat). This is done at the beginning of each round of combat.

In each round, you can do numerous things. It is simpler than most other RPGs because personal combat is not the focus of the system; advanced moves are up to the discretion of the GM.

Each grid square in personal combat is two meters by two meters. Thus, a character with a 10m movement speed can move five squares a turn.

*A note on diagonals: whenever a distance is measured along a diagonal line, the first diagonal movement is **always** counted as one, then two, then one, and so on. This is for distance calculations in personal and space combat, as well as movement in both types of combat.*

Your character is also able to use their weapon once per turn. Determine what kind of weapon it is (fists, knives, stun batons are melee; guns are firearms). Roll a d10 for your attack roll, and add the appropriate Skill. The resulting roll must beat the target's Defense stat (defender wins on a tie).

You can move and attack in the same turn; the order you do so in is up to you.

Defense is usually only the target's Agility Attribute, but if the target is taking cover, they get bonuses. Something that visually obscures the person but provides very little in the way of deflecting a shot adds +1 to Defense. A small pile of rubble or a low wall will provide a +2 bonus; hiding around the corner of a wall or behind a dedicated armor wall adds +5.

Taking cover only works in ranged combat. You can "take cover" when someone is attacking you with a knife, but it's usually just called "running away", and provides no inherent Defense bonuses.

Captain Locke fires his pistol at a Government soldier. He rolls a 3 on a d10 and adds his Sidearms Skill, totaling 6. The soldier's base Defense is 5, but he is hiding behind a chest-high pile of rubble, adding 2 to his Defense. Captain Locke's shot misses, hitting the pile of rubble.

Personal Weapons

Now that you know how to fight with them, here's a list of weapons with the amount of damage that each can do. You will find that, compared to hit points, most weapons do a large amount of damage. This is because weapons are meant to *kill*, and you shouldn't take five bullets to the chest and keep standing tall.

Unarmed: Should a fist land, it can cause d2 points of damage. Flip a coin, or roll a d6 (1-3 is 1, 4-6 is 2).

Stun Baton: A stun baton causes d6/2 damage; roll a d10 against the target's Physique *or* Willpower, whichever is higher.. A higher value incapacitates the target for however many turns your roll exceeded the Attribute by. A natural 10 renders the target unconscious.

Knife: A knife causes d6 points of damage.

Pistol: The standard-issue sidearm given to starship crews in case of enemy boarding causes d10 damage.

Rifle: A soldier's assault rifle fires more rapidly than a pistol, though usually with a slightly smaller caliber. It does d10+d6 damage.

Injuries and Healing

When a character's HP drops below 0, they fall unconscious. They will keep taking damage at the rate of 1 HP per turn until they receive basic first aid, as can be provided with a standard-issue medpak. I character can go down to a negative number of hit points equal to half of their maximum hit points (a character with 19 HP can go down to -10) before dying.

At 0 HP, the character is conscious, though just barely; they are unable to perform any actions, but are able to speak.

HP regenerates at 1 HP per day under normal circumstances. If they spend the majority of their time in a ship's medical bay, they regenerate 3 HP per day. If they are at a state-of-the-art hospital planetside, they regenerate at 5 HP per day.

Space Combat

Knives might work fine in personal trials on the ground, but you don't bring a knife to a space fight. You bring a warship.

Things change a bit from personal combat. First, each round is now a full minute, and each square on the grid is a square kilometer.

Again, the first step is to roll initiative. Take the number of reactors you have and roll that many d10s and add them together. A standard cruiser, like the *Aquasonic*, rolls 2d10. This means that command ships usually go first. If two frigates on opposite sides tie in initiative, who goes first is determined by whose command ship goes first (two frigates get 5; their commanding frigates get 10 and 12, so the frigate on the side of the cruiser with 12 goes before the frigate on the other side). If the highest ships on the battlefield tie each other, they roll again to see which goes first. Initiative is re-rolled each turn; alternatively, the commander of a battle group can decide to lock the group's initiative numbers if they are satisfactory. This is lost if the commander's vessel is destroyed, and the group returns to re-rolling initiative every round.

When your turn comes around, actions must be taken in the following order. Details on the steps are explained below.

> **Energy Distribution**
> **Resolve Missiles**
> **Resolve Starfighters**
>> Starfighter Movement
>> Starfighter Attack
>
> **Move Vessel**
> **Secondary Emplacement Attack** (point-defense, missiles)
> **MAD Attack**
> **Leftover Energy to MAD Capacitors**

At the beginning of your turn, keep track of your generated energy. It can then be used to move your ship, fire point-defense cannons, or be added to the MAD cannon's energy capacitors. At the end of your turn, any unspent energy points are added to the MAD capacitors; if the capacitors are full and you don't have any energy banks for it to be put into, the energy is bled off into space.

During combat, you should keep track of your speed, direction of travel, and orientation. The first two are most easily kept track of on your Vessel Sheet with a die placed on the Velocity grid, the number on the die indicating your speed and the square it is on indicating direction of movement. If you are not adjusting velocity (speed up, slow down, change direction of travel), you may orient your ship in whatever direction you like.

A note on speed: The speed values for this game are certainly off; bear with it as a simulation of space battle and don't pay attention to such inconsistencies as a missile moving at five kilometers a minute. Just think of it as a way to keep the battle mat down to a reasonable size.

MAD Combat

MAD cannons can be fired at theoretically infinite range, but as they get more inaccurate with distance, their actual range depends on the size of the vessel. They can operate five kilometers and out. In order to attack an enemy, they must be within a forward ninety degree cone from your orientation (if you are facing in-system [colloquially, "north"], they must be directly northwest, northeast, or anywhere in-between). You will have to roll an attack roll that must beat the difficulty of the shot. The base difficulty is determined by distance – if a target is 15 kilometers distant, the difficulty of the shot is 15.

Furthermore, the difficulty of the shot is affected by the size of the ship being shot at. If the target vessel is a frigate, subtract 1 from every die you roll. If it is a cruiser, make no change; if your target is a bloated battleship, add 1 to each die rolled. Defender wins on a tie (if an attacker rolls a 20 against a difficulty of 20, for example, the shot does not hit).

The only exception is if you roll natural 6s on all of your attack dice – by some stroke of luck, you manage to hit something that should be impossible for you to hit, even if it is outside of your maximum theoretical range. It is easier for smaller vessels to make such a fortuitous shot, but the hit of course results in fewer HP being taken away from the target.

Once a hit is determined, the attacker rolls their MAD damage, and the resulting number is subtracted from the enemy ship's HP. This is not affected by size the way that the attack roll is.

The *CV Aquasonic* is engaging the frigate *GGV Tenol-Kara* in combat. The *Tenol-Kara* is 14 kilometers away. The *Aquasonic* rolls its 9d6 attack roll and comes up with a 24. As the *Tenol-Kara* is a frigate, 1 is subtracted from each die the *Aquasonic* has rolled (-9), for a total of 15. The *Aquasonic* hits. The *Aquasonic* rolls 9d6 again which results in a relatively poor roll of 16; the *Tenol-Kara* loses 16 HP.

Point Defense

Though broadsides have fallen out of favor because of the massive damage occurred to each ship, sometimes a vessel will still find itself having to target something that is closer than five kilometers. At this range, point-defense cannons take over.

As PD cannons are mounted on turrets, they can fire in pretty much a 180 degree arc. What this means practically is that a ship can turn half of its PD cannons (rounded up) on any given target.

Attack rolls are rolled with a d6, with one being rolled for each attacking cannon. The resulting roll must match or exceed the target distance, with the exception of a 6 indicating a miss anyways (we're talking kilometers; misses happen). Total up the number of hits; this is how much damage is dealt. Point-defense cannons don't do large amounts of damage on their own.

The *CV Aquasonic* closes the gap with the *GGV Tenol-Kara* and engages in point-defense combat at 3 kilometers. It turns 9 PD cannons towards the *Tenol-Kara* and fires. The rolls are: 2, 4, 6, 3, 4, 1, 5, 2, 6. The two sixes miss; anything below a 3 also misses. The *Aquasonic* does 4 damage.

Missiles

Missiles generally aren't used in space combat, because they're easy to shoot down. However, enough launched at once can overwhelm defensive screens.

A missile emplacement takes place of a point-defense cannon. It costs no energy to fire. It is up to the player to keep track of ammunition reserves for each emplacement they have (though where it is situated on the ship does not matter, simply numbering your emplacements and keeping track that way works just fine).

Once fired, a missile moves at a constant five kilometers per minute. It can turn to track its target (not limited to 45 degrees a turn as ships are) and has enough fuel to do this for ten turns, after which it stops correcting its course and continues on its path, usually out of the battlefield. The missiles all move at the beginning of the round (they do not move the instant that they are fired, instead waiting for the top of the order) and are guided by the GM to head directly towards the target vessel; they are not capable of leading their target.

When a missile occupies the same square as another vessel (intended target or not), both the attacker and the defender must roll opposed d6s. The attacker rolls one for every missile that is hitting that turn, and the defender rolls one die for every missile attacking up to its total number of point-defense cannons. The dice are matched up against each other in descending order. Defender wins on a tie. When it contacts, the missile does 1 damage.

The *Tenol-Kara* pulls away from the *Aquasonic* and fires four missiles. When they reach the *Aquasonic*, the Captain of the *Tenol-Kara* rolls 4d6, with resulting rolls of 5, 4, 4, and 3. Captain Locke rolls a 4d6 and ends up with 6, 4, 3, 2. The third and fourth missiles get through, doing a total of 2 damage to the *Aquasonic*.

Stealth Mode

If you wish to remain undetected by other ships in the area, you can power down – set MAD capacitor reserves to 0, empty any energy banks you have, and specify no reactor output. So long as you are drifting under inertia, you get a +2 bonus to your

Stealth Value. The first turn that you get out of Stealth Mode, your reactors only give half of their energy output. They are at full power on the second turn.

Starfighters

Starfighter combat happens in a few different ways, depending on what it's attacking. First off, starfighters move at an even four spaces per round. If they are attacking within the same round, they can only move two spaces a round.

Starfighters are grouped into squads of six. On the grid, they are best represented as a six-sided die, with the number showing on the die being the number of fighters left. Starfighters can only attack at 1 kilometer or closer – in fact, they are the only unit that can occupy the same space as another

Starfighters vs. Capital Ships: The fighter squadron attacks with a d6, and the capital ship defends with a d6 *only if* it has functioning point-defense cannons.

If the fighter's die is higher than the capital ship's, then 1 damage is dealt to the ship. If the ship's die is higher, then the fighter squad loses the number of fighters equal to the *difference in values* (i.e. fighter rolls 2, ship rolls 5, fighter squad loses 3 members). If the result is a tie, the capital ship loses 1 secondary emplacement (if both types are present, the attacking player chooses whether it is a point-defense cannon or missile emplacement).

A fighter instigating the attack is the only way that a capital ship can damage a fighter squad; ships cannot attack fighters on their own turn.

Disabling Capital Ships: A starfighter squadron can attempt to disable the engines on a capital ship. They must declare their intent to do so before attacking. The attack is rolled as a normal attack versus a capital ship, including the results if the ship rolls higher. If the fighter squadron rolls higher, then they do "Engine Damage" equal to the difference in values on the die. Once "Engine Damage" reached 10% of the ship's total hit points (i.e. a ship with 40 HP needs 4 engine damage), it is disabled; it continues on its current path. Its secondary emplacements are still operable but it can no longer aim its MAD. If the result is a tie, 1 engine damage is dealt anyway.

Starfighters vs. Starfighters: When attacking another squad of fighters, a fighter group rolls 1d10. If the result is 1-6, that number of enemy fighters are destroyed. If the result is 7-10, no enemy fighters are destroyed.

Starfighters vs. Missiles: As missile interception is part of a starfighter's reason for being, they have a very good chance to destroy a missile. Roll a d10. If the result is 1-8, the missile is destroyed. If the result is 9 or10, the missile continues on its way.

If a missile is used to attack fighters, it must detonate in the same square as the fighters. When this happens, roll 1d10. If the result is 1-6, the number of fighters

destroyed equals the number shown on the die *divided by two*. If the result is 7-10, then no fighters are destroyed.

System Damage

Usually, damage doesn't have an adverse affect on a vessel. However, especially as it gets more damage, systems will get damaged.

When a vessel goes down to 50% of its full HP, the GM rolls a d10. A 1 signifies that system damage takes place; anything higher, the vessel operates normally. At 25% health the roll is done again, except that the roll must be higher than a 3 to escape crippling damage. Lastly, at 10% of the ship's health, there is a 5 in 10 chance of system failure.

When it is determined that a system has failed, the GM rolls a d6. The effect is on the following table.

Note that system damage is only rolled for once at each threshold. However, if damaged at an earlier threshold, subsequent thresholds can further damage the ship. The engine array and reactor are the only systems that can take damage more than once (with each subsequent hit taking out another array/reactor); once any other system is offline or (in the case of containment failure) hampered, it cannot be destroyed (or hampered) again. If an extra engine array (array 3 or 4) is taken offline in this matter, however, its continuous drain on incoming energy stops.

1-2	MAD array taken offline.
3	Point-defense targeting computer offline.
4	A single engine array is taken offline.
5	Reactor offline (if a vessel only has one reactor, its output is halved instead).
6	Containment failure. Loss of crew causes halved efficiency (all rolls divided by 2; point-defense cannons are exempt, but only half of the usual number of cannons can be fired).

Repair

A vessel that is damaged will not be able to repair itself, like a biological body can. It must be repaired by somebody. For this, there are various facilities, from massive shipyards orbiting planets to the numerous Deep Space Drydock complexes. No matter what the facility, repair times are roughly equal. Simple armor repairs (HP recovery) happens at 5 HP per day (unless Stealth Armor is installed, in which case recovery rate is 3 HP per day). Any secondary emplacements that are destroyed recover at one emplacement per day. Fighter squads get reinforcements at the rate of one squad per week (first reinforcing existing squads, then getting new squads to replace lost squads).

System repair can take longer. A small table of repairs times is listed below.

MAD array	2 weeks
PD targeting computer	3 days
Engine array	1 week
Reactor	2 weeks
Containment Failure	10 days

In addition to repairs, these facilities can upgrade your vessel. Your ship must be *fully repaired* before it can receive upgrades.

Armor	*
Energy Bank	1 week/4 weeks **
Engine Array, Additional	3 weeks
Power Distribution	2 weeks
Reactor, Additional	5 weeks
Sensor Package, Advanced	1 week
Stealth Armor	1 week
Structural Reinforcement	4 weeks

* Armor added as HP gets added at the normal HP repair rate of 5 HP per day (3 with Stealth Armor installed).

** The first energy bank is easily added. Because of modifications need to fit additional banks, install time rises for subsequent banks.

Play Variant: One Ship, One Crew

The standard method of play outlined before works well when there are fewer players, but as the player count reaches four or five, and enemies reach similar numbers, combat rounds take an agonizingly long period of time. One Ship, One Crew exists to rapidly speed up the combat so that it does not take the whole session. Whereas in the standard variant, players will usually only have frigates or cruisers, with a larger crew you can now have cruisers or even battleships.

Combat works much the same as it does in the standard variant. However, now the Bridge Skills come into play, adding personal bonuses to how the ship performs. A list of how the skills are used follows. All gameplay changes are also outlined in the related skill (i.e. enhanced missile control is listed under the Weapons officer). As some rolls are not opposed, suggested difficulties are also listed.

Command

The Captain of the ship must motivate and lead his crew members to victory. To this end, the Captain always performs his actions first on the ship's round. He tells the crew members what he wants done. The Captain is encouraged not to micromanage, but in a more general sense to assign targets and prioritize various portions of the mission. When he goes, the Captain rolls a d10 and adds his Command score. Divide the result by 4 (round up); this number is added to *all* rolls that the crew members make during that turn. The Captain also rolls initiative for the ship, adding his Command score to the raw die roll. The ship now goes all at once, with the crew members deciding their own order within the ship's turn (this prevents Navigation from moving the ship into attack position, then the enemy ship moving out of position before the Weapons officer can fire).

Navigation

The Navigation officer has two roles. While in normal space, they pilot the ship and get it into positions where other crew members can do their jobs. This does not get tasking until something interferes with the duties of the Nav officer (asteroid belt, damaged engine array). The Game Master decides the difficulty of the piloting job and assigns a number for the Nav officer to beat by rolling 1d10 plus their Navigation score. Simple matters shouldn't need a roll; Easy should be in the 5-10 range, Medium in 11-15, Hard in 16-20, and "Impossible" above 20. (Because of the Captain's Command roll, these are not actually impossible, just extremely difficult.)

The Navigation officer is also in charge of moving the vessel through subspace. Using a Jump Gate requires no roll. Subspace drilling, however, does. The Navigator rolls 1d10 + Navigation. If the result is 10 or under, the ships takes 5% of its total hit points in damage from a rough subspace transit. If the roll is 5 or under, the ship takes massive damage (50%); 1 or 2 means that the ship is destroyed. Any navigator worth his salt should have no major problems if they are not under pressure. This roll is not aided.

If a subspace drill is required during combat, these numbers change. 15 or under, the vessel takes 10% damage from the jump (from maximum number of hit points). 10 or under, 50% damage. Under 5, the ship is lost. This roll *is* aided by the Captain's Command roll. Fleeing is a risk, but one that some Captains take instead of certain loss of all hands. Unlike in the Standard variant, other operations can be performed while the Subspace Drill is warming up, however this is at the expense of the amount of time before the ship can leave. The vessel must accumulate an amount of energy equal to its class's maximum normal reactor output (a frigate needs 10 energy to jump, a cruiser needs 20, and a battleship needs 40). This can also be taken from an Energy Bank, if the vessel has one, but not from the MAD capacitor's charge.

Weapons

The Weapons officer is responsible for firing weapons. This includes rolling for the MAD cannon, point-defense, and missiles. Because there is now a separate officer for it, micromanagement of missiles is now possible; instead of trailing a target, they can be used to lead a target or even switch targets if the first is destroyed. If there are a very large number of missile emplacements on the vessel, it is conceivable that they would have their own, dedicated Weapons officer.

Fighter Coordination

The Fighter Coordinator moves fighter squadrons around the field of battle, directly telling them where to go. The Coordinator has very little rolling to do; shortly put, they can roll 1d10 + Fighter Coord., and if the result beats a 15, fighters get a +1 to all attack rolls.

Sensors

The sensors officer is now able to add their Sensors Bridge Skill to all sensor checks. They can perform one sensor operation in a round. An operation can be identifying an enemy ship (distance to ship divided by 5 difficulty), scanning an enemy ship in depth (distance to ship), or aiding the weapons officer (Sensors skill added to MAD attack rolls *only*; does not help point-defense, missiles, or MAD damage). If the bridge is short-staffed (not enough players), the Sensors role can be shared (see Shared Positions, below).

Communications

Communications is one of the most basic positions on the bridge. Normally, no rolls are required. However, if the bridge crew should come up with some sort of non-standard use for the communications array, the Comms officer would roll 1d10 + Comms. If the bridge is short-staffed (not enough players), the Communications role can be shared (see Shared Positions, below).

Internal Diagnostics

This officer is responsible for keeping the ship in working order and alerting the Captain when it is not. They are also responsible for keeping track of the energy flow of the ship; they mark down the amount of energy the ship starts with, and as it is used (point-defense, movement), marking it down. They then alert the Weapons officer at the end of the turn to inform them how much energy is left over to be put into the MAD array. They are also responsible for keeping track of any energy banks that the ship might have.

If the ship gets any system damage, the Internal Diagnostics officer rolls 1d10 + Internal Diagnostics. Subtract this number from 20; this is the number of minutes (and thus rounds) that will elapse before the system is in working shape again. Once it is working, make another roll; this is the number of rounds that the system will keep working before it is offline permanently and must be repaired in drydock. If the bridge is short-staffed (not enough players), the Internal Diagnostics role can be shared (see Shared Positions, below).

Shared Positions

If the crew is not large enough to fill each position, then various positions can be shared. Because they are low intensity, for example, the Sensors and Communications officer can be one and the same. The Captain is relatively low-intensity for actual game mechanics and tan take on any unfilled positions. The crucial positions to fill are Captain, Navigations, and Weapons, plus the Fighter Coordinator if the ship has a large number of them. If the Captain ends up assuming an additional role, his Command roll at the beginning of the turn does *not* apply; you cannot motivate yourself the same way you can motivate others.

Sample Vessels

Standard Ships

Though most ships end up getting customized during their lengthy service periods, many (though not all) begin as a standard, mass produced model, especially frigates and, to a lesser extent, cruisers. These vessels are relatively cheap and form the backbone of most fleets.

Bayman-class frigate

Length: 183 meters	Reactors: 1	Energy Output: 10
HP: 18	MAD: 4d6	Energy Required: 24
Secondary Emplacements: 7 PD		Engine Arrays: 1
Init: 1d10	Sensors: 1d10	

Bayman-class frigates are midsize vessels. They're among the cheapest classes of frigate out there, no frills but with some room for modification afterward.

Unique Ships

Whether modified from a standard model of ship or built from the ground up, there are many unique ships plying the stars.

CV Vega

Length: 740 meters   Reactors: 4   Energy Output: 40
HP: 111*   MAD: 15d6   Energy Required: 90
Secondary Emplacements: 30 (24 PD / 6 ML)   Engine Arrays: 2
Init: 4d10   Sensors: 1d10
*Special: Armor 3 (+30% HP)
*Special: Structural Reinforcement (+20% HP)

The *CV Vega* is one of the premiere battleships of the Coalition fleet. Helmed by Fleet Captain Jeremy Tell, one of the best captains in the Coalition fleet, it is one of the most effective ships in the fleet – and it and its Human captain are most sought after by the Galactic Government. Its extra armor plating and internal structural reinforcement means that it can take a severe punishment, staying in the fray to inspire other ships in its fleet.

GGV Hermes

Length: 5,000 meters   Reactors: 20   Energy Output: 200
HP: 500   MAD: 100d6   Energy Required: 600
Secondary Emplacements: 180 PD   Engine Arrays: 2
Init: 20d10   Sensors: 5d10
*Special: 5 broadside MAD arrays on each side, 450m in length (9d6, 54 energy)
*Special: MAD energy bank can hold 1,200 energy.

The *Hermes* is a unique vessel classified as a "juggernaut" due to its five-kilometer length. For more on the *Hermes*, see the corresponding section in World Background.

By all that is holy, this is not a playable vessel.

RCF Forgotten Lore

Length: 666 meters   Reactors: 5*   Energy Output: 46*
HP: 80*   MAD: 12d6   Energy Required: 72
Secondary Emplacements: 27 PD   Engine Arrays: 3*
Init: 5d10*   Sensors: 3d10*
*Special: Additional reactor (+10 energy, +1d10 initiative)
*Special: Advanced Sensor Package 2 (+2d10 sensors)
*Special: Additional Engine Array (-4 energy output)
*Special: Armor 2 (+20% HP)

The flagship of the Raven Combined Forces, captained by the most feared pirate, smuggler, and all-around criminal Jack Raven, the *Forgotten Lore* is a perfectly suitable representation of its commanding officer. Raven is a Ginok with a hollow gash across the right side of his face, accentuating his kilometer-wide mean streak. The battle scar makes him even more fearsome. He commands a fleet of unknown size and if it's organized crime in the Government, chances are Raven has had something to do with it somewhere along the line.

The *Forgotten Lore* itself is a terrible asymmetric battleship; the left half looks like a relatively standard Ginok vessel of its size, while the other side looks like a half-collapsed cave, twisted forms flaring out and back in again, some hollow gaps showing through. It looks like a juicy target to anyone that doesn't know it… but almost everybody knows it, and what they feel is not confidence but fear upon seeing its ugly visage staring at them through space.

Obsidian

Length: 600 / 1100 meters   Reactors: 4   Energy Output: 40
HP: 90   MAD: -   Energy Required: -
Secondary Emplacements: 24 (12 PD / 12 ML)   Engine Arrays: 2
Init: 4d10   Sensors: 1d10
*Special: Melnar

Melnar ships are vastly different from the galactic norm. They're shaped like giant versions of the Melnar themselves, generally like giant rays; their length, given in two numbers, represents the length of the main body (used to determine other stats of the vessel) and the length of the ship with the length of the tail included, typically almost double the length of the main body (merely cosmetic, no effect on gameplay). They have no central MAD cannon, instead having double the number of secondary emplacements due to being so wide. They also have 150% the amount of hit points a vessel of their length would normally have. Melnar generally don't construct ships in the frigate class, instead creating cruisers and battleships. They may sacrifice four secondary emplacements to house an additional fighter squad up to half the number of emplacements (bringing them to the standard number for a ship of their length), resulting in the occasional underarmed supercarrier.

FIRESTORM

BY ANDREW HOOKWAY

AN OLD CAPTAIN
BRINGS NEW TRICKS
TO THE TIRED GAME OF WAR

World Background

About the War

It would be easy to say that the war was caused by resources, just as it'd be easy to say that the ancient nation of America's early civil war was caused by slavery. But the resources just became the founding for a deep-seated resentment. Inner worlds of the Old Government had been almost plundered of their resources to allow the Government to expand; in doing so, the inner worlds felt that the outer worlds had been stealing from them. Indeed, the most luxurious places to live, the highest standards of life, could be found in an ever-expanding ring of worlds; as the ring expanded outward, the previously booming world would die out, become just so many "ghost town" worlds, and be strip mined for resources to feed the machine.

The sides cross every demographic line. Humans, Ginok, Gabon, Xcilkraa, doesn't matter. Families are divided. The clearest line is between the inner systems (including most species' homeworlds, Human and Ginok included) and the outer worlds, but even this isn't clean cut.

The exact start of the war is hard to determine. Resistance built slowly, and war more or less just happened. In fact, the war had been waged for almost a year before any formal declarations of such were made. General consensus placed the start of the war in 2454 (Terran, see "Species' Calendars" for details). Now, six years later, the war is still going strong.

Galactic Geography

Referring to the area that the Government has control over as "the galaxy" is inaccurate. In truth, all of the species in the New Government originated within the Sagittarius-Carina Arm of the Milky Way Galaxy or its offshoot, the Orion Arm. The space is roughly 10,000 light years wide across the two arms and 30,000 light years long, going along the S-C Arm. (See Appendix B: Explored Space.)

It is speculated that, should the Government make the jump into either the Scutum-Crux Arm (towards the galactic core) or to the Perseus Arm (rimward), it would run into another interstellar civilization; however, there is no proof to back this up aside from reasoning that if so many species evolved so close to one another, it would be hard to imagine that no others existed. Many theorize that alien civilizations exist, but on the other side of the obscuring galactic core. Meanwhile, the "Luxury Ring" of the Government's expansion easily moved along the Sagittarius-Carina Arm.

Travel between arms of the galaxy is difficult. Though there is certainly a lot of space between any two stars, the space between stars increases rapidly in the "grey space" between arms. (This is not to be confused with "dark space" between galaxies.) However, the grey space between the Orion and Sagittarius-Carina arms has been well mapped out, and (most) hazards have been documented.

Galactic Species

Human

While not exactly first-class citizens in the strictest sense of the word, their comparatively fast metabolism and reproductive rates allowed Humans to rapidly spread across space; though their growth had slowed during the mid 21st century, the founding of extrasolar colonies again allowed them to spread quickly. Though they are a relative newcomer to the galactic relations scene at roughly 400 Earth years in, they have quickly spread to become the dominant race in the galaxy.

Important Human Dates

2038: Discovery of basic vegetation on Gilese 581 d prompts a new space race.

2047: Founding of first extraterrestrial colony (Mars).

2050: Experiments in subspace attract attention of the Old Government. Official date of first contact.

2051: Using Gabon subspace drilling technology, Humanity founds their first extrasolar colony on Gilease 581 d, renamed "New Terra". Heavier gravity is offset by slight genetic modification coupled with repulsor technology within the colonies.

Ginok

The Ginok are relatively tall humanoids that evolved on a harsh wasteland planet. The rough living conditions did two things for the Ginok. First, it made them a very community-minded species. While some species might have attempted to become independent and have an "every man for himself" attitude, the Ginok found that cooperation as the best method for survival. Additionally, the harsh conditions gave the Ginok a long lifespan, as they had an attitude of extreme patience; there is no crucial reason to rush along and then die when one could take this slowly, take every challenge as it comes, and just live one more day. Days become years, years become decades, decades become centuries – the average Ginok lives about 350 Earth years. There are a few Ginok who remember what the galaxy was like before the onset of Humans to the galactic scene, but they are very few and quite far between.

Gabon

If a Human were to take a member of his own species and cross it with a cockroach, then visually the Gabon would most likely be the result. Standing upright but with wide bodies of hard skin, the Gabon have two thick legs and two thin arms. Their head is broad and flat, and on the rare occasions they are able to fly they have a wingspan of roughly two meters. It is not this curious physical appearance that has made them one of the most respected species in the galaxy, however.

The Gabon were the first species to begin colonizing interstellar space. They developed subspace drilling and Jump Gates. They discovered other sentient species, usually constrained within their own solar systems, and enabled them to join the interstellar community. For millennia, they were the greatest species in the known galaxy, the head of the Old Government.

Then "they" came. No species has been affected by the advent of humanity nearly as bad as the Gabon. As humanity took control of the Old Government and changed its priorities from "protecting its members" to "exploring and expanding", the Gabon became equal to the other species of the galaxy. And then, with the upsetting of Gabonok's delicate ecological balance, the Gabon were left without a homeworld. Their colonies quickly fell into disarray as neither Gabonok nor the Old Government rushed to support them.

Today, the Gabon are a shadow of their former selves, left to wander the galaxy in a massive caravan, ironically always exploring and expanding, a spaceborne species with nothing left to their name but a proud past and the hope to one day find a new planet to call home.

Xcilkraa

The Xcilkraa are a race that Humans would label "insectoid" on the first glance, but a closer inspection would reveal that much is different between the Xcilkraa and the tiny creatures of Terra, as well as between them and the Gabon. Even the number of legs is hard to count. General convention of Xcilkraa physiology labels the main body the "abdomen", a 1.25 meter long tube of chinitous skin where all of the Xcilkraa's vital organs reside, evocative of a short earthworm. The head is a part of this abdomen; the dome towards the front holds all of the Xcilkraa's sensory organs, though the brain is protected further inside the body. The Xcilkraa have four eyes that ring the front of their head, providing very good forward and peripheral vision. They have antennae as well, each placed between an eye. By rubbing the antennae together, the Xcilkraa produce their own language and have learned to reproduce other languages, to varying degrees of success. The Xcilkraa do not have a conventional mouth; instead, they secrete a digestive enzyme from their underside and then soak up the nutrients through their skin. They are unigendered, and are capable of both siring and carrying young.

Where they meet the body, a Xcilkraa has four legs – two front and two back. Midway down the leg, each splits into two more, giving them a total of eight feet. They can stand upright on the hind legs, giving their ring of eyes a complete view of their surroundings.

Not too many Xcilkraa interact with the people of the known Galaxy. Most have stayed on their home planet. The few that do leave are the deviants, those that go looking for adventure, though by galactic standards they are still rather timid. Xcilkraa are generally stronger than most species in the galaxy and are sometimes hired as

bodyguards. They have a reputation as seedy characters, which is only partially earned, as some still retain the survival instinct of "run first look later", often leaving a bad situation instead of helping with it.

Ferorn

This purple-hued species shares many commonalities with Humans at first glance. Humanoid in shape, similar sized, and with some individuals possessing crests on their head that resemble hair, the obvious difference is that the skin is entirely purple. Another thing that is immediately noticed is that they move with the grace of a flock of birds; rarely seen individually, they possess a hive mind that is best taken advantage of in great numbers. Their composure in even the most hectic situations has led them to be described by many as "frustratingly sane". Though the hive mind doesn't span across the galaxy, localized minds exist on many planets of the New Government. "Ambassadors" are often sent between minds in order to keep the entire species up to date. Though it is not unheard of for a Ferorn to exist without a hive mind connection, it *is* almost unheard of for one to live any number of years after being cut off.

Melnar

Indicative of Melnaa's peculiar evolutionary path are the Melnar, which to the untrained Human eye look like manta rays. Easily larger than a human in width and length, they only rise to about mid-calf. Because of their unique physiology, the Melnar are rarely seen elsewhere; they are acknowledged by the galaxy at large and even have a formidable space presence, but a Melnar on solid ground is an incredibly rare sight.

Species' Calendars

The Terran calendar has remained unchanged for centuries, resisting all attempts to mold it into something more logical. It became the galactic standard in the later days of the Old Government, but the Coalition, followed by the New Government, has attempted to go back to either the Gabon standard or using all three major species' dates at once (Gabon, Human, Ginok). This has been met with varying degrees of success.

The Gabon calendar consists of ten months of twenty five days each. Because they were the first to reach the stars and because if its simplicity and accessibility, the Gabon calendar is also referred to as the Galactic calendar.

The Ginok calendar is a straight numeric system that counts days since the beginning of when time was recorded. As there is no seasonal variation in their planet's revolution, years are meaningless. By the time it occurred to them to use star patterns to mark where along the solar revolution they are, their calendar system was already deeply entrenched. Currently, there is a one digit number, followed by a two digit number, followed by one with three, followed by a four digit number. Without the number separation, this functions as a ten digit number counting the number of days since the beginning of the calendar. Nearly ten million Terran years have passed since the Ginok

began counting; though this seems impossible to the Human mind that the Ginok could exist as a single species for so long, the Ginok counter that Earth is a lively planet with evolution still progressing rapidly, whereas the geologically dying Ginok has a much slower evolutionary rate. Is it assumed that the Ginok are older than even the Gabon, though they did not have the same drive to push for the stars.

Time Interval Conversions

1 Terran Day = .75 Ginok Day = 1.2 Gabon Day

Gabon Months

1 Kenna	2 Intarr	3 Yerakz	4 Lillgh	5 Tennar
6 Yyunga	7 Frohn	8 Entraz	9 Zerka	10 Jelleyf

Example Dates

The Battle of Baryon

Gabon (Galactic):	Kenna 1, 4,599
Terran:	October 11, 2461
Ginok:	2-67-402-7541

Except where noted, all date measurements in this document use Human years.

Notable Worlds

Earth

> *Allegiance: Coalition of Worlds*

Earth is the Humans' homeworld. It is a terrestrial planet about 70% covered in water that orbits a main sequence star, Sol, itself situated on the coreward side of the Orion Arm. Before Humans appeared on the galactic scene, philosopher astronomers from the other species had postulated a perfect terrestrial world; they were surprised when Earth neatly fit the bill, and some were angry at the Humans for what they had done to it. Restoration efforts were put in place and were mildly successful before the Old Government's rapid expansion began.

Though it was once overcrowded, the advent of space travel greatly lessened the strain of the populous. Those that were left behind were constantly reminded of how much their planet had supported. In order to feed the Government's expansion, Earth (interchangeable with "Terra") was mined for many of its materials and eventually it become home to only the lowest-class citizens.

Gabonok

> *Allegiance: Galactic Government*

Gabonok was once the homeworld of the Gabon. Though the planet's ecology had nearly been destroyed during the Gabons' industrial revolution (when humanity was still thinking that fire was pretty nifty), it had again been restored to its natural balance.

Life on Gabonok is based very differently than most of the rest of the galaxy. Arsenic based, it breathes an atmosphere of carbon dioxide and nitrogen. Though life on Earth was unable to live at this stage before the introduction of photosynthesis and thus oxygen, life on Gabonok thrived in this environment.

When humans set up an embassy on the planet, an individual named Borus Ranks brought a plant with him. Such things were often seized at customs; that he was able to sneak it through suggests that his motives were intentional, but this was lost to history (and an angry Gabon mob). The single plant rapidly began processing Gabonok's atmosphere and pumped out oxygen; again, the rapid rate at which it did so suggests genetic tampering and an intentional wish to terraform Gabonok.

And terraformed it was. In three centuries, Gabonok was no longer inhabitable by its own species, which took to the stars. The Gabon now drift between systems, ironically pushing for exploration and expansion, with the hopes to someday find another planet to call home.

In the meantime, Gabonok is well on its way to becoming a lush, verdant, and very green planet. It is hypothesized that it will only be another century before carbon-based, oxygen-breathing life forms will be able to walk the planet without environment suits.

Ginok

Allegiance: Coalition of Worlds

Home to the species of the same name, Ginok is a planet with a violent ecosphere. Rough weather and rougher predators roam the surface, made up almost entirely of land. The 10% of surface water is mostly on the western hemisphere of the planet, though wells underground exist around most of the globe, allowing more life to exist.

After the advent of Humanity, most wouldn't be able to tell the effect that strip mining had on the planet. Most of the damage was done to the underground wells, leaving only one half of the planet habitable for the Ginok. Because of this upset to the ecosystem, a great number of Ginok have emigrated to live on other worlds.

Hek'kat-nal

Allegiance: Neutral

With most of Hek'kat-tel's water residing in underground wells, it is little wonder that most of its native fauna have evolved into various burrowing niches. Though the Xcilkraa are the dominant species, they share much of the planet with the not-quite-intelligent Zek-nets, mammals that resemble many of Terra's burrowing creatures.

Fillin

Allegiance: Neutral

The homeworld of the Ferorn species is varied, but the majority of its landmass is covered in tall purple and green grasses, the two predominant colors for absorbing energy from the world's two suns. The climate is mostly arid with two short but violent rainy seasons.

Fillin has stayed neutral during the war, instead giving aid where it is needed. Some saw it as a wise move to refrain from straining the Ferorn's interstellar relationships; others saw it as profiteering and playing both sides of the war.

Melnaa

Allegiance: Neutral

The Melnar homeworld is unique in that it is the only gas giant that supports a biosphere beyond simple microbes. Large rafts of algae form high in the atmosphere that can become the size of Earth continents; their movement on the winds of the planet results in an interesting analogue to plate tectonics. On these rafts of algae evolved animal life that is characterized by being light and with a large surface area. Species native to other planets often fall through these rafts if they are not given a solid area to stand on.

New Terra

Allegiance: Coalition of Worlds

Humanity's first extrasolar colony, New Terra (formerly Gilese 581 d) is very similar to their cradle planet. At sixty percent water cover, it has more landmass than Earth, allowing for more deserts, but also allowing for a greater number of migrants to the planet.

New Terra eventually suffered the same fate as Earth. With the advent of the New Government, many Reconstruction initiatives are aimed at getting the planet back on its feet. Methods tested on New Terra will eventually be used to bring Earth itself back to its full, vibrant glory.

Forlock-Kodani

Allegiance: Galactic Government

The few worlds that have been purely Ginok colonization efforts are often named after the pioneer who found them, and Forlock-Kodani is no different. The first extrasolar colony founded by the Ginok species, it is a planet that is similar to their home planet of Ginok, except that it has many more bodies of water. Its upper atmosphere discourages the formation of thick clouds, so most of the planet retains a desert-like ecosphere. Much of the native wildlife has been accepted into Ginok culture in general and has been brought back to Ginok as, for lack of a better term, pets.

Rising Suns

Allegiance: Galactic Government

Though Humanity had been united when it had made contact with alien species, there were still many cultures that refused to be homogenized into the whole of Humanity. Japan was the first to take to space and make a new planet for itself. Rising Suns is a Terra-like world in the Torii system with ninety percent water cover, providing many islands for the Japanese to settle on. Though the biosphere was vastly different from what they were accustomed to, it was compatible with Human physiology enough that the creatures of the sea could be eaten and the soil could raise edible plants – and that's all they needed.

The Torii system consists of Rising Suns as the only planet which orbits around binary stars that are beginning to transition to red giant status. The Toriians believe that, when the time comes, technology will be advanced enough to move the planet so that it will still be in a sustainable habitation zone orbit

Rising Suns' moon has been colonized and terraforming is currently underway. Progress is funded fully by Rising Suns' own government.

Though Rising Suns was settled over three centuries ago, it has resisted becoming a "slum world" like many left behind by the Luxury Ring because of its self-sufficiency. This, as well as strong bloodlines from the original emigrants, has kept a fierce pride in the hearts of Toriians no matter where they may travel.

Neuberlin

Allegiance: Coalition of Worlds

After the Japanese successfully colonized a planet of their own, the Germans decided to attempt the same. For a short time, Neuberlin was *the* scientific capital of the known galaxy. However, it quickly descended into decay and is now one of the best examples of poverty in the Government. Most economists agree that the Luxury Ring effect had very little to do with this.

Athena

Allegiance: Coalition of Worlds

Athena was founded three centuries ago as a joint colonization effort between Humans and the Ferorn, though it was Humanity that would benefit most from it. The Ferorn helped out Humanity by devising suitable terraforming methods as well as creating the infrastructure of the colony. Today, the planet is 90% inhabited by Humans. The government is a ten-person representative government, with nine Humans and one Ferorn (though one Ferorn of course speaks for all of the Ferorn on a planet).

Baryon

Allegiance: Neutral

Though many solar systems had trace amounts of beryllium, this element – crucial to feeding the interstellar drives used for faster-than-light travel – was quite hard to come by. The Sol System had more than most, but as Humans started straining even their interstellar colonies, it became apparent that the galaxy's supply of beryllium would not be enough to sustain a comfortable expansion rate. That is, until Baryon was discovered. By some oddity of nature, the vast majority of the planet's makeup was composed of beryllium. This new, readily available fuel source, coupled with Human's

insatiable expansion tendencies, fuelled a territory boom the likes of which the galaxy hadn't seen before.

Baryon itself has little going for it. It has no native ecosystem, and the only colonization on the planet is in the form of mining colonies. Currently 11,476 kilometers in diameter, Baryon has actually begun losing mass as a result of the beryllium being shipped away from it; though it will take millennia, geologists estimate that unless an alternative fuel source is found, the planet will eventually be roughly 5,000 kilometers in diameter (for comparison, Luna is 3,474 kilometers in diameter).

Alpha Centauri

Allegiance: Galactic Government

While not technically a world, the Alpha Centauri system is renowned for its state-of-the-art shipyards, made prosperous by the numerous asteroid belts in the system from which raw material can be obtained. The system is primarily used by the Government for military purposes, with very few civilian endeavors still operating; those that exist face heavy oversight.

White Sun

Allegiance: Galactic Government

A newly colonized planet, barely half a century old. Orbits a red star that is late in its life. Its name is meant to inspire optimism more than any true accuracy, much like the Terran island of Greenland.

Bright Way

Allegiance: Coalition of Worlds

Bright Way was founded 200 years ago, one of the first batch of new planets colonized after the human repurposing of the Old Government. For a long time, its optimistic name was fully justified as it became a vacation resort and all-around great place to live.

Then the Luxury Ring passed it by, and it began to fall into poverty. Those that remained either couldn't afford to leave or they arrived not knowing the state that it had slipped to. Greenhouse gases are beginning to run amok in the atmosphere; it is hypothesized that it will be inhospitable to most oxygen-breathing life forms in another 200 years.

Species' Technology Traits

<u>Human</u>

Though diverse, the general rule of thumb with Human design, particularly space design, is functionality over aesthetics. Human designs are often based around propulsion and maneuverability systems with crew considerations taken in after the fact, while always being mindful of the need to mass produce more than other species' native designs due to their rapid expansion rate. This has led to a general design trait of large engine arrays at the rear along a single column, often (but not always) with wing-like control surfaces for use in atmosphere.

<u>Ginok</u>

Ginok technology, especially their vessels, appear to be formed of sand, molded rather than constructed. They have coloring similar to the Ginok species, a mixture of light and dark browns. While most Human vessels have the bridge situated to the upper rear of the ship, most Ginok vessels are the complete opposite, having the command center in the lower front portion.

As of late, Ginok vessels are beginning to become more mass-produced just as Humans are, though it is still done with enough aesthetic integrity that an untrained eye wouldn't notice.

<u>Melnar</u>

Unlike most species, the Melnar have a very organic approach to their technology. Their craft on their homeworld have a similar shape to them, as well as myomer "musculature" and armor best described as chain mail – many interlocking pieces of metal with an inner, flexible layer to protect and insulate the craft. When the Melnar took to space, this form seemed natural to them. Propulsion is achieved by field manipulation – often magnetic and gravitational, but any mass or energy around the craft can be used to propel it. This makes Melnar craft less useable in the empty space between stars while they are in real space; their solution is, of course, never to be caught in the empty space between stars while in real space.

Technology Traits, General

Planetside

Propulsion

Repulsors and other hover technology have become commonplace, though wheeled and treaded vehicles are still somewhat common.

Weaponry

Most weapons are based off of mass driver technology – that is, a series of magnetic accelerators inside of a weapon accelerate a round to incredible speeds.

Space

Jump Gates

In order to move between star clusters, it is necessary to use a wormhole to nigh-instantaneously move from one point in the galaxy to the other. Wormholes being what they are, though, they are very unlikely to be in convenient locations and incredibly hard to move. The Gabon studied their function, though, and were able to replicate the effect of a wormhole. Jump Gates are now the superhighways that allow the New Government to stretch as far as it has. Because of the resources needed to go into the construction of Jump Gates, as well as the danger in plotting new routes into the unknown, Old Government expansion was slow if at all; only with the advent of Humans did the Jump Gate network truly begin to grow for the first time in at least a millennium.

Shipboard Propulsion

Standard ship proportion is based on simple fusion engines providing thrust against the ship itself according to Newton's third law. Methods have been conceived, often different methods by differing species or even companies, to retain the reaction mass after use so that it may be recycled. Large ships even have recycling centers on them, greatly increasing the time between needing "fill-ups".

For small distances that Jump Gates would be impractical to cover, and yet far too large for fusion drives to cover, most ships have what is commonly referred to as a "subspace drill". Discovered by the Gabon, subspace is a parallel dimension in which the properties of light are drastically changed; thus, a vessel moving at a speed faster than light in our dimension is not even close to approaching it in subspace, thereby denying any true relativistic effects. The process is not neither elegant not precise; entering subspace has often been described as pricking a needle through leather, as visually light appears to be sucked towards the point of entry, before a violent outburst of pure white light seems to reach out from the newly ripped open portal and appears to pull the ship in towards it. Exiting is much the same, and a vessel could end up hundreds of kilometers

away from the intended exit point if the mathematics aren't precise enough. Increasingly, subspace drilling is used to cover even Jump Gate distances without having to deal with the bottlenecks that such a system puts in place. The Coalition was particularly notable for this, wishing to stay away from Government Gate patrols.

Weaponry

Weaponry on the ship scale is based on technology similar to that used on the planetside scale. Often, a single mass driver is placed along the forward axis of the ship – something that the Human designs work well for – as well as small point-defense mass driver turrets. Missile launch tubes are used on some vessels, but they have fallen out of general favor because of the ease at which the payloads can be targeted.

Ship Types

Fighter

Fighters are one or two man craft that generally range from five meters long to twenty five meters long, usually between ten and fifteen. Sometimes referred to as interceptors, they are designed to support frigates by providing additional firepower and additional point-defense. Though they are usually not the most prominent craft in any one battle, their pilots often become much more well known because of the solitary nature of flying a fighter.

Bomber

Bombers have fallen out of favor as of late. While they were once used to deliver large payloads onto enemy vessels, the increased speed and maneuverability of the target vessels as well as the ability of fighters to destroy the payloads before they impact has made the concept of the bomber mostly outdated. Only a select few fleet commanders request a bomber squad assigned to them.

Gunboat

A gunboat is meant to be a mobile weapons platform, ranging in between 25 and 75 meters. With the most firepower per hull space, it is not as maneuverable as a fighter but still able to make its way around a confrontation zone. A typical gunboat crew is one pilot and three to five gunners.

Shuttle

Though it is the same size as a gunboat, a shuttle has much more interior cabin space by getting rid of many weapon systems and decreasing the engine size. If armed at all, a shuttle will only have perhaps two small mass driver turrets. Variants of shuttles exist that function as troop transports and dropships.

Frigate

Frigates form the mainstay of any battle group. They are fast and carry decent firepower into any engagement. A typical space battle involves the opposing frigates vying for position while fighters soar around, vying for ideal support positions. Their relatively low cost makes them ideal patrol craft, while their size – anywhere from 100 to 250 meters – makes someone think twice before attacking. Frigates are often found as part of a larger cruiser-based group, though smaller groups of gunboats and fighters anchored by a frigate are not uncommon.

Crusier

Filling the gap between the fast, modestly armed frigate and the slower, more heavily armed battleship rests the cruiser. With high speed and high payload delivery capabilities, the cruiser is often the capital ship of any battle group of note. Backed up by three to five frigates and their accompaniments, the cruiser's role in battle is a subject of debate among military theorists. Some believe that such a heavily armed ship should spearhead any offensive that the group takes, while others believe that its speed makes it ideal for a response vessel, moving from spot to spot in an engagement where it is needed. Cruiser classes are often designed based on the tactics meant to be used – a larger central mass driver indicates that it is meant for spearheading whereas support-based cruisers have more weaponry in turrets along the hull. This dichotomy, as well as other design choices, used to have the unintended effect of broadcasting the fleet commander's intentions, but now misdirection is employed so often that cruiser class is no longer a reliable indicator of the enemy's tactics.

Battleship

More expensive than a cruiser but well worth its weight in resources, the battleship forms the core of any fleet. They are typically stationed at species homeworlds and at other large cultural centers. Ranging from 500 meters to a kilometer long, a battleship is often the final say on any military manner. They are slower than other vessels, but of course never travel alone. Any one battleship will often have three to five cruiser groups at its disposal. These are the poster ships of military might, the ultimate keepers of peace. The mere sight of a battleship is often enough to quell any conflict, but if it isn't, rounds fired from the massive central mass driver often are.

Freighter

The size of a freighter depends greatly upon what it is carrying. If it is a light freighter carrying a specific load between two points, it will be shuttle sized; if it's for general purpose shipping within a system, it will be about the size of a frigate. Some freighters push the half-kilometer mark and are meant for shipping massive amounts of goods (and sometimes passengers, depending on configuration) between heavily populated systems. They are usually lightly armed, but wise freighter captains hire independent fighter squads to run escort duty.

Specific Vehicles

Dirk-class Fighter

A Dirk is a one-man fighter that personifies the Human design aesthetic – large engines in the rear along a single forward axis with only minimal control surfaces on either side. Measuring two and a half meters along the widest part of its central fuselage, it is split up into three basic sections. The four engines take up the rear three meters of the vessel in a diamond pattern. The next two meters are the cockpit, life support, and related systems; the forward five meters narrow along the vertical axis but stay broad horizontally, making the ship resemble its dagger namesake. The central mass driver lies along these five meters, as well as two smaller, more rapidly firing guns on either side.

One reason that the Dirks are so prevalent is that they are incredibly flexible. They can be modified with relative ease to accommodate different species (Human height by default). Moreover, pilots are able to operate them in almost any way they need (with varying degrees of stress on the vehicle). Usually starting a fighter takes about a minute to warm up the engine and go through a proper pre-flight checklist; however, if the pilot is willing to risk great damage to the engines (and, to many a mechanic's dismay, many pilots are), it can be started within five seconds for a quick response. (A better tactic is to notice that an enemy is approaching *before* that five-second mark.) Additionally, because of the oversized engines, Dirks can be thrust into an overdrive operation mode. This diverts power from weapon systems into the engine itself. This grants the pilot great speed to escape from an engagement… but after a certain amount of time, the engines will automatically shut off into a failsafe mode to prevent engine explosion and will not start up again until a full pre-flight procedure has been run. Hopefully, the pilot will be away from their pursuers at that point.

Katar-class Gunboat (Mark 1)

A Katar is another example of "function before form" in designing spacecraft. An even mix between gunboat and support vessel, it clocks in at 35 meters long, the massive engine array taking up the rear ten meters. The next five meters of space in this wide, flat vehicle is a fuel tank, designed to feed not only its own engines but those of smaller fighter craft, such as Dirks. It has four refueling arms at the back that fold flat and backwards, effectively lengthening the ship another ten meters. When deployed, the refueling arms swing outwards so that four ships can refuel at once without flying dangerously close to one another. The arms can become rigid, allowing it to effectively become a tugboat by hauling along fighter craft both in realspace and during subspace drilling. Though pilots tend to stay in their craft for shorter trips, they will often make the short spacewalk into the Katar itself, where the remaining twenty meters of interior make for cramped crew quarters and a cockpit.

Katars also have a single large mass driver that spans its twenty meter crew cabin. Because of space restraints, there is actually a visible bulge in the floor of the cabin where the magnetic accelerator passes. Anyone standing over it feels the magnetic pulse

of the accelerator when it fires. It is suggested that species that are particularly sensitive to magnetic fields not operate this vehicle, and you can forget about your unshielded electronics. There are also six point defense mass drivers situated ten meters from the front of the ship, three dorsally and three ventrally. Though they can be operated by crew within the spacecraft, they are usually taken over by AI subroutines.

Later iterations of the Katar are less maneuverable due to more fully integrated fighter docking structures, including a pressurized passage from cockpit to cabin. They also have slightly more cramped cabin space in order to better shield occupants from the effects of the mass driver. Crews are split as to which is a better vessel; the Mark 1 boasts better maneuverability and larger cabin space, while the Mark 2 sports a better shielded cabin and the pressurized passages. Prototypes have been spotted for what is likely a Mark 3, a larger vessel that will address all of these problems and hopefully please both parties.

Hermes

Before the war, the Government decided to start gearing up for costly and potentially dangerous expansion into the surrounding arms of the galaxy. In order to protect an expeditionary force, it was felt that a large fleet of battleships wouldn't be good enough; instead, it would send a new class of ship, called a Juggernaut.

The *Hermes* project was widely publicized as a show of the Government's military might and power. Some argue that it was the tipping point that led to the formation of the Coalition, as the Government kept taking resources from impoverished planets to fund a ridiculous project instead of helping those same planets out.

Design of the *Hermes* was done by a large team of engineers, military leaders, and surprisingly, artists. Because it was designed with the eventuality of first contact in mind, it needed to present an aesthetic sense as well as being terrifyingly powerful.

And terrifyingly powerful it is. The final product comes in at exactly five kilometers from stem to stern, with a commensurate central mass driver. A single round from its gun weighs as much as a large gunboat. "Smaller" mass driver tubes are placed around the vessel, providing more forward coverage as well as coverage to the sides and rear, allowing broadside attacks. Broadsides were a relatively new concept in the galactic stage, brought in by Humans and implemented before on a couple of their battleships, but none would be so effective as those on the *Hermes*. To man all of this armament, as well as run the ship, keep the complicated systems from breaking down, and a token diplomatic force, the *Hermes* will hold a staggering complement of a quarter of million people.

For all of its aggressive might, the *Hermes* is also artfully done. It is the first military ship in centuries to be designed with flowing lines and a general sense of peace. It doesn't look like a warship; it looks like an enormous space station, one that is inviting to live on and play in.

The Logistics of Space Battles

Many space battles in the current era are fought in two separate theaters – the capital ship theater and the fighter theater.

Capital Ships

The central piece of combat machinery on almost any vessel of war is the central mass driver (MAD). It is the single most effective weapon that can be brought to bear in a battle. Thus, most vessels are built around a MAD array that extends the entire length of the ship. When it is brought to bear in a battle, it is often the first and lest thing fired. Vessels rarely get close enough to engage each other with point-defense or missile systems.

The effectiveness of a MAD blast depends on the ship that is firing the blast and the ship that is the target. A larger ship can fire a round that travels faster than one would from a smaller ship, and thus battleships end up exchanging the first volleys. They usually aim at other battleships, as they are the least maneuverable – attempting to attack a frigate at extreme range is a waste of ammunition, as they can usually get out of the way. As range closes in, cruisers are able to fire. Once the fleets are within frigate range, the nicely-arrayed battle lines have collapsed into an all-out melee, with vessels trying to turn their bulk to face their targets.

Fleet commanders are split on the use of battleships once battles have closed to this range. Most prefer to keep them at a distance to be ready as fire support, firing into the melee, while a few prefer to bring them in, where even a battleship's point defense mass driver turrets can do damage to a frigate. This latter view gained tremendous popularity when Humans arrived on the galactic stage; being the only species whose cradle world was more than 50% water, the Human species was well versed in the art of naval warfare, and especially the idea of a broadside attack, two vessels fighting each other with a constant barrage while likewise taking massive damage. Though this approach is effective, it is also costly, and so after a few centuries of Humanity, most now prefer to keep their large, expensive ships out of the way of such harm, and will only enter a broadsides situation if the enemy ships are smaller than their own.

When a capital ship is destroyed, it is often referred to as "sunk" (Human naval terminology has crept into the general galactic consciousness). This is because, with the stable fusion reactors used, a vessel that is hit will not explode – the reactor will simply shut down. Without power, the vessel will drift until it is picked up by a salvage crew. This allows most vessels to have very long service lives.

Fighters

Fighters used to exist simply as point-defense interceptors, getting rid of incoming missiles and bombers. As missiles and bombers fell out of favor, fleet commanders began to send the fighters themselves in against capital ships. Though this can be very

dangerous, the resulting swarm of fighters can overwhelm point-defense operators. Some will use the fighters to get rid of enemy point-defense in order to allow a bomber wave through, but most just use the fighters themselves.

In addition to straight-up battles, fighters are often able to offer support to groundside missions. They can work on getting rid of enemy armor and artillery, whereas a MAD blast could be too powerful and not precise enough.

Because most space fighters double in duty as air fighters, especially since Humanity brought the aerodynamic aesthetic back into vogue, fighters need to handle similarly in space as they do in air in order to help the pilot adjust easily. Thus, arrays of thrusters on the back make it maneuver as though it were in atmosphere, banking and rolling into turns. This is by no means necessary; some fighter manufacturers boast that taking advantage of Newtonian physics in space can give pilots the upper edge. These fighters, though, are in the minority.

Appendix A: Dramatis Personae, Seven Years War Era

Aquasonic Battle Group

Captain Morgan Locke

Captain, *CV Aquasonic* (Cruiser). Old by Human standards, he has been fighting in the civil war at the helm of the *Aquasonic* since the war began. Native of Athena.

Rich "Boter" Anderson

Navigator, *CV Aquasonic*. One of the few starship crew members to take a callsign, a practice normally reserved for fighter pilots. A shameless attempt by the author to write himself in.

Christopher "Vapes" Spencen

Sensor Operator, *CV Aquasonic*. Best friends with Boter.

Bastian Ostheim

Communications, *CV Aquasonic*. Hails from Neuberlin, and thus is the only *Aquasonic* bridge member who doesn't come from the ship's native Athena.

Roger "Roj" Dinghart

Weapon Control, *CV Aquasonic*. A scholar of classical naval battles, his "let's surprise them, that'll work" approach meshes well with Locke's forward-thinking tactical mind.

Dave Jensen

Fighter Coordination, *CV Aquasonic*. A former fighter pilot, he transferred to a starship position to have a broader view and a greater, if less direct, impact on the battle.

Samantha Tanner

Internal Diagnostics, *CV Aquasonic*. She's been with the *Aquasonic* since it set sail from Athena to join the war. With how many times it's seen battle, she must be doing *something* right.

Dr. Jan Taylor

Science Advisor, *CV Aquasonic*. Often works with Locke on developing different ways to fight the Government.

Captain Shrenala-Keerzash

Captain, *CV Grextan* (Frigate). A Ginok who most Humans refer to as "Shren". The

	Grextan is one of a few warships that does not have a mass driver cannon.
Captain Kimberly Ford	Captain, *CV Terral Jewel* (Frigate). Recently given control of her own under another Government frigate captain. Thanked him by firing on his ship, the *GGV Terran Ruby*, and defecting to the Coalition.
Captain Gary Walker	Captain, *CV Terran Rust* (Frigate). Captain Ford's second in command, Walker was given the helm of the *CV Terran Rust* after Ford's method of defection (read: firing on the bridge of her superior) resulted in the death if its former bridge crew.

Coalition Officers

Eric Red	Member, Coalition Council.
Fleet Captain Jeremy Tell	Captain, *CV Vega* (Battleship). A ruthless captain who always achieves the objectives laid out for him.