The Race to the Bottom
Bonus Content for the Welcome to Kaiju World Sourcebook

Introduction
As I write this, we are about a day or two from sending Kaiju World to the printer, which is pretty exciting. The planning for this book started about a year & a half ago, and grew from a proposed adventure module into a full sourcebook. I'm quite proud of the final product.

I've recently been running my home game through the storylines in the sourcebook (there's actually two campaigns going simultaneously) and this included the list of adventure ideas you'll find on Pages 20 & 21. One of those was a major race called "The Race to the Bottom," which I will include below for ease of reference.

- **85-88:** The Race to the Bottom is an annual event that occurs at Tactimony Station, and is part of the galactic racing circuit. The course this year is shaping up to be particularly dangerous, with some of the nastiest obstacles yet, and rocket ship teams are already showing up to compete. An independent company is hoping to qualify with a radical new design and are looking for a team to crew their ship. They don't have the money to afford professional racers, but maybe enough for some daring hopefuls. A team that places could win enough to be worth the risk.

It didn't take much to get my Players excited about an event like this, so the party is now off training in flight simulators (at a local arcade) so they can qualify to be part of the crew. This also required that I develop the concept in far more detail than the few sentences I wrote above. As I don't like to waste material, I'm going to post this pdf as my Patreon update for April (to coincide with the release of the book). If you're reading this, Welcome to Kaiju World is planned to premier at the Oddmall in Monroe, and we'll be making it available for digital download after the show. If you can be at Oddmall, it'll be the only place to pick up a physical copy (for now).

Setting the Stage
One of our Players is playing an Ord Technomancer (similar to an Artificer) who picked Toy Collector as a Background. You can find some information on the Ord in the Lola Special Edition Trade Paperback, but the simple explanation is that they look like blue skinned Humans with pointed ears. This character is a female named Kepper, and our story begins with her sitting at a local café on Tactimony Station reading a toy collector magazine (she's become quite the fan of Vole-Tran). She's approached by another blue skinned humanoid (named Jansen) who is more humanlike in appearance (no pointed ears), and is looking for a crew to man his ship in an upcoming race.

As the two strike up a conversation, Jansen explains that he's a force field engineer and has installed an innovative new force field system into his racing ship. He's hoping to show off this system during The Race to the Bottom (part of the Galactic Grand Prix racing circuit) as a proof of concept to bring in customers & investors. The problem is that after investing in R&D and purchasing the ship, he didn't have enough left over for a professional crew. A group of friends stepped up to help out, but due to events outside his control they aren't going to be able to make it in time, so his only choice is to find a group of adventurers who might be willing to help him out.

He's pretty tapped out and doesn't have much to pay a crew, but Jansen is willing to promise any winnings from the race to the party should they place well enough to get prize money. In this case, a different arrangement was worked out, in that the party was having problems with their own ship and Jansen agreed to make the repairs & upgrades they needed in exchange for help in the race.

If you are playing out this scenario with your party, Jansen would approach one of them in a similar manner, and strike up a conversation in hopes of finding someone who might be willing to be his crew for the race. He isn't even that concerned with qualifications or experience, because there are flight simulators on board the station (every arcade has game units that can provide the training they need), they just need to be good enough to do the job. Winning isn't even a high priority, though that would boost his exposure a lot. The only thing he's concerned about is being able to put his new shield system through its paces and completing the race, so that the local media will cover the story. Of course, every effort will be made to win the race, and he's all for that if the party is determined to give it their best shot.

Paying them may be the only sticking point. If the party demands money, Jansen will try to offer them 50 Space Moneys each, though he could be talked up as high as 75. He's over extended financially, and if this race doesn't work out his company may probably fail. Most of the money he has left is going towards docking fees (he's living on the ship to save money) and he may have trouble paying for the fuel to get home. If possible he'll try to find out what the party might need, and if there's a way he can trade his extensive technical skills in exchange for their service as a crew. For example, as a force field engineer he's qualified to build personal force fields, or he could upgrade any that the party may already have (see the Space Oddysey RPG book Page 43 or Kaiju World Page 42).

Asking about the Race
Obviously the party will want to know what they're agreeing to before anyone commits. Jensen will explain that the race if a "full-contact" event. By this is meant that the racing ships are allowed to shoot at each other. The race is divided up into 5 Stages, where the crew race around the solar system to predetermined obstacles that test the ship's ability to survive harsh conditions. This includes weapons fire from hostile ships, so attacking each other is encouraged, though destroying an enemy ship is forbidden and will get you disqualified. Each crewmember will get to control a different part of the ship's operations, and anyone with repair skills will be vital in keeping it running as damage accumulates.

Getting Ready for the Race
Assuming that the party is on board (which most gamers probably will be), they'll need to get some training. It is likely that a group of PCs will not be heavily invested in the skills needed to operate a ship, though some of them may have one or two. The following skills will be essential:

- **Pilot:** This is an Agility/Dexterity based Skill and is described on Page 146 of the CSRPG, while the full list of vehicle categories is found on Page 150. As with most vehicles, anyone can fly the a ship with just their AGI/DEX Bonus, though Proficiency in the Skill will be necessary if one hopes to have a chance at winning.
- **Gunnery:** Technically anyone who is Proficient in the Pilot Skill can fire any fixed-forward weapons (such as Ray Cannons or Missiles) proficiently, though manning a turret or weapon system is another thing entirely. The Gunnery Profession allows a character to use any weapon system mounted on a ship with full Proficiency,

as well as serve a variety of other crew positions (such as reloading artillery or safely handling missiles).

- **Shield Operator:** This Profession allows a character to Proficiently use the shield system. This Proficiency is most useful with Variable Shields, where the Deflectors are designed to be able to move around to cover specific areas, though there are other things a skilled operator can do. Anyone with a little instruction can operate this system with their Major Action. Only a Proficient operator can do so with their Reaction, and some ships may have defensive options unique to the shield systems they have installed.
- **Sensor Operator:** This Profession will be very useful for a number of reasons. Characters with Proficiency in the Computers Skill can also use Sensors Proficiently, but characters with the Sensor Operator Profession will be more capable of analyzing sensor readings, and will be able to engage in electronic warfare.
- **Communications:** Though useful for larger ships, this role isn't particularly effective during a race. There isn't really a way for the crew to take advantage of a comm system to gain a tactical advantage, given that everyone will be using silent running until the race is done (or they get into trouble and have to call for help). Large battleships often have powerful comm systems that give operators additional electronic warfare options, and it may even be possible to hack into enemy ships if a vulnerability can be found.
- **Engineer:** Anyone with repair skills will be useful. Spacecraft Engineering will probably be the most useful, though Jury Rig can also be handy and any specific specialized Skill (such as Force Field Engineering or Weapons Engineer) also has value. The main role of the Engineer will be to make keep the ship (or individual systems) running when it takes damage. This won't be able to compensate for hull damage, but if a specific system is knocked out, it may be possible to get it operational again. The DC will be set by how bad the damage is, though cannibalizing another system to get parts (or possessing spare parts) will lower the DC and a Specialist Skill will also have a lower DC than a character who is using a general Skill (like Spacecraft Engineering or Jury Rig).

Acquiring Essential Skills

As mentioned previously, the arcades on Tactimony Station feature simulation games where the party can sit in a cockpit (and/or wear a set of VR goggles) and experience a very realistic simulation of an actual combat scenario. If the party spends the days leading up to the race intensely using their spare time to train, they can each gain one of the above Skills, though this does depend a lot on what the character is likely to be good at, and what the Player thinks would be a fun role to fill. Class or Background might also influence this selection.

For example, we have a character in our party who is a Ninja that doesn't have arms (he does everything with his feet and mystical powers). This guy is probably going to have difficulty as a pilot because of his lack of hands, though he would be a competent gunner (Editor's Note: He chose to be the pilot). He could learn to use the sensors, but his lack of technical experience (based on existing knowledge & experience) means that Engineering Skills are probably out of reach. A full description of the benefits & abilities of the crew rules will be found on Page XX.

Fantasy Characters: It's likely that someone reading this is planning to bring Fantasy characters into the SHDM Universe, or at least make use of Familiar Vanilla 5E Classes. In this case, one could possibly reason that a Bard or Rogue from a Fantasy world might be able to pick up a technical skill, though Jury Rig is about the best they could achieve. Anything more complicated is probably beyond their abilities unless something can be done to bolster their intelligence (magic?), though this would only be temporary and a lack of scientific knowledge would still be a problem. In the CSRPG we present magic as a quantum phenomenon, where there is some overlap between magic and quantum physics. It might not be out of the question for a Wizard to apply their knowledge to some aspects of science, meaning they might be better at picking up some scientific skills (such as Sensor Operator or Computers) than other Fantasy characters.

Handling it through Encounters: My recommendation would be to put the party through a single scenario where they get to use these Skills in a spacecraft combat encounter, and treat this as the final scenario in their week of intense training. This gives you (as the GM) an encounter to keep them busy for a session, and it gives the Players a chance to get familiar with running a ship before they have to do it for real. The scenario I am putting my party through will be a battle between a group of space fighters (an Interceptor and a wing of Light Fighters) against a larger pirate ship. The pirate ship will have fighter support, but the party gets more missiles, and their main objective is to chase off the Pirates (rather than just destroying them).

If you don't have a copy of Kaiju World on hand (it would be a good idea, as there is a lot of useful information about air-to-air combat in that book), or just prefer not to do space fighters, you can also set up a combat scenario with the ships detailed in this PDF.

Rules of Engagement

All racing teams must adhere to the following rules while in the race:

1. All Racing Teams must sign a release of liability stating that they accept the possibility of accidental death or injury as a result of the race, and that they fully acknowledge they're entering a contest where their ship is going to get shot at by other racers. The signee accepts full responsibility for the fact that they could be killed, and absolve the race organizers and league for culpability in setting up the circumstances that lead to this death. Any medical care or repairs are provided at the discretion of the race organizers.
2. No projectile weapons may be used. This means that turrets cannot fire bullets and missiles are not allowed. Current racing standards recommend Ray Cannons, though other types of weapons are possible.
3. No racing team may intentionally destroy another ship or take an action that could knowingly place another crew in mortal danger. This is clarified to mean that crippling a ship to such a degree that it is incapable of escaping an environmental danger (and facing destruction) is grounds for disqualification and possible criminal prosecution.
4. Ships are not allowed to intentionally touch each other, so deliberately ramming another ship will result in disqualification.
5. Render aid whenever possible. If another crew is facing imminent destruction and rescue teams cannot reach them in time, the closest ship that has not yet passed the ship is required to stop and rescue the crew. Interference by that team to prevent the rescuing crew from completing the race will bar them from competition for the remainder of the season. The crew that performed the rescue gains a technical time bonus of 1

hour, which could result in a victory if they are close behind the current front runner and the racing commission rules that they might have been in the lead without performing the rescue. Turning back around (regardless of distance) to rescue another team gains a bonus of 2 hours.

6. Racing ships must always move forward except when performing a rescue. Ships are not allowed to stop and engage in dog fights against each other at any point. All engagements must occur while moving forward, and within the confines of the previously establishes course. Sudden brake and loop maneuvers to escape targeting locks or to take up position behind another ship (for a more optimum firing angles) are allowed, as are a variety of possible stunt maneuvers, so long as the ship still keeps advancing forward on the track.
7. The use of super duper powers (such as Space Magic) is not forbidden, though their utility is limited due to the tremendous distances out in space. A character who has the ability to throw a lightning bolt could do so from an airlock, and all attack ranges will be increased by a factor of 10 to reflect the lack of atmospheric particles to interfere with the ability. Other than that, GMs must rule on each individual situation as it comes up.
8. Enhanced Pilots are allowed, so long as the abilities are brief & temporary (as in the case of Space Magic), do not exceed the maximum known capabilities of any species approved to compete or fall within the normal technological capabilities potentially available to all racers. This means that a cybernetically enhanced pilot cannot have an AGI/DEX Stat higher than 20, and advanced cybernetic targeting systems are allowed if comparable features could be installed into the ship. The use of spells to enhance reflexes (such as Haste/ Hyperactivity) are acceptable so long as they have a limited Duration and do not get used continuously or consecutively during the race.

The Race Course

The plan for the Course is not known until about 5 days before the race is set to begin. Teams will usually begin showing up on the station about a week to 2 weeks before the event is schedule to start, with the prospective racers becoming regular fixtures at local bars & other meeting places. This will give the PCs a chance to mingle with the competition and possibly set up a few rivalries for the race itself (which my Players absolutely did). The huge range in time has a lot to do with the distances some teams have to travel to get here, and because galactic travel may not always be able to keep a tight schedule.

It is not necessary to have a copy of Welcome to Kaiju World to understand the details of the race, though it definitely helps. Part of why the race details are kept secret until right before the race is to prevent teams from showing up with ships that are purpose built for the event, either giving them an unfair advantage or just resulting in a dull race where nothing of interest happens. Ships can be specialized, but they do need to be generally capable of handling a variety of possible dangers, and the organizers don't want them to be too prepared. The point is to put on a good show for the audience. The best racers can do is to study past courses, since the various Stages periodically repeat, and do their best to prepare for what could lie ahead.

Stage One

The race begins above Kaiju World itself, with the racers lined up below the Amphitheater Restaurant. This means that only the rich, powerful or lucky get a front row seat to the start of the race. Everyone else must watch from monitors through out the station. Key moments will be rebroadcast across the jumbotrons in the family friendly area, but the various bars & event locations will be the best places to see the race as it unfolds. Two large posts with red lights will delineate the starting line and all racers (usually about 20 participate) must queue up behind the line. When the lights turn green the ships take off and must immediately begin flying an orbital path around Kaiju World.

This stage of the race sees each ship perform a slingshot maneuver around the planet, where they use the mass of the planet (and the nearby star) to increase their acceleration. This is what establishes the position of each racer, with the Skill Checks of each contestant where different ships line up in order on their way to the next Stage. When GMing such a scenario, it is not recommended that GMs actually roll for all 20 Ships, but instead estimate it against what the PCs actually got. Typically Piloting Skill Checks will be between 15 and 30, so this will set how close to the front of the pack the Player Characters end up being.

The main variable in this Stage, and part of what makes it the most exciting for the audience, is that the racers will be attacking each other during their trip around the planet. Typically about 10 to 15% of ships will be eliminated from the race at this Stage, or suffer damage that ultimately puts them out at a later Stage. This is also the point where it is the most dangerous for the PCs, because there will be a lot of enemies on the field and anyone they pissed off before this point could have a golden opportunity for some payback. The PCs will also have the chance to eliminate the competition as well, but the smartest play is probably to focus on avoiding getting hit and complete the slingshot as quickly as possible.

Duration

It will take the racers about 1 hour to complete the slingshot maneuver, so most combat encounters will either occur in the first 30 Minutes or be spread out across that duration as the ships move apart from each other. Ultimately the crowd will thin out & spread apart as racers are eliminated and teams focus on completing the maneuver.

Stage 2

After the party completes the full trip around Kaiju World and rockets away into space, they can accelerate to .25 Lightspeed (bolstered by any additional inertia they gained from the slingshot maneuver) and soon after arrive at the Gas Giant Minos. This trip will take just about an hour, so the party will have some time to catch their breath and make repairs if they need them. Generally speaking, it is not possible to engage in combat with other ships when traveling at speeds approaching or exceeding Lightspeed, so there is minimal risk of interference from other teams (regardless of how close the enemy ship may be). If another ship does end up being relatively close, the party may want to be ready for an encounter when they drop back down to sub-light speeds.

Stage 2 begins with the party approaching the Gas Giant Minos, and flying below the ring system that surrounds the planet. They will then plunge into the planet and descend to a depth of 1 mile into atmosphere. At this point they must fly through this sea of turbulent gases & semi-liquids until they complete a full 180 degree trip around the planet's circumference, at which point they can emerge back into normal space and continue on to Stage 3. Though contact with enemy ships at this stage is possible, the prohibition against destroying another team prevents most racers from engaging in combat within the planet. That being said, a

particularly vindictive or aggressive team may take the opportunity, since there will be little evidence and accidental destruction is already accepted as a possibility (everyone must sigh a Release before they can compete).

Special Conditions

The following chart details environmental obstacles the party is likely to encounter that could damage the ship or affect the race in some way. For the most part, they will be traveling blind and must navigate entirely off of sensor readings. Other racing ships will not be detectable unless they are within a couple miles of the ship, and even then it's unlikely they will actually be visible unless they're within a half mile. GMs should roll on this chart 4 times during the course of the trip through the planet, and the Pilot also makes a DC15 Pilot Check at each of these points to stay on course. If this result in 3 or more Failures, they encounter a fifth roll on the chart before leaving the planet.

- **Storms (01-30):** At various points the ship will fly through gale force winds over a hundred miles per hour. These could slow this ship down or even shove it off course, potentially costing the team valuable time. This can also alter the ship's elevation, forcing the pilot to continuously correct altitude. Piloting Skill Checks suffer a penalty of –1D6 when within a storm. There will also be 45% chance the ship is struck by lightning. The GM rolls this percentage 3 times while the ship is within the storm, and each result of 01-45 means this ship is struck and suffers 8D6 Electric Damage and the DR of Shields is reduced by –1D6.
- **Solid Rain (31-40):** A variety of minerals will be suspended within the atmosphere of a gas giant, and various atmospheric conditions could result in these substances condensing into solid nuggets. As a result, the ship could end up flying through a nasty hailstorm or experience such a phenomenon being thrust up at them from below. The Pilot can make a DC20 AGI/DEX Save while flying through this event. On a Success, the ship only suffers 3D6 Piercing Damage. On a Failure, the ship suffers 6D6 Piercing Damage and Shield DR is reduced by –1D4. In both cases the damage ignores Shield DR due to the fact it targets the entire surface of the Shield system. If the Ship has not Shields or Armor protection, damage is doubled. Because of the sheer number of particles flying around them, Shields Operators suffer a penalty of –10 to all Skill Checks and the collision system will be going off continuously.
- **Variable Density Layers (41-55):** The party encounters a zone where the atmospheric gasses either increase or decrease in density, with the result that ships encounter a rapid ascent or descent as the pilot must abruptly compensate for the change. Roll a D6. On an Even Result the ship hits a low density layer and must quickly compensate to drop back into the racing zone. If anyone is not wearing a seatbelt, they must make DC15 AGI/DEX Save or be thrown from their seat, suffering 2D6 Bludgeoning Damage. This may also require that someone check the cargo hold to ensure that no equipment was damaged (10% chance). On an Odd Result the ship is plunged down deeper into the atmosphere, while the increase in pressure depletes the DR of Shields by –1D4 (ships that only have armor suffer a penalty of –1 to DR). The Pilot must make a DC16 Pilot Skill Check to get the ship back up to the right altitude. Pilots must roll their Skill Check twice while in this zone.
- **Volatile Gasses (56-70):** The ship hits a pocket of volatile gasses have a high risk of being detonated. It will be flying through this region for 1D4+2 Rounds, and each Round there is a 15% chance that the engines cause an ignition. If weapons are fired when within such a region, it has a 75% chance of ignition. In the event of an ignition, the gases create an explosive discharge that inflicts 8D6 Fire Damage (and a loss of –1D6 to Shield DR or –1D4 to Armor DR) to everything with a Radius of 1D4x10,000ft. If would take a DC22 Pilot Check to fly ahead of this discharge to avoid it. If the Pilot cannot escape, they can attempt a DC20 AGI/DEX Save for Half Damage. Firing into the region to damage another ship is also possible, but the Pilot must still make a Skill Check to avoid the blast and it may be difficult to anticipate what the safe distance may be.
- **Sensor Echoes (71-90):** Something about this region of the planet causes sensor beams to bounce back at the ship, creating strange sensor ghosts that make it impossible to tell if another ship is actually close by. Even worse, this makes it harder to navigate and the ship could stray off course. The Pilot must make a Pilot Skill Check, rolling twice (on a D20) and taking the lower result. If the result is less than 15, another ship secretly moves past them. On the plus side, there is no risk of being attacked since nobody can establish a targeting lock of any kind.
- **Corrosive Gasses (91-00):** The ship enters a layer of gas that has formed into a highly corrosive mixture capable of damaging the hull. Shields and Armor will provide some protection against these gasses. While flying through the layer, the ship suffers 4D6 Acid Damage, which may be offset by the DR. The real danger is to more vulnerable sections, such as exterior hatches, turrets and windows. If the ship suffers damage, there is a 25% chance that one of these targets (chosen at random by the GM) suffers damage. A failed seal on the Airlock means it is no longer available for use. Failed windows result in emergency shields sliding into place and the ship is now operating off of sensors alone. If the turrets are damaged, one of them suffers the same damage as the rest of the ship. There is a 35% chance that this damage is inflicted twice, and a 15% chance is occurs a third time.

Encounters with other Racing Ships

The two most likely areas to encounter another racing ship are on the approach to the planet and upon escaping the atmosphere. Ships are expected to approach below the rings and to depart above them. Because of this, there is some leeway to use the space debris of the rings for cover, though this is likely to result in a loss of speed, potential collisions with small chunks (a DC16 AGI/DEX Save for 6D6 Bludgeoning Damage) giving another ship a chance to gain ground. Since ships cannot got to .25 Light Speed until they are clear of the rings (due to the risk of hitting tiny objects), this portion of the race is extremely dangerous.

Duration

The trip through the planet will take about 7 to 8 Hours (in addition to the 1 Hour it takes to reach the planet), so this leg is as much an endurance test as it is a challenge of how durable the ship is. Having a back-up pilot available so someone can take a break is a good idea (especially after departing the Gas Giant).

Stage 3

After the party completes the trip through Minos, they are allowed to accelerate to .25 Lightspeed for the approach to the sun (Arcoona), which will take approximately 15 Minutes. Though the ship must decelerate upon reaching the star, the crew is allowed to retain enough momentum to

complete another Slingshot Maneuver around the star in a Duration of 5 Hours. This must be completed in close enough proximity that the ship would be subjected to punishing (and deadly) amounts of radiation, with Shields or Armor being the only thing keeping the crew alive. Regulations do not prevent a ship from getting closer than what is allowed with a standard Racing Shield configuration, so the Hero Ship (see below) will have a definite advantage here.

Special Conditions

- **Sensors & Visibility:** In such close proximity to the sun, the ships will be flying virtually blind and must rely on windows to detect enemy ships. This means that filters need to be installed that diminish the light to tolerable levels, as unfiltered viewing at this distance could blind any PC permanently (various transplant and cybernetic options will be available to restore sight back at Tactimony Station). Any attempt to use sensors to identify the location of other racing ships (or other obstacles/objects) has a DC of 25, and the Range of sensors is cut in half.
- **Combat:** Fighting another ship is possible, but a disabled ship would be almost guaranteed to fall into the star and be destroyed (at best they'd have an hour). The gamble to inflict enough damage to force a team to pull out is tempting, but it's also seen as too much of a risk, so combat at this stage will be very rare. The real danger is if a ship is able to remain hidden while observing another team in close proximity. This would allow them to make a devastating surprise attack as both ships reach a safe distance. Unless the GM specifically wants to stage such an encounter, there is a 55% chance that the party will find themselves close enough to another racing ship for an encounter to occur, as several should be around the star at roughly the same time, and all of them have the same potential to detect each other (see above & below).
- **Advanced Sensors**: A ship with an advanced sensor array (see the Racing Ships on the following pages) will be better equipped to filter out the solar radiation and identify enemy ships, or anticipate environmental conditions. With Advanced Sensors, enemy ships can be detected in close proximity (about 500 Miles) with a DC20 Skill Check. Alternatively, the ship will know in advance if they're entering a high radiation zone or if a solar eruption is a possibility. In the case of the eruption, a Successful DC20 Check (or DC15 for a character with applicable scientific skills) will reveal where it is going to happen and give the crew enough time to go around it. The only problem with this is that a crew who observes this behavior may think to copy it and also end up avoiding the danger.
- **The Hero Ship:** The party will be in the racer designated as "The Hero Ship." This craft has an advanced Shield System, with the ability to endure more radiation than any other ship in the race. It doesn't possess better sensors, but the Shields do filter out a bit more of the radiation and gives the crew a slightly better ability to identify various threats. This will translate to a +1 bonus to Sensor Checks when attempting to actively detect objects in close proximity or identify environmental hazards.

Environmental Dangers

For ever hour of travel around the sun (this Stage takes 5 Hours), roll on the following chart. If an event stats that it can only occur once, drop down to the next item on the list.

- **Lucked Out (01-40):** Conditions are stable and your ship suffers no damage. Shields & Armor remain intact.
- **Radiation Surges (41-60):** You enter an area of intense radiation that drains your Shields. Most Ships will lose –1D6 to DR, while the Hero Ship (with its advanced Shields) instead suffers a penalty of –1D4. Armor is unaffected.
- **Electromagnetic Bursts (61-75):** You enter an area of intense electromagnetic radiation that temporarily overwhelms your sensors, leaving the ship blind. Navigation is unaffected, as it is easy to estimate distance to the sun, but the ship is effectively blind and unable to detect other ships or environmental dangers. Until the ship leaves this zone, it is impossible to restore the sensors, so it will be stuck this way for about 1D4x10 Minutes. This event can only occur once.
- **Restoring Sensors:** A Proficient Sensor Operator (or Starship Engineer) can restore the Sensors in 2 Minutes with a DC 20 Skill Check, while a roll of 25 or greater will restore them in 60 Seconds. All other characters will have to shut them down and reinitialize, which takes about 10 Minutes (5 for a Proficient character who rolls badly). If nobody bothers to run a full diagnostic on the sensor system (usually only possible if a character is Proficient in Sensor Systems or Starship Engineering), they will probably fail to discover that lingering magnetic radiation will continue to impose the Special Conditions penalties (see above) on Sensors for another 15 Minutes after the ship moves away from the star. It takes only a minute to degauss the ship, if someone knows to do it.
- **Solar Eruption (76-86):** A massive eruption occurs, causing a solar flare to fill the horizon. There is a 25% chance that this occurs beneath the ship if it was not detected somehow (see Sensors in the previous column), inflicting 8D6 Fire Damage to the ship and reducing Shield & Armor DR by –5. If this occurs, the ship's internal temperature begins to rise (see the Cascade Damage Chart for more information) and the crew will have to decide whether to escape and abandon the race or continue ahead. If they continue, the GM rolls a percentile for every 5 Minutes of travel. There is a 65% chance of enduring another round of damage (with DR dropping by –1D4). The GM keeps rolling at –10% (for each additional 5 Minutes) until the roll fails or it hits 0.
- **Detecting the Eruption in Time:** If the eruption occurs in front of the ship, or they happen to be lucky enough to detect it ahead of time, the crew has 2 choices to make. They can either fly around it, which will cost them an hour of flight time and potentially give other teams a chance to gain ground, or risk flying through. A Solar Flare could last for hours, so it is a serious environmental hazard, and one that could occur multiple times a day. If the initial percentile roll (as above) happens to be 26-40, the eruption occurs in front of the ship with just enough time to evade. In this case the Pilot makes a DC17 Pilot Check, and on a Success they suffer the Solar Flare Damage once, with enough time to pull away to safety if they wish.
- **Minor Damage (87-00):** The ship suffers minor damage to a vulnerable point on the exterior. This is identical to the Corrosive Gasses entry under Stage 2, except that it is a result of intense heat & radiation beating against the hull. If this occurs when Shield or Armor DR has been reduced to 0, there is a 100% chance of this kind of damage being inflicted, but the conditions as described in that entry are otherwise the same.

Duration
Including the trip to the Star (which takes about 15 Minutes), this section of the race should take about 5 Hours to complete.

Fourth Stage

After leaving the star, the ship is again allowed to accelerate to .25 Lightspeed for a trip to the second planet in the solar system, Yoos-Kooz. This is a small planet with a toxic atmosphere, but it gives the crew one last chance to perform a slingshot maneuver before returning to Kaiju World for the final leg of the race. As long as nothing has interfered with the ship's ability to build up speed from the star, it will be possible to use the momentum from the trip to exceed .25 Lightspeed (a little). The trip to Yoos-Kooz would normally take about 25 Minutes, but a good Pilot Skill Check can shave precious minutes off the trip. At this point as many as half the racing ships will have been eliminated (for various reasons), so if the party is still in the race, their chances of victory are stronger. The trip to Yoos-Kooz is critical for gaining ground, and the final Slingshot could make or break the race.

- After leaving Arcoona behind, the Pilot gets to make another Skill Check to determine how quickly they can reach the next objective.
- A result of less than 15 means something was wrong with their trajectory and the does not build up as much speed as expected. This results in reaching Yoos-Kooz in 25+1D4 Minutes and 1D3 pursuing ships are able to pass them.
- A result of 15+ means the ship arrives in the usual time of 25 Minutes.
- A result of 20+ means arriving in 23 Minutes and the ship potentially advances ahead of one enemy ship.
- A result of 25+ means arriving in 21 Minutes and advancing ahead of up to two ships.
- A result of 30+ means arriving in 19 Minutes and advancing ahead of up to three ships.
- Any ships the party were able to pass will be hot on their heels, and actively engaged in their own plans to catch up and/or eliminate the competition. GMs also need to bear in mind that any ship which happens to roll higher than the party on their Pilot Check will stay ahead of the pack, regardless of the results detailed above.
- During the slingshot maneuver around Yoos-Kooz, the party will be forced to engage with any pursuing ships that get close (not unlike the initial trip around Kaiju World). They will be attacked by other teams hoping to put them out of the race, since every other ship is also benefiting from the speed boost and will try to use it to catch up or engage.
- At the final point of the slingshot maneuver, each ship is supposed to use their Shields to bounce off the planet's atmosphere and generate every greater acceleration than would normally be possible with just gravitational forces. This results in the Shields losing 10 Points of DR due to the power of the impact, but it shaves minutes off of their travel time back to Kaiju World.
- If this depletes Shield protection (or it was already depleted), the ship is in trouble, so regenerating Shield DR on the way could be critical (see Page 15 of this PDF for more information). If the 10 points of DR Damage exceed what the ship has available, it suffers 2D6 Damage for every point over, up to a maximum of 2D6x10 if it has no Shield (or Armor) Protection at the time of the maneuver. For every 3D6 Points of Damage the ship suffers, it also rolls on the Cascade Damage Chart. This means that a ship with no DR Protection would have to roll 3 times. If this leaves the ship in a crippled state, it still benefits from the acceleration of the maneuver, so the party is technically not out of the race yet. As long as they are able to maintain a trajectory towards Kaiju World, there will be time to make emergency repairs before reaching the Final Stage of the race.
- If the ship is using Armor and has no Shield Protection (or lost all Shield Protection), it can still perform the maneuver, but the Pilot suffers a –5 penalty to their final Skill Check. The Armor still suffers DR loss (permanent in this case) like Shields, but the ship ignores the first instance of Cascade Damage.

The Final Roll
After completing a trip around the planet and dealing with any other racers that may be in the way, the Pilot makes one final Pilot Skill Check as the ship bounces off the atmosphere before engaging Lightspeed engines. This is rolled the same as the trip from the sun, with the following results.

- A result of less than 15 means that the trajectory was off and it takes 10 Minutes to return to Kaiju World, and 1D2 pursuing ships manage to pass them.
- A result of 15+ means the ship arrives in the usual time of 8 Minutes.
- A result of 20+ means the ship arrives in the 7 Minutes and potentially accelerates past a single ship that is ahead of them.
- A result of 25+ means the ship arrives in the 6.5 Minutes and accelerates past up to two ships that are ahead of them.
- A result of 30+ means the ship arrives in the 6 Minutes and accelerates past up to three ships that are ahead of them.
- As usual, the party does not pass anyone who rolls higher or may have such a commanding lead that catching up is just not possible.

Duration
This depends on a number of factors, but the trip from the sun to Kaiju World will take between 25 and 33 Minutes, with the trip around Yoos-Kooz (based on the massive speeds the ship is at by this point), taking about a Minute. Obviously the stakes are quite high here, and a Fumble result on the slingshot could put a ship out of the race, though coming back around to try again would at least allow the crew to finish.

Stage 5

The Final Stage of the race is pretty simple. Each ship that makes it this far must enter the lower atmosphere of Kaiju World and complete a 5 Hour trip through the habitable zone, while traveling at speeds just under Mach 1. Once this leg is finished, they are allowed to accelerate out of the planet and towards the finish line at their normal sub-light speeds. Where this becomes challenging is that a ship flying through the prescribed course will have to travel in areas where Kaiju encounters are almost a guarantee. If the ship gets attacked, the best course of action is avoid combat and attempt to outlast the creature, though firing back may be successful in chasing it off. Anywhere from 1 to 3 distinct encounters are possible, and the creatures are more than powerful enough to threaten aircraft.

The Peligonus Bird is the most likely encounter (see Kaiju World Page 35), but Mountain Dragons are also going to be a very real threat. The stats of this Kaiju are detailed at the end of this PDF, and represents a bonus monster that can be added to the list found in the Kaiju World sourcebook. For every Hour of travel through the atmosphere, the party will have a 35% chance of a Kaiju encounter, with at least one being a guarantee, and no more than three for the entire Stage. Whether or not the PCs encounter another ship while making this trip depends a lot on how close the race is, and makes for another level of danger. It's also very possible that a ship in the lead may not be able to complete the final lap due to encounters with Kaiju, given how much punishment everyone will have suffered by this point, so being in the lead is no guarantee of victory. And a team that stopped to rescue another crew may also get a technical victory based on time, so the stakes here could be huge since they still have to complete the race to benefit from any advantage.

The Finish Line

The race ends at the same place where it started, right below the Amphitheater Restaurant, making it the hottest ticket in the sector. It will be absolutely packed as the winner of the race approaches. Unlike the Starting Line, which had to safely accommodate 20+ ships, the Finish Line is pulled much closer together, with a distance of only 100 Feet. This is done intentionally to make the approach more risky, because a wreck at this point will disqualify any ships that crash into each other. That being said, an immediate ruling by the Racing Commission could result in a ship deemed the victim in such an encounter being awarded a victory, or possibly another opportunity to attempt the finish line.

The Victory Prize

The winner of the race is awarded 2000 Space Moneys, free repairs for their ship, a lucrative cereal box contract and the usual advancement in the rankings towards the championship race at the end of the season. Second Place gets 1000sm and half off on repairs, while Third Place gets 500sm and half off on repairs. Anyone else who completes gets a 25% discount on ship repairs. Everyone who finishes will be interviewed by the Galactic Sports Network (GSN).

A few final thoughts

As I was writing content for this adventure, I was suddenly taken with the felling like it all felt so familiar. It didn't take long for me to realize that it was strikingly similar to an episode of Stargate, one of the worst episodes of TV I ever saw if I'm being totally honest (I love the show BTW). It wasn't that the premise was bad, but the over acting amongst the Extras was so excessive that it almost made the episode unwatchable. I definitely wasn't copying the episode, but I also can't deny the similarities either. Hopefully your version of this scenario will play better than what Stargate did. Given the subjective nature of participation, it'll probably be fine.

GMing the Race

On the surface this adventure probably seems straight forward, but there are a number of compelling challenges that GMs and Players may not anticipate. During the initial Stage of the race, every ship in the event will be clustered together and this means that it will be a massive free-for-all. The potential for every ship to attack each other means that the risk of a few being eliminated in the first five minutes is very real, and something the GM will probably want to avoid. In reality the individual racing teams do not want this scenario either, and will be far more interested in spreading out & finding their position in the race before engaging with opponents. Speed isn't necessarily a winning tactic (see the Assault Ship) and spreading out means there is less risk of getting ganged up on.

One thing that did occur when I ran this adventure with my home game is that the Hero Ship suffered about 150 points of damage during the first Stage of the Race. Fortunately the Technomancer character in the party (Kepper) had the ability to repair damage to the hull, so this wasn't as bad as it seemed, but under different circumstances it could have been much more serious. With that much damage right off the bat, the ship might not be able to make it to the end. I would recommend focusing on a couple challenging encounters with other ships during the early Stages of the race, but bear in mind that it's an endurance race and not every team is going to be overly aggressive or focused on taking out the party. It's also possible they could get a surprise rescue when another team takes the opportunity to attack a ship that has the drop on the party. Taking out an aggressive team may be the smarter move than ganging up on one that looks more vulnerable.

Your Players are likely to come up with some clever tactics to give themselves an advantage. The character who is assuming the pilot roll seems, at first glance, like he might not be well suited to it, but his Player is extremely smart and came up with some maneuvers that made a huge difference. Another character, who had been investing in illusion magic, was able to conceal the ship while creating a duplicate to lure away an aggressive enemy. I would strongly recommend doing as much as you can to keep each Player involved in running the ship, calling on them to use the benefits of their crew roll whenever possible, even if that Player wasn't going to speak up. If they have a clever plan, do as much as you can to make it work for them, because engagement is even more important when they are functioning as the crew of a ship. In a normal battle everyone can jump in and take action, but the roles on ship depend more on teamwork, which is something RPG Players aren't necessarily going to be as good at.

The ship is going to get damaged during the course of the race, and this means that penalties could stack up, even if actual hull damage isn't as bad. Each of the ships in this adventure comes with a basic selection of spare parts, though this isn't necessarily the only options available. Characters with repair skills can attempt to make emergency repairs, and it is possible to use repair kits to patch up some hull damage. If the party has the money (as my group does), they could purchase additional repair kits before the race. And you can also increase the number of kits each ship has if you feel it's necessary. If you don't have characters in the party with repair skills or the ability to restore hull damage, this might actually be a necessity.

The last thing I wanted to mention is that the default scenario has the party competing with the Hero Ship, but this isn't the only option. You could allow them to use a different ship design, and it's also possible they could end up owning their own ship somehow and compete with that instead. The scenario listed in this adventure isn't the only way to get them involved, it's just the one I used with my Players. It matched their play style, and I knew I could get Kepper's Player to take the bait. They also have their own ship, but it isn't one that can compete. Your Players may need to acquire a ship of their own to venture out into the galaxy, and this race could serve as a way to justify getting them a party ship. Any of the designs listed here are the right size to serve as a party ship, and would be perfect to carry them to all manner of adventures beyond Kaiju World.

Ship Stats

Racing ships must conform to very specific standards with regards to performance, durability and combat capability. According to racing regulations, they must be of the Medium Shuttle Class and possess the following features: 2 Ray Cannon Turrets, Bubble Shields, the ability to hit .25% Light Speed, possess Shields capable of enduring intense levels of radiation and combat damage, the ability to fly in an atmosphere, the ability to land on a planet & take off and they must be designed to function optimally with a minimum of 4 crew. There are a few other technical specifications outside of raw game mechanics (including a ban on projectile weapons), but the teams have a lot of options to customize their ship so long as they follow the above specifications.

Basic Medium Shuttle

Due to space limitations, we only had room to cover 2 types of Shuttle, the standard Light Transport/Cargo Shuttle and the Assault Type of the Heavy Shuttle. We didn't have the room to get into the Medium Shuttle, and there is also going to be a variant on the Heavy Shuttle that is not optimized for combat. Below are the basic stats for the Medium Shuttle, and the Racing ships (which are detailed on the following pages) will represent a variety of alternate designs the PCs could acquire. Where Light Shuttles tend to be the workhorses used for a majority of short distance transport & cargo needs, and Heavy Shuttles are generally reserved for high risk situations (including combat zones), Medium Shuttles tend to fill that sweet spot between size, utility & cost that makes them idea for customization to meet a variety of specialized needs.

Note: In the original Sad Hotdog Man comicbook the character of the Pomento Man is seen using one of these ships. His version has no weapons and is equipped with FTL engines.

Class: Medium Shuttle

Crew: 1 Pilot + up to 3 additional crew.

HP: 400

DEF/AC: 13 + Pilot AGI/DEX Bonus

Speed: Mach 6 in an atmosphere. Typically Mach 20 in space. These speeds are sufficient to escape the gravity of most inhabited worlds.

Dimensions: Tends to be a little larger than a Light Shuttle, with an average size of about 40 to 45 Feet Long and a Width of 20 Feet. Ships with wings (to optimize for atmospheric flight) will usually be about 30 Feet wide.

Sensors: Minimal. Generally limited to Radar (2000 Miles), collision warning systems and basic IFF (Identify Friend or Foe) with a 45% chance of recognizing enemy craft. As ships with the ability to land on a planet, they also possess the ability to identify environmental conditions, such as radiation, atmospheric composition and other potential dangers to the crew.

Cargo Capacity: Similar to a Light Shuttle, with cargo variants ships tending to be about 15 to 20 Feet longer, though these ships are comparatively uncommon. When buyers need a designated cargo hauler or passenger transport, it's usually more economical to just get a Light Shuttle, so Medium Shuttles aren't as likely to be used for these roles. Many variants are sold with empty interiors so that buyers can customize them to their needs, while a number of vendors offer prefabricated modules that can easily be slotted into the ship to provide ready made functions. It is generally quite easy for these ships to upgrade their engines & shields, so long as their owners are willing to give up the internal space needed for these systems.

Cost: A basic ship with no weapons or additional systems will cost 10,000sm (add 3000sm for the cargo variant). A pair of fixed forward Ray Cannons or a Bubble Deflector will each cost 2000sm, and the stock reactor is usually able to handle both systems without strain. It is rare when Medium or Heavy Shuttles are made to only operate in space.

Weapon Systems

Weapons will not be standard, though they can be purchased as an optional add-on. The following are the standard weapons generally available from the manufacturer, with additional or upgraded weapons requiring that the reactor be upgraded. Targeting computers do not come standard.

Damage: 1D6X10 Radiation Damage

Effective Range: 3000ft

Long Range: 12,000ft

Targeting System: +0 to Strike

Payload: Unlimited

Shields

Deflectors are not standard, and will usually only be installed if the ship has Weapons or Light Speed/FTL capabilities. Ships intended exclusively for short-range use wouldn't usually need them. The factory Deflectors are comparable to those installed in Light Space Fighters, providing a bubble of protection that gives the ship +1 to DEF and DR15 from all sources of damage.

FTL Systems

As with Light Shuttles, FTL systems are not standard and must be purchased as an additional feature for the ship. The costs & capabilities are basically the same as Light Shuttles. Performance & capabilities will be comparable to the Type 2 Booster Pack found on Page 27 of Welcome to Kaiju World, and usually costs about 13,000sm for this upgrade. External engines don't take up much space, while internal system will reduce cargo space 20%. Light Shuttles generally have no problem interlocking with Booster Packs, but Medium & Heavy Shuttles are too big for this.

Heavy Shuttles

The Heavy Shuttle detailed in Kaiju World is a very specific ship, but it is important to bear in mind that not every vessel of its class is going to be so combat focused. That's just what Tactimony Station needs. Heavy Shuttles are intended for situations where the ship must endure great punishment or intense labor, such as combat duty or harsh environmental conditions (including high gravity). These ships have 3 main configurations and all cost the same:

- **Assault Craft:** This is the ship detailed in Welcome to Kaiju World Page 28, and represents the default stats of its class. Unfortunately there was a clack of clarity in the stat block, in that these ships do not come standard with targeting computers (though GMs can add this feature if they prefer). The version used by Tactimony Station would also possess Cutting Airlocks (see below). They have a couple with FTL capability for emergency response, though most will only be able to hit .5 Lightspeed. The Stat block will be updated for future print runs. Assault Craft are commonly used as patrol ships, police craft and as troop transports.
- **Extreme Environmental Transport:** This configuration is designed to survive in extreme conditions and has anti-gravity systems to make it easier to take off from high gravity planets. It has no standard weapons, but it's armor grants the ship +1 to DEF/AC and it has +100HP. Though some pitting & pockmarking may occur on the hull, it is generally impervious the effects of highly corrosive atmospheres and can fly through extreme storm conditions with minimal risk of damage. These ships have been know to survive ramming at-

tacks against other small craft, as well as collisions with terrain, and still be able to fly. More than a few have been able to take off again after crashing. Due to the thickness of their hull (and reinforcement of other systems), these ships have about 20% less cargo space than is typical for a ship of its size. They may also be used as troop transports when all that matters is getting your passengers down in one piece.

- **Space Tug:** These powerful ships devote almost all of their interior space to powerful engines and a tractor beam system, with only about 25% of the usual amount of cargo space being left behind (and most of that is used for crew compartments and equipment storage). Space Tugs are strong enough to pull ships many times their size, up to the level of a Corvette without strain, while two or three of them can usually handle a large battleship or freighter. Why flying on their own, tugs can double the usual speeds of a Heavy Shuttle, though this drops to a quarter of that when pulling a large ship behind them. These ships are not usually employed for long range rescues, and instead focus on recovering & moving vessels within a specific region. They have no weapons, but the tractor beam is powerful enough that ships of a similar size class may not be able to break away, making any contest one of engine power. Space Tugs cannot land on a planet, though it is impressive how far down into the upper atmosphere they can go (when on a rescue mission) and still escape under their own power.

The Heavy Shuttle detailed in Welcome to Kaiju World probably seems to be priced a little cheap, though this is actually due to a slight error in the stat block. The price is correct because the ships purchased by Tactimony Station do not have targeting computers like Interceptors do, though this fact was (unfortunately) not made clear in the stat block. We will attempt to address this in the next print run, but a ship with the full targeting computer system like the Interceptor would probably cost upwards of 25,000 Space Moneys. GMs are more than within their rights to adjust prices for ships (and other in game resources) if they feel it's too low, so don't hesitate to tweak stats & prices to fit the game you intend to run.

Additional Upgrades

The following are some typical costs for a few common upgrades to shuttles & fightercraft. These priced do not apply to larger ships, such as military craft, freighters and medium or large transports. This is not meant to be an expansive list, but just an attempt to cover some basics and to give Players & GMs a starting point. We will be putting out a more complete book on spacecraft at a later date.

- **Lightspeed Engines:** It will usually cost about 3000sm for engines that can hit .25 of Lightspeed, and 5000sm for an upgrade to .5 of Lightspeed. Relativity compensation systems are a standard feature.
- **Upgraded Reactor:** Adding in additional systems (such as more powerful weapons or advanced sensor suites) will often exceed the power output of stock reactors. A Stock Reactor would be considered to be a Level 1 Power Plant. Each additional Level grants it the ability to handle one additional system that requires significant power drain (such as a turret, advanced sensors or a more powerful shield system). Each additional Level costs 2000sm and increases the size of the Reactor by 10%. If you are using the vehicle rules from the CSRPG (see Chapter 8), each Level would give you +1 to Power and this caps out at Level 6.
- **Turrets:** A Turret mounted ray cannon costs 5000sm and will have the same stats as above (adding in a bonus of +10 to Damage increases the price by another 2000sm). The Damage Type can be either Radiation or Force, as the buyer prefers. Turrets typically have a rotation of 360 degrees, with a 90 degree up & down arc. It costs the same for a turret that is fired from a cockpit terminal as one that is manually controlled by a gunner. The main difference is that a gunner must take up some internal space, but has the advantage that the system is autonomous so long as power is not interrupted. A cockpit or bridge controlled weapons system is a little more vulnerable to disruption. Remember that Gunners double their Agility Bonus to Damage when firing ship mounted weapons.
- **Combat Computers:** Any ship listed with +0 under the Targeting System line for Weapons does not have a targeting computer installed. A ship with +0 cannot achieve a Targeting Lock (see Kaiju World Page 59). Adding in a system that grants +1 to Strike usually costs 5000sm, while one with +2 to Strike (the maximum) costs 10,000sm. These prices are for a computer that handles the entire ship, and knocking it out or jamming the system removes bonuses & functionality from all weapon systems. A computer that is for a specific weapon system is 40% cheaper, but it only benefits that particular weapon and will retain all bonuses regardless of the status of other systems. If an enemy is attempting to jam sensors with basic systems only, a success will not block the individual system (it would require a superior sensor suite or power source to have a broader effect).
- **Missile Launchers:** An external missile pod is relatively cheap (1000sm) and can hold 3 Short Range Missiles. Since most missiles are self-guided, additional targeting systems are generally not needed to fire these weapons accurately. Less advanced worlds may require targeting computers to aim their missiles. A standard internal launcher (3000sm) can fire up to 2 missiles at a time and holds 4 in the magazine, but usually cuts internal cargo capacity by 10% (it cannot be added to Light & Medium Space Fighters). This has the advantage that missiles cannot be targeted by enemies and you can refill the magazine from within your cargo bay if needed. External pods tend not to be aerodynamic, and inflict a penalty of –1 to the Pilot Skill per Pod when flying in an atmosphere. Short Range Missiles (see Kaiju World Page 25) cost about 200sm each, though prices may be higher depending on the supplier.
- **Missile Hard Points:** The wings that are sometimes added to Space Fighters always come with Hard Points as a standard feature, and generally allow the ship to hold 3 or 4 missiles. If a Shuttle has wings, Hard Points can be added at a cost of 250sm each (they are usually installed in pairs). Shuttle wings can usually only handle 2 missiles each, though this depends a lot on the design of the ship.
- **Wings:** Wings are described at various point in the spacecraft section of Welcome to Kaiju World, but their general purpose is either to support ordnance or to provide better lift in an atmosphere (and thus reducing energy consumption). Ships with wings will be able to glide effectively over vast distances without thrust (whereas standard rocket style ships plummet like a rock). If you are using the CSRPG vehicle rules, wings would give a spacecraft +2 to Handling (max 6) in an atmosphere. The cost for wings is about 1000sm for Light Fighters & Shuttles, and +500 for every level

after that (Medium & Heavy).

- **Extending Airlock:** Airlocks are supposed to be standardized so that ships and stations can easily interlock with each other, but that doesn't mean there's only one design in common use. Plus there are always new civilizations joining the galactic community that didn't get the memo. Extending airlocks are designed to facilitate these connections by "extending" outwards from the ship so they can contour the surface and create a seal without the necessity of correct brackets & clamps. This system generally costs 1000sm.
- **Cutting Airlocks:** This is a similar concept as above, except that it's designed to create a seal against hull plating. It then uses built-in mechanisms to cut through the hull so that the crew can force their way in. It's usually a good idea to identify a sealable compartment to gain entry, because when the ship disengages that portion of the ship will be vented out into space. Though obviously intended for military use, this upgrade is popular with salvage teams, pirates and raiders. It is usually installed in the floor of the ship so that docking clamps can secure the hull, making the gravitational plane a little strange when you first board. Cost is usually about 5000sm.
- **Tractor Beam:** This is a basic system designed to recover small objects (or people) and pull them into a cargo bay without concerns for inertia or risk of high speed impacts. On larger ships, this can even allow them to safely land fighter and shuttlecraft. Unlike the system on a Space Tug, this tractor beam is not powerful enough to capture a ship and override its engines (it's generally easy to break free, though it will still take some effort and may delay escape for a Round or two). A basic system will cost about 2000sm and is popular with salvage crews and police. Adding in one as powerful as the Space Tug will run you about 5000sm, plus you would need a Level 6 Reactor (and possible modifications to the ship design), so it's often more economical to purchase a purpose built ship that manufactured for that purpose from the ground up.
- **Armor:** Basic Armor increases the HP of the ship by +50 and DEF/AC by +1. So long as the ship retains the bonus of +1 to DEF/AC, the ship ignores the first roll on the Cascade Damage Chart during an encounter. This feature costs about 5000sm.
- **Repair Kits:** Various Kits are available for the crew to use when a ship is in need of repairs. Ideally you will need to periodically put in for professional repairs at a space station or spaceport, but there are also going to be times when you just need to get it done now. Each kit adds +1D10 to a relevant Repair Skill Check and you can use as many as you need for a specific task. As long as you have professional level skills (as opposed to Jury Rig), these repairs are considered to be permanent. A General Kit that can be used on anything costs 250sm. One that is specific to a particular kind of repair costs 175sm. General Kits can restore 2D10 HP to the ship, while a specific Hull Patch Kit can restore 4D10. An Emergency Puncture Kit costs 25sm and seals a single small hole or microfracture.

Racing Ships

The following are some common (and uncommon) ship designs popular among racing teams in the Galactic Grand Prix (GGP). Other configurations are obviously possible, but these will be the most commonly used designs in the Race to the Bottom. All are based on the Basic Medium Shuttle, so the stats below will primarily focus on significant differences and what sets each design apart.

The Hero Ship

This is the ship owned by Jansen, and the one the PCs will be using during the race. It is a unique design and the only one of its type that will be competing, though it could be adopted by other teams if the party does well and Jansen is able to sell his Shield System. It's advanced Deflectors give it a big advantage during certain stages of the race, and Jansen's abilities as a Force Field Engineer mean he'll be much better equipped to restore shield integrity mid encounter.

Class: Medium Shuttle
Crew: 4
HP: 375
DEF/AC: 14 + Pilot AGI/DEX Bonus
Speed: Mach 6 in an atmosphere. Racing ships are required to be capable of hitting Mach 60 in space. It has Lightspeed engines capable of achieving .25 of Lightspeed.
Dimensions: 40 Feet Long and a Width of 20 Feet.
Sensors: Standard for a Medium Shuttle
Cargo Capacity: Minimal. Much of this space is devoted to expanding engine and shield capabilities. There is also a small bunk room for two people to sleep in. The majority of the cargo space contains basic living supplies and spare parts for the Shield System.
Spare Parts: The Spare Parts will give a qualified Force Field Specialist a bonus of +1D10 to the Repair Action three times when making repairs to the Deflectors.
Cost: A ship with similar capabilities (not counting the advanced Shield System) would cost 35,000sm. The upgraded Deflectors would probably raise the price another 8000 Space Moneys.

Weapon Systems

Two Turrets, one at the top of the ship and one at the bottom. Both have seats for the gunner to sit within the turret, with a full range of view. Rotation is the standard 360 degrees, with a 90 degree arc of fire. Each can fire forward and back, though the spacing makes it unlikely that both will be able to hit a ship of similar or smaller size at the same time (though rolling the ship might allow both to make attacks against an enemy).
Damage: 1D6x10 Force Damage
Effective Range: 3000ft
Long Range: 12,000ft
Targeting System: +1 to Strike
Payload: Unlimited

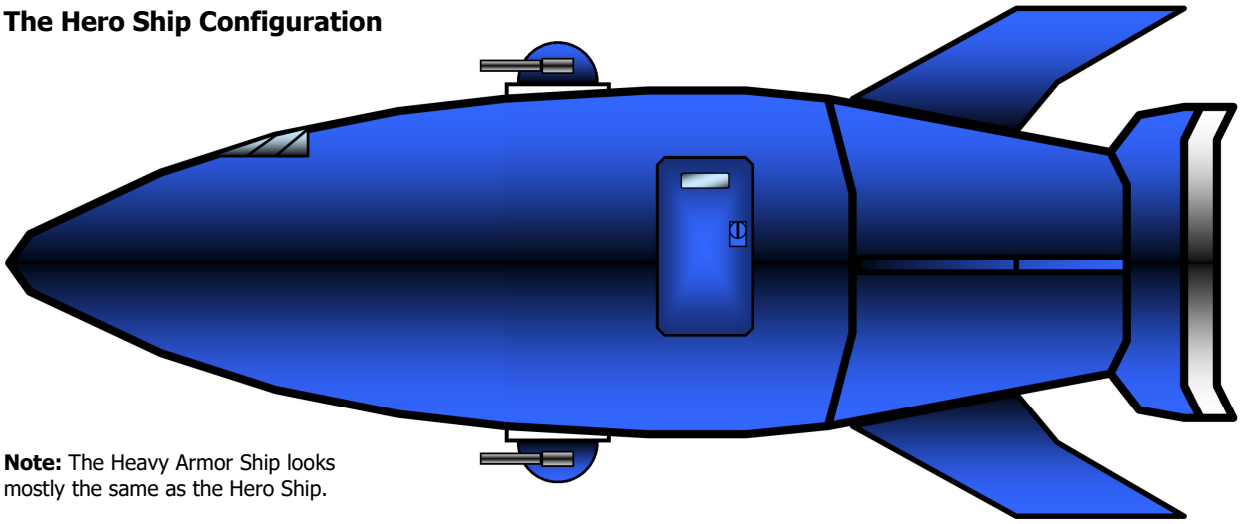
Shields

This ship operates a prototype bubble shield system that is specifically designed to better endure intense levels of radiation. While active, the deflectors grant the ship a standard bonus of +1 to DEF/AC and DR 15 vs all sources of damage. When Radiation based weapons are used against it, the ship instead has +2 to DEF and DR 17. In addition to this, it can get about 500 miles closer to a star without suffering damage than a normal ship of its size class. This means that it will not suffer the shield damage other racing ships are expected to endure when following the portion of the course that flies around the sun. When installed into a science vessel with a more robust reactor, this Deflector configuration would allow the ship to get even closer and facilitate a more detailed study of the Star than would normally be possible.

FTL Systems

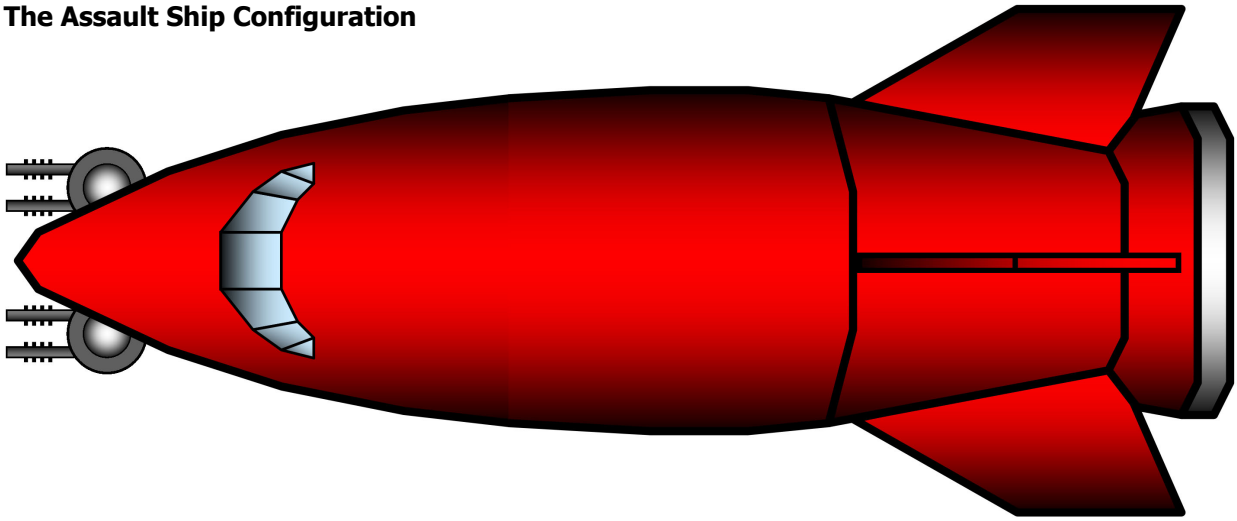
Identical to a Type 2 Booster Pod. See Kaiju World Page 27.

The Hero Ship Configuration

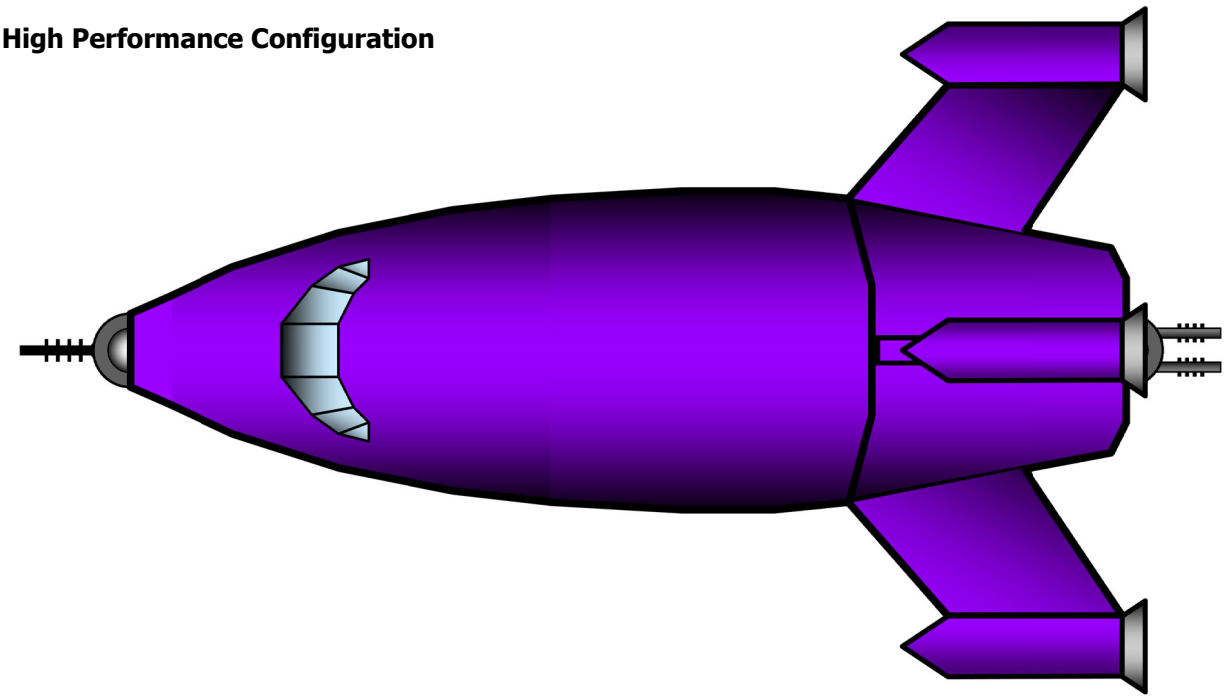


Note: The Heavy Armor Ship looks mostly the same as the Hero Ship.

The Assault Ship Configuration



High Performance Configuration



Assault Ship

This is a common configuration of Racing Ship using in the GGP circuit. It is built around a heavy assault strategy, where the plan is to eliminate enemies that they are following. A common strategy is to hang back and not focus on speeding ahead in the early stages of the race, instead attacking an eliminating vulnerable competitors that block its path as the crew accelerates forward.

Class: Medium Shuttle
Crew: 4
HP: 400
DEF/AC: 14 + Pilot AGI/DEX Bonus
Speed: Mach 6 in an atmosphere. Racing ships are required to be capable of hitting Mach 60 in space. It has Lightspeed engines capable of achieving .25 of Lightspeed.
Dimensions: 40 Feet Long and a Width of 20 Feet.
Sensors: Standard for a Medium Shuttle
Cargo Capacity: Standard. It contains a room with bunk space for 4 people. Most of its internal space is devoted to engines, with the remaining cargo capacity being used to store spare parts.
Spare Parts: The Spare Parts will give a qualified engineer a bonus of +1D10 to the Repair Action six times when making general repairs.
Cost: A ship with similar capabilities would cost 40,000sm.

Weapon Systems

Two Turrets, both located on either side of the nose of the ship. Each has a 150 degree arc of fire (side to side), with vertical arc of 90 degrees. Both weapons can fire forward at the same target, but only one can fire side to side. It is impossible for this ship to fire at targets immediately behind. If the ship is using only a single pilot, the cannons can be locked in a fixed forward position to make them easy to fire. These weapons are usually controlled from separate consoles in the cockpit manned by gunners.
Damage: 1D6x10 Radiation Damage
Effective Range: 3000ft
Long Range: 12,000ft
Targeting System: +2 to Strike
Payload: Unlimited

Shields

This ship operates a bubble shield system that grants a bonus of +1 to DEF/AC and DR 15 vs all sources of damage.

FTL Systems

Identical to a Type 2 Booster Pod. See Kaiju World Page 27.

Tank Ship

This is a common configuration of Racing Ship using in the GGP circuit. It is built around a strategy where the crew intends to finish by being able to endure more punishment than any other ship in the race.

Class: Medium Shuttle
Crew: 4
HP: 450
DEF/AC: 15 + Pilot AGI/DEX Bonus
Speed: Mach 6 in an atmosphere. Racing ships are required to be capable of hitting Mach 60 in space. It has Lightspeed engines capable of achieving .25 of Lightspeed.
Dimensions: 40 Feet Long and a Width of 20 Feet.
Sensors: Standard for a Medium Shuttle
Cargo Capacity: Minimal. It contains a room with bunk space for 2 people. The ship has about half the usual cargo space due to possessing larger engines and thicker armor. Most of the remaining space is use to hold spare parts & supplies.
Spare Parts: The Spare Parts will give a qualified engineer a bonus of +1D10 to the Repair Action three times when making general repairs.
Cost: A ship with similar capabilities would cost 45,000sm. Adding the Ablative Coating costs another 3000sm, but is less popular for civilian ships given that it must be regularly renewed.

Weapon Systems

Two Turrets, both located on either side of the ship. Each has a 180 degree arc of fire (side to side), with vertical arc of 90 degrees. Both weapons can fire forward and rear, though they are spaced so wide apart that it is unlikely they will both be able to hit a ship of similar or smaller size at the same time.
Damage: 1D6x10 Radiation Damage
Effective Range: 3000ft
Long Range: 12,000ft
Targeting System: +1 to Strike
Payload: Unlimited

Shields

This ship operates a bubble shield system that grants a bonus of +1 to DEF/AC and DR 15 vs all sources of damage.

Armor

This ship has an Ablative Armor coating that boils off to consume the energy of enemy weapons, thus protecting the ship from much of the power of the attack. It grants the ship an additional DR 5 vs all sources of damage, separate from the Shields. When the ship suffers a Critical Hit or max damage, this bonus is permanently reduced by -1, to a minimum of -0. This ship also has the standard armor bonus (already added to stats) as detailed on the Upgrade list.

FTL Systems

This ship does not have FTL engines, and must depend on other methods of transport when moving between star systems. See Page 8 for the price to add this upgrade.

High Performance Ship

This is a common configuration of Racing Ship using in the GGP circuit. It is built around a strategy of having extremely robust engines with greater maneuverability. The crew can push this ship harder, and squeeze out a bit more speed, with less risk the engines will burn out.

Class: Medium Shuttle
Crew: 4
HP: 375
DEF/AC: 14 + Pilot AGI/DEX Bonus
Speed: Mach 6 in an atmosphere. Racing ships are required to be capable of hitting Mach 60 in space. It has Lightspeed engines capable of achieving .25 of Lightspeed.
High Performance Engines: This ship is significantly more maneuverable. It gets +1 to Maneuvering Actions (see the CSRPG Chapter 7) and +1 to DEF/AC when taking the Evasive/Dodge Action. Any time the crew chooses to push the engines in an attempt to increase speed or acceleration, the ship gets a bonus of +1D4 (or a similar bonus to any Save or Check to resist potential engine damage).
Dimensions: 40 Feet Long and a Width of 20 Feet.
Sensors: Standard for a Medium Shuttle
Cargo Capacity: Minimal. It contains a room with bunk space for 2 people. The ship has engines that are larger than normal, which leaves it with only about half the usual cargo space for a ship of this type. Most of the remaining space is use to hold spare parts & supplies.

Spare Parts: The Spare Parts will give a qualified engineer a bonus of +1D10 to the Repair Action four times when making repairs to the engines.

Cost: A ship with similar capabilities would cost 45,000sm.

Weapon Systems

Two Turrets, one located in the nose and one located in the rear. The forward cannon is mounted to a ball turret and can swivel 90 degrees in all directions and is controlled from the cockpit. The rear turret is directly controlled by a rear gunner who sits in a compartment between the thrusters and has a 90 degrees arc of fire in all directions.

Damage: 1D6x10 Radiation Damage

Effective Range: 3000ft

Long Range: 12,000ft

Targeting System: +1 to Strike

Payload: Unlimited

Shields

This ship operates a bubble shield system that grants a bonus of +1 to DEF/AC and DR 15 vs all sources of damage.

FTL Systems

This ship does not have FTL engines, and must depend on other methods of transport when moving between star systems. See Page 8 for the price to add this upgrade.

Radar Ship

This is a common configuration of Racing Ship using in the GGP circuit. It is equipped with advanced sensor systems capable of identifying the location of enemy ships with greater accuracy, as well as engage in limited electronic warfare actions.

Class: Medium Shuttle

Crew: 4

HP: 400

DEF/AC: 14 + Pilot AGI/DEX Bonus

Speed: Mach 6 in an atmosphere. Racing ships are required to be capable of hitting Mach 60 in space. It has Lightspeed engines capable of achieving .25 of Lightspeed.

Dimensions: 40 Feet Long and a Width of 20 Feet.

Sensors: Standard for a Medium Shuttle

Medium. Radar (4000 Miles), collision warning systems, basic IFF (Identify Friend or Foe) with a 65% chance of recognizing enemy craft and more advanced systems for identifying stellar phenomenon. It also possesses the standard ability to identify environmental conditions on a planet to assess risk to the crew. When using sensors to identify conditions encountered in space (solar winds, radiation, gas giant atmosphere, space debris, etc.), an experienced Sensor Operator gets a bonus of +1D6.

Cargo Capacity: Minimal. It contains a room with bunk space for 2 people. The ship has about half the usual cargo space due to possessing larger engines and thicker armor. Most of the remaining space is use to hold spare parts & supplies.

Spare Parts: The Spare Parts will give a qualified engineer a bonus of +1D10 to the Repair Action three times when making general repairs.

Cost: A ship with similar capabilities would cost 50,000sm.

Weapon Systems

Two Turrets, each located on the side of the ship about halfway between the 10/11 O'Clock and 1/2 O'Clock positions (or about 45 degrees off of center). The Gunner sits within the turret, and has a 360 degree arc of fire, with an up & down angle of 90 degrees. This gives the ship an extremely wide arc of fire, and the ability to concentrate attacks from two guns at the same target directly in front of, and above, the ship. Only enemies located below and immediately behind will be outside of this angle of fire, though rolling the ship can compensate for this.

Damage: 1D6x10 Radiation Damage

Effective Range: 3000ft

Long Range: 12,000ft

Targeting System: +1 to Strike

Payload: Unlimited

Shields

This ship operates a bubble shield system that grants a bonus of +1 to DEF/AC and DR 15 vs all sources of damage.

Electronic Warfare Actions

The advanced sensor systems are capable of performing Electronic Warfare Actions.

- An experienced Sensor Operator who makes a DC15 Sensor Check will be able to lock onto a specific target, granting a Gunner a bonus of +2 to Strike (on top of any specific bonuses the ship may already have). This can be performed Once per Round (as a Major Action) and only applies to a single target. An enemy that is performing Evasive Maneuvers has a DC of 20. Sensor Reflective coatings and some Shield Systems may also modify the DC or impose penalties.
- The Sensor Operator can also attempt to jam sensors (as a Major Action) within a 50 Mile Radius. Enemy Sensor Operators must make an Opposed Roll each Round against your Skill Check to gain access to normal sensor operations. On a Failure, affected ships lose bonuses granted by Targeting Computers, cannot perform a Targeting Lock and will be unable to detect the location of ships within the area of effect (this will obviously prevent the use of threat identification computers). Any sensors that would identify stellar phenomenon also roll twice a (on a D20) and take the lower result. These penalties obviously do not apply to a visual identification. This penalty also applies to the ability to grant a Strike Bonus, even if the jamming was overcome.

FTL Systems

Identical to a Type 2 Booster Pod. See Kaiju World Page 27.

Heavy Armor Ship

This is a common configuration of Racing Ship using in the GGP circuit. It is a variation on the Tank Ship where instead of using Shields, the ship doubles down on heavy armor to survive the race.

Class: Medium Shuttle

Crew: 4

HP: 475

DEF/AC: 16 + Pilot AGI/DEX Bonus

Speed: Mach 6 in an atmosphere. Racing ships are required to be capable of hitting Mach 60 in space. It has Lightspeed engines capable of achieving .25 of Lightspeed.

Dimensions: 40 Feet Long and a Width of 20 Feet.

Sensors: Standard for a Medium Shuttle

Cargo Capacity: Minimal. It contains a room with bunk space for 2 people. The ship has about one third the usual cargo space due to possessing larger engines and thicker armor. Most of the remaining space is use to hold spare parts & supplies.

Spare Parts: The Spare Parts will give a qualified engineer a bonus of +1D10 to the Repair Action three times when making general repairs.

Cost: A ship with similar capabilities would cost 50,000sm.

Weapon Systems
Two Turrets, one at the top of the ship and one at the bottom. Both have seats for the gunner to sit within the turret, with a full range of view. Rotation is the standard 360 degrees, with a 90 degree arc of fire. Each can fire forward and back, though the spacing makes it unlikely that both will be able to hit a ship of similar or smaller size at the same time (though rolling the ship might allow both to make attacks against an enemy).
Damage: 1D6x10 Radiation Damage
Effective Range: 3000ft
Long Range: 12,000ft
Targeting System: +1 to Strike
Payload: Unlimited

Shields
This ship does not have Deflectors.

Armor
This ship has heavy armor that provides it with DR15 vs all sources of damage. It is also resistant to Critical Hits. Anyone attacking the ship suffers –1 to their Critical Hit Range, to a minimum of a Natural 20. This means that a character who would normally get a Critical Hit on a 19+ would have to roll a Natural 20, while a character who scored a Crit on a 17+ would only be able to do so on an 18+. It ignores the first 2 instances of damage to DR in a 24 Hour Period.

FTL Systems
This ship does not have FTL engines, and must depend on other methods of transport when moving between star systems. See Page 8 for the price to add this upgrade.

Crew Roles
The following are specific actions that the crew can take when manning the various positions on a ship.

Pilot
- The Pilot is responsible for flying the ship and makes all Pilot Skill Checks and Saving Throws.
- When engaged in Air-to-Air Combat where the pilot is just a pilot, and someone else is operating as a Gunner, they are allowed to roll a D20 for Defense in place of the Base 10. This does not prevent the pilot from controlling forward facing guns or missiles, but the majority of weaponry must be under the control of a designated Gunner.
- The Pilot can engage in Evasive Maneuvers (the Dodge Action). In this case, they cannot also make attacks of any kind, and any attacks made by Gunners roll twice a (on a D20) and take the lower result.
- The Pilot is responsible for establishing a Targeting Lock.

Gunner
- The Gunner is responsible for the control of ships weapons. This can be from a weapons console within the ship (often on the Bridge) or from within a turret.
- Gunners can fire their weapon equal to the total number of attacks they can usually make. This means that a Proficient Gunner with 2 Attacks can attack with a direct fire weapon or single projectile 2 times.
- Gunners within a Turret usually can only perform attacks with that turret, and at its angle of fire.
- Gunners at a weapons terminal can theoretically control any weapon system, though this depends on how the terminal is configured. Bridge terminals usually can control everything, though many ship designs do still rely on crew controlled Turrets, meaning that crew have the freedom to attack at their own discretion unless the turrets are disabled somehow (on larger military vessels these weapons may need to be released to fire from the Bridge).
- On larger ships, Turrets usually have 200HP and the same DEF as the rest of the ship. They can be attacked directly by fightercraft and are the primary threats such ships face. Destroying them will cause any overflow damage to target the Gunner, which is likely to be lethal. In the event the turret is destroyed, ships have emergency bulkheads to seal off the section, so it is wise for the Gunner to escape before the position is destroyed (and ejection systems may be a feature on some ships).
- On smaller ships, Turrets usually have between 50 and 75 HP, depending on the size & durability of the ship. They may or may not be controlled by a Gunner directly (something that is more common on small transports). Fightercraft usually control weapons from the cockpit. In all cases, the turret on a small ship is a difficult target to hit and requires a Called Shot (roll twice, on a D20, and take the lower result). It is rare when the destruction of the turret places the gunner is at risk, even on ships with a directly controlled turret.
- Gunners can attempt to shoot down missiles and clear obstructions in the path of the ship. Oncoming short ranged missiles have a DEF/AC of 15 + the Targeting Computer Bonus (+0 to +2) if it was fired from more than a mile away. The DEF/AC is 20+ if it was fired from a distance of less than a mile. Any direct fire attack missile strike will destroy it.
- When shooting down a volley, a single successful hit has a 35% chance of taking out the every missile in the cluster, and this is rolled for every missile that is struck. If enough missiles are destroyed that the cluster no longer counts as a Volley, those rules no longer apply.
- When shooting down a volley with missile, it must be fired as a direct fire attack, as opposed to relying on a DC. A single Missile has a 65% chance of taking out an entire Volley (see above), but a Volley of missiles has an 85% chance of doing so. If the 85% chance fails, 25% of the missiles (rounded up) survive and continue on to the target.

Sensor Operator
- This character is responsible for operating the sensor systems of the ship. This grants them the ability to evaluate tactical data, as well as analyze stellar phenomenon.
- The Sensor Operator uses the Computers Skill or the Sensor Operator Skill to use their ship's sensors. If the character has either of these Proficiencies and also a higher Perception Skill, they can roll Perception instead when making checks to detect phenomenon.
- Though the Computers Skill can be used to perform many detection tasks, the Sensor Operator Profession will be more capable of analyzing data, and is required to perform cyber warfare tasks.
- Threat identification rolls (usually a percentage) are made by the Sensor Operator.
- Any rolls to detect ships that are trying to hide are made by the Sensor Operator.
- Any rolls to penetrate interference (whether it is deliberately caused or part of a natural phenomenon) are

made by the Sensor Operator. Usually this is an Opposed Roll vs another Operator. If no Operator is present, it will be against a Standard DC of 15, though this can be up or down depending on the sophistication of the sensor suite or the phenomenon that is interfering with scans.

- A Sensor Operator can attempt to Jam the sensors of other ships. A standard sensor suite on a small ship can only target a single opposing ship at a time. A ship with an advanced sensor suite can attempt to jam an entire area, usually up to a Radius of 50 Miles. The larger the ship, the greater the potential area of effect, with large military ships sometimes being equipped with powerful jamming technology.
- Power output often impacts how effective the jamming will be. This means that smaller ships may have difficulty overcoming jamming technology unless they have extremely sophisticated equipment or have detailed information regarding the method. Frequently ships will be forced to rely on visual identification. It's also likely the ship that initiated the jamming action could also be blinded by their own tech.
- Standard sensors can be used to jam a single enemy ship. If successful, this removes any bonuses from their targeting computer and prevents a targeting lock from being initiated.
- A Proficient Sensor Operator can attempt to flag a specific enemy ship with a DC15 Sensor Check. On a Success, this grants the Gunner a bonus of Opportunity (+2 in Vanilla 5E) to Strike on their next attack against that ship. If the ship is engaged in Evasive Maneuvers (the Dodge Action), this DC increases to 20. Sensor Reflective coatings and some Shield Systems may also modify the DC or impose penalties.

Shield Operator

- When a ship has disengaged successfully from combat, a Proficient Shield Operator can attempt to replenish the DR of the Deflectors. This process takes 30 Minutes and can be rolled Once per Hour. Roll a Proficient Willpower Check. On a result of 15+ the DR of the Shields is replenished by a roll of 1D4. For every +5 the operator gets to the roll, the Shields are replenished by and additional +1D4. This means that a Skill Check of 25 would replenish +3D4 to the DR.
- A Proficient Shield Operator can attempt to reinforce the Shields to make them better able to withstand attacks. At any time the operator can spend a Recovery/Hit Die as a Reaction to grant Bubble Shields a bonus of +1D4 to DEF/AC against a single attack. If an Engineer has allocated additional power for this purpose, it can be performed Once per Round for free.
- Alternatively the Shield Operator can use the same method as a Major Action to grant the Shields a +1 Bonus to DEF/AC until the start of their next Turn.
- If a ship has Variable Shields, this means that it possesses multiple Shield Emitters to protect from different directions. This will either be 2 (forming two hemispheres of a bubble) or 6 (protecting from the directions as if the ship was surrounded by a cube). As a Reaction the operator can layer up to 3 of the Shields in a specific direction, while leaving other sides unprotected. This stacks the DR on that side and grants the ship +1 to DEF/AC for each additional layer (regardless of what the individual barriers usually grant).
- Non-Proficient characters who are experienced with the system can only take this action with their Major Action.

Engineer

- The Engineer is responsible for repairing the ship and keeping it flying. They can perform emergency repairs while in flight/combat, though such actions will usually only be temporary and the minimum needed to keep things running. More permanent repairs must occur after the ship has escaped danger.
- An Engineer can attempt to reroute damage to keep something running, but all penalties that may have been accumulated remain and HP is not restored.
- Full and proper repairs require taking a system offline.
- Spare Parts grant a bonus to the Repair Skill Check equal to the value of the Repair Die (often a D10). Only a single Repair Die can be rolled for each Skill Check.
- It may be possible to cannibalize an existing system to restore another more critical one, but this means that the cannibalized system is no longer available. For example, dismantling a targeting computer might be able to restore proximity sensors.
- An Engineer can attempt to squeeze more power out of the Reactor to improve an existing system. Alternatively they can allocate power from an Auxiliary Reactor for such a purpose.
- Increasing the power output of a Reactor requires a DC20 Skill Check. On a Critical Result (usually a Natural 20), the ship is able to improve 2 systems. On a Fumble Result, the ship's power output is permanently reduced until the Reactor can be shut down for repairs.
- A damaged Reactor reduces the top speed of the ship by 1 Mach Factor in an atmosphere or 5 Mach Factors in space. If this occurs twice, the speed is reduced by the same level again, and the ship no longer has enough power to run every system. One major system (such as a turret or sensor array) must be shut down.
- If the Reactor has been damaged once, the engineer can use the same method of coaxing out more power to return it to full normal operation. If it is damaged twice, it will no longer be possible to achieve this level without repairs.
- Allocating more power to Shields increases DR by +5 or DEF/AC by +1 (an extra +2 if the Shield Operator is also reinforcing it at the same time).
- Allocating more power to Speed increases the speed of the ships by 10% and grants a +1 Bonus to the Power and Handling Stats (effectively granting the Pilot a +1 Bonus to all Opposed Pilot Skill Checks).
- Allocating more power to Direct Fire Weapons will increase the damage of a specific weapon system by +5.
- Allocating more power to Sensors will increase sensor range by 25% and the Sensor Operator gets a +1 bonus to their Skill Check.
- Allocating more power to Communications will grant a Comms Officer a bonus of +1 to their Skill Check when attempt to jam comms or break through interference.

Critical Hits Against Spacecraft

Any time a ship rolls a Critical Hit against another ship, they can choose to deplete Shields or Armor bonuses instead of inflicting additional damage. In this case, the Damage Reduction of Shields is reduced by -5, while Armor is reduced by -1D4. With Shields, this can be replenished after withdrawing from the battle, though armor loss is permanent until repairs can be made. When the DR of Shields is reduced to 0, the ship is no longer protected by that system and it goes offline until Shields can be restored somehow. Armor loses all special bonuses when it is reduced to 0, though and DEF/AC Bonuses remain.

Cascade Damage Chart

This chart is rolled every time a ship suffers a Critical Hit or Maximum Damage from an attack when there is no Shield or Armor protection. For smaller ships this is going to affect the entire vessel, while larger ships may only see localized disruptions. Characters with engineering skills can attempt emergency repairs during a crisis, though the DC is going to be set by how difficult the repair is and how the current circumstances may be interfering with the action. Repairs made with the Jury Rig Skill are always going to be temporary, and must be replaced with professional repairs later. In many cases, especially with smaller ships, the damaged part/section must be shut down to make repairs. Larger ships usually have redundant systems that can keep things going while emergency repairs are being made, and options exist to reroute power. With smaller ships, you may have to trade one system for another when rerouting.

When applying this chart to actual combat or damage, the GM should consider relative levels of damage and scale. For example, Spacefighters are usually so compact (and have such limited systems when compared to larger vessels) that this chart probably wouldn't apply. As combat focused ships, they have fewer vulnerabilities and are more likely be destroyed before this sort of damage would come into play (plus you couldn't repair it during combat anyway). Larger battleships, by comparison, would likely be impervious to this kind of damage from such small ships (it might not even be possible for their weapons to penetrate the hull). Fightercraft are more likely to damage external weapon placements, shield emitters and sensor clusters. It usually would take weapons of comparable power, such as massive anti-ship cannons or missile barrages, to have an effect.

In general, it must be possible for the crew to walk around within the internal volume of a ship comfortably before the Cascade Damage Chart would apply.

Rolling on the chart

Roll a D10 on the following chart. If you get the same result twice (and it cannot stack), move down to the next result on the chart. For each additional instance of rolling on this chart, you would instead drop down twice (this only applies to a Secondary Chart if you roll on it multiple times). If you somehow drop off the chart, start counting down from the top again.

1. Roll twice on this Chart. If either of the additional rolls is a 1, reroll. You cannot get a result of a 1 multiple times in a row. No ship is that fragile or unlucky.
2. A conduit overloads at a random location and explodes. Anyone adjacent to the conduit suffers 2D6 Electric Damage (the GM will determine if anyone was injured). Though it carries some risk of injury to the crew, power conduits are built with fuses designed to disperse the overloads associated with combat (which can result in explosions) so as to prevent the entire system from being damaged or destroyed. The conduit is still functional after such an event, though less efficiently so repairs are still going to be needed.
3. A fire breaks out on the ship. Handheld extinguishers can put it out in 1D2 Rounds, though there is a 35% chance a major conduit/fluid line will also have to be locked down to stop the fire. If this occurs, there may be additional disruptions (GM's discretion).
4. Loss of maneuverability: -1 to Pilot Checks
5. Landing Gear is jammed and will not engage.
6. An external hatch (determined by the GM at random) is hit and cannot be opened safely. Roll a D6. On an even result the hatch is fused shut. On an odd result it probably won't close properly if you open it.
7. Power goes out in a section: The area is determined by the GM at random, but this generally results in a section of the ship (such as an internal compartment) losing all power. This means that any features the section provides are unavailable. This will not generally affect the control consoles in the cockpit, or the main reactor/engines, though it could affect navigational computers, shield generators, internal weapon systems (such as missile launchers), life support, etc. Anything mounted on the outside of the ship, such as cannon turrets, are unaffected.
8. Roll on the Sensor System Damage Chart
9. Roll on the Power System Damage Chart
10. Roll on the Engine Damage Chart
11. IFF Transponder is broken. If it is not repaired, authorities may assume your ship is involved in questionable activity.
12. Something goes wrong with the cooling system and it loses the ability to shut down. Unless you get an overheating result (which will temporarily remedy it), or the system can be fixed somehow, the internal temperature of the ship will drop by 1 degree (F) every Minute until the air freezes and ice starts to form on surfaces. The only hope for survival will be to use space suits, but the accumulation of frost could make panels unusable, and actual ice will begin to form in random locations.
13. The main computer goes offline. This does not cripple the ship, as individual systems (such as navigation or sensors) are still running, but without the computer there is no integration. Until the computer is brought back online, no data can be shared between systems. For example, a Sensor Operator cannot grant a targeting bonus to a Gunner.
14. Life Support is offline. So long as the crew doesn't do much, the existing air supply will probably last for a couple days (and it can be extended through the use of space suits). During intense activity, such as combat situations or a major race, it'll be used up faster. This is mainly a risk if there are explosions, fires or some sort of gas leak within a compartment.
15. Hull Breach: The hull has been punctured and is leaking atmosphere. If a chamber can be sealed, you will only lose the air in that section. Otherwise the ship loses 10% of air volume per minute. Ships usually have emergency sealing kits (up to 5 minor breaches) and the crew are usually fine with up to 40% air loss.

Power System Damage

Roll a D10 on this chart.

1. A conduit overloads at a random location and explodes (see Misc Damage for more details).
2. A fire breaks out on the ship (see Misc Damage for more details).
3. Refrigeration Failure. Unless power can be restored to

food storage within 3 Hours, all food that must be kept cold will spoil. Frozen food will last up to 2 days if you keep the door closed. Small ships (like shuttles or fightercraft) may not have onboard refrigeration, instead relying on food packs or survival rations to sustain the crew.

4. Minor Power Loss: A single cannon is reduced by 1 step (1D6x10 becomes 1D4x10, for example).
5. Minor Power Loss: Missiles or Torpedoes cannot fire
6. Minor Power Loss: Lights go out everywhere (-2 to Perception due to emergency lights)
7. Minor Power Loss (Shield DEF Bonus reduced by -1)
8. This ship loses the ability to regulate power evenly to different sections of the ship. Roll a percentile. On a result of 01-15 a random section loses power for 1D4 Rounds. On a result of 16-30 a random power conduit explodes (see Misc Damage). On a result of 31-00 the power seems to work normally.
9. One Weapon system is offline
10. Shields are offline
11. Main Reactor is offline

Sensor System Damage

Roll a D8 on this chart.

A conduit overloads at a random location and explodes (see Misc Damage for more details).

1. A fire breaks out on the ship (see Misc Damage for more details).
2. Sensors lose Sensitivity: All Skill Checks to use Sensors suffer a –1 penalty.
3. Internal Sensors cannot detect engine damage/failure, gas leaks or fires in the engine compartment. A lack of control or sluggishness in responding to pilot commands could be a clue to a problem.
4. Internal Sensors cannot detect a fire or atmospheric contamination (through out the whole ship), meaning that the crew will not be alerted and any automatic suppression/filtration systems will not trigger.
5. Temperature Control is offline: Each minute the internal temperature of the ship increases by 1D4 degrees. Assume that a ship is maintaining a comfortable temperature of 68-72 degrees F (or 20 to 22C). When temperature exceeds 80 degrees, passengers may need to start shedding clothing to stay comfortable or begin suffering from exposure (depending on their level of physical activity). Alternatively they could get into space suits, which have a regulated temperature until the issue can be resolved.
6. Internal sensor cannot detect crew anymore. This may seem immediately harmless, however it mean that any internal security systems cannot function properly (as they will be unable to detect threats), automatic doors will be sealed shut (on smaller ships) and various internal systems (such as temperature or atmospheric control) will not function properly since this ship doesn't believe there are any life forms to sustain.
7. Tactical Sensors are offline: The ship is unable to populate a tactical display to show the crew where enemy ships are located. They will only be able to identify the location of an enemy ship based on visual identification or if it triggers the collision system. A Sensor Operator would have to roll every Round (as a Major Action) to locate enemy ships and manually populate tactical data.
8. Collision System is offline: The ship will not alert the crew to the presence of incoming objects, including missiles.
9. Sensors are offline. This ship is flying completely blind until the sensor suite can be brought back online.

Engine Damage

Roll a D8 on this chart. It is important to remember that, in most cases, the ship will not immediately slow down if an engine it was using becomes disabled. It will still continue to travel at those speeds (in space) until something actively stops it. The main risk is that without the engines it will lose maneuverability, and may be unable to avoid a collision with an obstacle, or avoid being pulled into a gravity well.

1. A conduit overloads near the engines and explodes (see Misc Damage for more details).
2. A fire breaks out in the Engine Room (see Misc Damage for more details).
3. Engine Damage: Reduce top speed by 1 Mach factor in an atmosphere and 1D6 in space. It is likely that this would prevent a ship from escaping a planet's gravity.
4. This ship looses the ability to slow down. This may not be immediately obvious when traveling over long distances.
5. Relativity Field fails 50% of the time. If it shuts down, the crew will slow down when traveling at relativistic speeds (such as .25 Lightspeed), and will feel as if they simply blinked and were at their destination, assuming they were smart enough to log a flight plan rather than just flying on manual. A crew traveling on manual could easily overshoot their destination before they realize what just happened and reduce speed.
6. A major conduit ruptures, causing a fluid or gas to leak into the compartment. It will fill a hall or compartment in 1D4+1 Rounds and must be locked down before filtration systems can deal with the problem. Roll a Percentile. On a result of 01-15, the leak is generally harmless (for now), but total saturation will make it impossible to breath in that section. On a result of 16-30, the gas is harmless (as above) but blinds anyone in the area, making it harder to shut off the leak. On a result of 31-60, the leak is caustic and covers the floor, inflicting 1D6 Acid Damage to anything stepping in the affected area, which may be unavoidable if one intends to stop the leak. Getting sprayed in by the leak (GM's discretion) inflicts 2D6 damage, and footware is likely to be ruined when you step in it (being destroyed in 1D4 Rounds if it isn't somehow resistant). On a result of 61-90, the gas leak is toxic and inflicts the Poisoned Condition on anyone who fails a DC17 END/CON Save. The Condition will persist for 1D4 Hours unless a medic is on board with the means to treat the poisoning. On a result of 91-00, the toxic gas also inflicts 2D6 Poison Damage (in addition to the Poisoned Condition) for each Round in which a target both breathes it in and fails their Save.
7. Engine Damage: Lightspeed Engine Damage. Most Lightspeed Engines are capable of speeds hitting .25 Lightspeed, .5 Lightspeed or .75 Lightspeed. These factors are generally set by the current state of relativity compensation technology. All other speed factors are set by FTL methods. Lightspeed Engine Damage means that your top Lightspeed capability is reduced by -.25. If your ship was already at .25, this means the system is offline and will not function at all.
8. Sub Light Engines are offline
9. FTL Engines are offline

Additional Space Combat Notes

The Pilot Skill Expanded

In the CSRPG Core Book Pages 146 and 150 we cover the Pilot Skill. It is an Agility/Dexterity Based Skill that grants you special bonuses when piloting specific categories of vehicles (as outlined on Page 150). You get to select 2 when you take the Skill, and some options grant you a bonus selection. In the Core Book we listed Proficiency with Spacecraft as applying to all ships, from Space Fighters to massive Battleships. This was more a necessity of space, as the book had already blown past our original page budget and some things just weren't going to fit. Since the SHDM Campaign Setting is solidly Space Opera, it's time to revisit the topic.

Piloting Spacecraft

- As usual, anyone can attempt to pilot a spacecraft with just their raw stats. A character with high AGI/DEX may have talent, and are inherently more capable of handling a ship (or figuring it out), but they aren't going to be as good as someone who is fully trained and there will be things they simply do not know how to do. For example, they will possess no inherent Proficiency with weapons or may not even know how to deploy landing gear.
- The general Proficiency, as covered in the CSRPG Core Book, still applies and can be selected. It simply means that you possess basic levels of training to pilot ships in zero gravity, so your Proficiency applies to all types of spacecraft, but you still lack specialized knowledge. You do not gain Proficiency with weapon systems and cannot make Knowledge Checks regarding specific classes of ships or their functions. You are just trained to fly, and that's it.
- Alternatively, you can select from the following categories: *Space Fighters, Small Transports, Small Sized Ships, Medium Sized Ships, Large Sized Ships or Gargantuan Sized Ships.* If you select one of these categories, you will gain Proficiency with any forward (or rear) mounted weapon systems (such as forward firing cannons or missile launchers) that the ship may possess, a basic ability to Proficiently use secondary systems needed to fly a ship (such as basic sensors or communications) and you can make Proficient Knowledge Checks related that class of ship.
- The basic systems referred to above would be things like using tactical sensors, making basic scans to see if ships are hiding in a blind spot, simple techniques to penetrate jammed comms, etc. It does not replace the need for specialized Proficiencies in such categories, nor does it allow a pilot to perform the full range of abilities a specialist can (GM's discretion if there is a question). Complex weapon systems, such as turrets, still require the services of a designated gunner. You CANNOT use such a weapon system and still proficiently pilot the ship, it's one or the other.
- **Space Fighters:** This category covers all single and two seater combat craft, such as those detailed on Pages 26 & 27 of Welcome to Kaiju World. Fighters will often have Light, Medium & Heavy classifications, depending on how powerful they are.
- **Jet Fighters:** Characters can select Proficiency with atmospheric Combat Jets, and these follow the same standards as Space Fighters.
- **Helicopters:** If you are playing in a contemporary setting, Civilian and Military Helicopters would be separate Proficiencies.
- **Small Transports:** This represents all Classes of Shuttles, as well as tiny freighters. Ships like the Millennium Falcon and the Serenity would fall under this class. Some military ships, such as the Heavy Shuttles found in the Kaiju World sourcebook also fall under this category, as do the Racing Ships detailed in this book. Most Space Yachts will be Small Transports.
- **Small Sized Ships:** This category represents a larger class of ship that jumps up from the Fighter & Transport Scale to a true Starship sized vessel. Ships of this Class are represented by the Corvette Class Ship detailed on Pages 28 & 29 of Kaiju World, as well as various types of smaller freighters, science vessels (such as the Oberth Class from Star Trek) and other mission specific ships. The Crew requirements of such ships typically range from 100 to 300, though freighters and ships with extremely specific mission profiles may only have a dozen or so (such as the Nostromo).
- **Medium Sized Ships:** This is where you will find Destroyers & Frigates, as well as some of the more common sizes of Freighters & Passenger Liners. Some science vessels will fall under this category, and it is a common scale for hospital ships, though special purpose vessels in this size will start to be less common. Crew compliments for military vessels in this Size Class will typically be between 300 and 500, though some ships could carry up to 800.
- **Large Sized Ships:** This is where you find Cruiser Class military vessels, as well some smaller classes of Battleships & Carriers. Freighters in this scale will be used only where shipping lanes are extremely busy, and even then it is common for the ships to also ferry passengers (sometimes with amenities akin to modern cruise liners). Due to their size, these ships can be a risky target for pirates. Crew compliments for military vessels can be anywhere from 1000 to 1500. There are a few luxury space hotels that fit into this size class. Special purpose ships at this size will be uncommon.
- **Gargantuan Sized Ships:** This is where you find Large Carriers & Battleships, as well as some Dreadnaught Class Ships on the larger end of this Size Class. Crew compliments can be 2000 to 3000 for Battleships, while Carriers often have upwards of 5000 crew. Dreadnaughts are not common, but they can be much larger, depending on the design & purpose of the ship. Mega Freighters in this Size Class are not common, but they do exist. At this scale their biggest concern is that the ship is so large it has too many places for pirate ships to lock onto without being detected. It isn't uncommon to discover upon reaching a destination that someone broke in mid flight and made off with cargo undetected.

Special Maneuvers & Rules

Constant Acceleration

In space, if you continuously exert energy to move an object, it will perpetually accelerate. Once you get something moving, it will generally maintain that speed until some other force acts against it to slow the object down. This works great in real life, but RPGs don't function well as a real life sim, so we usually have to find that middle ground between expectation and reality. Sometimes it has to be just good enough and that's OK. You will have Players who fuss about real life physics, but sometimes you have to err on the side of what's fun and dramatic. Just make sure your stance is clear up front, and try not to go full looney toons with it. Even the most forgiving Players has their limits on the suspension of disbelief.

One Party/One Ship

A critical thing to bear in mind with space battles is that you have a single object representing the whole party, but it's collectively controlled by several people who all are impacting what happens. This will tend to violate the usual standards regarding what can be done in a combat round. For example, Evasive/Dodge Actions can be combined with Attacks (if allies are controlling the weapons separately), while an engineer can potentially increase speed (Sprint/Dash) while a pilot attempts to evade. The need for teamwork is much greater when running a ship, as the usual chaos of doing whatever random things the Players please isn't going to magically work out here. And it's worth mentioning that combat penalties from Evasive/Dodge Actions do apply to the Gunners as well.

Another important point to bear in mind is that Initiative probably matters more for the pilot of the ship than the rest of the crew. It's always useful for delineating individual actions, but the most important detail in the encounter is when the ship itself gets to take action, compared to other ships in the encounter. The ship takes all actions together, and that is set by the Pilot's Initiative score. As far as the individual actions of the crew, which could encompass attacks from turrets, scanning other ships, engineering actions, repairs, etc., the sequence of these individual actions probably isn't important, and can occur in any order that benefits the party. For example, you may need your Sensor Operator to take action before the Gunners to ensure that they can benefit from special bonuses, or perhaps a particularly vulnerable point can be highlighted.

Precision Hits

Spacecraft have an HP Total that represents the durability of the hull. Unlike larger ships (such as Battleships or Freighters), small spacecraft usually have a single HP pool that applies to the entire ship collectively. That being said, there could be times when hitting a specific target makes more tactical sense, and these locations would need to track damage separately from the rest of the ship.

- **Turrets:** On most ships in this book (and in the Kaiju World sourcebook), turrets or external weapons will have 50 HP individually. Ships with armor will usually have 75. The turrets on a Corvette Class ship or a Freighter will probably be 100, while even larger battleships could have as much as 200.
- **Engines:** When targeting the engines on a ship, they will typically have about half the HP of the Hull itself. This means that it would take about 188 damage to take out the engines on the Hero Ship. On a design like the High Performance Ship, where it has a cluster of smaller engines, each would have 25% of the Hull and you'd have to take out half of them before it would have a significant impact on speed & performance.
- **Fins or Wings:** If the ship has these attachments, each as between 25 & 50% of the HP of the hull. The amount of HP depends on size and whether or not they have a combat advantage. For example, the wings on a Space Fighter are meant to support missiles, and thus will be more durable. The fins around engines also have a practical benefit, in that they serve to make it harder for enemies to hit the engine. Where they are present, most attacks against the engine from any angle than right behind the ship suffer penalties.
- **Viewscreens:** If a ship has a viewscreen for the pilot, it is generally going to be too small for enemies to hit, particularly on smaller ships. In the event that it takes enough damage to lose integrity, emergency bulkheads will slide into place to protect the crew. It is more common that some environmental hazard will compromise a viewscreen rather than enemy fire.
- **Shields:** In general, Precision Hits may not be possible when the ship is protected by Shields, though this is ultimately up to GM discretion. This does not apply to Armor, though it will still have higher HP and DEF/AC.
- Remember that hitting the small targets on a ship (particularly when it is in motion) will be difficult, requiring the Gunner to roll twice (on a D20) and take the lower result.

Stealth Trajectory

It is generally quite dangerous for aircraft to follow close behind each other, but this isn't necessarily the case in space. Propulsion systems are often depicted as releasing constant particle streams, and this would definitely be the case in the SHDM universe (given the retro aesthetic). One of our Players got the idea of using this particle stream to conceal the ship so they could sneak up on an opponent during the race. Such an action would require Opposed Pilot Skill Checks, and likely depends on other methods of concealing the ship on the approach (their Sensor Operator had some work to do), but the idea is valid. Since sensor systems generally emanate from a central point, unless there are other detection sources nearby to tap into, enemy ships can hide themselves behind/within objects or within some sort of particle/energy phenomenon that might scatter sensors (such as the North & South poles of a planet, at least according to TNG). Obviously GMs need to evaluate this on a case-by-case basis, but it's a potentially valid strategy.

The Crazy Ivan

The Stealth Trajectory cuts both ways, as enemy ships can attempt the same thing. It can be terrifying for an opponent to vanish from your sensors, only to have them suddenly appear and attack from the rear. One way to handle this problem, and expose a suspected hidden enemy, is a maneuver called The Crazy Ivan. This would have the Pilot pull a full 180 and flip the ship around to face behind. Unlike aircraft, which definitely cannot fly backwards due to the problems of aerodynamics, spacecraft don't have to worry about losing acceleration or immediately crashing. This offers several benefits in combat, since the ship can (for example) direct weapons towards a pursuing enemy or reposition a vulnerable point away from a potential attack, though such a maneuver probably requires cutting engines temporarily. Alternatively, it could be used to abruptly change direction from where you were headed, something that is going to temporarily overwhelm inertial dampeners and make seatbelts a valuable accessory. In all cases the DC of such a maneuver is going to be a bit higher, with failure resulting in the ship spinning out of control, which may not be so bad depending on why you needed to attempt it in the first place.

Gravity & Inertial Dampeners

It can be assumed that all spacecraft in the SHDM Universe have artificial gravity and advanced inertial dampeners, protect the crew from the force of acceleration and many of the crazy maneuvers the pilot is likely to attempt. This has it's limits, however, and the GM is well within their rights to roll for this or even simply rule that some kinds of maneuvers (or even weapon impacts) momentarily overwhelm these systems. This obviously makes seatbelts relevant, but it also builds drama and helps to make combat encounters feel more exciting. And if shows like the Orville or Stargate have taught us anything, exploiting this vulnerability can be an effective way to deal with enemy forces.

Mountain Dragon

Minimum Level 18 Creature (up to Level 25)
Creature Type: Dragon (Kaiju)
Defense/Armor Class: 19 (Natural Armor)
Initiative: +2
Hit Points: 350 (+19 per Level)
Recovery/Hit Dice: 40D10 (2D10 per Level)
Overflow HP: 110
Speed: 100 (200 Sprint/Dash, see below for Flight)
Size: Massive. 100 Feet Long, with an 80 Foot wingspan, and weighing about 40 to 50 Tons. The neck & tail compromise about 2/3 of their total length.
STR 27 (+8), **AGI/DEX** 14 (+2), **END/CON** 25 (+7)
INT 7 (-2), **WIL/WIS** 12 (+1), **CHA** 5 (-3)

Proficiency: +1D12 in Cybersymbiosis/ +6 in 5E
Key Skills: Intimidate (+8), Physical Training (+8), Perception (+1)
Saving Throws: Strength (+1D12+8 or +15) and Agility/Dexterity (+1D12+2 or +9)
Damage Immunities: Impervious to Cold. Half Damage from Radiation, Radiant, Poison, Acid, Bludgeoning & Slashing.
Condition Immunities: Poison, Blindness due to bright light & Fear from non-Kaiju. Cannot be harmed by its own acid breath.
Senses: Static/Passive Perception 17, 280 degree vision, Darkvision 1000/1000ft, Can see prey up to 2 miles away in daylight conditions.
Languages: N/A, Animal Intelligence

Actions
Attacks: 3 Attacks with their Major Action.

Melee: +1D12+8 or +15 (3D12+8 Piercing, Bite)
Melee: +1D12+8 or +15 (4D10+8 Slashing, Claw)
Melee: +1D12+8 or +15 (3D10+8 Bludgeon, Tail)

Claw Attacks: Mountain Dragons favor claw attacks whenever possible, with each attack making use of two of their front legs simultaneously. Anyone attacking from behind will get a twin rear kick (due to the fact that the four front legs can easily bear their great weight). Because of this, their claw attacks inflict a Critical Hit on a 19+.

Bite Strength: Unlike other similar creatures, Mountain Dragons do not favor their jaws as a primary means of attack. Their claws are more powerful, but this isn't the reason. The main goal of a hunt is to find prey substantial enough to feed them (or their offspring) for a long time, while also minimizing the risks in taking them down. To this end, they have developed an ability to lock their jaws after biting down on a target, preventing prey from wriggling free and escaping. This allows them to hold another creature in place, while their deadly claws rake the target until they're dead. Combined with their extremely long & flexible neck (which has a reach of nearly 30 Feet), the creatures usually have very little trouble grabbing prey where they are the most vulnerable. Once they have successfully made a Grapple Check against their prey (or a mechanical threat that pissed them off), all attempts to escape roll twice (on a D20) and take the lower result. While an enemy is Grappled, the dragon gets a Crit on an 18+ when using its claws.

Tail Strike: The tail of the Mountain Dragon serves two purposes. The primary one is as a flight stabilizer & counterweight, but the other is as a means of taking down prey. Many Kaiju are either bipedal or possess the ability to stand on two legs, evolving combat techniques where this ability gives them an advantage. By contrast, almost all animals are more vulnerable when on their backs, and this is how Mountain Dragons prefer to fight them. They can use one of their Attacks to perform a spin maneuver that whips the tail at the legs of a bipedal enemy. That target must make a Strength Save vs the Strike Roll of the attack (if it successfully hits). On a Failure, they are knocked Prone and the Dragon makes all attacks against them at +2 (in Vanilla 5E, apply the usual Prone Condition bonuses instead). The first attack will often be a Bite attack (see above), which is likely to prevent them from being able to get up.

Spinning Tail Strike: If the Mountain Dragon is surrounded by enemies, they can use their Major Action to perform a spin maneuver. This allows them to make a Tail Attack against every surrounding enemy up to a Reach of 30 Feet.

Acid Breath: Mountain Dragons possess special glands that fill sacks in their neck with a highly corrosive (and toxic) acid. They can spray it out through apertures in their snout (it is not necessary to open their mouths to do this) that remain closed until the attack is used. The spray can hit targets up to 50 Feet, and expands into a cone that's 20 Feet Wide & 10 Feet Tall. Anyone within the area of effect must make an Agility Saving Throw. On a Failure, they suffer 6D6 Acid Damage. On a Success, the attack inflicts 3D6 Acid Damage instead. Targets made of Stone or Metal suffer +2D6 Acid Damage. On each subsequent Turn the Acid continues to burn the target, but the damage is reduced by –1D6 per Round. Once the acid has been sprayed, the GM rolls a D6 at the start of the Round. The attack cannot be used again until it gets a 5 or 6.

Toxic Fumes & Resistances: Mountain Dragons will not usually use this attack against prey they intend to consume, as it ruins the meat. It is typically reserved for challenges to their kill, or when carving out a nest. The fumes it emits are highly toxic. They may spray it to dissuade other Kaiju from interfering with a fight, as few will approach due to the smell. Medium sized creatures (such as the PCs) who breath in the fumes must make a DC 17 END/CON Save. On a Failure, they suffer 1D6 Poison Damage and the Poison Condition for the next 10 Minutes. Force Fields do offer some protection against the Poison Spray. The DEF/AC Bonus from the barrier is added to the AGI/DEX Save to avoid being damaged by the acid.

Flammable Acid: The Acid of Mountain Dragons is flammable, though the risk of ignition is minimal as its flash point is extremely high. This has given rise to an urban legend that they have fire breath, since pilots who engage with them tend to accidentally ignite the acid spray when in combat. When on fire it inflicts 1D6x10+10 Fire Damage, with the same Cone & Save as above (the Dragon is not damaged by the ignition). When sprayed on the ground, it inflicts 4D8 Fire Damage each Round for 2D6 Rounds.

Physical Appearance: Mountain Dragons have a mottled brown & green color scheme on top to better blend in with their preferred terrain, while their underbellies are a sky blue color with some white patches. This has the result that other predators will have trouble seeing them, as they tend to blend in with the terrain and sky. When making Stealth Checks while in flight, the Dragons roll twice (on a D20) and take the higher result.

Flying Speed: Though not nearly as nimble as other flying Kaiju, their great weight gives Mountain Dragons a lot of momentum, allowing them to achieve speeds of up to 200mph. When taking advantage of terminal velocity, they can accelerate to almost 500mph, making them just as dangerous to aircraft as the Peligonus. When in combat against other Kaiju, they will use a more modest Speed Stat of 200.

Super Strength: In the CSRPG, Super Strength is an ability some characters get that applies a multiplier to their Lifting & Carrying Capacity, as well as various advantages against enemies who are at a lesser level of strength. With Kaiju, strength elevates into an entirely new scale, where they can Carry their own body weight without difficulty and Lift up to 3X what they weight (though at this extreme they can hardly move). For all intents & purposes, Human-sized characters have no chance against Kaiju level creatures (in terms of raw strength). Kaiju are intended to do battle with other Kaiju, Giant Robots, Spacecraft and potentially an entire party of well equipped high level adventurers.

Intelligence & behavior: Unlike the Dragons of fantasy worlds, the Dragons of Kaiju World are not super intelligent beings, able to match wits with the most clever of adventurers. The many draconic species common to this planet are all animal predators, with a primitive level of intelligence. That is not to say these creatures are necessarily stupid or easily tricked, they're just creatures of instinct that have evolved to fill a specific role in the Kaiju World ecosystem. Any draconic species that is adapted into this setting from another book will possess similar traits, unless it happens to be an actual intelligent Dragon that has traveled here for some reason (though it is doubtful they would want to stay, as the creature would immediately lose their "alpha predator" status). Mountain Dragons will spend a lot of time sleeping (not unlike Fantasy Dragons) in high peaks where other predators are unlikely to find them, but will emerge when it comes time to feed. They are dogged & clever predators who will not give up on prey easily, and know how to use their natural abilities with deadly effectiveness

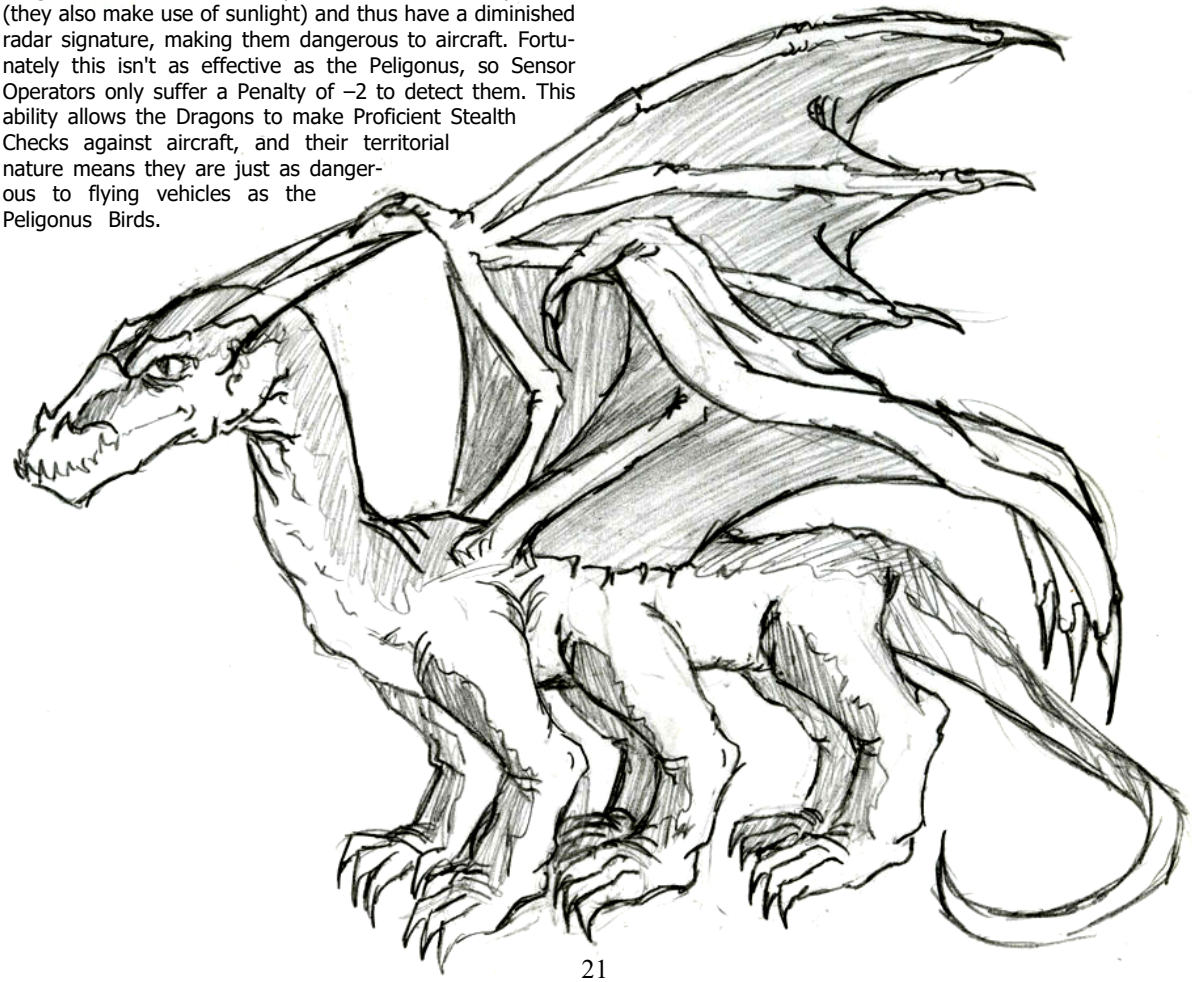
Radiation Resistance: Like the Peligonus Birds, Mountain Dragons absorb Radiation as part of their metabolic process (they also make use of sunlight) and thus have a diminished radar signature, making them dangerous to aircraft. Fortunately this isn't as effective as the Peligonus, so Sensor Operators only suffer a Penalty of –2 to detect them. This ability allows the Dragons to make Proficient Stealth Checks against aircraft, and their territorial nature means they are just as dangerous to flying vehicles as the Peligonus Birds.

When nesting, they become even more aggressive, and will attack anything that gets with 15 Miles of their roost.

Profile

Mountain Dragons are one of the more dangerous predators on Kaiju World, though thankfully they're also comparatively uncommon. Unlike other Kaiju, who must breed regularly to keep up their population, Mountain Dragons are high enough up in the food chain that they do not have this problem. As far as current research can determine, their breeding cycles seem to be triggered by a reaction to population density, rather than any kind of seasonal instinct. When their numbers drop to a certain level, males & females are drawn together (they are physically indistinguishable) to establish & protect a nest. Females will guard a clutch of 2D6 eggs, while the males hunt for food. When the young are strong enough to survive on their own, they split up and return to their usual solitary behavior.

Mountain Dragons prefer to live in high mountain peaks, building lairs within extinct calderas or protective crevices, and spend a lot of time sleeping as they slowly digest their latest kill. These naps can last for years at a time, with the creatures periodically flying down into the lowlands to hunt. They're also very territorial, and react violently to any invasion of their lair. The Dragons find the sound of aircraft annoying, so it is not uncommon for one to angrily awaken and chase down vehicles that invade their territory. When protecting a nest they become even more aggressive, and it is not uncommon for both parents to attack threats together, using coordinated tactics to bring down invaders. Though they can be found hunting in the Twilight and cooler Daylight Regions, Mountain Dragons only build lairs in the mountains of the Habitable Meridian band that encircles the planet.



Young Mountain Dragons

As with other Kaiju species, Young Mountain Dragons are an important part of the ecosystem and fill the roles normally occupied by smaller life forms. Their longer growth cycles means these creatures have more time to fill certain gaps in the food chain, and thus the evolution of specialized life forms is much less likely in this case. Unlike other the more notorious species of Dragons, who tend to leave their offspring to fend for themselves, Mountain Dragons are more like birds in that they demonstrate clear nesting behavior. A mated pair will select a secure location in which they can protect a clutch of eggs, with one of them abandoning their previous home in favor of the more desirable of the two options. If one of them had control of a high altitude crater, this is the most likely location for the next to be set up.

The female will lay 2D6 eggs and spend much of her time protecting them, while the male flies out in search of prey it can bring back. From there the mother will behave in a similar manner as birds, in terms of how she cares for her eggs (and later Hatchlings), though intruders can expect a much more deadly response if they get too close. The females are just as deadly as the males, and have no problem attacking & killing any creature that comes too close to their nest. In fact, many of the attacks against aircraft by these creatures have been a result of the crew unknowingly flying too close to a nesting site.

Stat Blocks

The Stat Blocks listed below follow the same formula as the Young Kaiju Quick Stats detailed on Page 37 of Kaiju World. They will focus primarily on the differences from the adult form of the creature, and leave out anything that would be mostly the same as the adult version. GMs can refer to the stats on the previous page for any additional information they may need.

Hatchlings

Hatchling Dragons will never be encountered outside the nest, with any that might fall or crawl out being swiftly recovered by one of their parents. They are too vulnerable at this stage to survive on their own, and will be constantly monitored & protected by their parents. If a PC encountered one of these creatures, it's more likely to be as food for the voracious creatures than anything else.

Baby Dragons

Creature Level: 8 **DEF/AC:** 15
Speed: 50 **HP:** 108 (+16 per Level)
Size: Large. 50 Feet Long and weighing about 75 tons.
STR 21 (+5), **AGI/DEX** 10 (+0), **END/CON** 21 (+5)
INT 5 (-2), **WIL/WIS** 10 (+0), **CHA** 5 (-3)
Proficiencies: Baby Dragons possess no Skill Proficiencies, as they lack the life experience to have learned any.
Resistances: Same as an adult.

Attacks: 1 Attack with their Major Action.
Melee: +1D8+5 or +9 (1D12+5 Piercing, Bite)
Melee: +1D8+5 or +9 (2D10+5 Slashing, Claws)
Melee: +1D8+5 or +9 (1D10+5 Bludgeon, Tail)
Claw Attacks: They do not get a Crit Bonus.
Bite Strength: Though extremely strong for their size, babies are not very good at Grappling and do not benefit from any of the bonuses adults get.
Tail Strike: Basically the same as an adult, though they cannot make the spinning attack.
Acid Breath: They do not possess the ability yet.
Flight: Babies are too young to fly, though it is cute watching them try.
Note: Baby Dragons are still too young to survive well on their own, but their parents are becoming much less concerned about their protection. At this stage the Father will often bring back wounded or vulnerable prey for their babies to attack & kill on their own. If it managed to capture a Player Character, they would likely be brought back to the nest for this purpose. The Mother will often let them roam around outside the nest, and this creates opportunities for them to hunt small animals on their own. More than a few scientists have met their end this way while trying to do research on these creatures.

Young Mountain Dragon

Creature Level: 12 **DEF/AC:** 17
Speed: 75 **HP:** 198 (+16 per Level)
Size: Huge. 50 Feet Long, with a 40 Foot Wingspan and weighing about 30 tons. They have similar proportions to an adult.
STR 24 (+7), **AGI/DEX** 12 (+1), **END/CON** 23 (+6)
INT 6 (-2), **WIL/WIS** 12 (+1), **CHA** 5 (-3)
Resistances: Same as an adult.
Attacks: 2 Attacks with their Major Action.
Melee: +1D10+7 or +13 (2D12+7 Piercing, Bite)
Melee: +1D10+7 or +13 (3D10+7 Slashing, Claws)
Melee: +1D10+7 or +13 (2D10+7 Bludgeon, Tail)
Claw Attacks: They do not get a Crit Bonus.
Bite Strength: Due to their growing experience with hunting, Young Mountain Dragons get the same abilities as Adults, except that they only Crit on a 19+.
Tail Strike: Basically the same as an adult, though they can only make Spinning Attacks Once every other Round.
Acid Breath: This is basically the same as an Adult, except that the base damage is only 4D6 and it inflicts +1D6 to Stone & Metal. The cone is 30x15x5. It can only be used again on a roll of a 6. The Toxic Fumes are unchanged.
Fire: If the Acid Breath is ignited, it inflicts 1D4x10 Fire Damage as a spray, and 3D8 on the ground each Round for 1D6+1 Rounds.
Flight: Flying Speed is only 100mph, or a Stat of 100 in combat, and they cannot accelerate past Terminal Velocity. Adults are known for being able to fly into the upper atmosphere, while Young are not strong enough to do so. They will tend to stay away from places that leave them vulnerable to larger flying predators.
Note: Young Mountain Dragons are strong enough to survive on their own, and will often be encountered roosting in middle altitude locations of Kaiju World's many mountain ranges. As soon as they are able to fly on their own, the Young Dragons will leave the nest to live solitary lives until they grow large enough to have children of their own. Unlike Adults, who are more than strong enough to take on almost any challenger, Young Dragons are reluctant to fly down to the dense forests along the Meridian to hunt. During this stage of their lives they will survive off of large birds, mega insects and various mountain animals, with occasional forays into the deserts or twilight regions where they may risk hunting on the ground. If one is encountered on the forest floor of the Meridian, it will likely be one that is so injured that it cannot fly back to their home territory. Alternatively it could have been forced out of its territory by a more powerful challengers or is hiding from a larger threat lurking nearby. As flying creatures, they will be most comfortable at high altitudes and will avoid the surface of the planet whenever possible.