Metaverse
Second Edition

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Credits

Project Development
Michael Hoyt

Rules Development
Michael Hoyt
Addison Gow

Product Editing
David Hoyt

Software Development
Addison Gow

Game Testing
Matthew Browett
Kevin Orr
AJ Harkness
William Risser
Patrick Stephenson

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Introduction

The space gaming genre is replete with rules systems designed for games ranging from one-on-one cruiser duels to grand fleet-level battles. Some of these systems are proprietary and focus only on a specific fictional universe while others provide a generic framework for representing a multitude of universes, sacrificing specifics for flexibility. I have played games covering experiences from one end of this spectrum to the other, experiencing many great and poor systems.

My intention with *Metaverse* was never to replace or supplant any of those great products but to supplement and, in some cases, improve upon excellent ideas. I designed *Metaverse* to be the most flexible rule system on the market with the ability to be bent and twisted to any player's desire, whether that is to replicate another rule systems' paradigm, invent their own tactical environment, duplicate their favourite famous fictional universe, or to mix them all together. The scale of the game is malleable, changeable so that players can simulate the duels between heroic starships in intimate detail or wash over the details and command great fleets in those moments where worlds stood or fell.

I want players to have the experience of tinkering and toying with designs at a level of detail as small as they desire for as long as they want, outside of the game itself. I also want them to have game-play as smooth as possible that rewards both intelligent design and cunning tactical play. Foremost, however, I want to afford players the freedom to build what they want, play with what they want, and imagine what they want in a framework that still functions to provide an entertaining game with as much legitimacy and forethought as possible. These ideas allow two different games of *Metaverse* to be played next to each other; each with different scales, technology assumptions, and backgrounds. They will feel completely different, yet come together and mix seamlessly.

-Michael Hoyt

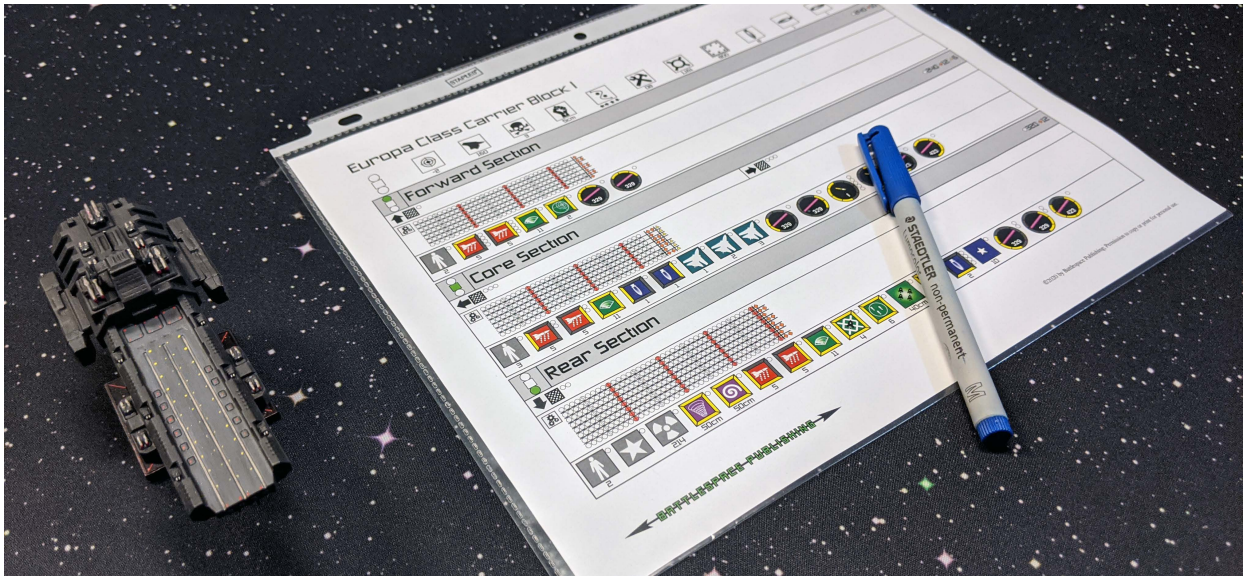


Table of Contents

Overview

Metaverse is designed as a framework rule set, allowing players to construct and battle in any universe they desire. The design process for a starship can be very detailed, if the player desires, allowing for games to focus on only a few starships or allow great fleets to do battle, as simply as possible.

This design process is handled efficiently by the *MetaMaker* software, such that players need only focus on what they want their starships to do and perhaps what they will cost to bring to a game. The age of designing starship statistics on napkins is long past; the software behind *MetaMaker* can take into account algorithms and unseen numbers of variables (that are far more complex than a normal person could ever be reasonably expected to handle) in order to compute the combat value and stats of a starship.

This also allows players to build their starships with as few restrictions as possible. A *Metaverse* starship is not restricted in the numbers or size of weapons and other systems it carries nor even if it is square-based or hexagon-based. A player can cram as much into as small a hull as possible and just assume it is of a more advanced technology level. All that they need take note of is the combat value of that starship, which is calculated for them automatically.

The game-play of *Metaverse* is designed to cover as many or as few possible interactions as the player desires. One group of players might not wish to use starfighters, indirect weapons, and electronic warfare, and operate solely with Cinematic starships. This group would simply not design any of these systems and capabilities into their starships and skip the relevant steps of the turn sequence thereby making a simpler and shorter turn.

Another group may wish to include every possible system and capability and thereby have a longer more complex turn. Another group of players may choose to simulate cruiser duels and therefore assumes 1000t per hull hit and scale all of their weapons proportionally, including every possible subsystem in their designs.

Another group might desire to command huge fleets and therefore assume 100,000t per hull hit, scaling their weapons and including only the necessary subsystems. Ultimately, a starship need only have hull, engines, weapons, and sensors to fight; everything else simply expands tactical options. In this way players can twist and bend *Metaverse* to their will.

Metaverse is littered with examples to assist in the explanation of mechanics. In addition to this, players will find author's notes scattered around the rules giving background explanation on the intent behind a rule or even the best physics explanation possible, given the subject matter. None of these are key but do allow for an on-going conversation between the players and the author.

This book is laid out such that players will receive a basic overview of the turn sequence, a detailed explanation of the steps and phases of the turn sequence, essentially working through an entire turn's play, status displays of the components, and governing movement and combat rules.

When the player has sufficient knowledge of the sequence of events of a turn and the basic rules, a rundown of all the possible components of a starship, their specific rules and exceptions and place in the turn will be provided. This will inevitably be the section to which players refer most.

Following this will be rules governing the table, deployment, terrain, and the scenario system, designed to make pickup games more exciting. At this point the player will have everything they need to play a Friday pickup game with friends. Beyond this point, the player will be provided with an appendix of charts and play aids.

Turn Sequence

The turn sequence of *Metaverse* is designed to integrate the varied components of a space battle in a logical sequence with as few exceptions and sequence-interrupting actions as possible. The sequence is divided into three phases and organized for gameplay rather than realism. A phase must be completed before moving to the next one. Each phase is divided into steps, organized based on reaction times, flight speeds, and tactical flexibility of the relative combat systems to provide a sequence of events as intelligently as possible.

Movement Phase
- Command Step
- Plot Movement Step
- Starship Movement Step
- Starfighter Operations Step
- Starfighter Mission Step

Combat Phase
- Control Step
- Starship Combat Step
- Starfighter Combat Step
- Boarding Combat Step

End Phase
- Critical Step
- Repair Step
- Morale Step

Author's Note

Over the course of development of Metaverse (1st and 2nd editions), questions have been raised on more than one occasion about the reasoning behind the turn sequence. Why do starfighters fire after starships? And why do starfighters conduct their missions after starship movement?

The answer to this is actually quite simple: gameplay. Starfighters moving after starships, while representing the tactical flexibility of a lone pilot over an entire starship, is really designed simply so the player does not have to plot their movement.

The design of the combat phase actually has some very practical reasons for its order and was worked out over considerable time and through numerous iterations. Rather than have the combat phase be a jumble of exceptions, I have ordered it such that each component has a chance to strike its target and defend itself.

Starships can defend against incoming starfighters and weapons without interrupting any sequence, starfighters can defend themselves against incoming weapons, and weapons can strike their targets all in such an order that nothing happens as an exception. This order can be justified on the grounds of engagement ranges and sensor power but fundamentally it is a game-play issue.

Movement Phase

The movement phase encompasses all pre-combat actions carried out by the players. Both sides in the game will plot the movement of their starships and then move all elements of the game in a particular order.

Command Step

The first step players will perform in the movement phase is rolling for Commnd Points (CPs) with their commanders. Each commander will have a quality which determines their die type and a rank which determines the number of dice rolled.

For each commander in the fleet, the player rolls the number and type of dice as appropriate and adds them together. The result of these rolls determines the number of CPs each commander gets for the turn. Players may not pre-measure during the command step.

Commanders

Every fleet will have one or more commanders who utilise CPs to direct and control the actions of their subordinate squadrons. The highest commander in a fleet is called the flag commander. Other commanders will be placed in the chain of command below the flag commander.

The flag commander may spend CPs on any squadron or starfighter mission in the fleet. Subordinate commanders can only spend their CPs on their squadron, their subordinate squadrons, and starfighter missions composed of squadrons originating from starships under their command.

Every commander will have a rank of captain, commodore, or admiral; captains use one command die, commodores use two command dice, and admirals use three command dice and are represented by one, two, or three stars.

Commanders also have a quality; incompetent commanders use D4s, competent commanders use D6s, and brilliant commanders use D8s.

This gives a range of abilities ranging from a single D4 to three D8 depending on rank and quality combination. When a commander is called upon to roll their command dice they will roll the requisite number of their dice and add them together, the result being their CPs for the turn. If a commander rolls less than the number of points left over from the previous turn, their CPs for the turn is equal to the remainder from last turn.

If the flag commander is destroyed, another commander in the chain of command must be promoted to take their place (player's choice). The selected commander must be immediately below the flag commander in the chain and all other commanders now report to the new flag commander.

If no subordinate commander exists then the player selects a starship to promote to be the new flag commander. This new flag commander will be an incompetent captain and therefore roll 1D4.

Spending Command Points (CPs)

There are five ways in which players will spend CPs during a turn. During the plot movement step, if a player wishes to have a squadron perform an advanced manoeuvre, they must spend one CP. To initiate/manage a starfighter mission a player must spend one CP during the starfighter mission step.

Priority fleet targets and designated squadron targets are selected during the control step and require CPs to do so. The utilisation of many EW systems requires the expenditure of a CP and is performed during the control step. Activating a tactic always requires one or more CPs.

Tactics

A fleet may have access to one or more tactics. Tactics are chosen at the navy level and are inherited by every fleet in that navy. A tactic can be activated using CPs. Each tactic will specify during which phase and/or step they can be activated as well as how many CPs are required.

A tactic can be activated more than once. Each tactic will also determine if the CPs must be from the flag commander or from any commander in the fleet.

Author's Note

One of the unique features of Metaverse 2nd Edition is a much more detailed command and control system. I believe this was a necessary and beneficial addition to the game for two reasons.

First, commanders, CP allocation, Danger Close, and tactics have added another layer with which to customize the flavour of player's fleets in a way that wasn't possible before. The non-technological aspects of each navy's identity can be more accurately represented.

Second, the gaming concept of fog of war is noticeably absent from most starship combat games, Metaverse 1st Edition included. Apart from the plotting of movement, players have complete knowledge and complete control.

Eliminating omnipotent knowledge in a game is difficult and perhaps not appropriate in the blackness of space. However, there is no justification for giving players 100% control of their forces at all times as these are starships crewed by sentient beings with their own will (unless one is playing AI, in which case we can argue for code errors).

Using the command and control mechanics players should find that they can't always accomplish everything they want and sometimes their subordinates will not do what they're told, much like command in the real world.

Plot Movement Step

The second step players will perform in the movement phase is plotting out the intended movement of their starship squadrons. This plot is conducted by both sides simultaneously and in secret. Players must strive to write this plot in a consistent and legible format, such that if the actions of a squadron are ever called into question, its plot can be referenced.

A suggested format for plotting is included on the plotting chart as well as in the rule book under the rules governing each manoeuvre. At any time, a player may ask an opponent for a squadron's previous plot.

Players may also allocate commands points to squadrons to allow them to plot advanced manoeuvres at a rate of one CP per squadron. Players may not pre-measure during the plot movement step. A player cannot simply plot whatever he or she chooses. The movement of a starship is restricted by five factors:

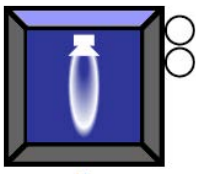
- method of movement
- current momentum
- number of operational STL drives
- directionality of starship
- allocated CPs

Every starship will have one of two methods of movement. Cinematic movement is used for ships that move like aircraft while Newtonian movement is used for starships that move in a manner more respectful of physics.

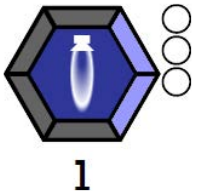
There is no restriction on the interaction of Cinematic and Newtonian movement systems; both may exist in the same game but all starships in the same navy will use the same movement method. The current momentum of a starship, prior to plotting, can provide a range on the starship's possible movements. The number of operational STL drives determines how much the starship can alter/deviate from its current momentum. The directionality of a starship determines the degree of heading change it can achieve with its STL drives.

Finally, advanced manoeuvres may only be performed with the allocation of a CP. Plotting and movement is performed by squadron; all starships in a squadron perform the same manoeuvres. If any starship in a squadron cannot perform a manoeuvre, the squadron cannot perform the manoeuvre.

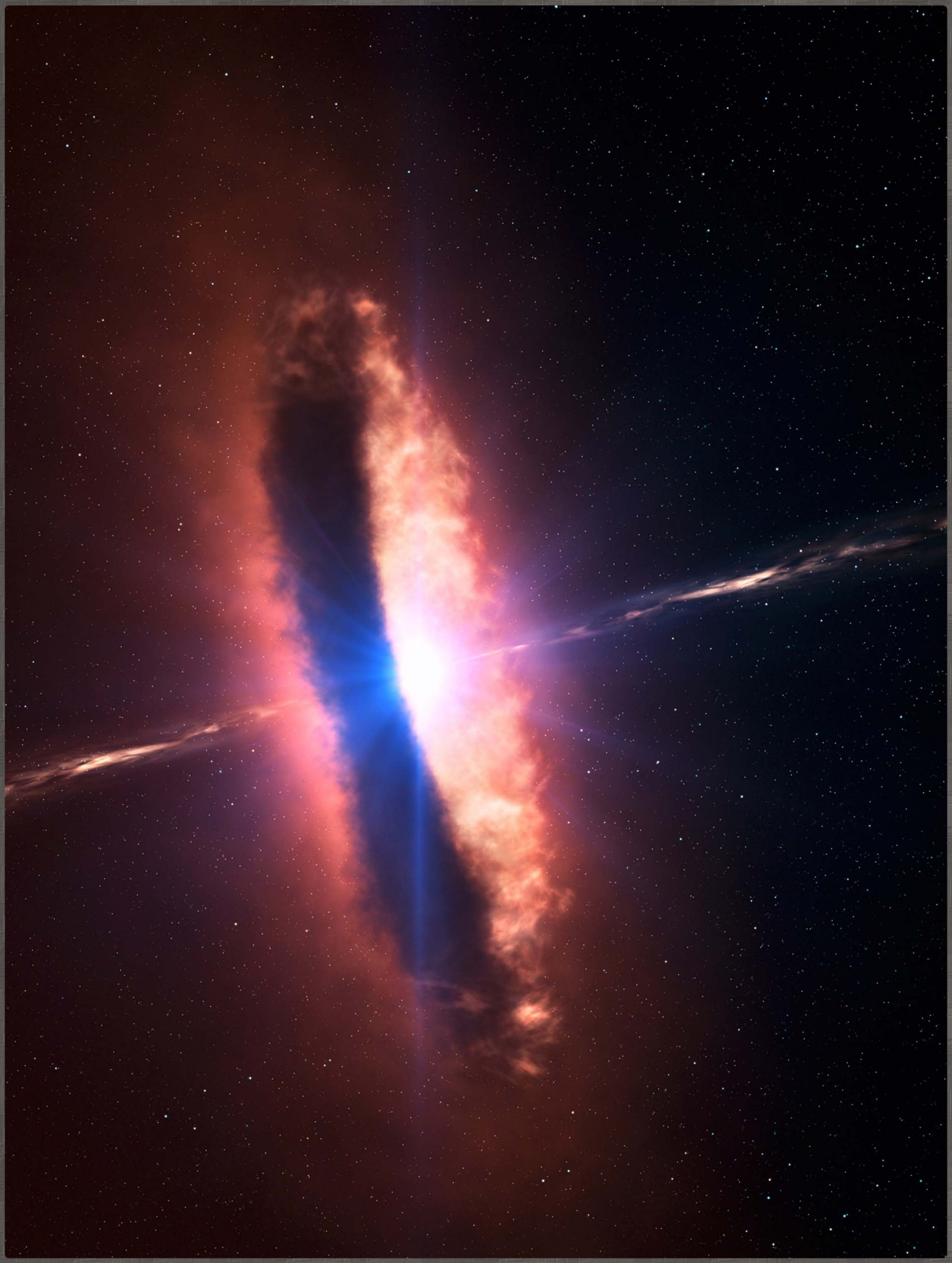
A player may pay one CP to break off one or more starships from a squadron into a new squadron with its own plot (usually because the starships have lost STL drives, reactors, or a bridge). Starships may not join other squadrons even if they began the game in that squadron.



Two size 1 STL drives with a forward arc on a square starship.



Three size 1 STL drives with starboard arcs on a hexagon starship.



Starship Movement Step

After all plots have been recorded, both sides simultaneously move their starship squadrons in accordance with their plots. If a player questions the integrity or accuracy of a starship's movement, they can ask their opponent to reveal their plotting chart.

Cinematic Movement

All Cinematic starships have a momentum that is carried over from turn to turn and is expressed in centimetres of movement per turn; thus, a starship with a momentum of eight will move eight centimetres in a straight line every turn until that momentum changes.

All starships should have a number of STL drives that determines their capability for adjusting their current forward momentum and performing heading changes (a player could theoretically design an immovable satellite or station for scenario purposes). Each STL drive will be of a size granting that many thrust points and arcs in which it can be used.

STL drives with a stern arc may be used to increase the starship's momentum at a rate of one centimetre per thrust point. STL drives with a bow arc may be used to decrease the starship's momentum at a rate of one centimetre per thrust point.

An STL drive does not have to utilize all of its thrust points; however, an STL drive cannot split its thrust points between different actions (i.e. both heading changes and altering momentum).

To alter its heading, the starship must use STL drives with port or starboard arcs. Each thrust point allows the starship to make a single heading change (45 degrees for square starships, 30 degrees for hexagon starships); port thrust points are used for starboard changes and vice-versa. All heading changes for Cinematic starships must be exactly 45/30 degrees (depending on directionality) for the simplicity of game play.

When a Cinematic starship changes heading, the change is placed evenly throughout the movement; thus a starship with a momentum of eight that makes one change of heading would travel four centimetres, make the heading change, then move a further four centimetres.

If a starship makes more than one heading change, those turns must be divided as evenly as possible into the move; thus a starship with a momentum of nine that makes two heading changes would travel three centimetres, make one change, travel three centimetres, make one change, and travel three centimetres.

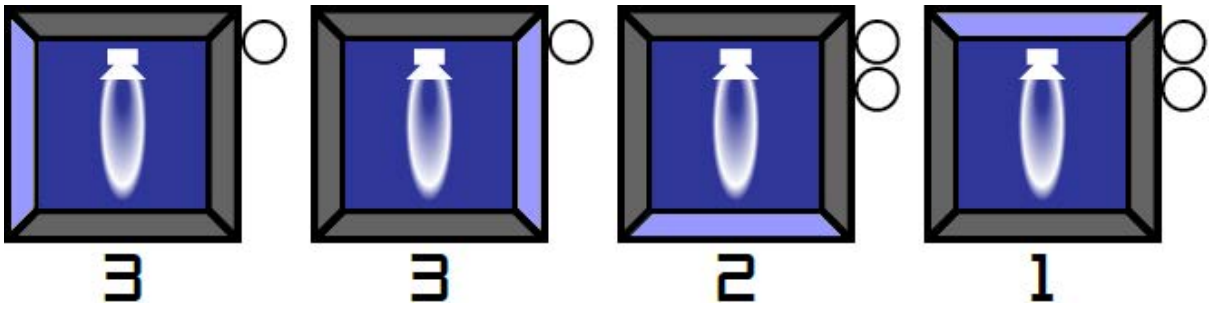
If the momentum does not divide evenly by the heading changes, a best effort must be made to divide the changes as evenly as possible while keeping to whole centimetres; thus a starship with a momentum of eight that makes two heading changes would travel three centimetres, make one change, travel two centimetres, make one change, and travel three more centimetres. Note that a starship is required to do a complete 45/30 degree heading change as this makes firing arcs easier to see and adjudicate.

Cinematic movement icon for a hexagon starship.

Example

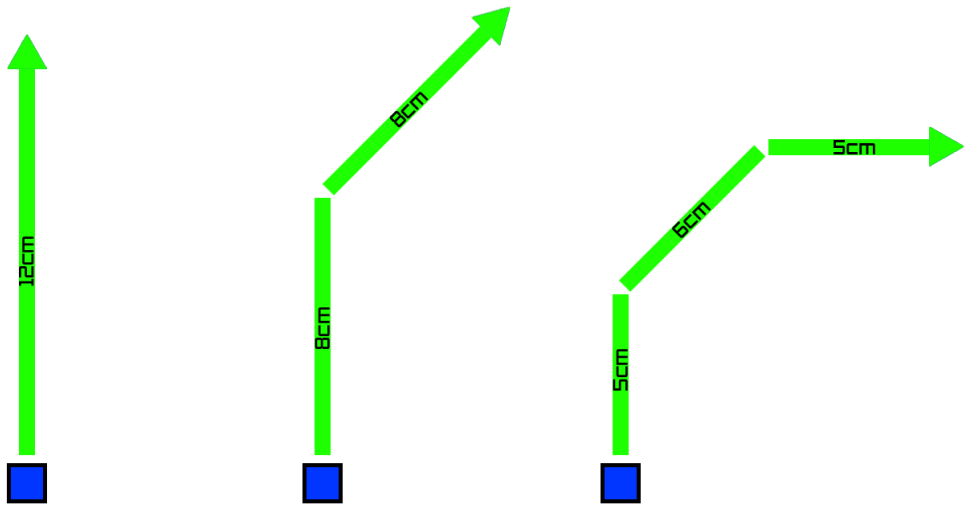
USS Thunderchild (a square Cinematic starship) is attempting to manoeuvre into position to fire on the ISS Vengeance. She currently has a forward momentum of 12cm per turn. If she plots nothing she will move forward 12cm in a straight line this turn.

The Thunderchild wants to turn to the right and improve its position but it is not moving quite fast enough. The Thunderchild has two size 2 STL drives facing stern, two size 1 STL drives facing bow, and one size 3 STL drive out each side.



In order to close the distance faster, the Thunderchild fires both her stern drives, increasing her momentum by four to sixteen. She uses her port STL drive to make one turn to starboard. The STL drive has two points remaining but the drive cannot be used for two different actions. These actions are written into the plot.

During the starship movement step, the Thunderchild is now moving 16cm per turn and making a single turn to starboard. This turn must be divided evenly so she is moved 8cm straight forward, turned 45 degrees to starboard, and moved another 8cm. Had the Thunderchild made two turns she would not have been able to divide her move easily. The most logical division would have been 5cm, turn, 6cm, turn, 5cm.



Newtonian Movement

Like Cinematic starships, Newtonian starships are concerned with momentum but in up to eight/six directions depending on the directionality of the starship. These starships must have their momentum recorded using an eight/six pointed compass rose.

At the beginning of the game, a table edge is declared to be north and the ship's momentum compass will have a north direction conforming to the table. Any time a starship utilizes a drive, the momentum compass is updated using the thrust. Newtonian starships utilize their STL drives to change their momentum in any direction that the STL drive has arcs.

Rotational thrust is also recorded for Newtonian ships alongside the compass rose as a number and either clockwise (CW) or counter-clockwise (CCW). When a port STL drive is fired for one point, it increases the CW momentum by one and vice-versa for starboard drives.

Newtonian starships make 45/30 degree (depending on directionality) heading changes every turn based on their rotational momentum. A starship cannot add both CW and CCW rotation in the same turn.

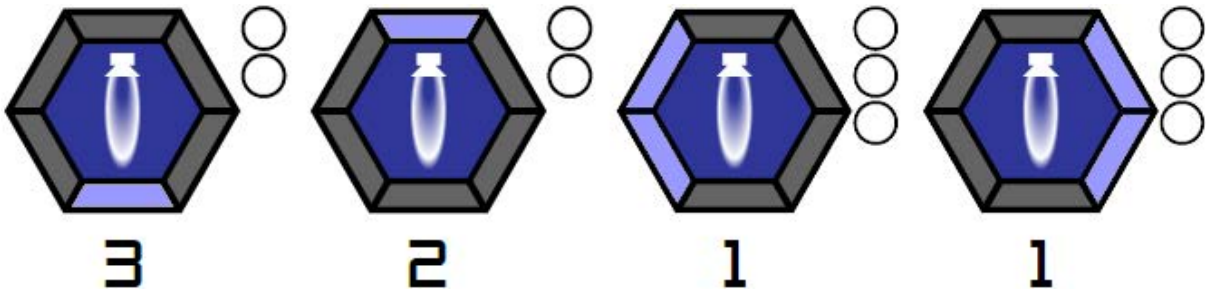
The facing of a starship is irrelevant to its current momentum, only the application of thrust points based on facing must be considered. Like Cinematic starships, drives can be of any size. When applying thrust from drives, the player may opt to perform the thrust at any point in the starship's rotation, if it has one. Thus a starship with a current 1CW rotation could fire its drives in either its current facing or its facing after the rotation.

Newtonian rotational momentum is applied first, then the starship is moved all of its different momentums according to its momentum rose. Thus a ship could be rotated once CW, then move eight north and five north-west. The combination of these two momentums results in the starships actual vector but for gameplay purposes and the sanity of the players, it is recorded and conducted in this manner.

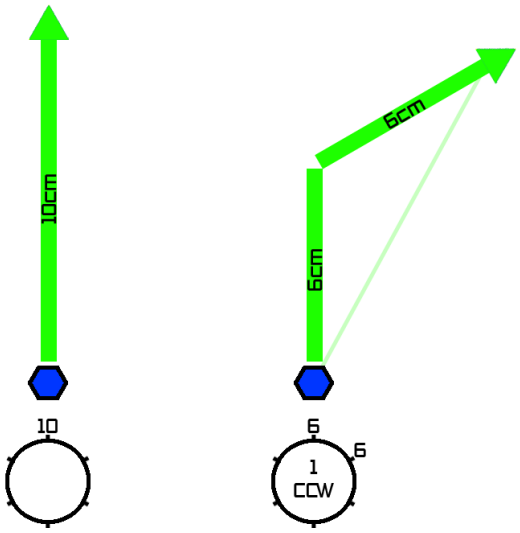
Newtonian movement icon for a square starship.

Example

ISS Vengeance (a hexagon Newtonian starship) realises that the USS Thunderchild wants to close the distance this turn and will most likely make a turn to starboard. The Vengeance currently has a momentum of 10cm per turn North and is facing directly North. The Vengeance has two size 3 STL drives with a stern arc, two size 2 STL drives with a bow arc, three size 1 STL drives with port-bow and port-stern arcs, and three size 1 STL drives with starboard-bow and starboard-stern arcs.



The Vengeance decides to first fire its bow drives to decrease its momentum north by 4cm, bringing it down to 6cm. She then decides to increase her CW rotation by one using one of her port drives. She will have to cancel this next turn if she doesn't want to keep rotating CW. She then fires her stern drives for full effect, adding a momentum of 6cm north-west. The movement of the Vengeance this turn will be a single CW rotation, 6cm north, and 6cm north-west.



Author's Note

Of all the varied components of Metaverse, as an author I am most proud of the inclusion of both Cinematic and Newtonian movement methods. The way in which a starship moves is integral to the style of many popular science fiction franchises and while many gaming systems have provided the rules for both methods, few have integrated them into the same game.

This one facet makes Metaverse unique. Nothing stops players from utilising fleets of both Cinematic and Newtonian methods in the same game. To achieve this, neither method of movement could seem like an afterthought; the game had to be designed with both in mind from the beginning.

It was also apparent from the beginning of development that choosing Cinematic or Newtonian should not be a consideration of combat value but rather of style and possibly of tactical preference. As such, players are free to choose either method without an effect on the combat value of their starships.

At first this may seem unbalanced, but careful play testing has revealed that neither method is inherently superior to the other. Both have their distinct advantages and disadvantages, the magnitude of which is primarily determined by what type of starship uses them and the mindset of the player.

At its base, Metaverse is an attempt to provide the tools necessary for players to construct and play within whatever universe they decide. Without these two opposite movement methods, that effort would be incomplete.

Advanced Manoeuvres

All advanced manoeuvres require an allocated CP to perform. During the plot movement step, one CP must be allocated to a squadron in order for it to plot one of these advanced manoeuvres. If more than one advanced manoeuvre is to be performed than more than one CP must be allocated.

Roll

RL: A starship may roll using its STL drives to "mirror" the starship's record sheet. This may be useful to bring undamaged sides of a starship to bear. To perform a roll, a starship requires two thrust points, one from each side of the starship (port & starboard, port-bow & starboard-stern, or port-stern & starboard-bow). Once rolled, a starship will flip its port and starboard sides on its record sheet until it rolls back. A Roll can be recorded in the plot by writing RL.

Example

USS Thunderchild chooses to use her side facing size 3 STL drives to perform a roll in order to present a less damaged side of the starship. One of the three thrust points from each of the drives are required to perform this manoeuvre.

Flip

FL: A starship may use its STL drives to flip 180 degrees end to end while keeping the port and starboard sides on their original facing. To perform a flip, a starship requires two thrust points from each of the bow and stern of the starship (four total).

Once flipped, a starship will rotate 180 degrees but it is not considered to have brought its sides around 180 degrees, only its front and back will have changed. A Newtonian starship maintains its associated momentums after a flip. A Cinematic starship has its momentum halved (rounded down) after a flip and the flip is performed at the end of its movement. A Flip can be recorded in the plot by writing RL.

Example 1

As ISS Vengeance (a hexagon Newtonian starship) streaks past the USS Thunderchild, it needs to come about. It could use its side facing drives to induce rotational momentum and turn 180° but this rotational momentum will still be present next turn, which could cause problems.

Instead the Vengeance uses its bow and stern drives to perform a flip. The Vengeance has two size 3 STL drives with a stern arc and two size 2 STL drives with a bow arc. Only one drive in each direction will be needed for this manoeuvre since it calls for two thrust points in either direction.

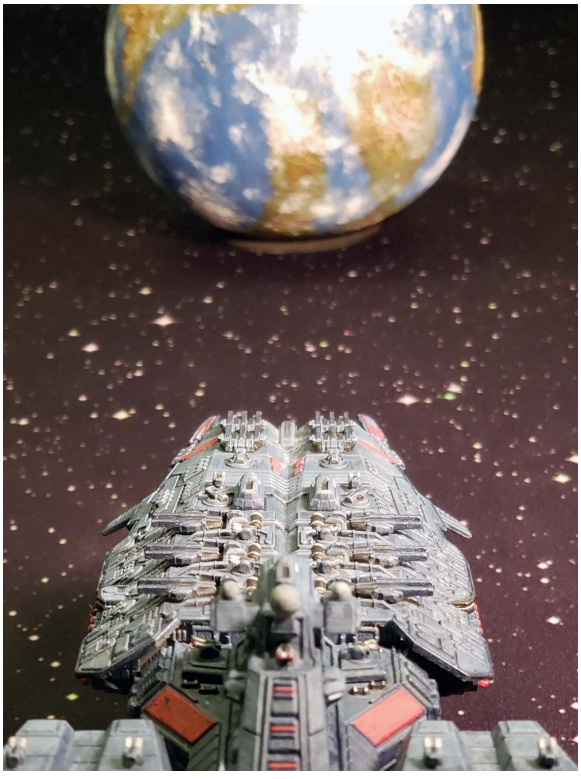
The remaining drives could be used for other purposes. During movement, the starship will be rotated 180° but its sides are not rotated, the starship is flipped end for end (simulated).

Example 2

USS Thunderchild (a square Cinematic starship) also considers performing a flip as the two adversaries fly past each other. The Thunderchild could simply make heading changes but this would bring the starship around in a long arc (like an airplane as starships do of course) and this is not desirable.

The Thunderchild has two size 2 STL drives facing stern and two size 1 STL drives facing bow. In order to perform the flip, the Thunderchild will require the use of one of the stern drives and both of the bow drives, as two thrust points are required from each direction.

When this manoeuvre is performed, the Thunderchild must cut its momentum in half. At the end of the Thunderchild's movement, it is rotated 180° but its sides are not rotated, the ship is flipped end for end (simulated).



Emergency Power

EP: A starship may perform emergency power in order to gain additional acceleration out of its drives. When performed, any number of STL drives may be used at double capacity (providing double the thrust points) for the plot.

After the movement is completed, roll 1D6; if the result is 4-6, all the drives used are disabled. Emergency power can be recorded in the plot by writing EP. Green crews suffer a +1 to the die roll, while veteran crews receive a -1 to the die roll.

Example

On a later turn, USS Thunderchild, after performing a flip and thereby halving its momentum, finds itself in desperate need for acceleration.

The Thunderchild plots an Emergency Power and chooses to double the capacity of her two size 2 stern drives (making them size 4) until the end of the turn. Using this newfound power the Thunderchild accelerates and adds 8 to her forward momentum.

Once her movement is complete, 1D6 is rolled with a result of 3. This would normally mean the drives survive the emergency power intact; however, the Thunderchild has a green crew which provides a +1 to this roll modifying it to 4 and thereby disabling the drives that were doubled in capacity.

Ram

RAM: A starship may conduct a RAM manoeuvre by plotting RAM and a normal movement and designating an enemy starship at the start of movement.

Before the two starships move, the ramming starship rolls 1D6; if the crew is green, a result of 6 is a success; if the crew is regular, 4-6 is a success; if the crew is veteran, a 2-6 is a success. If the result is a success, the RAM is allowed (+1 is applied to this roll for each section of the starship destroyed).

During the starship movement step, the ramming starship and its target will conduct their plots in equal percentage segments. If at any moment the two starships come within 5cm, the RAM can be conducted.

Each side then totals their unused thrust points. These totals are compared and if the ramming starship has a higher total, the RAM is successful.

The damage dealt by a RAM is not received until after all fire directed at the rammer from starships in the target's squadron is conducted, giving an opportunity to destroy the ramming starship.

The damage dealt to the target during a RAM is equal to the ramming starship's mass factor multiplied by the closing speed. The damage dealt to the ramming starship is equal to the target's mass factor multiplied by the closing speed.

The closing speed is determined by the arc of the target starship: in the rear, it is equal to the ramming starship's velocity minus the target starship's velocity; in the side, it is equal to the ramming starship's velocity; in the front, it is equal to the ramming starship's velocity plus the target's velocity. Each starship subtracts their armour value from the closing speed.

Example

As the commander of ISS Vengeance watches USS Thunderchild slowly sail towards his forward guns, he remembers his last encounter with an enemy starship.

The Vengeance had hurt the enemy fairly badly and the enemy commander chose to perform a RAM. In order to perform the RAM, the starship first had to roll 1D6 and rolled 5. Since the enemy starship had a regular crew, this was considered a success and the RAM could proceed.

The Vengeance and the enemy vessel then had to break their movement down into logical fractions, such as quarters or thirds. As they each moved these segments, the enemy starship crossed within 5cm of the Vengeance.

The Vengeance had only one unused thrust point that turn, as she previously performed some manoeuvres. The enemy starship had four unused thrust points. The RAM was successful.

The Vengeance and the other starships in her squadron opened fire on the enemy starship as it made its terminal approach, destroying it with only seconds to spare.

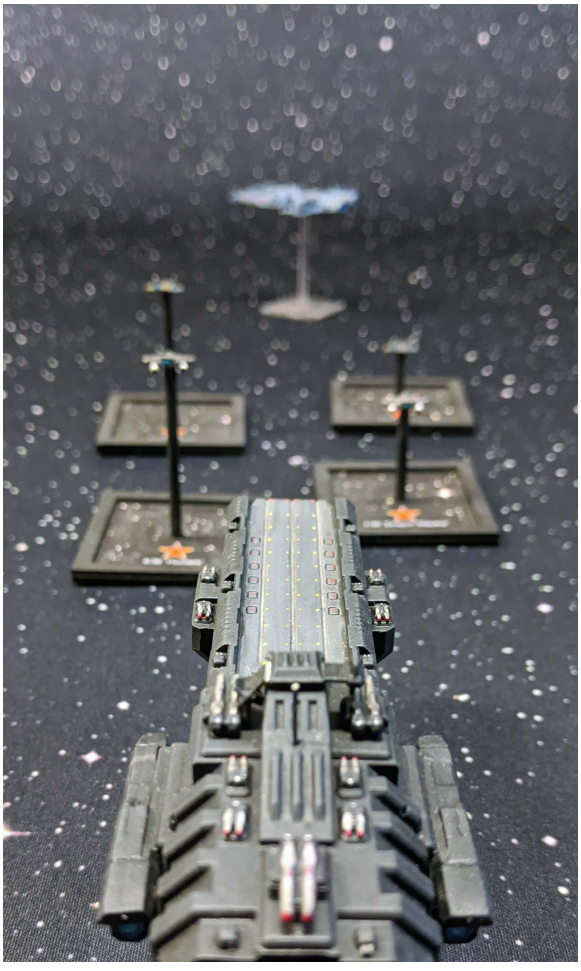
The commander of the Vengeance let out a breath and looked at a screen detailing the predicted damage, if she had hit, and dropped a bead of sweat.

FTL Retreat

FTL-R: A starship with any form of FTL drive may perform this manoeuvre after warming up its FTL drive. When conducted, the starship is removed from the game. A starship that has performed an FTL retreat is considered destroyed for chain of command and morale purposes; however, only half its morale points are added to the morale threshold chart.

Reserve FTL Jump

R-FTL: A starship must have a warp drive, hyper drive, or jump drive to perform a reserve FTL jump. A starship currently on the table may be placed in reserve by performing a reserve FTL jump. During the starship movement step, the starship is removed from the table and placed in reserve.



Strategic FTL - Warp Drive

S-FTL-W: After warming up its FTL drive, a starship in reserve with a warp drive may perform a strategic FTL jump. The starship is placed along any table edge within the fleet's deployment zone(s) facing straight into the table.

The player then moves the starship any distance they desire directly forward (minimum 60cm). The player then rolls 3D20 and subtracts from the sum the highest rated sensor system on the starship. If the roll is even, the starship is moved that many centimetres forward. If the roll is odd, the starship is moved that many centimetres backwards.

If a strategic FTL jump would place the starship off table, the starship is placed in reserve and its FTL drive must be recharged.

Example

HMS Pinafore has been quietly waiting in reserve for the moment to strike and has now been called in to assist in the on-going battle. The Pinafore has a fully charged Warp Drive and plots a strategic jump onto the table.

During movement, but before all other starship's STL manoeuvring is performed, the Pinafore is placed along the table edge inside the primary deployment zone facing straight into the table. The Pinafore is then moved in a straight line forward to a desired point.

3D20 are then rolled and totalled for a result of 33. The largest sensor system on the starship is a 15; this is subtracted from the roll of 33 to get a result of 18. Since the result of this calculation is even, the Pinafore is then moved 18cm straight forward.

Strategic FTL - Hyper Drive

S-FTL-H: After warming up its FTL drive, a starship in reserve with a hyper drive may perform a strategic FTL jump. In the starship's plot, the player must record an intended distance for the FTL jump. The starship is placed along any table edge within the fleet's deployment zone(s).

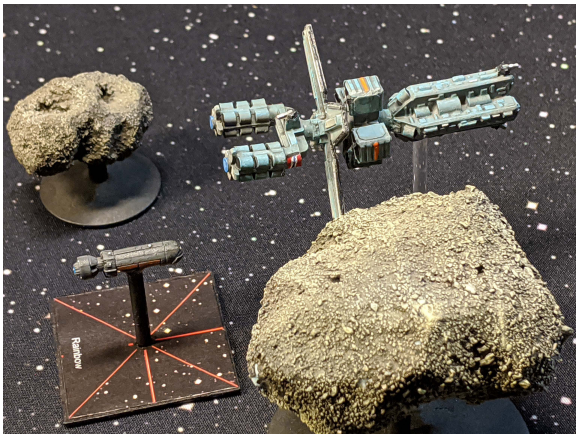
The player then moves the starship directly forward the plotted jump distance. Pre-measurement is not permitted during the command step or the plot movement step, making this a matter of estimation.

If a strategic FTL jump would place the starship off table, the starship is placed in reserve and its FTL drive must be recharged.

Example

Predicting the entrance of enemy reinforcements from their reserves, USS Avenger is called in. The Avenger has a fully charged Hyper Drive and plots a strategic jump onto the table as well as a distance of 45cm.

During movement, but before all other starship's STL manoeuvring is performed, the Wasp is placed along the table edge inside the primary deployment zone facing straight into the table. The Wasp is then moved 45cm in a straight line forward.



Strategic FTL - Jump Drive

S-FTL-J: After warming up its FTL drive, a starship in reserve with a jump drive may perform a strategic FTL jump. The player places the starship anywhere on the table facing any direction.

The player then rolls 3D20 and subtracts from the sum the highest rated sensor system on the starship. If the result of this calculation is positive the starship is moved that many centimetres in a random direction.

If a strategic FTL jump would place the starship off table, the starship is placed in reserve and its FTL drive must be recharged.

While performing an FTL jump with a Newtonian starship, its momentum is temporarily relative to the starship rather than the table (i.e. if the starship has a momentum north-west and after completing its jump has changed its facing by one heading change CW, the momentum would now be rotated one facing CW).

Example

With all the FTL jumps occurring, BGS Chimera does not want to be left out. The Chimera has a fully charged Jump Drive and plots a strategic jump onto the table.

During movement, but before all other starship's STL manoeuvring is performed, the Chimera is placed anywhere on the table facing any direction.

3D20 are then rolled along with a directional die (a D8 is useful for this utilizing the point of the die) with a result of 41. The largest sensor system on the starship is a 12; this is subtracted from the roll of 41 to get a result of 29.

The Chimera is then moved 29cm as directed by the directional die without changing its facing.

Tactical FTL - Warp Drive

T-FTL-W: After warming up its FTL drive, a starship with a warp drive may perform a tactical FTL jump. When moving the starship, its STL manoeuvring is performed first and then the FTL jump.

After the STL portion of the starship's plot has been performed, the player moves the starship any distance they desire directly forward (minimum 60cm).

The player then rolls 3D20 and subtracts from the sum the highest rated sensor system on the starship. If the roll is even, the starship is moved that many centimetres forward. If the roll is odd, the starship is moved that many centimetres backwards.

If a tactical FTL jump would place the starship off table, the starship is placed in reserve and its FTL drive must be recharged.

Example

USS Thunderchild, after taking considerable damage at the hands of the newly arrived HMS Pinafore, has decided that it needs to increase the distance between itself and its foes. The Thunderchild has a fully charged Warp Drive and plots a tactical jump.

During movement, but before all other starship's STL manoeuvring is performed, the Thunderchild performs its STL manoeuvring and at the completion is jumped. The Thunderchild is moved in a straight line as far as desired.

3D20 are then rolled and totalled for a result of 36. The largest sensor array or fire control on the starship is a 17; this is subtracted from the roll of 36 to get a result of 19. Since the result of this calculation is odd, the Thunderchild is then moved 19cm straight backward.

Tactical FTL - Hyper Drive

T-FTL-H: After warming up its FTL drive, a starship with a hyper drive may perform a tactical FTL jump. In the starship's plot, the player must record an intended distance for the FTL jump (minimum 60cm).

When moving the starship, its STL manoeuvring is performed first and then the FTL jump. After the STL portion of the starship's plot has been performed, the player moves the starship directly forward the plotted jump distance.

If a tactical FTL jump would place the starship off table, the starship is placed in reserve and its FTL drive must be recharged.

Example

The next turn ISS Vengeance wishes to catch up with its illusive prey. The Vengeance has a fully charged Hyper Drive and plots a tactical jump as well as a distance of 75cm.

During movement, but before all other starship's STL manoeuvring is performed, the Vengeance performs her STL manoeuvring and then moved 75cm in a straight line forward.

Tactical FTL - Jump Drive

T-FTL-Jump: After warming up its FTL drive, a starship with a jump drive may perform a tactical FTL jump.

When moving the starship, its STL manoeuvring is performed first and then the FTL jump. After the STL portion of the starship's plot has been performed, the player places the starship anywhere on the table facing any direction.

The player then rolls 3D20 and subtracts from the sum the highest rated sensor system on the starship. If the result of this calculation is positive, the starship is moved that many centimetres in a random direction.

If a tactical FTL jump would place the starship off table, the starship is placed in reserve and its FTL drive must be recharged.

While performing an FTL jump with a Newtonian starship, its momentum is temporarily relative to the starship rather than the table (i.e. if the starship has a momentum north-west and after completing its jump has changed its facing by one heading change CW, the momentum would now be rotated one facing CW).

Example

Shortly after entering the battlespace, BGS Chimera (a Newtonian starship) has recharged her Jump Drive and wishes to re-position herself. The Chimera plots a tactical jump.

During movement, but before all other starship's STL manoeuvring is performed, the Chimera is placed anywhere on the table facing any direction.

3D20 are then rolled along with a directional die (a D8 is useful for this, utilizing the point of the die) with a result of 11. The largest sensor array or fire control on the starship is a 12; this is subtracted from the roll of 11 to get a result of -1. Because the roll is zero or less the Chimera's chosen position is not altered.

However, the Chimera did change her heading 90° to port because of the jump. When the jump is complete, all the Chimera's momentums are rotated 90° CCW on her momentum compass rose.

FTL Transition

FTL-T: After warming up its FTL drive, a starship with a dimensional drive may perform an FTL transition. When moving the starship, its STL manoeuvring is performed first and then the FTL transition.

If the starship is on the table, its exact location relative to the table edges is calculated and then divided by ten (rounded). The starship is then placed at the corresponding coordinates in the FTL space.

If the starship is in FTL space, its exact location relative to the edges of the FTL space is calculated and then multiplied by ten. The starship is then placed at the corresponding coordinates on the table. Details on FTL space can be found on page 52.

Example 1

The Imperial Warship Butcher has charged her dimensional drive and plots an FTL transition. During movement, the Butcher's STL plot is conducted first and then its position on the table is measured to be 47cm from one table table edge and 62cm from another table edge. The Butcher is placed in FTL space 5cm and 6cm from the edges of FTL space that correspond to the table edges referenced.

Example 2

In a later turn, after manoeuvring for some time in FTL space, the Butcher plots an FTL transition to return to the table. During movement the Butcher is moved its STL plot in FTL space and then its position in FTL space is measured to be 6cm from one edge and 10.5cm from another edge. The Butcher is placed on the table 60cm from one edge and 105cm from another edge.

Basic FTL, Warp, Hyper, Jump, & Dimensional Drive

All starship's performing FTL manoeuvres must conduct their movement before starships with STL only plots. When multiple starships are performing FTL manoeuvres they must be performed in the following order:

1. Strategic FTL Jumps (Jump Drive)
2. Strategic FTL Jumps (Warp Drive)
3. Strategic FTL Jumps (Hyper Drive)
4. Tactical FTL Jumps (Jump Drive)
5. Tactical FTL Jumps (Warp Drive)
6. Tactical FTL Jumps (Hyper Drive)
7. FTL Transitions
8. Reserve FTL Jumps
9. FTL Retreats

If a player has multiple starships performing the same form of FTL manoeuvre, they choose which order to perform their manoeuvres. If both players have starships performing the same form of FTL manoeuvre, the player with more starships performing that manoeuvre chooses one starship to move and then the players alternate moving their starships.

All FTL drives have a rating from 10 to 1, which determines the charge time of that drive. After a FTL drive is used for any manoeuvre, the starship must not use the drive a number of turns equal to the rating of the drive before utilizing it again.

Author's Note

The decision to include multiple forms of FTL mechanics in Metaverse was not one I took lightly. The prospect of four different mechanics interacting, each with their own unique tactical implications, burdens the game with the possibilities for truly uneven battles.

However, considering the lack of such distinction within the community of rules that make up our hobby, I believed it to be an opportunity to be set apart.

Additionally, the flavour this can add to player's fleets is without question. As a nod to the need to balance these disparate FTL methods, I included the gravity well projector and subspace distorter, more as a game mechanic counter than any concrete in-universe need for them.

It is a guiding design philosophy of mine that any rule, design, or advantage must have a hard counter somewhere within the toolbox provided to the players.

Starfighter Operations Step

During this step all players may perform the following actions in the order listed:

1. launch new starfighter squadrons from their carriers
2. re-arm loaded starfighters
3. recover starfighter squadrons

Launch Starfighters

Starfighter squadrons may be launched from any starship, which has loaded hangar bays. Each hanger bay may launch a number of squadrons each turn equal to its launch capacity.

Re-arm Starfighters

Any starfighters that were recovered onto a carrier in a previous turn can be readied for launch by returning them to their full strength. Additionally, squadrons can have weapons mounted to their hardpoints from the carrier's stock of ordinance.

Recover Starfighters

Any starfighter squadrons at a carrier may now be loaded back onto the starship. The launch capacity of the onboard hanger bays is used for recovery of starfighter squadrons as well as launching. Thus, if the launch capacity of a hanger bay is used in its entirety to launch squadrons in this phase, it cannot also recover this turn.

The launch capacity of a hanger bay can be split between these two actions. Recovered starfighter squadrons are removed from the table.

Starfighter Mission Step

In this step, all players conduct missions with their starfighter squadrons. Starting with the player with more starfighter squadrons in play, the two players alternate conducting missions. In the event of a tie, the starting player is determined randomly.

A player may pass when it is their turn to perform a starfighter mission. If both players pass in a row the step is completed.

In order to conduct a mission, a player must select one or more starfighter squadrons present at a starship squadron to include in the mission. They then select a target for the mission that is inside the shortest range amongst the constituent starfighter squadrons.

In order to conduct a starfighter mission, change the target of an ongoing mission, split an ongoing mission into multiple missions, or recall a mission back to its starting point, a CP must be spent.

A starfighter mission targeted on a friendly starship squadron is called a CAP mission. A CAP mission is used to defend the target from enemy starfighter missions and starship weapons fire.

A starfighter mission targeted on an enemy starship squadron is called a Strike mission. When a player conducts a strike mission, they have the option of declaring one or more of the constituent starfighter squadrons to be Escort.

When PDS or PD capable weapons are used against the mission, as long as the number of Escort squadrons equals or exceeds the other squadrons, the Escort squadrons must be intercepted first.

In a furball, each Escort squadron must be engaged by one enemy starfighter squadron before the remaining squadrons may be engaged.

Once the squadrons involved in the mission have been selected and the target chosen, the entire mission is moved to the target. A strike mission is placed in the closest facing arc of the target squadron.

Author's Note

I believe it is necessary for me to explain the order of the movement phase. Like many great rule sets before, Metaverse utilizes a plotting phase for starships. Some games have forgone this step in favor of back and forth movement.

I believe plotting movements in an attempt to predict and/or throw an opponent is worth the additional time. Additionally, I feel this enhances the tactical balance between the movement and combat phases.

Player's will notice the Starfighter Operations Step in the movement phase. This is unusual in starship combat games, one which I believe is a mistake to leave out.

Most games allow starfighters to be moved about at will with little or no guidance or control instilled upon them. In reality (the closest analog being naval aviation), fighters are not given the freedom of independent movement or target selection.

The failure to include a form of starfighter command and control leaves out the importance of the carrier vessel and its associated flight directors.

Additionally, starfighters do not move about the battlefield like tiny starships (even though they really are); rather they are assigned missions that fall within their range, conduct those missions, and then sometimes return home.

From the perspective of the fleet commander, this is more appropriate. The admiral sees not snub-fighters in heroic dogfights, he sees the delivery of firepower onto targets at the appropriate moments.

Combat Phase

The combat phase encompasses all combat actions undertaken by starships, starfighters, and boarding parties. The steps are performed sequentially to represent the reaction time, flexibility, and time to target of the various interacting components. Each step must be concluded completely before moving forward.

Control Step

Prior to any firing or damage, players spend CPs to choose targets amongst the enemy fleet and to interact with one another's starships using the various EW systems at their disposal.

The player with more starships (not squadrons) begins by performing a single action, then play alternates between the two players. A player may choose to pass when it is their turn but if both players pass in a row the step is complete.

The players can choose to nominate a priority fleet target or a designated squadron target or to activate appropriate EW system on a starship in their fleet. Each of these actions requires CPs.

The targeting as directed by the chain of command may be ignored by individual starship squadrons depending on circumstances. Enemy starships may be considered Danger Close, forcing starships to ignore their targeting orders and fire all available weapons on those starships.

Danger Close is determined by an interaction between starship threat and crew discipline. Players will need to take this into account when allocating CPs for targets.

Targets

In order to facilitate the firing of starship squadrons on opposing squadrons, the commanders of the fleet can nominate targets using their CPs.

A priority fleet target is a target broadcast to the entire fleet and requires a number of CPs from the flag commander equal to ½ the number of squadrons in the fleet (rounded up). The flag commander can nominate as many priority fleet targets as they like.

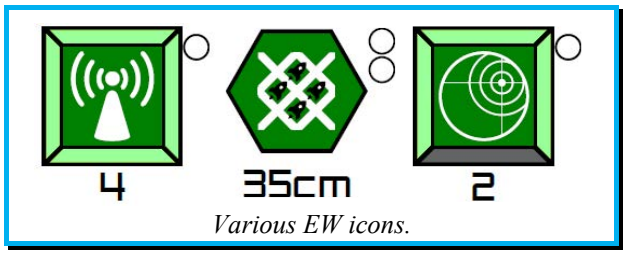
A designated squadron target is a target for only one squadron and requires one CP from any commander in the recipient's chain of command. A squadron can receive multiple designated squadron targets.

Electronic Warfare

Many EW systems require the expenditure of CPs to utilize. The CP to utilize an EW system must originate from a commander in the owning starship's chain of command. The setting/targeting of an EW system will remain until a CP is spent again to change it. The following EW actions require a CP:

- Activation/Deactivation of an Electronic Countermeasure Array*
- Activation/Deactivation of an Electronic Jamming Array*
- Activation/Deactivation of a Cloak Generator*
- Activation/Deactivation of a Stealth Generator*
- Activation/Deactivation of an Electronic Intelligence Array
- Activation/Deactivation of a Targeting Array
- Activation/Deactivation of an Ansible

*can begin the game activated/deactivated without the expenditure of a CP. If the system is disabled, when fixed, it starts deactivated.

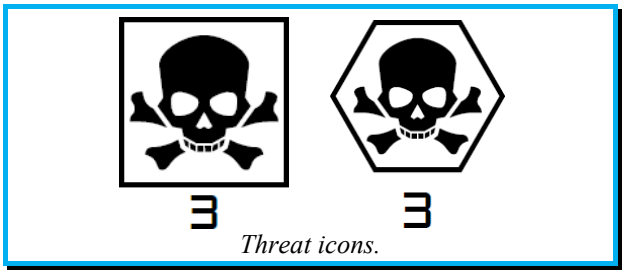


Various EW icons.

Threat

Every starship will have a Threat Level, indicating the relative danger it poses to opposing starships. Normally Threat Levels begin at 2 and increase proportionally to the size, firepower, and capabilities of a starship.

A starship's Threat Level will interact with the opposing fleet's crew discipline to determine the range within which opposing starship's must fire all available weapons at it.



Threat icons.

Crew Discipline

Every navy will have a set crew discipline, representing both the resolve of the crews and how liberally they will interpret targeting orders from their superiors. Crew discipline is a range of 5cm, 10cm, or 15cm. This range multiplied by an opposing starship's Threat Level determines Danger Close range for that starship.

Crew Discipline icons.

Crew Quality

Every starship squadron will have a crew quality which all starships in the squadron share. A squadron's crew quality can be green, regular, or veteran. The primary function of crew quality is to modify the Threat Level of opposing starships. Green crews raise the Threat Level of all opposing starships by one; Veteran crews lower the Threat Level of all opposing starships by one; Regular crews make no changes to Threat Level.

Danger Close

Starships with nearby targets may consider them to be Danger Close. A starship is considered Danger Close within a range determined by the opposing starship's Threat Level, multiplied by the friendly starship's crew discipline.

When a starship is Danger Close, the friendly starship considers the enemy starship's component squadron to be a designated target and all starships within that squadron to be Danger Close.

Starships must fire every weapon capable of firing on Danger Close targets at the closest Danger Close target in each arc. If a weapon does not have arc or is out of range, it can be fired on any normally legal target. If there are more arcs with Danger Close targets than the starship is capable of firing at (sensor or weapon limitations) the closest targets are priority.

Example

At the conclusion of movement, HMS Pinafore appears to be awfully close to USS Avenger. The Pinafore has a threat rating of 4 and the Avenger 3. The Pinafore's navy has a crew discipline of 15cm while the Avenger's 5cm.

The Avenger considers the Pinafore to be Danger Close at 20cm (threat 4 x discipline 5cm). The Pinafore considers the Avenger to be Danger Close at 45cm (threat 3 x discipline 15cm).

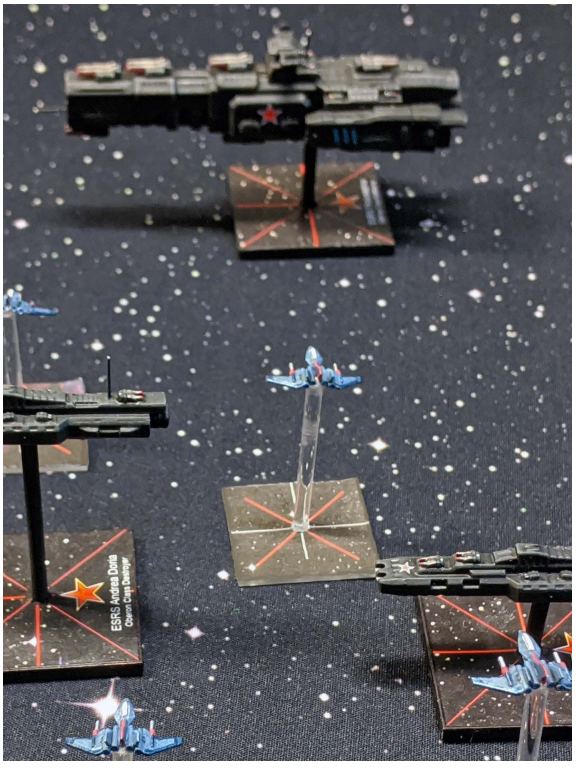
The two starships are 33cm apart which puts the Avenger in Danger Close for the Pinafore but not the other way around. The Pinafore will have to fire every available weapon at the Avenger while the Avenger can still select its targets. Any weapons on the Pinafore which cannot fire upon the Avenger may fire on other targets as normal.

Author's Note

Some players may question or balk at the rules for Danger Close. It is a trope of this subsection of the hobby that players have complete and total control of their forces and a near perfect view of the tactical arena.

While completely eliminating the 1000ft general phenomenon would actually be a bad idea in a game set in vacuum, the idea that players don't always have complete control of their forces is sound. No commander in history has ever had even close to 100% control of their subordinates.

Successful commanders account for this lack of control in their plans. Combined with the variable nature of command rolls, the idea that sometimes a starship captain will act to defend their ship from perceived danger, despite orders to the contrary, forces players to design flexibility into their plans.



Starship Combat Step

The first elements to engage in combat are the starships in either player's fleets. Starships fire first to represent that they often have the power, range, and reaction times to engage the enemy before other systems.

Both players fire their starships simultaneously. Even if a starship is destroyed by enemy fire in this step it will have the opportunity to fire back before it is removed from the table.

Starfighter squadrons may use their PD-capable weapons in this step to intercept weapons fire that has been fired against them or the starship they are in contact with or to fire at starfighter squadrons in range.

In order to fire at a target, a starship weapon or starfighter squadron must be capable of firing on the type of target. Starship and starfighter weapons are always able to fire on starships.

Some weapons may have a PD (Point Defence) rating and up to four possible target types, allowing the weapon to be used for interception. The intercept target types are:

- starfighters
- energy weapons fire
- kinetic weapons fire
- indirect weapons fire

In addition, in order to fire on weapons fire (defensively to intercept them), the target must be vulnerable to interception. A target is defined as a single starship, a starfighter mission, or a single weapon. Starfighter vs starfighter combat is handled by the furball rules.

Starship Weapons Fire

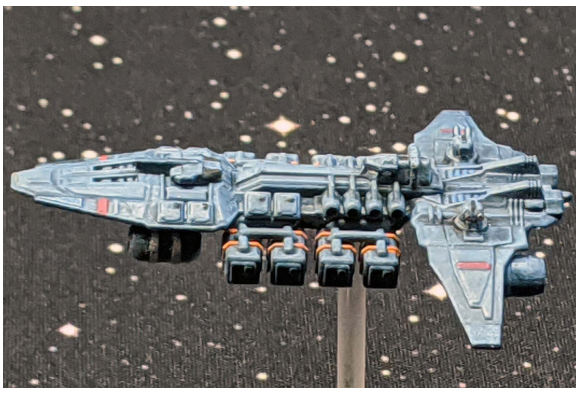
To fire a starship weapon at a target, it must be within the weapon's maximum firing range and line of sight not blocked by stellar phenomena such as planets. Indirect weapons can fire on targets even if the line of sight is blocked, providing the path around the phenomena is still within their range.

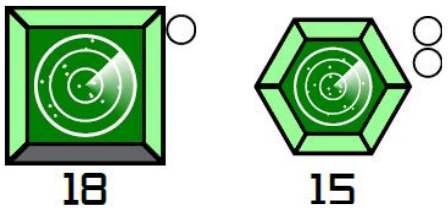
When firing a weapon, a sensor roll must be made (1D20). Each weapon must have an independent sensor roll made for it. To perform a sensor roll, a sensor array, local sensor array, or fire control (hereby collectively referred to as a sensor system) on the starship must be selected.

All weapons fired at a single starship require a distinct sensor system. Firing a group of weapons on a target using a single sensor system but making independent sensor rolls is called Salvo Fire.

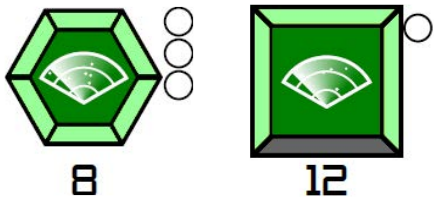
This sensor system will be of a given rating, which can be modified through the use of certain electronic warfare systems and represents the difficulty of the weapons fire in respect to electronic targeting. Indirect weapons suffer a -1 to the sensor rating for each range band beyond their effective range.

If a sensor roll result is less than or equal to the sensor system's rating, a hit is achieved; however, there is another factor to consider.

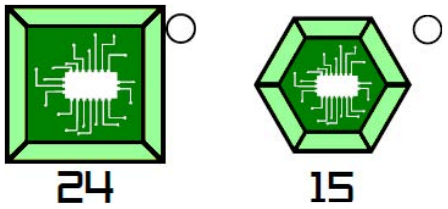




Sensor Array icons.



Local Sensor Array icons.



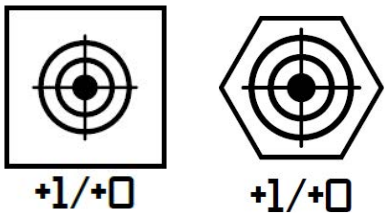
Fire Control icons.

The relative movement of both firer and target must be considered. All starships possess a Target Rating determined during design; the smallest starships have a default rating of 3; the remainder have progressively lower default Target Ratings as they increase in mass (even negative ratings).

The Target Rating of a starship will be listed as two numbers divided by a slash. The higher number is the starship's modified Target Rating. This number takes into account the starship's default Target Rating and the number of STL drives it has (the number of distinct drives, not their size).

When a starship has STL drives disabled or drives lost due to destroyed sections, its Target Rating drops by one for each lost/ disabled drive. The minimum the Target Rating can drop is equal to the lower of the two numbers.

The Target Rating of a starship can be modified under a number of circumstances as detailed in table 1. Kinetic weapons will suffer a +1 to the Target Rating of any starship they fire upon for every range band beyond their effective range.



Target Rating icons.

Condition	Modifier
Drift (blank plot)	-1
Momentum of 0	-1
RAM Order	-2
Kinetic Weapon	+1 per range band
Weapon Accuracy	+/-

Table 1

If the sensor roll of a firing starship is less than or equal to the modified Target Rating of the target starship, regardless of it being lower than or equal to the sensor's rating, the result is a miss.

Thus, the success condition of a sensor roll can be defined as being less than or equal to the sensor rating but greater than the Target Rating.

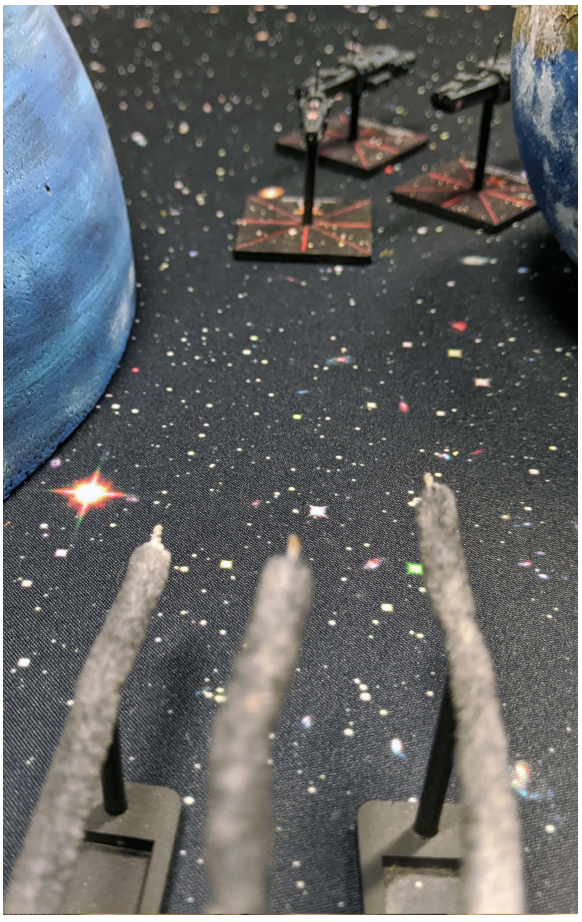
However, should the Target Rating equal or exceed the sensor rating, the firing player may still roll and any result of 20 is considered a hit. If the sensor rating is 20 or higher and the Target Rating is zero or lower, the firer automatically hits.

Example 1

USS Thunderchild is firing six energy weapons at ISS Vengeance. The Thunderchild uses a rating 16 sensor to fire the weapons but the Vengeance has a rating 3 EW array providing a -3 modifier to the Thunderchild's sensor.

Additionally, the Vengeance has a Target Rating of 1. The Thunderchild must roll 13 or less (rating 16 sensor minus rating 3 EW array) but greater than 1.

These weapons have 10cm bands, a max of 90cm, and an effective of 0-10cm The Vengeance is 63cm from the Thunderchild, the seventh range band for these weapons; however, because they are energy weapons, the range modifier is applied to the damage.



Example 2

Returning the favour, ISS Vengeance fires four kinetic weapons and two indirect weapons. The Vengeance uses a rating 13 sensor but the Thunderchild has a rating 4 EW array providing a -4 modifier to the Vengeance's sensor.

Additionally, the Thunderchild has a Target Rating of -1. The Vengeance must roll 9 or less (rating 13 sensor minus rating 4 EW array) but greater than -1 (a roll of -1 is, of course, impossible).

The kinetic weapons of the Vengeance have a range band of 15cm, a maximum range of 150cm, and an effective of 0-15cm. The Thunderchild is 63cm from the Vengeance, the fifth range band for these weapons.

Because these are kinetic weapons, the Target Rating of the Thunderchild is considered to be raised by 4 (four range bands beyond effective). This raises the Target Rating of the Thunderchild to 3 (-1 + 4) which means for these weapons the Vengeance must roll 9 or less but more than 4.

The indirect weapons of the Vengeance have a range band of 20cm, a maximum range of 80cm, and an effective of 60-80cm. The Thunderchild is 63cm from the Vengeance, the fourth range band for these weapons.

Because these are indirect weapons, no modifier is applied to the Vengeance's sensor array (in effective range), which means for these weapons the Vengeance must roll 9 or less.

Volley Fire

When firing more than one weapon, a player may choose to Volley Fire rather than the standard Salvo Fire. When weapons are Volley Fired, a single sensor roll is made for all the weapons fired and they either all hit or miss.

However, a sensor array used in Volley Fire cannot be used to fire anything else, even at the same target. A Volley Fire group can only include one of energy, kinetic, or indirect weapons.

Surgical Fire

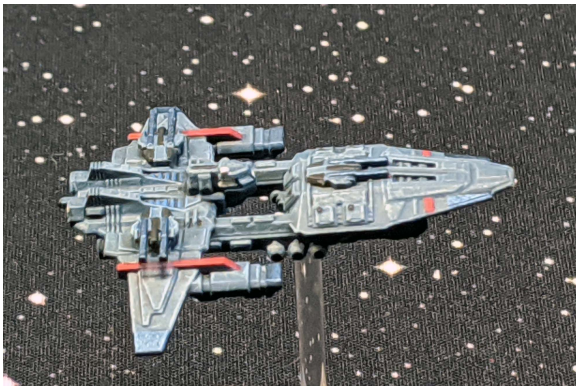
Under certain circumstances, players may wish to target specific systems on enemy starships. This form of attack is called Surgical Fire.

To perform Surgical Fire, the player must nominate a weapon with which to attack, a sensor system with which to make the sensor roll, and a target on the enemy starship (secondary, electronic warfare, propulsion, hanger bay, active defense, or weapon system). The targeted system must be in the facing section.

A sensor system used for Surgical Fire can only be used for the weapon firing, nothing else. Thus, if a player wishes to perform other attacks, including Surgical Fire with other weapons, more sensor systems will be required.

The sensor roll is performed as normal for the attack; however, should the sensor roll be an odd result, and a hull hit inflicted, the targeted system is disabled. Whether the sensor roll is odd or even, damage is still dealt as normal.

If a starship would automatically hit its target while performing Surgical Fire, a D20 is still rolled to determine odd or even.



Author's Note

When it came to designing the mechanics of weapon fire, I was presented with the same problem faced by most starship combat game designers. Compressing the multitude of variables involved in starship weapons fire into a simple and easy mechanic is difficult.

After a time, I was able to classify the variables involved into electronic warfare and movement/size. Many rule sets abstract this even further into one class of modifiers but I felt that this was lacking in accuracy.

Further still, some games do not even include the EW aspect of combat. To make the distinction between these two classes of variables, I took the approach of applying them to opposite sides of the die roll.

Electronic warfare and the associated systems all conflict at the top of the die roll, lowering the upper limit and setting the base chance to hit the target. I placed movement and size modifiers on the bottom of the die roll to create an auto-miss chance, such that regardless of how good the sensors are, certain situations can still result in a miss.

I have found that once played, these mechanics become second nature.

Dealing Damage

Once a hit has been achieved, damage is dealt. Fixed Damage weapons have a flat damage that is dealt without deviation. Variable Damage weapons have a die type for their damage (D4, D6, D8, D10, D12).

Variable Damage weapons may have a damage modifier providing a positive modifier to the roll of the damage dice (the damage modifier is applied to each damage die, not to the sum of all rolled dice).

All weapons have a pulse that determines the number of damage dice rolled or how many times the fixed damage is dealt. All weapons are designed as energy, kinetic, or indirect weapons, which determines if the target's defenses will interact.

Energy weapons receive a -1 modifier to their damage for every range band beyond their effective range. Kinetic and indirect weapons always hit at full effect. If a player rolls multiple damage dice at once, the rolls are applied in ascending result order.

Example 1

USS Thunderchild has hit the Vengeance with three of her energy weapons in her port-bow arc. These weapons have a damage profile of 2x13 (i.e. 2 pulses of 13 damage).

The Vengeance has armour with a rating of 2 that works against energy and kinetic weapons, resulting in a deduction of 2 from each damage pulse.

As previously established, the Thunderchild is firing in the seventh range band and since these are energy weapons, a -6 is applied to the damage (6 bands beyond effective).

The final damage the Thunderchild's weapons inflict is 2 pulses of 5 damage for each weapon (base 13 damage, -2 for armour, -6 for range).

Example 2

The Vengeance has managed to hit the Thunderchild with one of its kinetic weapons and one of its indirect weapons in her bow arc.

The kinetic weapon has a damage profile of 1xD12 (i.e. 1 pulse of a D12). The Thunderchild has shields in the facing arc that defend against energy weapons; however, since this is a kinetic weapon, the shields are ignored and damage is dealt straight to the hull. The D12 is rolled and the result is the damage dealt to the Thunderchild's facing section.

The indirect weapon has a damage profile of 3xD6+2 (i.e. 3 pulses of a D6 with 2 being added to each die roll). The Thunderchild has shields in the facing arc that defend against energy weapons and since indirect weapons are affected by all defences, this weapon must impact the shields.

However, the indirect weapon can be directed to hit either of the adjacent arcs of the Thunderchild and since she does not have shields in her port arc, the Vengeance redirects this weapon to that arc dealing damage to the hull directly. The 3D6 are rolled with each die roll increased by 2 and the results being dealt to the hull.

Recording Damage

The arc of the targeted starship onto which the incoming damage is directed will determine the section to be damaged. All outboard sections will face one specific arc.

The core section faces any arc for which no sections were designed or where all designed sections have been destroyed. When an indirect weapon hits a target, the firing player can choose to hit the facing arc or either of the adjacent arcs.

Damage must be recorded in a specific manner when damage is dealt to a section of a starship. All weapons make use of one of two damage mechanics, raking or penetrating.

For raking weapons, the damage is recorded along hull layers, from left to right, only damaging the next hull layer when the current one is destroyed. The top-most layer is always damaged first.

Penetrating weapons deal their damage vertically by inflicting one damage to each layer; always hitting the left most hull hit of each layer. Each pulse of a penetrating weapon does this independently, starting with the top layer.

When the last hull hit in the final layer of a section is crossed off, the section is destroyed. Any remaining damage is dealt to the next inward section, in either raking or penetrating pattern as appropriate. If the last hull hit in the final layer of the core section is crossed off, the starship is destroyed.

If a penetrating weapon deals damage to an outer section of a starship and deals one damage to each layer but damage remains, the damage continues on to the next inward section, dealing one damage to each layer. In the event of a penetrating weapon dealing one damage to each layer of the core section and damage remains, the damage continues on to the next section through the starship.

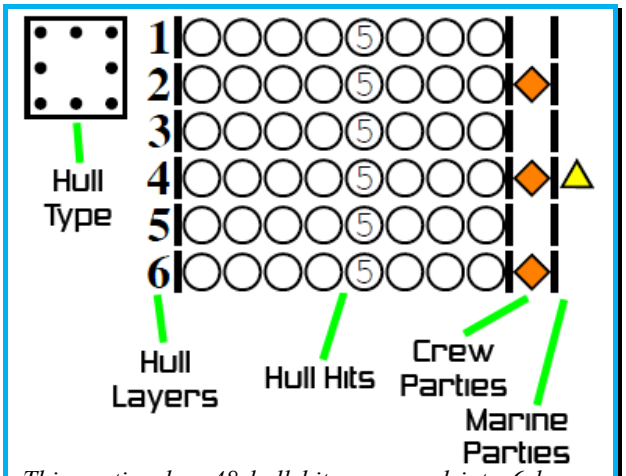
It is possible for the damage of a penetrating weapon to go completely through a ship, dealing one damage to each layer and have damage left over; this leftover damage is discarded.

When a hull layer is destroyed, the crew and marine parties associated with that layer must be crossed off but are not hits themselves, thereby reducing the number of crew and marine parties remaining in that section.

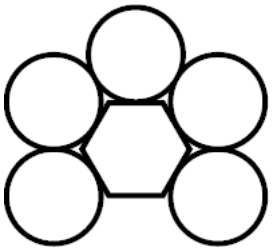
All weapons that deal damage to a starship from one source receive the modifier from the facing armour, even if in the course of recording damage, the section that armour originates from is destroyed.

Starfighters do not take damage in the same manner as starships. A starfighter squadron has a strength which determines the number of hits required to destroy the squadron.

Penetrating weapons gain no special effects against starfighters. When the last strength point of a starfighter squadron is hit, the squadron is destroyed.



This section has 48 hull hits arranged into 6 layers with 3 crew parties and 1 marine party. Numbers will appear in the hull hits to assist in recording damage.



The sections of a starship will be indicated with this icon. The central shape (hexagon or square) is the core section. Any other sections will radiate out from it.

Example 1

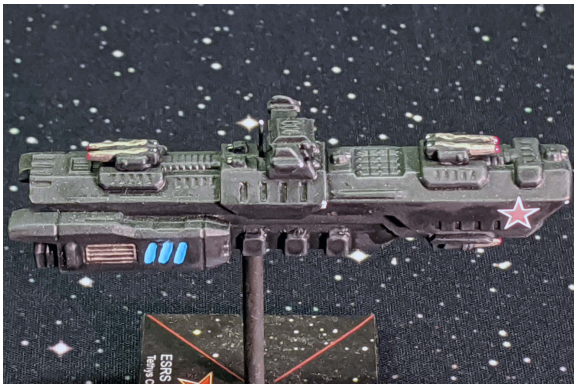
USS Thunderchild must record the damage from ISS Vengeance's kinetic and indirect weapons, both of which are raking. The kinetic weapon uses a D12, rolling 9, and dealing 9 damage to her bow arc, horizontally along the layers, received in her bow section.

The indirect weapon uses 3D6 and adds 2 to each roll, rolling 2, 3, and 5, dealing 16 damage to her port arc horizontally along the layers. The indirect weapon was redirected to the Thunderchild's port arc but since she does not have a port section, the 16 damage is dealt to the core section.

Example 2

ISS Vengeance must record the damage from USS Thunderchild's three energy weapons that each dealt 2x5 damage to her port-bow arc, received in her port-bow section.

As these energy weapons are penetrating, the damage must be recorded vertically with 1 damage being applied to each layer (the left most hit box in each layer). The port-bow section only has 3 layers so 2 damage from each pulse will continue on to hit the next section through the starship.



Author's Note

The interaction between the damage mechanics in Metaverse and the way in which a starship is designed, specifically the possibility for multiple section starships, allows for what I believe to be a truly immersive starship control experience.

This experience lends itself wonderfully to smaller scale engagements between just a few starships, cruiser duels, if you will. However, some players may wish to ignore the more detailed interactions possible with this system in order to field much larger games, fleet battles; even going so far as to make all starships one section and all weapons raking and fixed damage.

The distinction between raking and penetrating weapons was an important design choice in my mind, as they feel very different from each other, especially when interacting with starships designed with different numbers of hull layers.

While the lore reasons behind these mechanics are left up to the players to decide, the basic tools grant flexibility in how starships and their weapons interact with each other.

Critical Hits

During the course of receiving damage, starships may also suffer critical hits to their sections.

When the final hull hit of a hull layer is crossed off, that section receives a critical hit. If a penetrating weapon inflicts a damage point to the bottom hull layer of a section (for each point inflicted, if the pulse is greater than 1), a critical hit is scored on that section. When a section is destroyed, the next inward section automatically receives a critical hit and any critical hits dealt to the destroyed section are discarded.

To determine the result of a critical hit, the player must roll two dice and consult the critical chart for the effect: 1D8 for the critical category; 1D6 for the specific result. Critical hits are adjudicated during the end phase.

Point Defense (PD) Interception

Incoming weapons fire may be vulnerable to interception, if the weapon is designed as such. There are three methods with which this can be done.

If the defending starship has PDS with designated arcs facing the incoming fire, they can be applied to eliminate one or more pulses of damage. A PDS can eliminate a pulse of damage, if its rating equals or exceeds the maximum possible damage of that pulse.

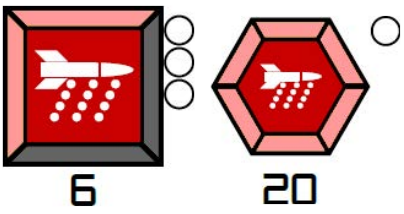
A single PDS can destroy multiple pulses from the same weapon, if its value exceeds the damage of one pulse and it is sufficient to destroy more than one pulse.

Multiple PDS can be combined to knock out a single pulse but a PDS cannot be split across multiple weapons.

A weapon with a PD value can be used as a PDS, if it has the oncoming weapon type as a possible target type (i.e. kinetic, energy, or indirect). Multiple weapons with a PD value can be combined so long as they are all energy, kinetic, or indirect but, like PDS, cannot be split across multiple incoming weapons.

Starfighter squadrons on CAP can be used to intercept incoming pulses, utilising their furball rating. A starfighter squadron can split the D20s granted by its furball rating across multiple pulses or combined as desired. These dice are rolled and if the total applied against a pulse equals or exceeds the maximum possible damage, the pulse is eliminated. Starfighter squadrons can combine their furball ratings against incoming weapons.

A weapon vulnerable to interception fired from within its first range band can only be intercepted by PDS.



PDS Icons.

Example

USS Thunderchild is receiving fire from ISS Vengeance, including an indirect weapon that has been redirected to hit its port arc. This weapon is vulnerable to interception and the Thunderchild has both PDS and a starfighter squadron on CAP.

The indirect weapon has a damage profile of 3xD6+2. Each of the three pulses must be shot down individually, requiring a PD value of 8 each (D6+2).

The Thunderchild has four rating 5 PDS in arc to intercept the incoming fire. Needing to reach a total of 8 to knock out a pulse, 2 of these PDS will need to be combined for each pulse.

The rating 5 PDSs can knock out two of the incoming pulses (2 on 1 pulse, 2 on a second pulse) leaving the last pulse for the starfighters.

The starfighter squadron has a furball rating of 2. Rolling its 2D20 against the incoming weapon pulse, the 2 dice are added together and if the result is equal to or greater than the maximum damage, the pulse is knocked out.

Starfighter Combat Step

After all starships have fired, each starfighter combat is conducted separately. A starfighter combat is defined as any starship squadron attacked by enemy missions.

If the starship squadron has one or more CAP missions, the player must decide if any of the squadrons will be set to Intercept. Intercept squadrons will fly out from the starships and engage the enemy before they can fire long range weapons.

The attacking player may have one or more Escort squadrons, starfighter squadrons that will preferentially take casualties. Escort squadrons cannot fire on the targeted starships.

A starship or starfighter squadron targeted by a long range weapon may intercept the fire using their own appropriate weapons. Starfighters may use their furball rating to intercept incoming fire but may not then use their furball rating against enemy squadrons.

Weapons on starships with a PD value may not be used during this step, as they should already have been used during the starship combat step. Depending on the players choices, one of three procedures will be used.

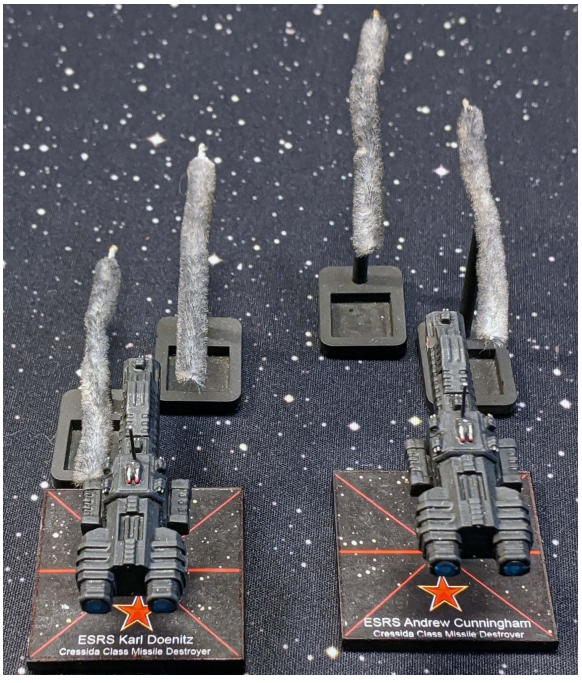
If there are no CAP missions at the target starship squadron:

The attacking player may fire all long range weapons on their starfighters. Surgical strikes cannot be performed at this point. The defending starships may use PDS to intercept the incoming weapons fire.

The attacking player may choose to enter close range with their starfighters. If so, the target starship squadron may use eligible PDS to intercept the closing squadrons; if not, the combat is complete.

The attacking player may fire all short and long range weapons that have not fired on their starfighters. Surgical strikes can be performed at this point.

The attacking player may place their mission in any arc of the target squadron in preparation for next turn and the combat is complete.



If there is a CAP at the target starship squadron but none are set to Intercept:

The attacking and defending players may fire all long range weapons on their starfighters. Surgical strikes cannot be performed at this point. The defending starships may use PDS to intercept the incoming weapons fire.

The attacking player may choose to enter close range with their starfighters. If so, the target starship squadron may use eligible PDS to intercept the closing squadrons; if not, the combat is complete.

The players may assign their starfighter squadrons to intercept enemy squadrons, respecting Escorts squadrons, and initiate a furball. The player with more squadrons present assigns one squadron to an opposing squadron and then the two players alternate assigning squadrons.

If the two sides have an equal number of squadrons, the first player to assign is determined randomly. The attacking player may choose to ignore the intercepting squadrons with any of their starfighters, accept the casualties from the furball, and continue on to attack the starships.

The attacking and defending players may fire all short and long range weapons that have not fired on their starfighters. Surgical strikes can be performed at this point. Starfighter squadrons that participated in a furball may only fire their weapons at their opponent in the Furball.

The attacking player may place their mission in any arc of the target squadron in preparation for next turn and the combat is complete.

If there are CAP missions at the target starship squadron and one or more squadrons are placed on Intercept:

The defending player selects which starfighter squadrons will be on Intercept.
The attacking and defending players may fire long range weapons between their starfighter squadrons.

The players may assign their starfighter squadrons to intercept enemy squadrons, respecting escorts squadrons, and initiate a furball. The player with more squadrons present assigns one squadron to an opposing squadron and then the two players alternate assigning squadrons.

If the two sides have an equal number of squadrons, the first player to assign is determined randomly. The attacking player may choose to ignore the intercepting squadrons with any of their starfighters, accept the casualties from the Furball, and continue on to attack the starships.

The attacking and defending players may fire all short range starfighter weapons at their opponents in the furball.

The attacking player may fire all remaining long range weapons on their starfighters. Surgical strikes cannot be performed at this point.

The attacking player may choose to move to close range with their starfighters. If so, the target starship squadron may use eligible PDS to intercept the closing squadrons; if not, the combat is complete.

The players may assign their remaining starfighter squadrons (those that remained close to the carrier) to intercept enemy squadrons, respecting Escort squadrons, and initiate a furball. The player with more squadrons present assigns one squadron to an opposing squadron and then the two players alternate assigning squadrons.

If the two sides have an equal number of squadrons, the first player to assign is determined randomly. The attacking player may choose to ignore the intercepting squadrons with any of their starfighters, accept the casualties from the furball, and continue on to attack the starships.

The attacking and defending players may fire all short and long range weapons that have not fired on their starfighters. Surgical strikes can be performed at this point. Starfighter squadrons that participated in a furball may not fire.

The attacking player may place their mission in any arc of the target starship squadron in preparation for next turn and the combat is complete.

Starfighter Weapons Fire

Because of their independent nature, starfighter squadrons do not need a sensor roll to fire. Rather, when moved to contact with a target, they automatically achieve hits. Starfighter squadrons may be designed with one or more installed weapons.

Like starship weapons, starfighters are capable of performing surgical strikes, so long as they have a weapon. To perform a surgical strike with a starfighter squadron, the player must announce the secondary, electronic warfare, propulsion, active defense, or weapon system they intend to attack.

The squadron proceeds with its attacks as normal, taking into account any defences on the target starship; 1D6 is rolled for each weapon and if the result is 4-6 and damage was inflicted to the hull, the system is disabled.

Starfighter Furball

Starfighters generally engage in a furball when the CAP of a starship is defending against an incoming Strike mission. After any long range weapons fire between the starfighters have been carried out, a furball usually decides the combat.

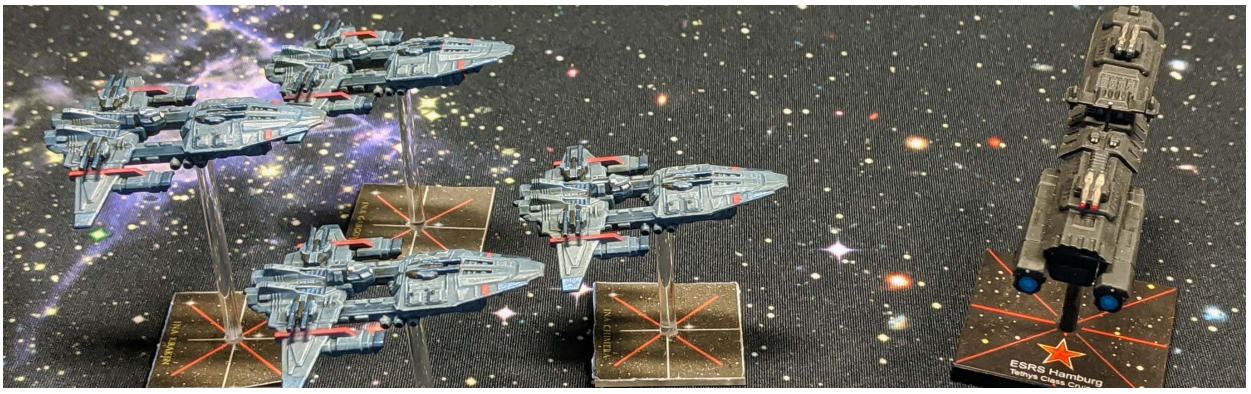
During the starfighter combat step, players assign their starfighter squadrons to combat their opponent's in any given matchup. Once a starfighter squadron has been engaged in a furball by an opposing squadron, it cannot be assigned to engage in a furball with other opposing squadrons.

Both sides may assign additional starfighter squadrons to the participants in a furball, thereby making the new entrants a part of the expanding fight. Each distinct grouping of starfighter squadrons that have been mutually assigned to each other is called a furball.

After all squadrons have been assigned, the individual furballs created by this process are adjudicated. Each side totals the furball rating of their participating starfighter squadrons. They then divide this total up amongst the opposing starfighter squadrons in the furball as they see fit.

Both sides then simultaneously roll a number of D20s against the opposing starfighters equal to the portion of the total furball rating they assigned to each squadron.

Each D20 that rolls equal to or greater than the defense rating of its assigned squadron, causes one hit to that squadron's strength. Once both sides have rolled all their D20s and casualties have been inflicted, the furball is complete.



Example

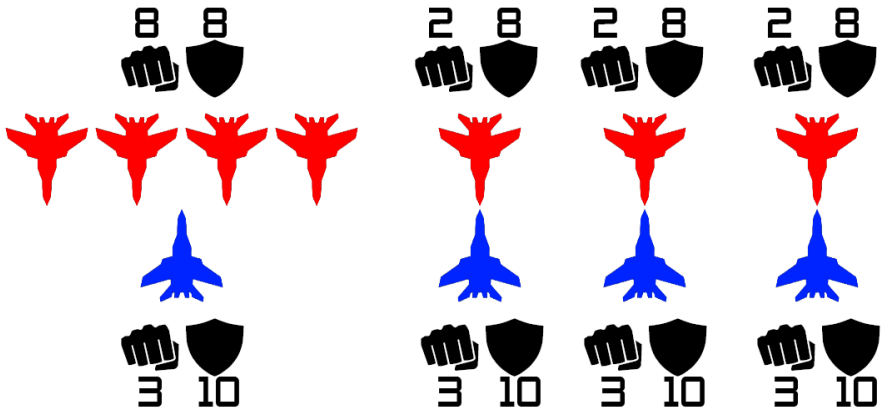
Seven starfighter squadrons from ISS Vengeance are engaged in a furball with four squadrons from HMS Pinafore. Since the Vengeance has more squadrons than the Pinafore, they begin by assigning a squadron to an enemy squadron. The two sides then alternate assigning squadrons to opposing targets until both sides are completely assigned.

The advantage here is clearly with the Vengeance as she has more squadrons and can therefore very much dictate the engagement. The final result of this assignment is that three of the Pinafore's starfighter squadrons are each in a furball with only one opposing squadron. The remaining squadron from the Pinafore is in a furball with four from the Vengeance.

The starfighters from the Pinafore have a furball rating of 3 and a defence of 10. The starfighters from the Vengeance have a furball rating of 2 and a defence of 8. In the three small furballs each squadron from the Pinafore rolls 3D20 (furball rating of 3) and each result of 8 (the defence of the opposition) or better results in 1 hit scored on the opposing squadron. The Vengeance's squadron in each of these furballs rolls 2D20 (furball rating of 2) and each result of 10 (the defence of the opposition) or better results in 1 hit scored on the opposing squadron.

In the larger furball the Pinafore's squadron makes the same roll as the smaller furballs but may assign any hits to any of the opposing squadrons. The four squadrons from the Vengeance add their furball ratings together (4x2) and roll 8D20 and each result of 10 (the defence of the opposition) or better results in 1 hit scored on the opposing squadron.

ISS Vengeance



HMS Pinafore

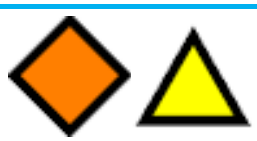
Boarding Combat Step

With the violent combat of vacuum finished, the final combat step is boarding. All boarding combats can be adjudicated in any desired order. Some boarding combats may have continued from the previous turn.

Any starship that has had hostile marine or crew parties transported aboard must conduct a boarding combat during the boarding combat step. The intruding parties will have been deposited in a particular section of the starship and it is there that the combat takes place.

Both players roll a die for each party they possess in that section and compare them in order from highest to lowest roll. The defender rolls 1D10 for each marine party and a die for each crew party: D4 for green; D6 for regular; and D8 for veteran crews. The attacker rolls 1D8 for each marine party.

In each dice comparison, the lower roll denotes a casualty. The casualty is determined by the die rolled (i.e. the defender lost with 1D10, indicating a marine party was lost). Ties indicate mutual casualties. Excess dice on one side do not count.



Crew and Marine Party icons.

If both players have parties remaining, the action continues in the next boarding combat step. If the defender no longer has any parties remaining in the section, the attacker may disable a number of systems in the section equal to the number of parties they have remaining in the section.

When a boarding combat is continued from a previous turn, the defending player may move parties from other sections to the invaded section. After the defending player has moved parties, if the invaded section had no defending parties remaining at the beginning of the step, the attacking player has the option of moving as many parties as they choose from the invaded section to an adjoining section. Combat in each section is then adjudicated independently.

Example

Seven marine parties from the Imperial Warship Butcher have landed in the stern section of BGS Chimera. The Chimera has three crew parties (with a crew quality of regular) and one marine party.

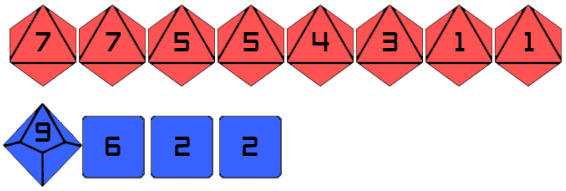
The Butcher's parties roll seven D8s, the Chimera rolls one D10 and three D6s.

The Butcher rolls 1, 1, 3, 4, 5, 5, 7, 7.

The Chimera rolls 2, 2, 6, 9.

The Chimera's 9 pairs with a 7, her 6 with a 7, and her 2s with the 5s, resulting in the loss of her three crew parties and the destruction of one enemy marine party.

Butcher



Chimera

End Phase

After all combat has been finalized, players will move on to rolling for critical hits, repairing their starships, and recording morale losses for their fleet.

Critical Step

All players now roll for any critical hits their starships have received throughout the turn utilising the critical hit chart. When rolling for a critical hit on a starship, the player must roll 1D8 for category and 1D6 for severity of the hit.

If a critical cannot be applied, in part or in whole, because the required systems are absent or already disabled, the category is upgraded once. If the upgraded critical still does not apply, the critical is ignored. Damage incurred from critical hits can induce more critical hits; these must be rolled immediately.

Repair Step

All players may attempt to repair disabled systems in a section that still has hull hits remaining. To do so, crew parties are required from the relevant section. The player must decide how many crew to apply in order to fix any given system.

The damage control die is then rolled; a roll less than or equal to the number of crew parties assigned is required to repair the system. Automatic successes are possible, if the number of crew assigned equals or exceeds the maximum roll of the damage control die. Systems in a section with hostile marine or crew parties present may not be repaired.

Once all repairs have been attempted, the player may move crew around the starship as desired, crossing off crew in one section to restore crew in another. However, a section cannot have more crew than originally designed nor can crew parties lost due to destroyed layers be restored.

Damage Control Die icons.

Morale Step

The final step in any turn is to record any morale losses from the turn. Whenever a starship is destroyed (or rendered inoperable by loss of all power or bridges, without the ability to repair them), a number of morale points are struck on the threshold chart equal to the ship's morale value. Whenever a starfighter squadron is destroyed, a number of morale points are struck on the starfighter chart equal to the squadron's morale value. Half a starship's morale value is added to the threshold chart when it performs the FTL retreat manoeuvre.

The threshold chart consists of up to 100 morale points that are divided into thresholds of a size determined by the navy's morale level ranging from 5-15. During the command step, if the flag commander rolls a number of CPs equal to or lower than the number of thresholds completed, the player loses the game.

The starfighter chart consists of 100 points; when the final point is scored, the chart is erased and a morale point scored on the threshold chart. The loss of a squadron may require recording points on the starfighter chart, the chart erased, and remaining points recorded on the now empty starfighter chart.

Fleet Display and Starship Display

Central to playing a game of Metaverse is the utilisation of the Fleet Display and the Starship Display. In order to play a game a player will construct a fleet in one of their navies. That fleet will have one or more squadrons containing one or more starships and at least one commander. These starships, squadrons, and commanders will be organized in a chain of command. The player will also decide whether to set the command and crew values for their squadrons or leave it to be decided by rolling table side.

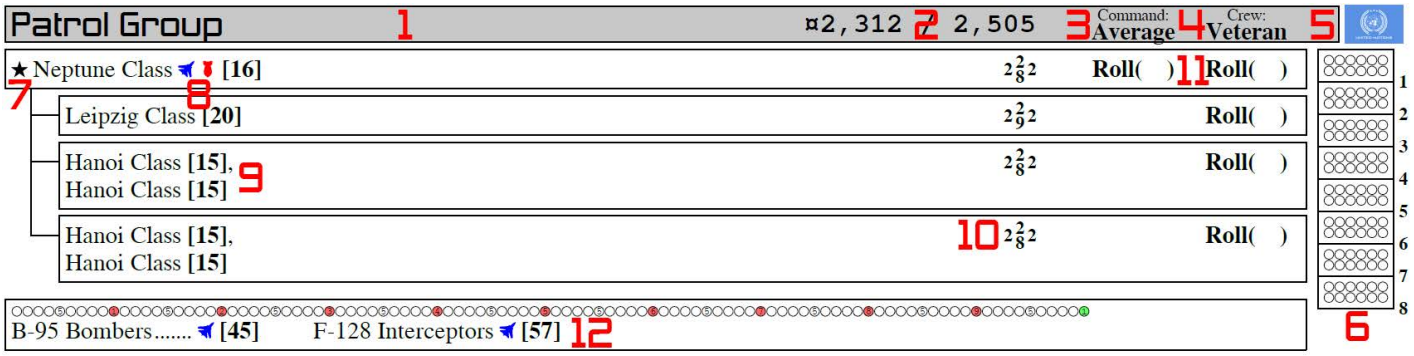
Once the fleet has been created, a document will be formed containing all the information of the fleet. The first page will be a summary of the fleet's structure and composition. A morale threshold chart and a starfighter chart will accompany this organization so that the player can see victory slipping through their fingers. Finally, the tactics available to the player, inherited from the navy, will be written out for use throughout the game.

Following the fleet display, the Starship Displays of every ship in the fleet will be present. If the fleet contains multiple copies of the same starship design, that display will be present multiple times. Reading a Starship Display for the first time can be a daunting task due to the breadth of information being presented. Thankfully, a starship's data is given in an iconographic format utilising both colors and shapes. This compresses the information into a smaller space but also serves to create a sort of language, one that is quickly learned and easily read.

If the fleet included a support list for use in scenario play, it will come after the starship's of the fleet. Any starships on the support list will also be included in the document after the list itself. If a reinforcement list was included in the fleet, it will be placed after the support list along with all the starship displays integral to it.

It is easily possible to create a substantial document using the fleet construction system of Metaverse. However, this normally only occurs when the player is attempting to create a fleet for scenario play. In this case it is likely that the fleet will be used over and over again as the scenario system is designed to provide an ever changing experience even with the same fleet. It is also helpful to remember that the reinforcement list is a navy level construction and is therefore inherited by every fleet of that navy. A player only needs to print the reinforcement list once and then use it for every fleet of their navy.

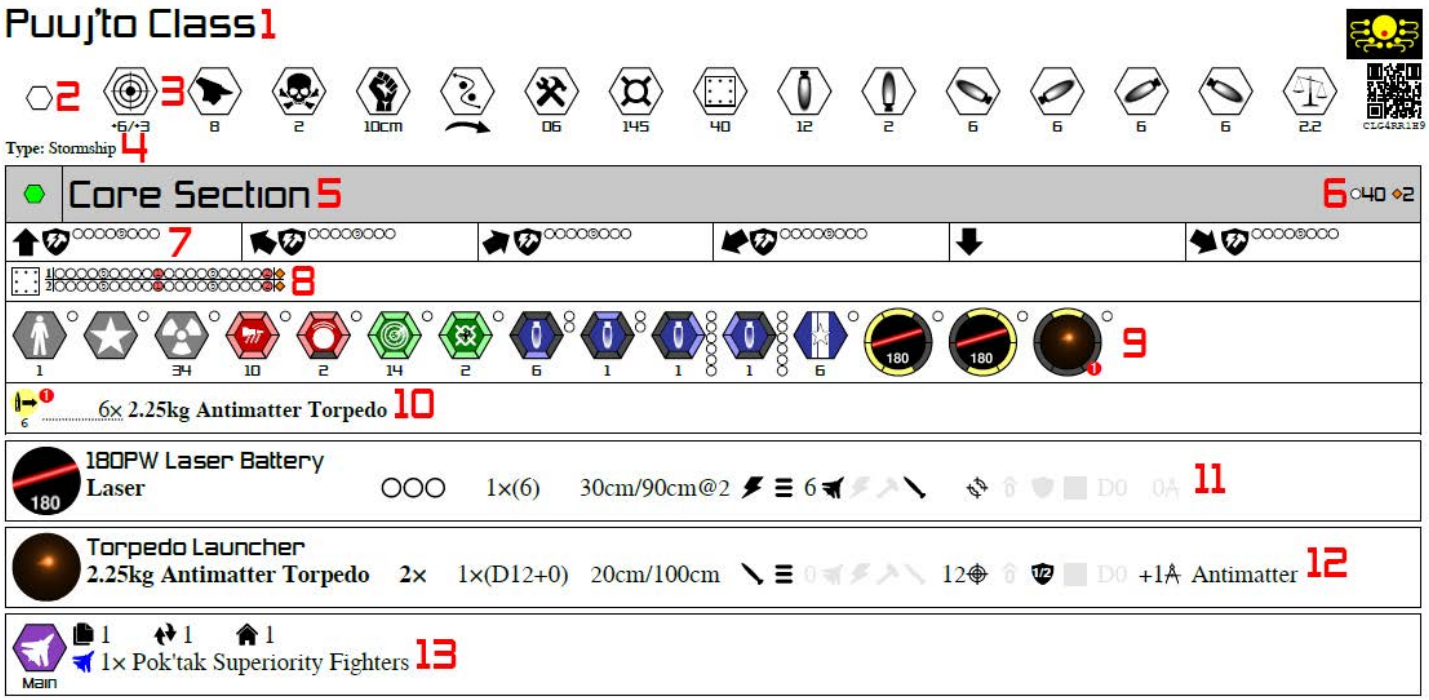
Samples of support lists and reinforcement lists can be viewed in the two navies included in the appendices.



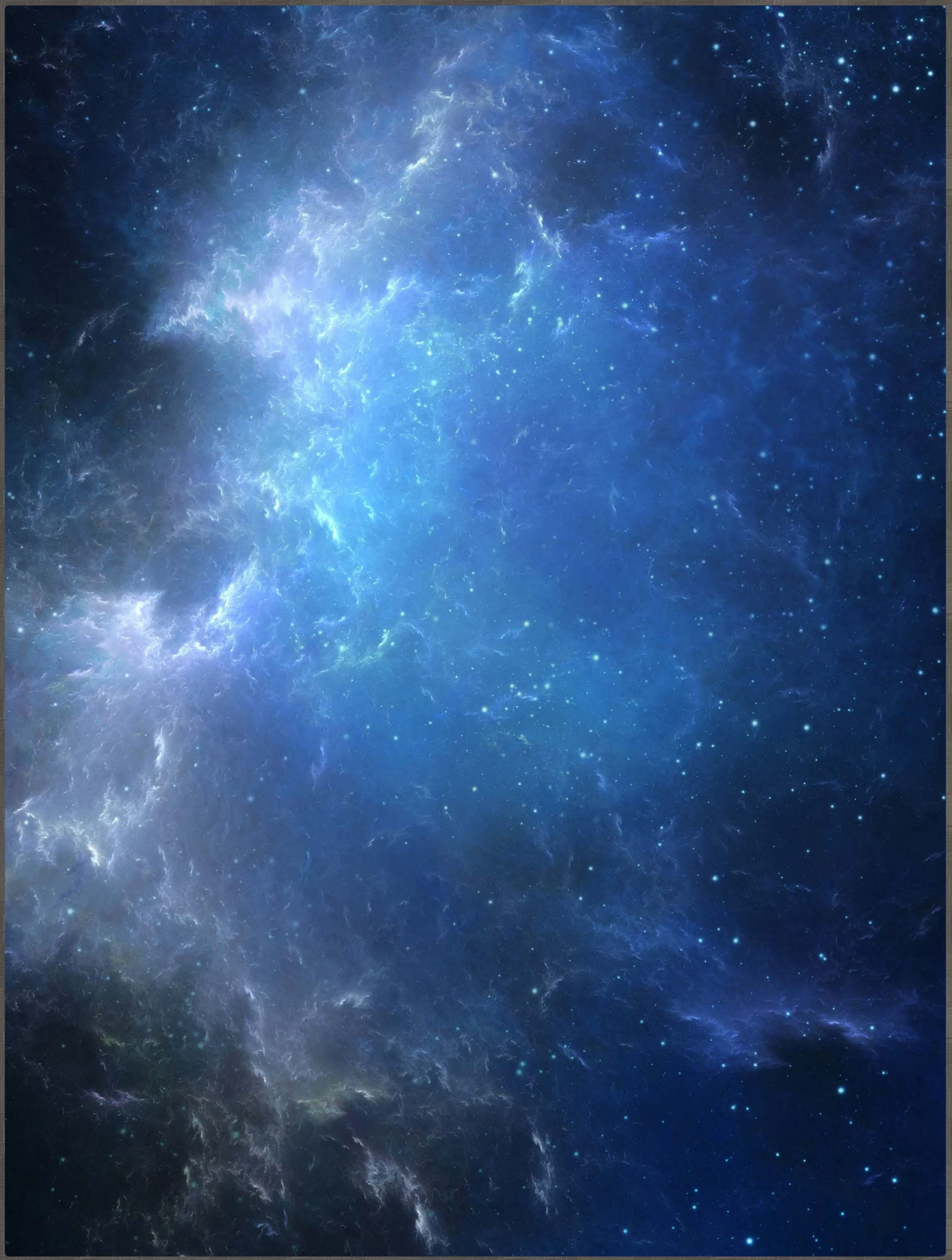
Ace Pilots [2 CP] ***(Starfighter Combat Step; Any Commander)***
Select a starfighter combat. All friendly starfighter squadrons in that combat receive a +1 to their furball ratings until the end of the turn. This tactic cannot raise a furball rating above 7.
13

Stay on Target [1 CP] ***(Starship Combat Step; Any Commander)***
Select an enemy starship. All friendly starships that did not make any heading changes or advanced manoeuvres receive a +1 to the ratings of their sensor systems while firing on the target starship until the end of the turn.

1. Name of the fleet.
2. Cost of the fleet for Match Play / Cost of the fleet for Scenario Play.
3. Average command quality of the navy.
4. Average crew quality of the navy.
5. Flag or symbol of the navy.
6. Morale threshold chart.
7. Rank of commander [1 star = Captain, 2 stars = Commodore, 3 stars = Admiral]
8. Starfighters and/or ordinance loaded. Blue = loaded, red = may be purchased as support option.
9. Starships of a squadron. Morale value appears in brackets.
10. Slowest STL ratings of squadron.
11. Command and crew qualities of squadrons.
12. Morale value of starfighter squadrons in fleet & Starfighter Chart.
13. Tactics.



1. Name of the starship design.
2. Section layout diagram.
3. Design Attributes: Target Rating, Mass Factor, Threat, Crew Discipline, Movement Method, Repair Die, Cost, Total Hull Hits, STL Summary, Rules Version.
4. Flavor and organizational information.
5. Sectional identifier diagram and section name.
6. Total section hull hits, crew, and marines.
7. Defences of section including armour, shields, and deflectors.
8. Hull hits arranged in numbered layers with crew and marine parties.
9. Systems and weapons of the section.
10. Local/Global magazines including size/feed rate, default munition load, and identifier.
11. Weapon definition.
12. Launcher definition including maximum fire rate per munition.
13. Hanger Bay information including name, launch capacity, size, loaded squadrons in blue, and purchasable squadrons in red. Loaded and purchasable starfighter ordinance will appear in blue and red after Hanger Bay information.



Starship Breakdown

Starships in *Metaverse* have the capacity to be quite detailed with a plethora of interacting ship's systems. These systems are described in detail in their relevant groupings.

Ship & Crew

The heart and soul of every starship is the basic hull structure of the starship and the crew that fill it. The following encompass the different factors associated with them.

Directionality

Every starship will be designed with one of two directionalities, square or hexagon. A square starship has eight 45º sectors and can have outboard sections in four directions. A hexagon starship has six 60º sectors and can have outboard sections in six directions.

The core section of a starship will display as either a square or a hexagon to indicate its directionality.

Sections, Hull Hits, and Hull Layers

Every starship is composed of, at minimum, a core section but may contain many more outboard sections spreading out from this core. Each of these sections is composed of a number of hull hits divided into one or more hull layers.

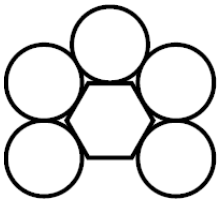
The number of hull hits represents the sum total structure and mass of the section while the number of layers represents the design choices of the section.

Fewer hull layers represents a section with systems buried deep and centralized for protection, making them resistant to raking damage but extremely vulnerable to penetrating weapons.

More hull layers represent a section with a honeycomb system of systems, making them less resistant to raking but more protected against the catastrophic effect of penetrating weapons.

A starship may have up to two outboard sections radiating out from the core section in any arc (i.e. inner port section and outer port section). A section may not be designed wherein the number of hull layers exceeds the number of hits in each layer (i.e. a section with 100 hull hits could have a maximum of ten layers - 100/10).

A square starship with a core, inner bow, outer bow, inner stern, and outer stern sections. All fire received from the port and starboard arcs would impact the core.



A hexagon starship with a core, bow, port-bow, starboard-bow, port-stern, and starboard-stern sections. All fire received from directly stern would impact the core.

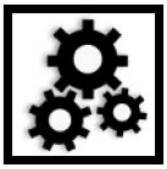
Hull Type

The standard starship is assumed to be constructed out of a benign metallic or even ceramic structure called a metallic/ceramic hull. Some starships, however, may be constructed out of a self-repairing nanite-like hull called a technological hull. Other starships may even be organic in nature and capable of healing themselves, using a biological hull. Metallic/ceramic hulled starships receive no special rules.

Metallic/ceramic hull icon.

Technological Hull

Starships constructed using a technological hull may, during the repair step, use crew parties to repair damaged hull hits at a rate of one hull hit per crew party. Technological hulled starships may also repair ablative plates as if they were a system using the standard repair rules.



Technological hull icon.

Biological Hull

Starships constructed using a biological hull may, during the repair step, cross off a hull hit to repair a disabled system.

They may also sacrifice hull hits to generate starfighter squadrons at a rate of one hit per point (minimum one). The squadron generated must be one the hanger bay is capable of carrying.

Using the same method, a biological hulled starship may generate ordinance packages at a rate of one hit per point. When recovering starfighter squadrons onto a biological hulled starship, a player may opt to absorb the starfighter squadron and recover a number of hull hits equal to its cost (rounded).

Starships with biological hulls may also reload one-shot weapons by sacrificing a number of hull hits in the section of the weapon equal to the maximum damage of the weapon, multiplied by the pulse.

Finally, a biological hulled starship may automatically recover a number of hull hits each turn in each section equal to the life support rating of that section.

Biological hull icon.

Armour

The hull of a starship's sections may be physically armoured to provide protection from incoming fire in each of its arcs (four for square starships, six for hexagon starships). The armour of an arc can also be one of three forms (energy, kinetic, or energy-kinetic), denoting what type of weapons fire it affects. Indirect weapons are affected by all types of armour.

When damage is rolled against a section with armour in the relevant arc, the damage, per pulse, is reduced by the armour rating. A section can only have armour facing an arc where no other section was designed. When an outboard section is destroyed the armour rating is destroyed along with it.

Two energy-kinetic armour in the starboard-bow arc of a hexagon starship.

Ablative Plates

In addition to the protection of armour, starships may also make use of ablative plates. Each ablative plate increases the armour rating of the arc by one. However, during the repair step of any turn in which a starship was successfully hit by weapons fire (in the hull, not shields), one ablative plate is destroyed in every arc that was hit regardless of whether any damage was dealt.

Two ablative plates with corresponding hit bubbles.

Adaptive Armour

Adaptive armour is much like regular armour but begins the game with a rating of zero. After a starship has received one or more damage to the hull or one damage absorbed by armour, its armour adaptation level will increase by one in all facings.

The adaptation level is added to the ship's armour rating. The ship will have a built in maximum armour adaptation level. Adaptive armour can be combined with normal armour and ablative plates.

Energy-kinetic adaptive armour with a maximum adaptation level of four.

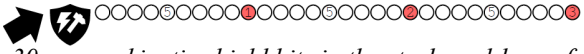
Shields

Each cardinal arc of a starship can be protected by one or more shield hits. When an arc with shields receives damage, the damage is dealt to the shields rather than the hull. If all the shield hits are crossed off and damage remains, the rest continues on to the hull. Shields have no rows, receive no critical hits, and do not gain the benefits of armour or ablative plates.

A starship with shields must have one or more shield generators, which combined have arcs to match all the starship's arcs with shield hits. Should all the shield generators supporting a given arc be disabled, all the shield hits in that arc are crossed off and must be regenerated by the generators, if they are fixed.

Shields can be designed as energy shields, kinetic shields, or energy-kinetic shields, each of which is effective only against the type of weapon it mirrors. Indirect weapons are affected by all types of shields.

Shields can be voluntarily dropped during the control step of the combat phase and voluntarily raised back to their previous level in a later turn's control step.



30 energy-kinetic shield hits in the starboard-bow of a hexagon starship.

Crew Parties

Most of the crew of a starship is not represented, they are assumed to be a part of the onboard systems. What are represented are the damage control teams, anti-boarding teams, and any extraneous crew available to assist in a crisis. These stragglers are displayed as crew parties and are used for repairing systems and repelling boarders.

At the end of each layer of hull, one or more crew parties may be displayed. When the last hull hit of a layer is destroyed, these parties are also lost but are not hull hits themselves. The sum of all crew parties represented at all the layers represents the total parties available to that section.

Critical hits may require that crew parties be lost. In this case the upper most crew parties are sacrificed. If a hull layer is finished with some of its crew parties already lost, more parties are not lost. If all the crew parties in a section are lost, any installed systems still function.

Crew parties are represented with an orange diamond at the end of hull layers.

Marine Parties

Some starships may have specialised troops trained in boarding tactics that can be useful both offensively and defensively. Like crew parties, marines are distributed throughout the sections of the starship and the hull layers of those sections. When a hull layer is lost, the marines associated with that layer are also lost.

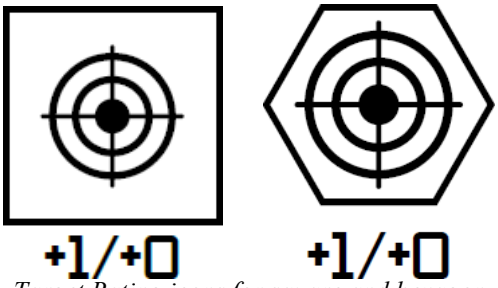
Marine parties are represented with a yellow triangle at the end of hull layers.

Target Rating

Every starship has a Target Rating based on its physical size and silhouette. This number represents the base difficulty an enemy starship would have when firing upon it. The Target Rating is displayed as two numbers separated by a slash.

The higher of the two numbers is the modified Target Rating of the starship and is used in most circumstances. The modified Target Rating of a is often higher than the default Target Rating as it takes into account the number of STL drives it has (the number of distinct drives, not their size).

Should STL drives on the starship be disabled or destroyed through lost systems, the Target Rating is reduced by one per disabled/lost STL drive to a minimum of the default Target Rating.



Target Rating icons for square and hexagon starships.

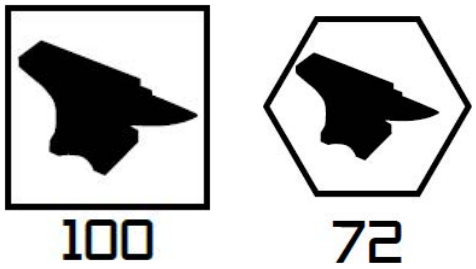
Threat

All starships emit energy and this energy, along with their size and manoeuvrability, contribute to the enemy's estimation of their Threat Level. A starship's Threat Level, along with the opponent's crew discipline, will determine the Danger Close range of a starship, the range within which enemy starships must fire at it.

Threat icons for hexagon and square starships.

Mass Factor

The sum total of the hull hits on a starship come together to give the mass factor, a number used to represent its size.



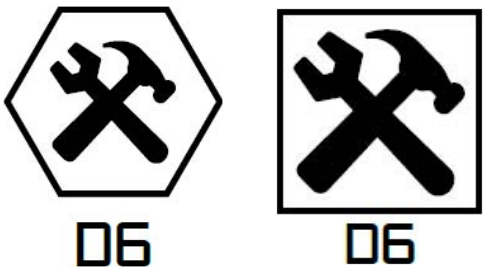
Mass Factor icons for square and hexagon starships.

Crew Quality

A starship is only as effective as the crew that operates it. The crew quality represents the training, experience, and effectiveness of the starship's crew and is used to raise or lower the Threat Level of opposing starships. In addition, the more experienced and battle-hardened a crew, the more likely they are to follow a RAM order. Crew quality can be green, regular, and veteran and is displayed on the fleet page.

Damage Control Quality

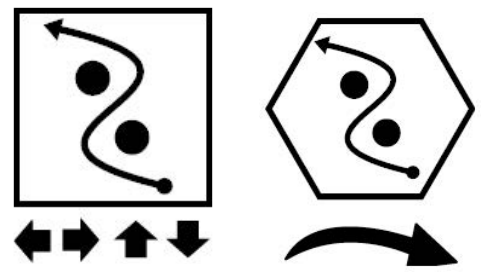
In the heat of combat, key systems are damaged and damage control teams are called upon to fix them. The training and quality of these teams determines how quickly they can bring weapons and other systems back into the fight. The damage control quality is a die type used for repair attempts, ranges from D4 to D8, and is inherited from the navy.



Damage Control icons for hexagon and square starships.

Movement Method

The universe from which a starship originates determines how much respect for physics its engines hold. Most universes do not care much for the realism of true Newtonian movement and opt for Cinematic movement instead. The rest that choose Newtonian movement are restricted by that choice but also given unique tactical options.



Newtonian movement icon for square starships and Cinematic movement icon for hexagon starships.

Combat Value

All starships designed for *Metaverse* come with a built-in combat value. This value is used for casual gaming to balance fleets and for scenarios. Players should never take the combat value of a starship as immutable truth but as a suggestion.

The diverse and unique interactions of systems and mechanics in *Metaverse* mean that the most expensive and powerful starship can inevitably be defeated by another starship or fleet completely outside its paradigm and even at a lower combat value under the right circumstances. The most important component of any starship or fleet's true combat value is the player wielding it.

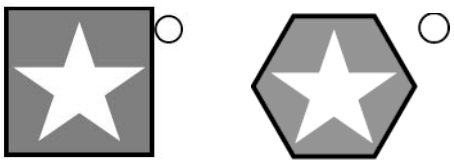
Combat Value icons for hexagon and square starships.

Primary Systems

The primary systems of any starship include the power, life support, and command and control systems required for the starship to function. Primary systems are colored grey for simple identification.

Bridge

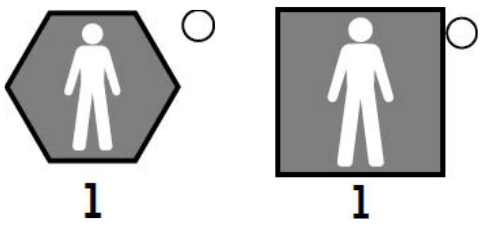
Starships must be designed with at least one bridge in any one section which controls all the ships functions. Starships may be designed with extra bridges to provide redundancy. A starship with no active bridge may not fill out a plot and cannot utilise any systems except for shield generators, EW arrays, life support, and stealth/cloak generators, if they are already active.



Bridge icons for square and hexagon starships.

Life Support

Any section of a starship that has crew or marines designed into it will automatically have a life support system. This system will have a rating determined by the number of crew/marines it supports. If a life support system is disabled and not repaired within the same turn, all crew and marine parties in that section are lost.



Life Support icons for hexagon and square starships.

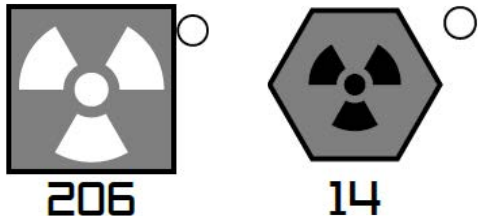
Reactor

A starship will always include at least one reactor in one section that must be the primary reactor and may include reactors in other sections, if so desired. The primary reactor powers the section it is in as well as any section designed without a reactor.

If a reactor is disabled, all systems in that section and in any supported sections, except for life support, do not function. These systems are not disabled and will resume function if the reactor is repaired. If a shield generator loses power from its reactor, the shield hits must be regenerated from zero when power is restored.

All reactors have a rating based on the size, number, and type of systems it supports. When a reactor detonates from a critical hit it causes damage to its section equal to its rating. If the section is destroyed and damage remains, the remaining damage is dealt to all adjacent sections continuing through sections until the damage is expended.

If damage remains and an arc of the section faces the outside of the ship, the remaining damage propagates out from the starship in that arc, losing five damage per centimeter, and dealing damage to any other starships within its blast radius with the dissipated strength. Damage from detonating reactors is considered energy.



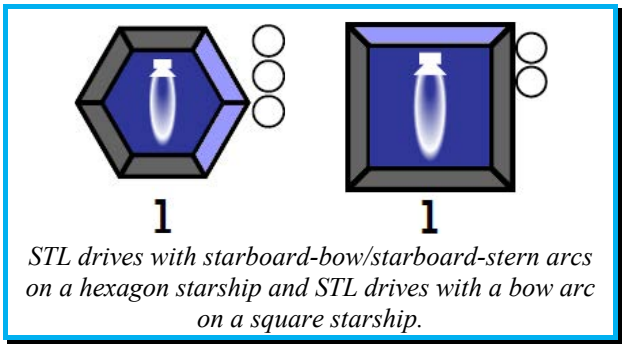
Primary reactor icon for a square starship and secondary reactor icon for a hexagon starship.

Propulsion Systems

Starships are limited in their movement options by their propulsion systems. Propulsion system icons are colored blue for simple identification.

STL Drive

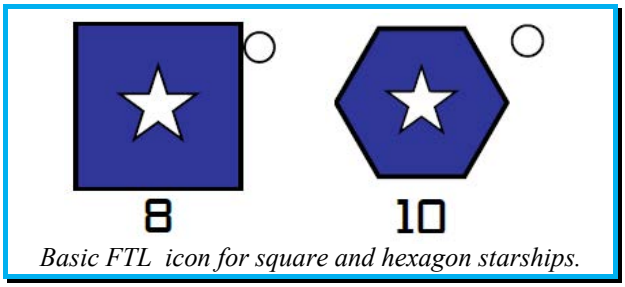
An STL Drive can be placed in any section with any arcs. STL drives will have a rating determining the thrust points they grant. A thrust point is used to change momentum and induce heading changes. Newtonian starships use STL Drives to add momentum in any arc they face with side arcs for rotational momentum. Cinematic starships use rear facing drives to increase momentum and forward facing drives to decrease momentum. Side facing drives are used for heading changes.



STL drives with starboard-bow/starboard-stern arcs on a hexagon starship and STL drives with a bow arc on a square starship.

Basic FTL Drive

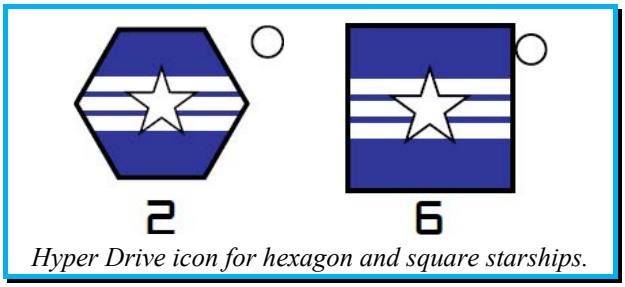
The basic FTL drive is the simplest FTL drive available and is only capable of an FTL retreat advanced manoeuvre.



Basic FTL icon for square and hexagon starships.

Hyper Drive

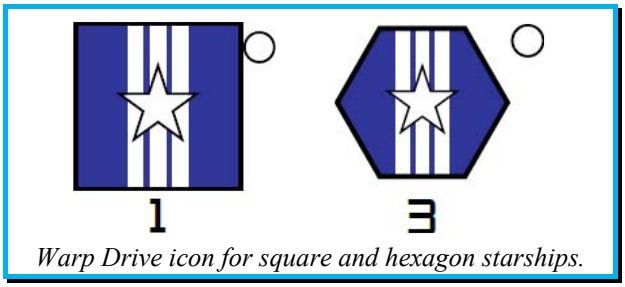
The hyper drive is an advanced drive that allows the starship to perform FTL retreats, reserve FTL Jumps, strategic FTL jumps, and tactical FTL jumps.



Hyper Drive icon for hexagon and square starships.

Warp Drive

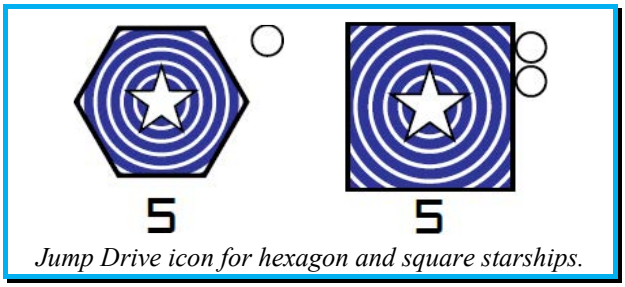
The warp drive is an advanced drive that allows the starship to perform FTL retreats, reserve FTL Jumps, strategic FTL jumps, and tactical FTL jumps.



Warp Drive icon for square and hexagon starships.

Jump Drive

The jump drive is an advanced drive that allows the starship to perform FTL retreats, reserve FTL Jumps, strategic FTL jumps, and tactical FTL jumps.



Jump Drive icon for hexagon and square starships.

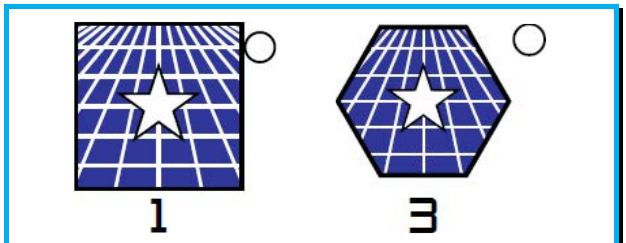
Dimensional Drive

The Dimensional drive is unique amongst the advanced drives as it does not allow for as many advanced manoeuvres, only FTL retreats and FTL transitions.

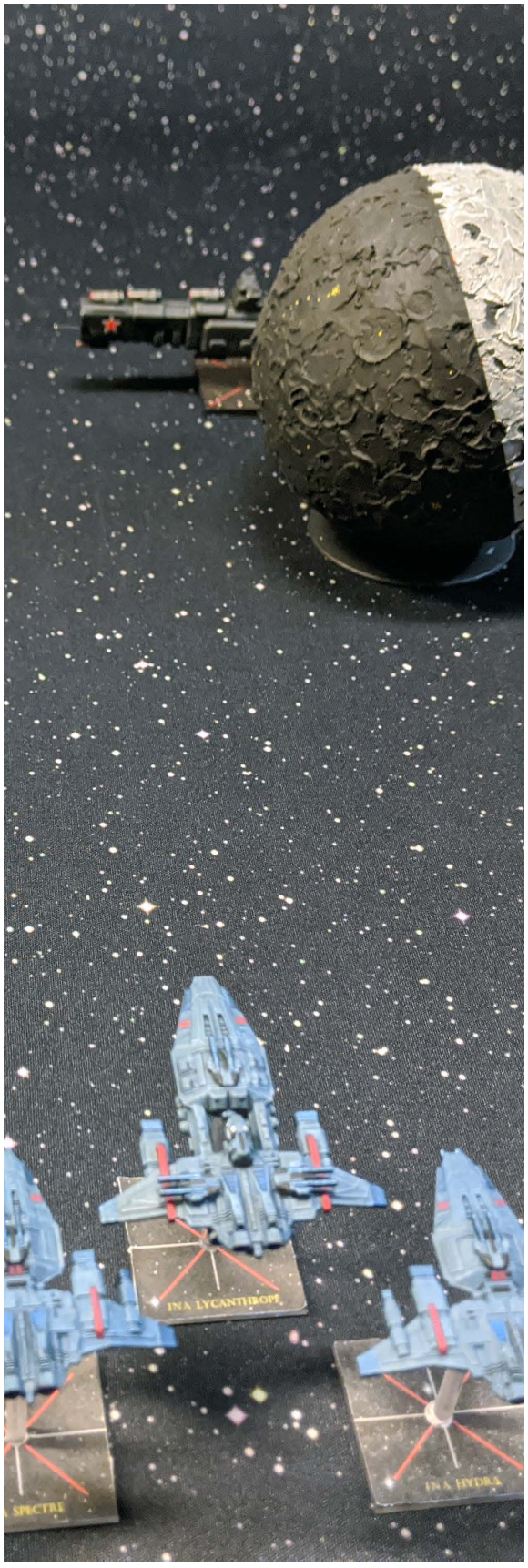
Uniquely, spatial drive starships utilize another dimension for their FTL travel. Prior to the game, the players should setup a second play area that is 1/10th the size of the main play area to represent the higher dimension. During deployment, players may place starships in both the normal and higher dimensional play areas.

The higher dimensional play area takes the place of the reserve mechanic and has the same restrictions in any scenario. In the higher dimension, deployment is along the same table edges as on the table. Starhips/ starfighters in the higher dimension cannot fire but starships may still launch starfighters which can only be left on CAP.

Within the higher dimension, ships are still moved as normal and maintain plots with their associated starfighters on CAP. A ship with a charged Dimensional Drive may breach the barrier between the two play areas and transfer from one to the other, maintaining its heading and momentum by using the FTL transition advanced manoeuvre.



Dimensional Drive icon for square and hexagon starships.



Electronic Warfare Systems

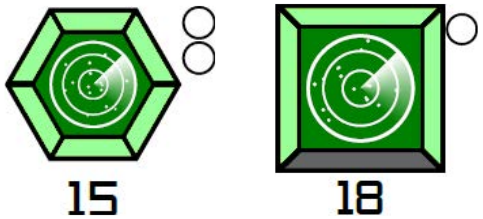
A starship with the most advanced and powerful weapons systems is nearly useless without the sensor and jamming equipment required to ensure its weapons hit their targets and that enemy weapons do not hit them. Electronic warfare systems encompass all those technologies intended for the targeting of enemy starships and the confusion of enemy targeting systems. Electronic warfare systems are colored green for simple identification.

Sensor Array

A sensor array is the most basic detection and targeting equipment a starship will possess and is used to fire at enemy starships. Every weapon that fires from a starship will utilize some form of sensor system.

When a starship fires weapons on a target, it must designate a sensor array (or other legal sensor system) for that target. All weapons firing on that target will use that sensor array. Starships can be designed with multiple sensor arrays allowing them to fire on multiple targets or use multiple firing modes such as Volley Fire and Surgical Fire.

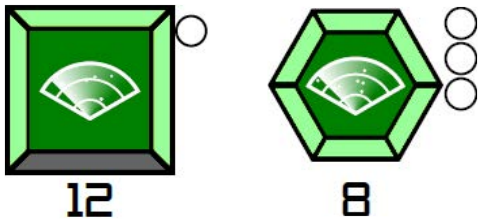
A sensor array will have a rating which determines the number needed to be rolled, or less, on a sensor roll (D20).



Sensor Array icon for hexagon and square starships.

Local Sensor Array

A local sensor array is a sensor system that operates in every way like a standard sensor array but can only be used to fire weapons in the same section as the array.



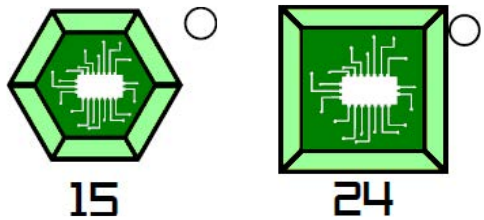
Local Sensor Array icon for square and hexagon starships.

Fire Control

Fire controls are a sensor system that links all the sensor arrays (not local sensors) on the starship together. A fire control will have the same arcs as the sensor arrays it utilizes. The rating of a fire control is determined by a sum of the sensor arrays with diminishing returns.

A starship can use its fire control as one or more sensor systems. The rating of the fire control can be divided into multiple systems that add up to the original rating. Each of these subsets of the fire control can be used as a sensor system with the same arcs.

When a fire control is used, no other sensor array may be used. While any sensor array is unavailable, the fire control's rating is reduced by the rating of the sensor array.



Fire Control icon for hexagon and square starships.

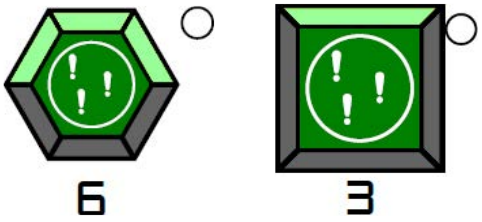
Example

USS Avenger has a rating 24 fire control (its rating derived from all its on-board sensor arrays). During the starship combat step, the Avenger can utilize the entire fire control as a single sensor array (rating 24) or split it up in order to fire on multiple targets as smaller sensor arrays. Utilizing the fire control prevents the Avenger from using her other sensor arrays.

Electronic Intelligence Array (ELINT)

An ELINT array is an offensive sensor suite designed to supplement sensor arrays. During the control step of the combat phase, an ELINT array may target any enemy starship in line of sight.

If the starship possessing the ELINT array fires on the target starship, it reduces the target's EW rating by the rating of the ELINT array used.

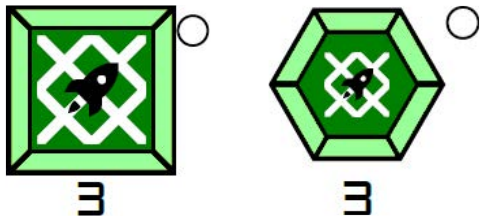


ELINT array icon for hexagon and square starships.

Electronic Warfare Array (EW)

The most basic defensive electronic system a starship can utilize is the EW array. An EW array is used to confuse enemy sensors and make it difficult to hit the operating starship and will have a listed rating.

This number is subtracted from any sensor array, local sensor array, or fire control's rating that is targeting the starship. Multiple EW arrays do not stack but provide redundancy.

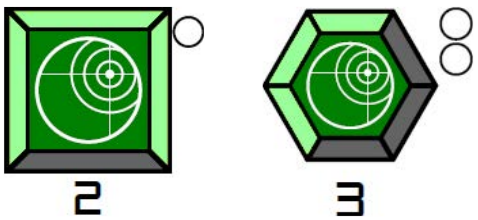


Electronic Warfare Array icon for square and hexagon starships.

Targeting Array

Targeting arrays are specialised sensor suites designed to track down even the most elusive targets. During the control step of the combat phase, a targeting array may target any enemy starship in line of sight.

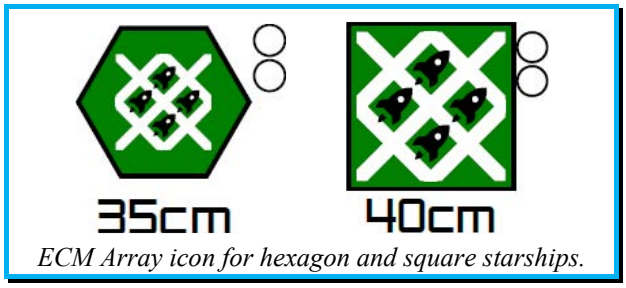
If the starship possessing the targeting array fires on the target starship, it considers the Target Rating of the starship to be decreased by the rating of the targeting array.



Targeting Array icon for square and hexagon starships.

Electronic Counter Measures Array (ECM)

An ECM array is similar to an EW array but on a larger scale. An ECM array provides an area effect that raises the effective EW of all friendly ships within its range by one. The rating of an ECM array determines the radius of the effect in 5cm intervals. Multiple ECM arrays stack their effects. A starship with an ECM array benefits from the bonus.

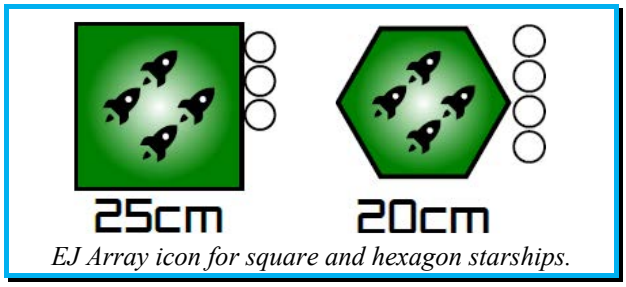


ECM Array icon for hexagon and square starships.

Electronic Jamming Array (EJ)

An EJ array is similar to an ECM array in that it confuses enemy sensors. An EJ array provides an area effect of jamming support that raises the effective Target Rating of all friendly or enemy ships within its range by one.

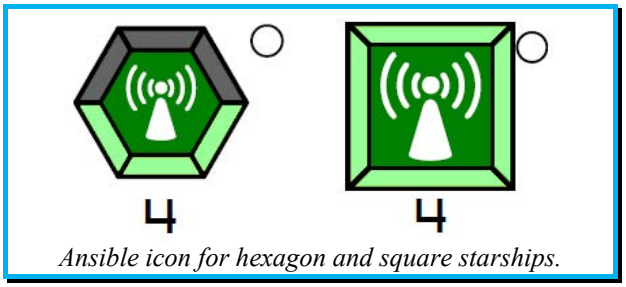
The rating of an EJ array determines the radius of the effect at 5cm per rating. Multiple EJ arrays stack their effects. A starship with an EJ array does benefit from the bonus.



EJ Array icon for square and hexagon starships.

Ansible

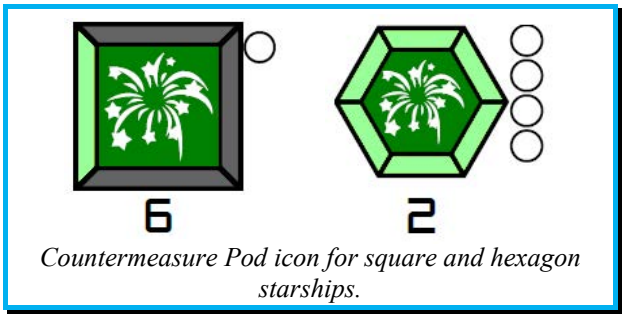
Ansibles are communications platforms used to provide sensor support to other starships. An ansible's rating determines the number of starships that can receive support. Any starships targeted by another starship's ansible gain the benefit of that starship's ELINT and targeting arrays and may use sensor systems from that ship to fire their weapons. Multiple starships can use one sensor system to fire on one target in this way. The targets of an ansible are chosen during the control step of the combat phase and must be within 50cm of the starship.



Ansible icon for hexagon and square starships.

Countermeasure Pod

The countermeasure pod is a one-use system similar to chaff. During the control step, a starship may activate one or more countermeasure pods; each activated pod is crossed off the control sheet and cannot be repaired. For the remainder of the turn, the starship increases its EW rating by the combined rating of all pods used this turn. The activation of a countermeasure pod does not require a Command Point.



Countermeasure Pod icon for square and hexagon starships.

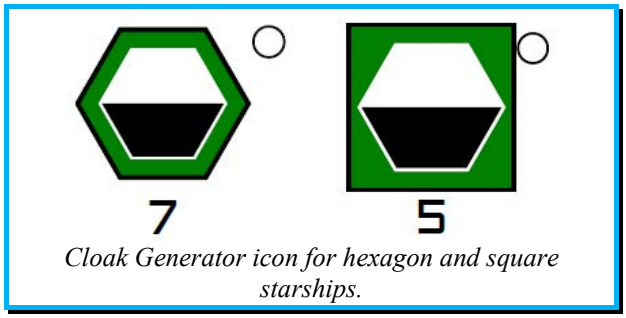
Cloak Generator

A cloak generator is a system which renders the starship completely invisible to sensors and also renders the starship nearly blind to the outside universe. While cloaked, a starship may not fire and may not be fired upon. The current position of a cloaked ship is not known, only its position from the previous turn.

On the turn a starship is ordered to cloak, it can still fire and be fired upon. Beginning next turn, the starship is considered cloaked. During the plot movement step, a plot must be recorded for the starship but it is not moved during the movement step. In each subsequent turn the ship is moved its previous plot, not its current plot.

Cloaking and uncloaking must be conducted during the control step and requires one CP. When a starship is de-cloaked, its previous and current plots are conducted immediately. The number of turns a starship may remain cloaked is equal to the rating of the cloak generator.

The de-cloaking of a starship happens automatically after a number of turns equal to the rating of the cloak generator but may happen earlier by player choice. Cloaking/ de-cloaking a starship is considered an advanced manoeuvre.



Cloak Generator icon for hexagon and square starships.

Example

ILW Deathclaw has been ordered to cloak during the control step through the expenditure of a CP. The Deathclaw is not immediately cloaked and therefore can still fire and be fired upon.

At the beginning of the next turn the Deathclaw is now considered cloaked. During the plotting step, the player will record the turn's plot for the Deathclaw but during the movement step the model is not moved. In all subsequent turns the Deathclaw must still receive a current plot but will be moved the previous plot.

In a later turn the player can order the Deathclaw to de-cloak during the control step in which case its previous and current plots are conducted immediately. If the Deathclaw remains cloaked for a number turns equal to the rating of its cloak generator, it will automatically decloak during the control step and conduct its plots immediately.

Stealth Generator

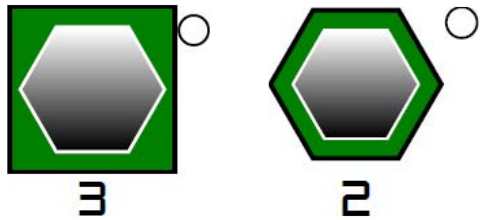
A stealth generator is a system which renders a starship not invisible but difficult to detect via sensors. A starship with an active stealth generator may not have active shields, deflectors, gravity walls, EW, EJ, ECM, targeting, or ELINT arrays, gravity well generators, or subspace distorters.

When attempting to fire on a stealth starship, the firer must make a normal sensor roll with the target having an effective EW strength of four, multiplied by the rating of the stealth generator.

If a starship with a stealth generator uses a sensor system, shields, deflectors, gravity walls, EW, EJ, ECM, targeting, or ELINT arrays, countermeasure pods, gravity well generators, or subspace distorters for any reason while under stealth, its stealth generator is compromised for the next turn.

A compromised stealth generator's effective EW strength is reduced to one (multiplied by the rating of the stealth generator, if the steal generator is still active). Any firing that occurs simultaneously with this, counts the stealth generator to be uncompromised.

A stealth generator is turned on or off during the control step of the combat phase and requires one CP for a squadron to perform. If a starship with a compromised stealth generator performs no actions that would compromise it next turn, its stealth generator returns to full effect next turn.



Stealth Generator icon for square and hexagon starships.

Author's Note

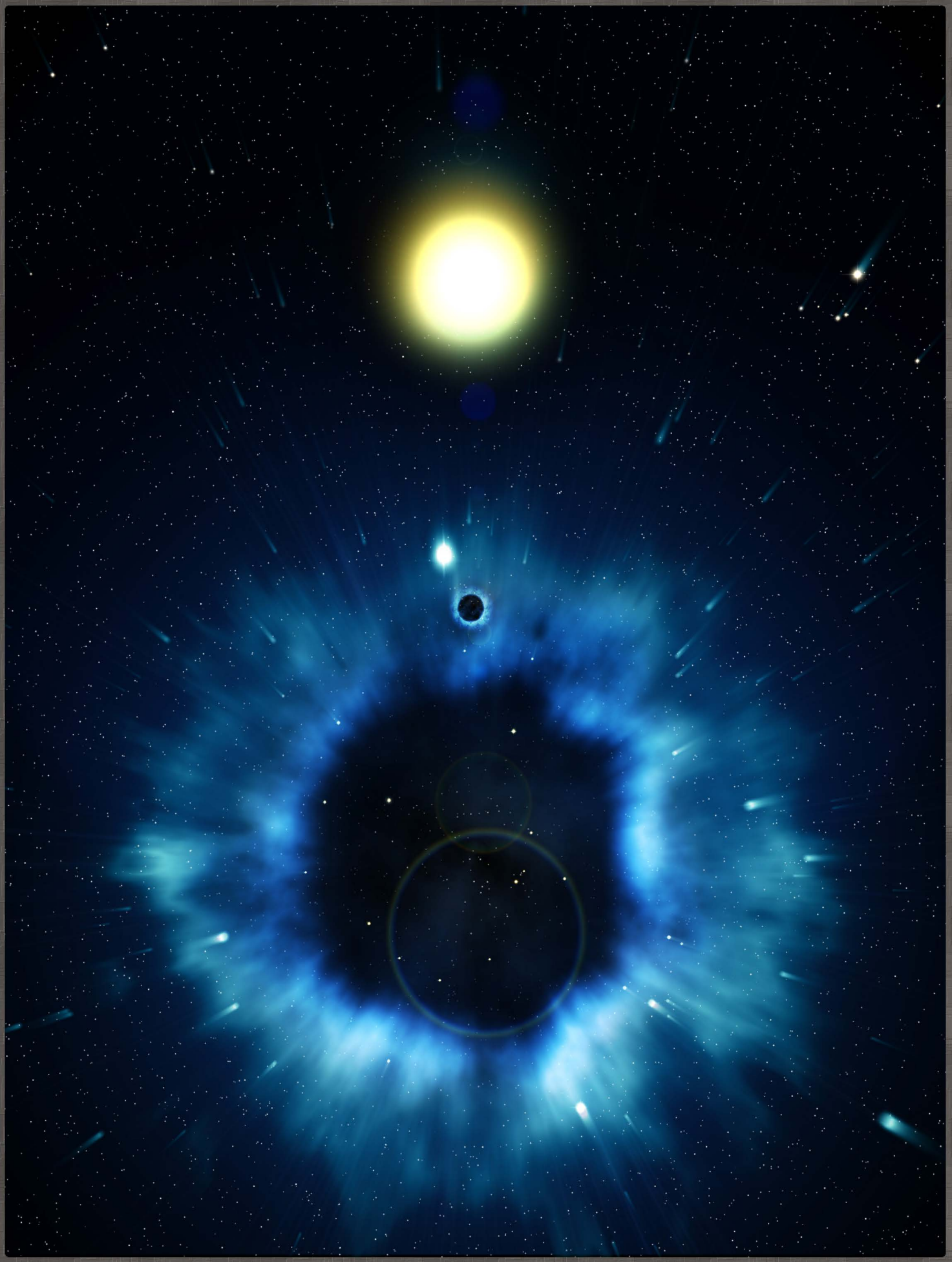
The electronic warfare aspect of starship combat is one of the most overlooked and possibly most important areas. For this reason I intended from the outset to include and thoroughly flesh out this key step in a Metaverse turn.

The number of EW options available to a player may seem overwhelming at first but I will remind the reader that the sensor array is the only mandatory component. Players are free to completely ignore all other EW systems.

However, I believe that I have provided enough options to satisfy any player who wishes to dabble in the EW arena. One of the common EW questions focuses on the difference between Stealth and Cloak and why they are distinct systems. As an author attempting to cover as much Sci-Fi literature as possible, I wished to distinguish between those exotic systems which render a starship completely invisible and those that make it very hard to target.

Players will also notice that EW systems are generally divided into offensive and defensive systems. This distinction is further divided into local and area systems. This allows players to create ELINT and AEGIS starships with relative ease. Through the use of EW systems, players can gain a significant advantage over their opponents, even if that opponent out guns them.

This is an intentional design intended to force players to think beyond just how big their starships are and how much firepower they possess. The suggestion I will leave every player with is don't underestimate the importance of EW systems; big guns mean nothing if you can't hit.



Active Defense Systems

The armour common to many starships is often sufficient for protection; however, on occasion a more proactive stance is required. Active defense systems are all those myriad defensive techniques that seek to prevent or mitigate the damage that reaches the hull. Some systems simply try to prevent the damage while others actively intercept incoming fire. Active defense systems are colored red for simple identification.

Point Defence System (PDS)

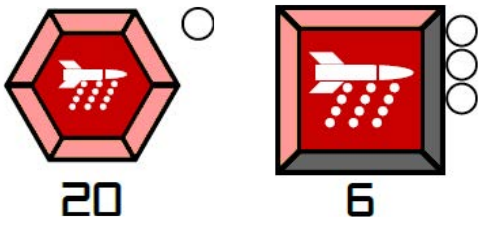
A ship may have one or more Point Defence Systems (PDS) installed in its sections. A PDS can only be used in the designated arcs of the system.

A PDS will have a rating; when a player's ship is successfully hit by incoming fire from vulnerable weapons, a PDS may cancel a pulse of that weapon, if its rating is equal to or greater than the maximum damage of one pulse. PDSs can combine their ratings to cancel a pulse. The pulses are canceled before they are rolled.

A PDS may cancel more than one pulse, if its rating exceeds the requirement of multiple pulses combined but may not intercept pulses from multiple weapons. PDSs may not combine their ratings to cancel more than one pulse of incoming weapons fire; this can only be done if a single PDS is sufficient to do so.

When a player's ship is engaged by one or more starfighter missions a PDS can be used to inflict one point of damage to a single starfighter squadron, if its rating is equal to or greater than the defence of the squadron. PDSs can combine their ratings to inflict damage. A PDS may inflict multiple points of damage on a starfighter squadron, if its rating is sufficient to do so but may not affect multiple squadrons.

A PDS rating cannot be divided between multiple starfighter squadrons/weapons. Each PDS can only be used once per turn. PDSs can be used to defend other starships within the same squadron but may not be combined across ships.



PDS icon for hexagon and square starships.

Example

USS Thunderchild has been hit by two weapons each of which are dealing three pulses of 3 damage. The Thunderchild has two size 7 PDSs.

Each of these PDSs is capable of cancelling two pulses of incoming damage (7 divided by 3 is greater than 2) but may not cancel pulses from two different weapons.

The Thunderchild can cancel two pulses from the first weapon with one of its PDS. The second PDS can either cancel the last pulse from the first weapon or cancel two pulses from the second weapon (obviously the better choice).

Choosing the second option, the Thunderchild is struck by one remaining pulse of 3 damage from each weapon.

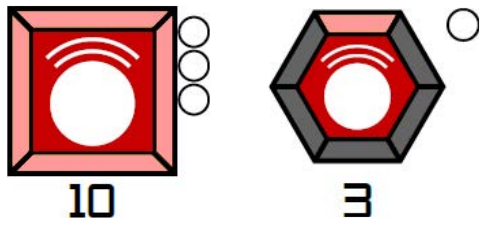
Basic Shield Generator

A basic shield generator allows for shield hits to be erected around the starship to intercept incoming fire. Shield generators can be placed on any section of the starship supporting any arc.

Any section can be designed with shield hits facing any arcs of that section. All incoming fire on a section must first damage all the shield hits in the appropriate arc before hitting the hull, assuming the shields are of the appropriate type to block the fire.

During the repair phase, a basic shield generator may repair a number of shield hits in any one of its supported arcs equal to its rating.

If all the shield generators supporting an arc are disabled, all the shield hits in that arc are crossed off. Once the shield generators are restored, the shield hits can be repaired at the normal rate.



Basic Shield Generator icon for square and hexagon starships.

Adaptive Shield Generator

An adaptive shield generator follows all the rules for a basic shield generator but is also capable of adapting over time to enemy weapons fire.

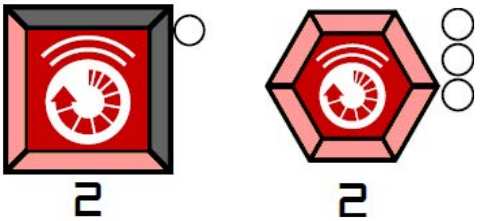
During the repair phase of any turn in which the starship received weapons fire and at least one shield hit was lost, the adaptation level of the shields increases by one, starting from zero. Each cardinal direction of the starship maintains its own adaptation level but they are all increased if one arc was hit.

The maximum adaptation level for an arc is equal to the largest rating among all adaptive shield generators supporting that arc. When receiving weapons fire with an adaptation level greater than zero, all the shields supported by adaptive shield generators on the starship are considered to have an armour rating equal to the adaptation level.

Adaptive Shield Generator icon for hexagon and square starships.

Modulated Shield Generator

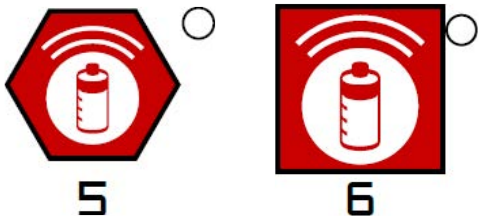
Modulated shield generators act like basic generators in all respects except for their ability to transfer damage. During the repair step, a modulated shield generator, rather than repairing shield hits, may transfer shield damage from one arc it supports to another arc it supports, equal to twice its rating.



Modulated Shield Generator icon for hexagon and square starships.

Shield Battery

A shield battery is a one-use shield generator that acts like a basic shield generator but is permanently disabled after use.



Shield Battery icon for hexagon and square starships.

Shield Projector

A starship with shields may make use of a shield projector that projects the shields outwards over a large area. A shield projector will have a radius in 10cm increments.

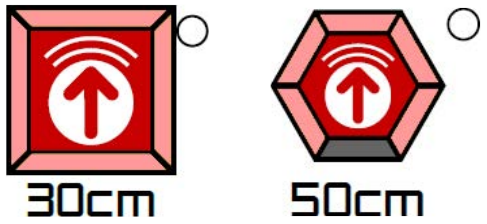
If enemy weapons fire crosses through this area while targeting another starship, the starship with the shield projector receives the damage to its shields in the facing arc. If the shields are depleted, the damage continues to the starship originally targeted.

Weapons fire that would hit a shield projector's area, including those targeted at the starship with the shield projectors, do not require a sensor roll until the shields are depleted. In this way, a player can fire weapons one by one against the shields of the starship with the shield projector until it drops.

Weapons fire that originates from within the effect area do not interact with the shield projector. In this case, if the starship with the shield projector is the target, the damage is applied directly to the hull.

If multiple starships with shield projectors would be possible targets of incoming fire, the fire first hits the closest bubble of shield

As each shield is depleted, fire continues on to the next closest bubble.



Shield Projector icon for hexagon and square starships.

Example

ISS Avenger is attempting to fire upon an enemy starship; however, another enemy starship with a shield projector is nearby and the range of its projector covers the targeted starship.

The Avenger begins by firing weapons at its target without rolling sensor rolls (the hits are automatic). After three weapons have been fired, the shields of the projecting starship have been depleted. All remaining weapons can now hit the original target but normal sensor rolls must now be made.

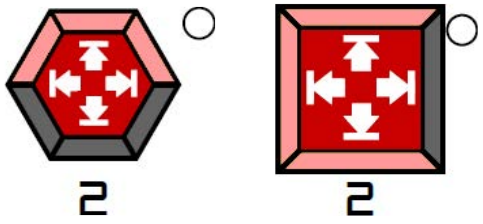
Gravity Wall

A gravity wall is a barrier that stops all weapons fire and PDS, incoming or outgoing. A gravity wall can have any arcs and a rating no higher than 3 for square starships and 5 for hexagon starships. A starship can have more than one gravity wall but only one active at any time.

During plotting, a starship can be plotted to activate a gravity wall and in which arcs it will be active. A gravity wall can have a number of active arcs up to its rating and only in arcs that the gravity wall supports. At least one arc of a starship with a gravity wall will always be unprotected.

With an active gravity wall, all incoming and outgoing fire through active arcs is

ignored. Starfighter squadrons may not fire long range weapons through gravity walls (they must close to within the bubble of the gravity wall). Starfighters attacking a starship with a gravity wall can attack an arc that does not have an active gravity wall if desired. Gravity walls have no effect on RAM damage.

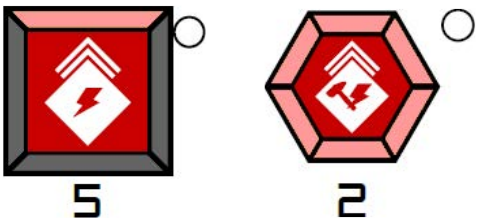


Gravity Wall icon for hexagon and square starships.

Deflector

A deflector system is designed to push weapons fire away from or around the ship to prevent damage. A deflector system will be designed as energy, kinetic, or energy-kinetic, determining the types of weapons it will affect. Indirect weapons are affected by all types of deflectors.

When a weapon is affected by a deflector, the weapon increases its range modifier by the deflectors' rating. This increase is not a range increase only an increase in the modifier for the weapon (i.e. -1 damage for energy, +1 Target Rating for kinetic, and -1 sensor rating for indirect) and does not mean a weapon is beyond maximum range.



Energy Deflector icon for square starships and an Energy-Kinetic Deflector icon for hexagon starships.

Author's Note

Like any good starship combat game, Metaverse has included in it some crazy components and systems. In the category of active defenses, the attempt to represent many different science fiction tropes leads to many unique systems. PDS, shields, deflectors, and gravity walls all work in fundamentally different ways but allow for the many universes to be represented.

Whereas deflectors, PDS, and gravity walls are quite specific in what they are trying to emulate, shields is one of those sci-fi ideas that seems to be different in every story. The problem I had when designing a shield mechanic was coming up with a way to encompass "shields" from multiple different universes and sources.

There are many variations on this theme throughout fiction that are not always compatible. Reluctantly, I designed three different mechanics to hopefully capture as much as possible.

The basic generator should do a decent job for most universes and will inevitably be the most utilised. Adaptive generators are intended for shields that either learn as they go or become stronger over time. Lastly, modulated generators can be used to represent shields whose strength can be shifted around.

When you combine these three types of shield generators with the fact that shields can be built as energy, kinetic, or energy-kinetic shields, you get nine possible variations on shields with which players can experiment, along with deflectors and gravity walls.

Secondary Systems

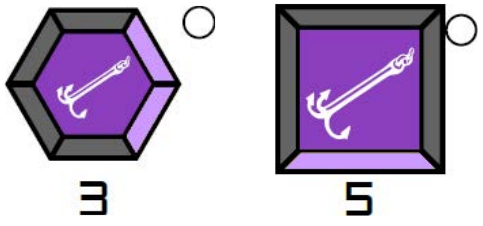
Outside of the primary, propulsion, active defense, electronic warfare systems, and weapon systems of a starship, the remaining systems are classified as secondary systems. A secondary system is not critical to the individual combat performance of a starship but provides tactical support. Secondary systems are coloured violet for simple identification.

Grappler

The grappler is a system which allows a starship to tow another starship into battle. This system allows for starships to be brought to a game that do not have an FTL Drive and not have to deploy them first.

The towing starship must still have an FTL Drive. Starships (and the squadron they are in) towed into the game must be deployed within 20cm of the towing starship's squadron, in an arc of the grappler, and the towing starship's squadron must be deployed first.

The maximum size of starship another starship may tow into battle is determined by the towed starship's mass factor. To be brought into the game, each grappler allows for a starship no larger than the rating of the grappler, multiplied by the towing starship's mass factor, divided by five, rounded down. Multiple grapplers may not be combined to tow a starship but do allow for multiple starships to be towed.



Grappler icon for hexagon and square starships.

Example

When BGS Chimera entered the battlespace it brought with it a smaller starship with its grappler. The Chimera has a mass factor of 46 and a rating 4 grappler. The maximum size of a starship the Chimera can bring into battle is mass factor 19 (mass factor 46 multiplied by rating 4 grappler divided by 5, rounded).

Tractor Beam

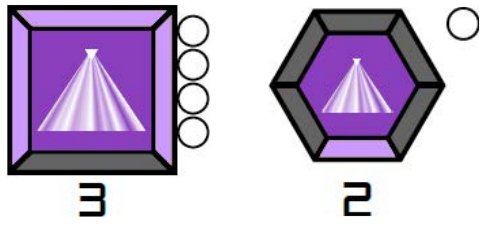
The tractor beam is a more advanced form of the basic grappler. It may perform all the actions of a normal grappler with the same restrictions. In addition a tractor beam can be used in game to modify the plot of other starships.

This can be used on friendly and enemy starships alike, utilising a standard sensor roll, taking into account the target's EW rating and a +1 modifier to the target's EW rating per 10cm to the target. A tractor beam must be used in the combat phase like any other weapon and will affect the plot of the targeted starship in the next plotting phase.

A sensor system and a sensor roll are still required to target a starship and the sensor system utilized cannot be used for any other purpose except other tractor beams on the same target.

A tractor beam is granted a number of points equal to the rating of the tractor beam with which to modify the plot. For every five mass factor that the firing starship is larger than the target starship, an additional point is granted. If the firing starship is smaller than the target, the calculation is reversed and the firer can modify its own plot. These points may be used to accelerate/decelerate 1cm per point or turn the starship one turn per two points or induce one rotational momentum per point.

Multiple tractor beams from the same starship or different starships may be used individually to alter the plot more significantly. Tractor beams used to target a friendly starship consider its EW rating to be 0 before range modifiers.



Tractor Beam icon for square and hexagon starships.

Example

The Imperial Warship Butcher has locked on to USS Thunderchild with its rating 2 tractor beam. The Butcher has a mass factor of 51 and the Thunderchild has a mass factor of 37 for a difference of 14.

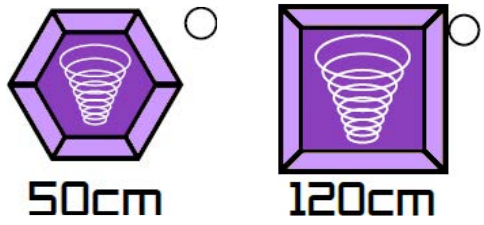
The Butcher receives 4 points with which to modify the Thunderchild's plot (2 for the rating of the tractor beam and 2 for the difference between the mass factors).

The butcher chooses to induce one heading change to port and a reduction in forward momentum of 2 to the Thunderchild. Were the Butcher the smaller starship, it would modify its own plot.

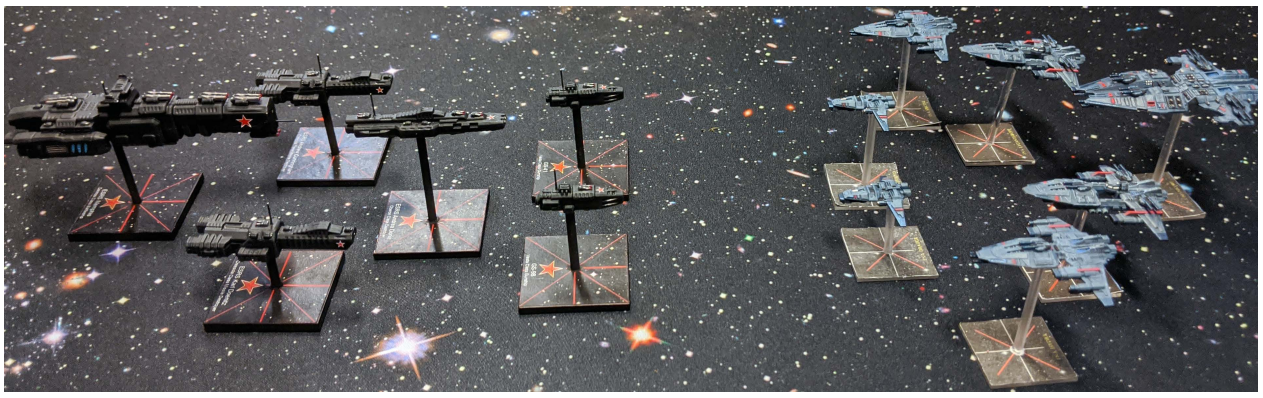
Gravity Well Projector (GWP)

The gravity well projector is a system designed to prevent some starships from entering FTL. A single GWP (activated/ deactivated during the control step) will, while in use, prevent basic FTL drives, warp drives, and hyper drives from functioning within the range of the projector. Additional GWPs do not extend the range of the field.

A starship with a basic FTL drive, warp drive, or hyper drive, cannot utilise that drive for any purpose while inside the GWP field. A warp drive or hyper drive starship which attempts a tactical or strategic FTL jump outside the GWP field will end its jump at the edge of the field, if its jump would carry it into/across the field.



GWP icon for hexagon and square starships.



Basic Teleporter

Teleporters are a method of transmitting physical objects from one point in space to another. There are two applications of this system in *Metaverse*.

A teleporter may be used to transport marine parties onto an enemy starship, equal to the rating of the teleporter, in lieu of or in conjunction with starfighters with the breaching quality.

The initiating starship must use a sensor system and perform a sensor roll for each teleporter (a single sensor system may be used for all the teleporters used in this way on one target but it cannot be used for any other purpose) with a +1 to the target's EW rating for each 10cm to the target.

The marines can be individually targeted at any sections of the target starship but this must be declared before making the sensor roll. If the roll fails, the marine party is lost to the void. If the roll is successful, the marine party is transferred into the chosen section of the target starship and will participate in boarding actions during the appropriate phase.

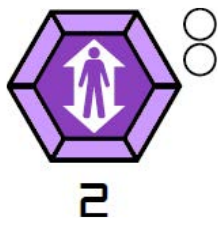
A teleporter may also be used to make pinpoint attacks to specific sections of enemy starships in an attempt to disable systems. A sensor roll is made as normal with the established modifiers but an independent sensor system is required for each teleporter used in this way.

If successful, a critical hit is scored with 1D6 rolled for the critical category rather than 1D8 and the die type for the specific critical being based on the rating of the teleporter (i.e. a rating three teleporter would roll 1D3). Any section of the target starship can be chosen for this attack.

Rather than causing criticals, munitions can be transported to the target from a global magazine. The selected munition deals its damage to the chosen section, ignoring all defences. A teleporter can transport a single munition with a maximum damage no greater than 10 times the teleporter's rating.

Teleporter use against a starship requires that the target have no shields or deflectors that interact with energy weapons or a gravity wall operational in the facing arc.

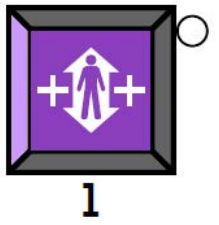
Additionally, the initiating starship must not have active shields that interact with energy weapons (note: shields can be dropped/raised voluntarily during the control step of the combat phase) or an active gravity wall in the facing arc.



Teleporter icon for hexagon and square starships.

Advanced Teleporter

An advanced teleporter acts as a normal teleporter in all respects but may be used with the initiating starship having active shields or gravity wall.



Advanced Teleporter icon for square and hexagon starships.

Subspace Distorter

The subspace distorter is a system designed to prevent some starships from entering FTL. A single subspace distorter (activated/deactivated during the control step) will, while in use, prevent basic FTL drives, jump drives, and spatial drives from functioning within the range of the distorter. Additional subspace distorters do not extend the range of the field.

A starship with a basic FTL drive, jump drive, or spatial drive, cannot utilise that drive for any purpose while inside the subspace distorter field. A jump drive-equipped starship performing a tactical or strategic FTL jump cannot be placed into the field. If the deviation of the starship's jump would carry it into the field, the direction is randomised again until the starship is placed outside the field.

If a spatial drive equipped starship attempting to FTL transition to the table would end up inside a subspace distorter field, the starship does not transition to the table but its FTL drive expends its charge.

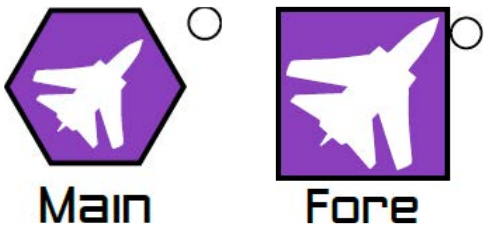
Subspace Distorter icon for square and hexagon starships.

Hanger Bay

In order to carry starfighter squadrons into battle, a starship must have hanger bays. A hanger bay has three basic qualities: launch capacity, carry capacity, and the types of squadrons it can carry.

The launch capacity of a hanger bay determines the maximum number of squadrons that can be launched from and recovered onto it per turn. The carry capacity of a hanger bay determines the maximum number of squadrons that can be loaded into it at any time. Finally, the types of squadrons that a hanger bay is designed to handle determines what can be purchased and placed into it at the beginning of the game. A hanger bay cannot recover a squadron type for which it was not designed.

Starships can be loaded with any number of mounted weapons for their embarked starfighters. These mounted weapons are purchased prior to the game or as support options during scenario play. When launched from a hanger bay, a starfighter squadron can be loaded with any mounted weapons the starship is carrying that the starfighter squadron can load up to its hardpoint rating.



Hanger icon for hexagon and square starships.

1 2 6

2× B-95 Bombers, 4× F-128 Interceptors

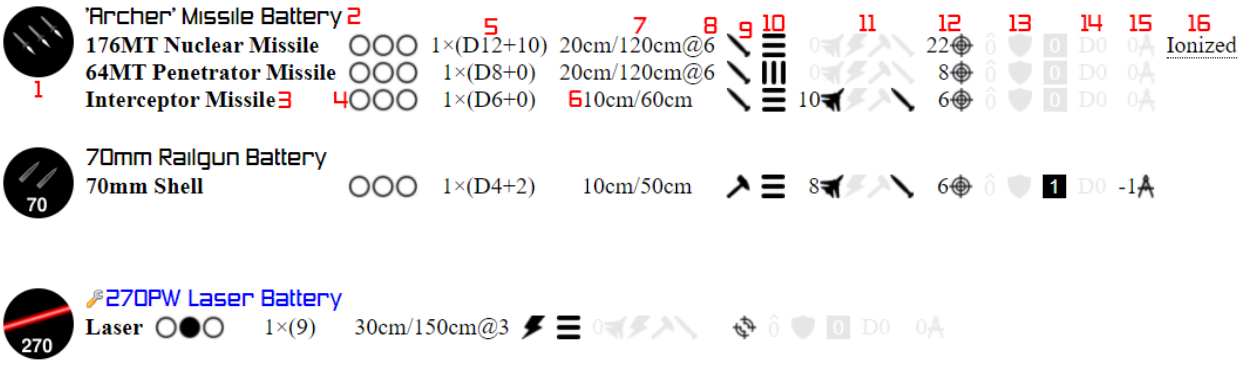
Hanger definition describing the bay's carry capacity, launch capacity, and current load.

Weapon Systems

Example

The primary purpose of any combat starship is its weapons systems. These large and small systems for dispensing violence have a number of restrictive features and unique qualities that alter the way they are used in the combat phase.

Weapons systems are given their own custom icons for simple identification. Weapons may have more than one mode designed into them. Each mode can be designed with the different characteristics. When a weapon is fired, the mode must be chosen before the sensor roll is made.



1: Custom weapon icon; during design a player can use the icon design tool or upload their own image for a weapon.

2: Weapon name.

3: Firing mode; each mode can be designed with different attributes and names.

4: Rate of fire.

5: Damage profile.

6: Range band.

7: Maximum range; this will be the length of a range band multiplied by the number of bands.

8: Effective range band.

9: Damage type.

10: Damage effect.

11: PD value and target types.

12: Intercept value; if the weapon/mode is not vulnerable to interception, no value will be displayed.

13: Deflection piercing, shield piercing, and armour piercing.

14: Area of effect die size.

15: Accuracy modifier.

16: Weapon qualities.

*Any icon that is greyed out is not active for this weapon/mode.

Damage Profile

The most basic information of a weapon is its raw capacity for damage. The damage of a weapon is either a flat damage rating or a die type rolled when determining damage. Weapons with a damage die may have a damage modifier which adds to the roll of each die.

The pulse is the number of times the flat damage is dealt or the damage die is rolled when dealing that damage. The combination of these three factors allows for a wide range of representative weapons.

A weapon with a flat damage rating has a predictable output. A high damage die with a low damage modifier could be used for a highly variable damage output, such as an explosive. Conversely, a low damage die with a high damage modifier can be used to represent a consistent but still variable damage output, such as from a railgun.

The pulse of the weapon could be used to represent rate of fire, burst fire weapons, or even parallel shots.

$$1\times(9)$$

One pulse of fixed damage

$$2\times(D8+0)$$

Two pulses of variable damage.

$$1\times(D12+3)$$

One pulse of variable damage with a modifier.

Damage Type

All weapons must be designed as energy, kinetic, or indirect weapons. This indicates the basic method by which the firepower of the weapon is delivered.

Weapons with significant mass and kinetic energy and longer flight times, such as railguns, are best described as kinetic weapons. Weapons that project their firepower through streams of energy, plasma, subatomic particles, or other exotic effects at significant fractions of the speed of light, such as lasers and particle cannons, are best described as energy weapons. Weapons that are self-propelled and self-correcting, such as missiles and torpedoes, are best described as indirect weapons.

Energy weapons receive a -1 to the damage output of each pulse per range band between the firing and the target starships. Kinetic weapons always hit for the same damage but incur a +1 to the Target Rating of the target starship for each range band between the firing and target starships. Indirect weapons incur a -1 to the sensor rating of the starship for each range band between the firing and target starships.

Some defensive systems affect only kinetic or only energy weapons. Indirect weapons are affected by all defensive systems.

Energy weapons are shown with a lightning bolt, kinetic weapons with a hammer, and indirect weapons with a missile.

Damage Effect

All weapons deal their damage through either raking or penetrating patterns. Raking weapons deal their damage horizontally along complete hull layers and best represent damage that spreads out easily along the surface of a starship. Penetrating weapons deal their damage vertically through the sections of a starship and best represent damage that punches through the hull of a starship and burrows into the interior.

Raking weapons are shown with horizontal lines; penetrating weapons with vertical line.

Range

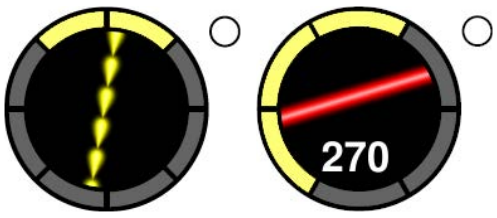
All weapons must be designed with a range band from 5cm to 50cm, a number of range bands from 1 to 255, and an effective range band. The combination of these three numbers creates the range profile of the weapon. The maximum range of a weapon is the number of range bands multiplied by the size of the range bands (i.e. a weapon with ten range bands of 10cm would have a maximum range of 100cm). The effective range is the band where the range modifier of the weapon is zero, minus modifiers proceeding outward from that band in both directions (default range band one).

10/50cm@3

A weapons range will be listed with its range band, maximum range, and effective range band.

Weapon Sectors

Every weapon must be designed with at least one sector in which it can fire. The number of sectors available is dependent on the starship's shape. Square starships have eight sectors, two per cardinal arc. Hexagon starships have six sectors, one per cardinal arc. A weapon must have at least one sector available but can have up to all eight/six or any number in between in any combination.



Weapon icons will show their active sectors in yellow and can have an image in their centre as designed by the player.

Interception

By default a weapon is vulnerable to interception; PDS and PD capable weapons are allowed to target and destroy it prior to it hitting its target. However, a weapon can be designed to be immune to interception. In this case, no weapon, PDS, or starfighter squadron can target it for any reason. The intercept value is equal to the maximum damage of the weapon by default, but can be raised or lowered.

If a weapon is vulnerable to interception it will have the PD value required to intercept one of its pulses next to a target reticle. If a weapon is not vulnerable to interception it will have a target reticle with a white line crossing it.

Point Defence (PD)

In addition to firing on starships, weapons can be designed to be utilised as Point Defense (PD). A weapon can be given a PD value that allows it to act as a PDS when required.

A weapon with a PD value must be given one to four possible target types from among starfighters, kinetic weapons, energy weapons, and indirect weapons. When a vulnerable weapon successfully hits a starship, that starship may utilise any weapons with a PD value that have not already fired this turn, capable of intercepting the incoming fire to prevent the damage, just as with PDS.

If a weapon with a PD value can target starfighters, it can be used just like a PDS against starfighters during the starship combat step.

A weapon with a PD value can be used to defend any starship in the squadron but also other squadrons within the maximum range of the weapon. A weapon with a PD value can even target opposing starfighters on CAP on opposing starship squadrons inside the maximum range of the weapon, if that starship squadron is a target (Danger Close, priority target, or designated target).

A weapon's PD value is reduced by one for each range band to the target. The application of PD from weapons occurs during the starship combat step and therefore occurs before starfighter combat. A weapon that utilised its PD value cannot have already fired during the turn and cannot fire afterwards. If a starship has Danger Close targets, weapons with a PD value capable of hitting those targets must fire at those targets.

In order to use one or more weapons with a PD value on enemy starfighter squadrons at range or to defend other starships from incoming fire, a distinct sensor system is required for the task. This sensor system must be of a minimum rating as determined by the range to the target. The minimum rating of the utilized sensor array is equal to 1 per 5cm to the target (i.e. rating 8 at 40cm).

If a weapon has a PD value it will be listed with its possible target types.

Area of Effect (AoE)

Weapons may have an Area of Effect (AoE) of D4, D6, D8, D10, or D12. A weapon with an AoE strikes its target as normal but in addition the weapon may hit more targets.

After damage against the primary target is applied, the AoE die is rolled and the result is the number of starships that are also hit within 10cm of the primary target. The damage dealt to the additional starships is equal to ½ the damage dealt to the primary target (before subtractions from armour, deflectors, etc).

The AoE die is then rolled again and if the roll is lower than the previous roll, the result is the number of additional starships hit within 20cm. The damage dealt to these starships is ½ the damage dealt to the previous starships. If the roll is equal or greater than the previous roll, no further damage is dealt.

The process can continue until the AoE die fails to roll lower than the previous roll, halving the damage dealt at each stage and extending the range by 10cm for each roll.

The starships damaged in each roll must be the closest starships, friendly or enemy, to

the primary target within range that have not already been hit by the weapon. If two starships are equally close (i.e. in the same squadron), the attacking player chooses which starship is hit.

If the weapon has a PD value, it will also affect starfighter squadrons. If a starship is hit by an AoE weapon and there are starfighters (friendly or enemy) at its squadron, all those starfighters are affected by the weapon. The PD value will drop to ½ at 10cm, ¼ at 20cm, etc. This application of PD will cause one hit to starfighters for every multiple of the starfighter's defence.

Example

ISS Vengeance has fired a weapon with AoE of D6 at HMS Pinafore. After dealing damage to the Pinafore, the Vengeance then rolls the AoE die of D6 with a result of 4. The four closest starships within 10cm, regardless of affiliation, are also hit by the weapon at ½ damage.

The Vengeance then rolls the D6 again and rolls a 2. The two closest starships within 20cm that have not already been hit are also hit by the weapon at ¼ damage (½ of ½).

The Vengeance then rolls the D6 again and rolls a 6. No more starships are hit as the roll of 6 exceeds the previous roll of 2.

Rate of Fire (RoF)

Not all weapons can fire indefinitely and some are capable of a short burst of fire only. The rate of fire (RoF) of a weapon mode determines how often it can fire. Unlimited modes can fire every turn without interruption. When a Limited [mode cooldown] mode is fired, the mode cannot fire for one turn. When a Limited [weapon cooldown] mode is fired, the entire weapon cannot fire for one turn.

When a One Shot mode is fired, it cannot be fired again during the game. When a One Shot [weapon cooldown] mode is fired, it cannot be fired again during the game and the entire weapon cannot be fired for one turn. When a One Shot [weapon offline] mode is fired, the entire weapon cannot be fired again during the game.

Unlimited

One Shot

Limited
[mode cooldown]

One Shot
[weapon cooldown]

Limited
[weapon cooldown]

One Shot
[weapon offline]

Accuracy

Some weapons may be more or less accurate than average. The accuracy of a weapon is a plus or minus modifier to the target rating of the opposing starship when the weapon is fired.

Armour Piercing (AP)

Any weapon may be designed with an Armour Piercing (AP) level. The AP level of a weapon allows it to ignore that much armour. The armour is ignored for each pulse. This does not grant additional damage and therefore has little effect on an un-armoured target.

Armour piercing 3

Shield Piercing (SP)

Any weapon may be designed with a Shield Piercing (SP) of ¼, ⅓, or ½. The SP level of a weapon allows for some of its damage to bleed through shields. When the weapon deals damage, a fraction of the damage (rounded down) as determined by the shield piercing, will bypass the shields and hit the hull. This is calculated independently per pulse.

Shield piercing 1/3

Deflection Piercing (DP)

Any weapon may be designed with a Deflection Piercing (DP) value, ranging 1 to 9. The DP level of a weapon is subtracted from any deflectors its target may have. Any remaining deflector rating is still applied.

Deflection piercing 2

Weapon Qualities

Some weapons have strange or unique qualities which are outside the scope of the basic statistics. These weapons may be given one or more appropriate qualities. Use of these qualities increases the time required to adjudicate any weapon's effects on its targets but allows for interesting flavour. These qualities and their effects are listed below.

Adaptive (AD)

An adaptive weapon, after dealing at least one damage to shields, one damage absorbed by armour, one hull hit on an enemy starship, one hit on an enemy starfighter squadron, or eliminating one enemy damage pulse, will have its adaptation level increased by one at the end of the turn. All adaptive weapons of the same type on a starship share the same adaptation level. The total adaptation that a weapon may achieve is equal to its flat damage rating or its damage modifier. Adaptive weapons gain a bonus to their damage equal to their adaptation level; adaptive weapons with a PD value greater than zero gain a bonus to their PD value equal to their adaptation level.

Antimatter (AM)

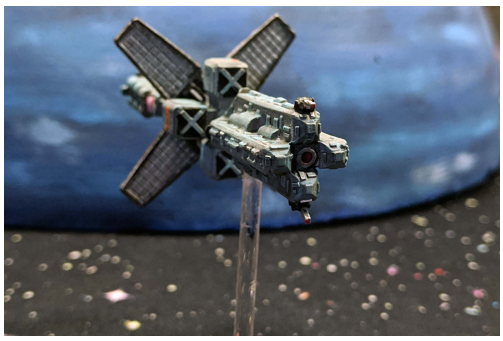
After this weapon successfully deals hull damage, it deals additional raking damage to the facing section equal to the section's facing armour. This additional damage cannot exceed the damage dealt by the weapon to that section.

Example

BGS Chimera has dealt 7 damage to the bow section of USS Avenger. The Avenger's bow has an armour rating of 4. Four additional raking damage is dealt to that section.

Charged (CH)

A weapon with this quality considers the target's deflector ratings to be double.



Dimensional (DM)
When a weapon with this quality successfully hits the target and the sensor roll is odd, the damage is dealt to the next section through the target starship with all defences from the facing section still applying. This has no effect on single section starships. An even sensor roll damages the facing section as normal.

Example
USS Avenger has hit BGS Chimera in the outer port section with three dimensional weapons. Two of these weapons hit on an even sensor roll, therefore dealing damage to the outer port section as normal. One of the weapons hit on an odd die roll, therefore dealing damage to the next section into the Chimera, in this case the inner port section.

Disruptive (DS)
After this weapon successfully deals hull damage, it deals additional raking damage to each damaged section equal to the starship's threat. This additional damage cannot exceed the damage dealt by the weapon to that section.

Example
USS Thunderchild has dealt 3 damage to the aft section of the ISS Vengeance. The Vengeance has a threat rating of 4. Three additional raking damage is dealt to that section (the additional damage cannot exceed the original damage).

Erratic (ER)
When a weapon with this quality successfully hits the target and the sensor roll is odd, the firer chooses which outer section is damaged. If the sensor roll is even, the target chooses which outer section is damaged. If the Target Rating of the starship exceeded the sensor rating of the firer and the player was forced to roll 20s, the result is always considered even. A section is considered outer if it faces the outside of the starship.

Gravitational (GR)
After this weapon successfully deals hull damage, it deals additional raking damage to each other section of the starship equal to ½ the damage dealt to the facing section (rounded down).

Example
HMS Pinafore has dealt 11 damage to the starboard-aft section of the Imperial Warship Butcher. Five additional raking damage is dealt to each other section of the Butcher (1/2 of 11 damage, rounded down).

Inert (IN)
A weapon with this quality halves any damage dealt to hull (rounded down).

Ionized (IO)
After all ionized weapons fire on a target starship from one source is completed, the damage dealt to each section of the starship is totalled (per section) and divided by the target's threat (rounded down). The result of this calculation determines the number of D6s that must be rolled against each section. For every result of 6 on a section, a critical hit is scored against that section.

Example
USS Avenger has dealt a total of 26 damage from ionized weapons to the bow section of the USS Thunderchild. The Thunderchild has a threat rating of 4 resulting in 6D6s rolled for possible criticals. The Avenger rolls the 6D6s and gets one 6 giving one critical hit to the bow section of the Thunderchild.

Molecular (ML)
A weapon with this quality doubles any damage dealt to hull.

Null (NU)
A weapon with this quality halves any damage dealt to shields (rounded down).

Phased (PH)
When a weapon with this quality successfully hits the target and the sensor roll is odd, the damage bypasses any shields and hits the hull. An even sensor roll damages the facing shields as normal.

Polarized (PO)
A weapon with this quality doubles any damage dealt to shields.

Quantum (QM)
When a weapon with this quality successfully hits the target and the sensor roll is odd, any damage dealt is doubled.

Reactive (RT)
After this weapon successfully deals hull damage, it deals additional raking damage to each damaged section equal to the number of hull layers in the section. This additional damage cannot exceed the damage dealt by the weapon to that section.

Example

HMS Pinafore has hit USS Avenger with a reactive weapon that dealt 9 penetrating damage, 5 to the port section and 4 to the core section. The Avenger's port section has 5 hull layers and is therefore dealt 5 additional raking damage. The Avenger's core section has five layers but only 4 damage was originally dealt; therefore, 4 additional raking damage is dealt.

Spinal (SP)
A spinal weapon will target opposing starships and starfighters as normal. After the primary target is fired upon, a line is drawn from the firer to the target and every starship within 5cm of this line (friendly or enemy but not in the same squadron as the firer) is also a potential target.

A sensor roll is made against each of these starships using the same sensor that fired the weapon to determine which additional targets are hit.

Range is recalculated for each starship. The arc of these additional starships hit is the arc closest to the projected line. If any of the hit starships are a part of a squadron which has starfighters on it and the weapon has a PD value, those starfighters are also hit.

The PD value of the weapon is degraded by range as normal. The PD value of the weapon is divided by each starfighter's defence and rounded down. The result of this calculation is the number of hits the starfighter squadron receives.

Example

ISS Vengeance has successfully hit the Thunderchild with a spinal weapon and dealt damage to it. A line is now drawn from the Vengeance to the Thunderchild.

Two additional starships are within 5cm of this line and are therefore also hit by the weapon. A new sensor roll is made for each of these new targets and range recalculated.

The sensor roll for the first target misses but the second target is successfully hit and damage received.

The second target also has a starfighter squadron on CAP. Since the Vengeance's weapon has a PD value, these starfighters are also hit. The PD value of the weapon is degraded by range and then divided by the starfighter squadron's defence to determine the number of hits to their strength.

Temporal (TM)
When a weapon with this quality misses its target through a failed sensor roll, the sensor roll may be re-attempted, but only once.

Unreliable (UR)
When a weapon with this quality successfully hits the target and the sensor roll is odd, any damage dealt is halved (rounded down).

Unstable (UN)
A weapon with this quality will detonate upon being intercepted. When an unstable weapon pulse is successfully intercepted by PDS or starfighters, it deals half its normal damage (or PD value) to its target (rounded down). Weapons with an AoE do not get their AoE effect. If an unstable weapon is intercepted by a weapon with a PD value it deals no damage.

Volatile (VO)
When a sensor roll made to fire this weapon is a natural one, the weapon damages the firing ship in the section the weapon is located ignoring all defences and the weapon is disabled.

Weak (WK)
A weapon with this quality considers the target's armour ratings to be double.

Author's Note

Unusual for many starship combat rules, Metaverse features a detailed weapon design system. Some critics will inevitably declare this to be a far too detailed mechanic. It is true that this system of Metaverse features many options and details for the players to dabble in. However, like much of the game it must be remembered that the majority of the options may be safely ignored.

The necessary parts for functional weapons are the damage characteristics, range, and damage effect. A player group could keep their games simple by electing to restrict all weapons to unlimited, raking, energy weapons with no area of effect. They can ignore armour, shield, and deflection piercing and opt to not use qualities. This would create much simpler weapons.

The inclusion of all these options in the game allows the players to customize their weapons to do exactly what they want and to represent nearly any fictional universe with ease.

I realized when writing Metaverse that the inclusion of all these options made reading the statistics of any weapon theoretically quite difficult. What was needed was a form of short hand for weapon information that could be recognized and understood almost at a glance. The rest of a starship record sheet is already iconographic with little to no language involved. This creates a profile that is easily and quickly deciphered.

My intention was to create a weapon definition that achieved the same effect. The final version you see is the product of that endeavour. Most players have found it an intuitive read to which they quickly adapt.

Launcher

A launcher is fired like standard weapons, however, the player must choose the number of munitions to fire. All launchers will have one or more munition types they may fire and a local magazine they are associated with. A player can choose a number of munitions to fire from one to the maximum allowed by the chosen munition. A launcher may not fire more than one munition type per turn. Launchers use the same icon as weapons.

Munition

Launchers require munitions in order to fire. A munition has a nearly identical information line to a weapon but without the Rate of Fire.

Local Magazine

A local magazine stores munitions from which launchers draw from when. In order for a launcher to fire one or more munitions, the local magazine it is associated with must currently hold those munitions. A launcher may only draw munitions from its associated local magazine.

Local magazines will have one or more munition types they may carry, an amount they are loaded with, which can be zero or infinite, a size that determines the maximum number of munitions they can hold, and an identifier from one to nine. Expended munitions are marked off from the local magazine. Infinite munitions are not marked off but are limited in their expenditure per turn by the magazine size. A single section can have a maximum of ten local magazines.

Global Magazine

Global magazines are similar to local magazines but cannot feed launchers directly. A global magazine can feed local magazines to restock their munitions. Global magazines have a feed rate which determines the maximum number of munitions they may transfer during the repair step.

Global magazines have a set stock of munitions that are marked off as they are transferred to local magazines. A munition can be set to infinite in which case it is not marked off. A global magazine can transfer to more than one local magazine in any section of the starship in one turn but a local magazine cannot receive munitions from more than one global magazine. Munitions cannot be transferred from a local to a global magazine. A global magazine may transfer munitions to another global magazine.

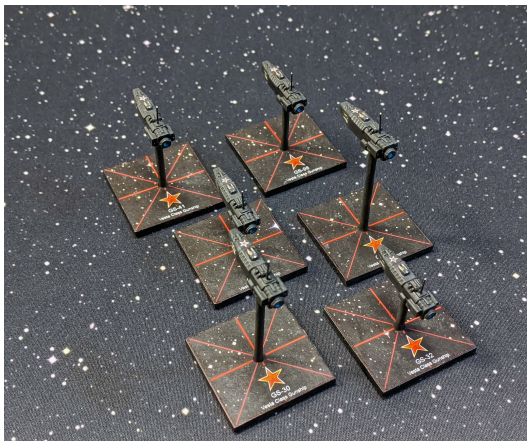
In scenario gaming, players can purchase additional munitions table-side and place them in a global magazine.

8 ..... 8× **2.25kg Antimatter Torpedo**

A size 8 local magazine with 8 loaded munitions.

4 ..... 24× **2.25kg Antimatter Torpedo**

A global magazine with a feed rate of 4 and 24 loaded munitions.



Linked Components

Two or more disparate components may be linked together indicating they are intimately associated. A component that is part of a linked set can be used as normal, however, only one component in the linked set can be used in a turn. The individual components of a linked set can be disabled without affecting the whole. Linked components are indicated by two chains connecting them.

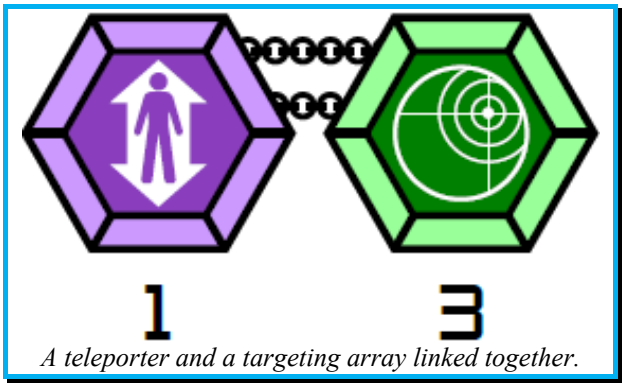
Primary systems, adaptive shield generators, fire controls, sensors, and local sensors cannot be linked with other components.

Grouped Components

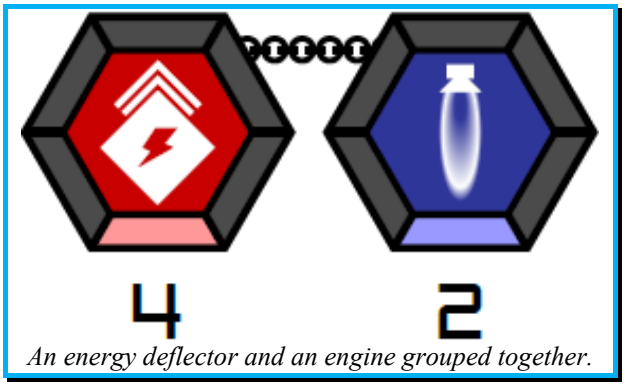
Two or more disparate components may be grouped together indicating they are intimately associated. A component that is part of a grouped set can be used as normal and all of the grouped components can be used in one turn. If one component of a grouped set is disabled, all the components of that grouped set cannot be used. Only the disabled component must be repaired to bring the grouped set back online. Grouped components are indicated by one chain connecting them.

Weapons and launchers that are part of a group must fire on the same target.

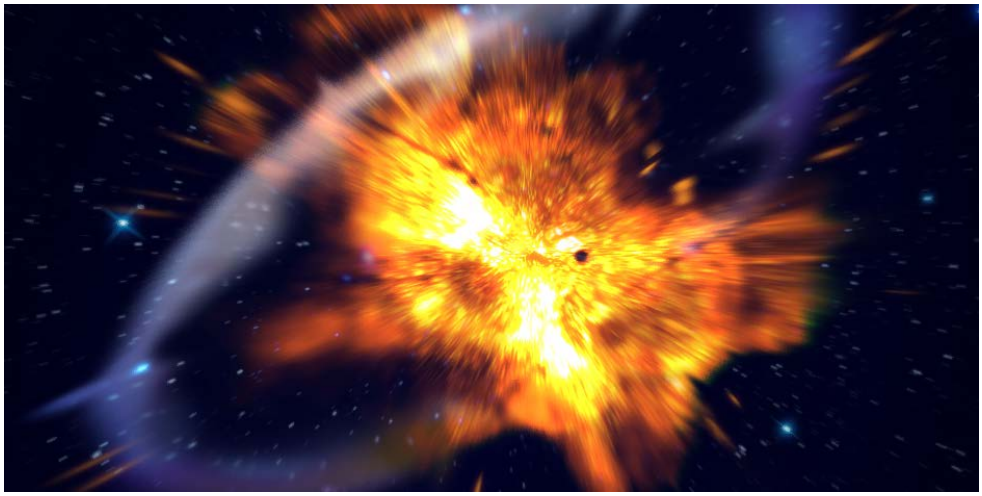
Primary systems, adaptive shield generators, fire controls, sensors, and hanger bays cannot be grouped with other components.



A teleporter and a targeting array linked together.

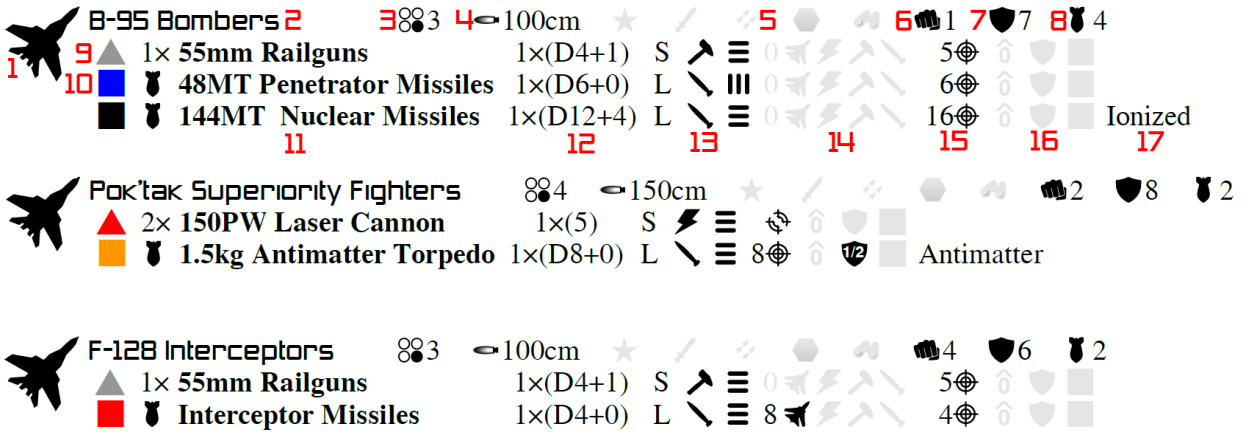


An energy deflector and an engine grouped together.



Starfighter Squadrons

Starfighter squadrons in many ways act like weapons that have the capacity to strike their target multiple times. As with weapons, there are a number of attributes that must be considered when designing a starfighter squadron.



1: Custom starfighter icon; during design a player can use the icon design tool or upload their own image for a starfighter.

2: Squadron name.

3: Strength rating.

4: Range.

5: Squadron attributes; FTL, Breaching, ECM, Stealth, and Scout.

6: Furball rating.

7: Defence rating.

8: Hardpoint rating.

9: Integrated weapon; this weapon is always included in the squadron and has a displayed quantity.

10: Mounted weapon; this weapon can be loaded onto the squadron and fired once per load.

11: Weapon name.

12: Damage profile.

13: Weapon range, damage type, and effect.

14: PD value and target types.

15: Intercept value; weapons that are not vulnerable will not display a value.

16: Deflection piercing, shield piercing, and armour piercing.

17: Weapon qualities.

*Any icon that is greyed out is not active for the squadron/weapon.

Strength

The primary attribute of a starfighter squadron is it strength; the number of hits it takes before being destroyed. Strength does not necessarily denote the number of starfighters in the squadron but the amount of punishment it can take; nor does the loss of strength necessarily denote direct combat losses. A squadron of numerous, small starfighters may be designed with the same strength as another squadron with fewer, larger starfighters.

A starfighter squadron that has received hits does not reduce in combat capability. A starfighter squadron which loses all its strength is destroyed.

Starfighter strength icon.

Range

Starfighers do not move about the table, rather they have a range within which they can perform missions. The range of a starfighter squadron will be a multiple of 25cm, ranging from 25cm to 250cm (but can also be set to infinite range). During the starfighter operations step of the movement phase, starfighter squadrons can embark on a mission within their listed range from their current location.

Starfighter range icon.

Defence

The defensive characteristics of a starfighter squadron are combined into the defence attribute, representing physical armour, electronic defences, such as shields, and the manoeuvrability of the starfighters. When fired upon by PDS, weapons with a PD value, or opposing starfighters in a furball, the defence is the number required to achieve a hit. Defence ranges from 4 to 15.

Starfighter defence icon.

Furball

The abilities of a starfighter squadron to engage in a close range dogfight are encompassed in the furball rating. The furball rating determines the number of D20s the squadron rolls against opposing squadrons in a furball.

Starfighter furball icon.

Hardpoints

Starfighters can be loaded with mounted weapons on their hardpoints. The hardpoint rating determines the number of mounted weapons that can be loaded on the starfighter squadron.

Starfighter hardpoint icon.

Qualities

Starfighter squadrons may be designed with unique qualities just like weapons. These qualities represent exceptional abilities outside the scope of the normal attributes and are listed below.

FTL

Starfighters with this quality have their own integral FTL drives. When purchased with a carrier vessel, they can be deployed on the table at the start of the game rather than in their hanger bays.

Starfighter FTL quality icon.

Breaching

Starfighters with this quality have the capacity to transport marine parties to enemy starships. At any time when attacking an enemy starship, rather than fire weapons, the squadron can unload its passengers onto the enemy starship in the attacked section.

This cannot be done if the attacked side has active shields that interact with kinetic weapons. A starfigher squadron with the breaching quality can hold a number of marine parties equal to its strength and come with one free load of marines.

If the squadron unloads its passengers onto an enemy starship, it can return to a carrier and reload more marines but these must come from the carrier's own contingent.

Starfighter breaching quality icon.

ECM

Starfighters with this quality have the capacity to provide a passive electronic warfare bonus to all squadrons within the same mission. All squadrons within the same mission as a squadron with ECM, including the ECM squadron itself, raise their defence by one. Multiple squadrons with ECM in the same mission do not compound their effects.

Starfighter ECM quality icon.

Stealth

Stealth starfighters have the ability to close range and fire their weapons before all other opponents. When stealth starfighters are engaged with opposing starfighters, they may fire all their weapons and make their furball roll before their opponents.

When attacking a starship, stealth starfighters may close with and fire all their weapons before the starship's PDS may fire on them. Weapons with a PD value can be fired in the starfighter combat step against stealth starfighters after those fighters have fired their weapons.

Combat between stealth squadrons is conducted as if neither side had stealth.

Starfighter stealth quality icon.

Scout

Any starfighter mission that contains at least one squadron with the scout trait treats all opposing starfighter squadrons as having a -1 to their defence. Any enemy starship squadron targeted by a strike mission with at least one scout starfighter squadron has their effective EW rating reduced by one for all friendly starships.

Starfighter scout quality icon.

Weapons

Starfighter squadrons have two forms of weapons, integrated and mounted. An integrated weapon is built into the starfighter and is always included with it. A mounted weapon can be loaded onto the starfighter if it has a hardpoint value above 0. A starfighter squadron can load a number of mounted weapons up to its hardpoint value. These loads can be all of the same weapon multiple times or different weapons. Each load of a mounted weapon can be fired once and then is expended.

Starfighter weapons are designed much like starship weapons except the range is only long or short. Additionally, starfighter weapons do not require a sensor roll; instead simply rolling their damage if the squadron reaches the enemy starship.

Fleets

The starships that a player brings to a game will be organised into a fleet. Every fleet will have a flag commander, a starship designated as the top commander in the chain of command. Other starships in the fleet can be made commanders that answer to the fleet commander and be given a command level and quality.

A commander is indicated by one to three stars on the fleet display. Commanders can have subordinate starships below them in the chain of command. A sub-commander cannot be of a higher command level than their immediate superior. A fleet can consist of up to five levels of commanders from the fleet commander down to the lowest sub-commander.

A commander will receive CPs at the beginning of each turn but these can only be used to influence their own squadron, any subordinate squadrons, and any starfighters originating from the starships subordinate to the commander. The fleet commander can utilize their CPs on any starship, squadron, or starfighter squadron in the fleet.

All starships in the fleet will be organised into squadrons. A starship squadron can consist of only a single starship or multiple starships. These squadrons will be organised into a chain of command, utilising the commanders of the fleet.

Squadrons move together and are considered to be on the same point for movement and firing purposes. A squadron is restricted to the lowest STL ratings among its constituent starships. The aggregate STL capabilities of a squadron are shown on the fleet display. If a starship in the squadron is destroyed, these values may change, if the destroyed starship contributed the slowest manoeuvring capabilities.

A fleet will have a morale chart consisting of morale points that are divided into thresholds. The number of morale points in each threshold is determined by the fleet's navy.

Every starship and starfighter squadron in the fleet will have a morale value that determines the number of morale points lost when the starship or starfighter squadron is destroyed.

The tactics granted by the navy will be outlined on the fleet display.

A fleet can have a support list composed of additional starships that can be purchased table side during scenario play. Additionally, a starship in the fleet can have starfighter and mounted weapon options selected for purchase in a scenario.

Navies

In order to create starships, starfighters, and fleets, players will first create navies. A navy is the over-arching organisation to which all fleets of a given faction belong. The navy will house all the starship and starfighter designs, as well as the weapons of that faction. Additionally, players will set navy level qualities that are inherited by all fleets of that navy.

Command Quality

The command quality of the navy is representative of the average performance of the commanders in the navy. If a commander in a fleet has their command quality set to 'roll' during fleet construction, this setting will determine the probability of that commander's quality. A player that has a commander with 'roll' as their quality must roll on the command quality table, using 1D20, at the beginning of the game.

Navy Quality:	Poor	Average	Brilliant
Commander			
Brilliant	1-5	6-10	11-20
Average	1-5	6-15	16-20
Poor	1-10	11-15	16-20

Command Quality Table

Crew Quality

The crew quality of the navy is representative of the average performance of the starship crews in the navy. If a starship squadron in a fleet has their crew quality set to 'roll' during fleet construction, this setting will determine the probability of that squadron's crew quality. A player that has a starship squadron with 'roll' as their crew quality must roll on the crew quality table, using 1D20, at the beginning of the game.

Navy Quality:	Green	Regular	Veteran
Crew			
Veteran	1-5	6-10	11-20
Regular	1-5	6-15	16-20
Green	1-10	11-15	16-20

Crew Quality Table

Repair Quality

The repair quality of the navy is representative of the skill and ingenuity of its damage control and engineering departments. Whenever a repair roll is performed with a starship from this navy, the indicated die type is used. This quality is inherited by all starships in the navy.

Threshold

The threshold of a navy represents its institutional willingness to absorb casualties and can range from 5% to 15%. The higher this value, the more casualties it will take to break any fleet in the navy and is directly proportional to the morale threshold on any fleet in the navy.

Movement

The movement type indicates whether starships in this navy operate using Newtonian or Cinematic mechanics. All starships from this navy will operate in this manner.

Discipline

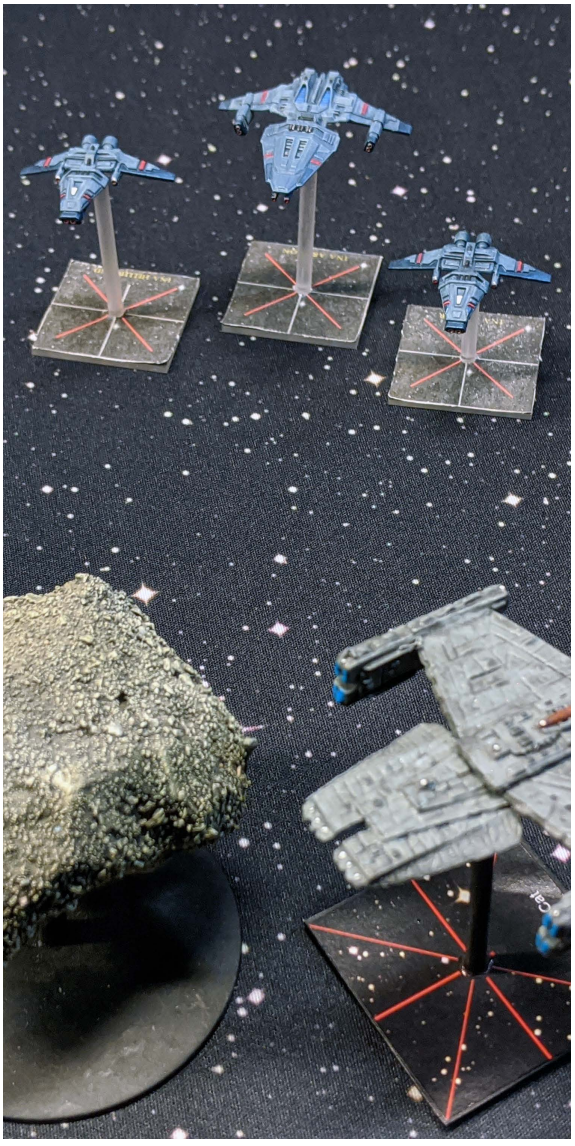
The discipline of a navy is indicative of the rigidity of the crew training or the emphasis placed on individual initiative. This rating can be 5cm, 10cm, or 15 cm. A low rating represents highly disciplined crews that are unlikely to use their own initiative and follow the instruction of their commanders without question. A high rating represents undisciplined crews or an emphasis on individual initiative and leadership. The discipline rating is inherited by all starships in the navy and directly factors into the Danger Close range of enemy starships.

Tactics

A navy can utilize one or more tactics that allow interesting tactical options to their fleets. Every fleet will inherit the tactics of the navy but each tactic a navy utilizes will increase the cost of the fleets.

Reinforcement List

A navy can have a reinforcement list designed. This list will be one or more starship squadrons that can may be added to any fleet from that navy during scenario play. Scenarios will specify a number of randomly chosen squadrons from the reinforcement list. Players may also purchase rolls on this list in some scenarios. The reinforcement list will add a cost to any fleet in the navy visible as the second point value. This value is only used for scenario play.



Tactics

There are a number of tactics available to players that they can assign to their navies and thereby their fleets. Each tactic offers unique tactical options and can subtly or overtly change how a fleet will operate.

Tactics require the expenditure of CPs to activate and often require more than one. Any given tactic will indicate whether the flag commander must spend CPs or if any commander can do so; however, to activate a tactic that targets friendly starships, the CPs must originate from a commander in those starships' chain of command (i.e. a commander can only target their subordinates or themselves with a tactic).

Every tactic will also indicate the phase and or step in which they can be activated. All tactics can be activated multiple times, if desired.


Ace Pilots
Select a starfighter combat.
All friendly starfighter squadrons in that combat receive a +1 to their furball ratings until the end of the turn. This tactic cannot raise a furball rating above 7.
2
Starfighter Combat Step
Any


Bloodlust
Select a boarding combat.
You may reroll any number of dice during that boarding combat once.
1
Boarding Combat Step
Flag


Banging Rocks Together
Select a starship.
That starship may repair a number of systems equal to the result of 1D6.
1
Repair Step
Any


Bloodlust
Select a boarding combat.
You may reroll any number of dice during that boarding combat once.
1
Boarding Combat Step
Flag

Brace For Impact

Select a friendly starship.

Increase all the target's armour ratings by 1 until the end of the turn.

Threat | Starship Combat Step | Any

Bracketing Fire

Select an enemy starship.

When a friendly starship fires on that starship this turn, it lowers the target's Target Rating by 1 for each other starship that already fired on it this turn.

1 | Starship Combat Step | Any

Evasive Pattern Omega

Select a starship squadron.

All starships in that squadron receive a +1 to their Target Ratings until the end of the turn.

2 | Starship Movement Step | Any

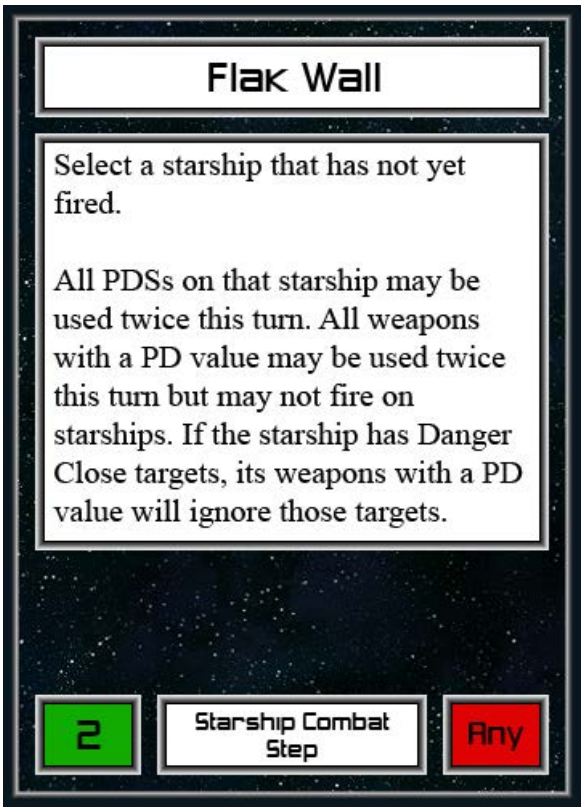
Fire Discipline

Select a starship that has not yet fired.

That starship fires, damage incurred, and critical hits rolled, before other starships fire this turn. All starships utilising this tactic fire simultaneously.

The CP cost of this tactic is equal to the Threat of the selected starship.

Threat | Starship Combat Step | Flag


Flak Wall
Select a starship that has not yet fired.
All PDSs on that starship may be used twice this turn. All weapons with a PD value may be used twice this turn but may not fire on starships. If the starship has Danger Close targets, its weapons with a PD value will ignore those targets.
2
Starship Combat Step
Any


Flush The Decks
Select a starship.
That starship doubles the launch capacity of all its hanger bays this turn.
1
Starfighter Operations Step
Any


From The Shadows
Select either activate or deactivate.
All starships in your fleet perform the chosen action with their stealth and/or cloak generators. Starships without those systems are unaffected.
4
Control Step
Flag


Hunters In The Dark
Select a starship with an active and uncompromised stealth generator.
When that starship fires this turn, it may reroll any misses once.
2
Starship Combat Step
Any

Iron Discipline

The morale points of your starships and starfighter squadrons lost this turn are not added to the morale chart. Next turn those morale points are added during the morale step and this cannot be avoided.

5 | Morale Step | Flag

Man The Guns

Select a starship that has not yet fired.

That starship may fire limited weapons that otherwise could not fire this turn.

2 | Starship Combat Step | Any

Mind Trick

Select a damage die that was just rolled.

Change the result to any facing of that die.

1 | Combat Phase | Any

Network Intrusion

Select a friendly starship and an enemy starship within 50cm of each other.

Both players roll 1D20 and add to the result the rating of one of their sensor systems. If the friendly result is higher, the player selects a non-primary system on the enemy starship and disables it. The sensor system used by the friendly starship can only be used for this purpose this turn.

1 | Control Step | Flag

Precision FTL

After all movement is complete, select a friendly starship squadron that performed an FTL manoeuvre.

If the squadron used dimensional or jump drives, move the squadron up to 20cm in any direction without changing heading.

If the squadron used warp or hyper drives, move the squadron 20cm forward or backward.

2 | Starship Movement Step | Any

Push The Limits

Select a starship squadron.

All starships in that squadron have the ratings of their STL drives doubled until the end of the turn.

2 | Plot Movement Step | Any

Shield Wall

Select a starship.

All shield generators and shield batteries on that starship may be used twice this turn.

2 | Repair Step | Any

Stand Fast

Select a starship.

That starship may ignore all danger close targets for purposes of target selection this turn.

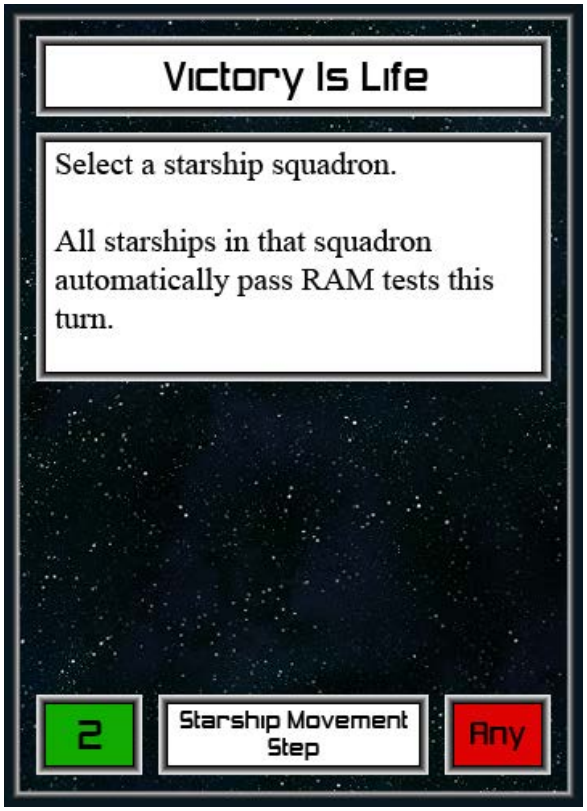
The CP cost of this tactic is equal to the Threat rating of the selected starship.

Threat | Starship Combat Step | Any


Stay On Target
Select an enemy starship.
All friendly starships that did not make any heading changes or advanced manoeuvres receive a +1 to the ratings of their sensor systems while firing on the target starship until the end of the turn.
1
Starship Combat Step
Any


Technobabble
Select a starship that just made a critical roll.
The results of that critical roll are not applied and the critical is ignored.
1
Critical Step
Any


Unstoppable Wave
Select a starfighter combat with more friendly starfighter squadrons than enemy starfighter squadrons.
All friendly starfighter squadrons in that combat receive a +2 to their defence rating until the end of the turn.
1
Starfighter Combat Step
Any


Victory Is Life
Select a starship squadron.
All starships in that squadron automatically pass RAM tests this turn.
2
Starship Movement Step
Any

The Table

In order to play *Metaverse*, players will need a suitable gaming space referred to as the table. It is recommended that the table measure no less than 100cm in any dimension. Larger tables are preferable to allow for manoeuvre outside of this range but how large is up to the players and logistical restrictions. Players who consistently play on smaller tables can reduce the ratings of STL drives and ranges of weapons in their designs to suit the table space.

Terrain

All that is required from your table for normal game play is its existence. However, the bland open battlefield this gives players can become tiresome and repetitive over time. For this reason players may wish to include terrain into their games regardless of the lack of realism it may represent.

Planets

When representing these bodies on the table, an appropriate model or template must be used. The size of the model or template is based on the imagined size of the planet. Players are free to choose their terrain scale, but the recommended scale is 3000 km per cm (making a range of 100cm equal to one light second), which would make a model of Earth approx. 4cm in diameter; Jupiter approx. 47cm in diameter; and HAT-P-32b (a large extra solar planet) 95cm in diameter.

Any starship that transits (ends its movement on or moves across) a planet's model or template is instantly destroyed. Additionally, planets project a gravitational field that prevents the use of warp drives, hyper drives, and basic FTL drives in the same manner as GWPs. The radius of this field, as measured from the edge of the model or template, is equal to the diameter of the planet. Any warp drive or hyper drive equipped starship which FTL transits (ends its FTL movement on or across) a planet's model is instantly destroyed.

Stars

Because of the immense size of most stars (at 3000 km per cm Sol would be 463cm in diameter) it is impractical to represent them as models. Additionally, because of the immense gravity of stars, manoeuvre and even survival too close to the star can be impossible.

Thus a star is designated to be off one table edge at an unspecified distance. This table edge cannot be the same as a primary deployment zone for either player.

The intense radiation of a star can pose a problem to starships. Every turn a starship resides in the gravitational field (i.e. anywhere on the table) of the star it receives damage to its facing arc from the radiation.

This damage dealt depends on the type of star. A dwarf star will cause 1D6 energy damage to each section of a starship during the repair step of the end phase of each turn.

A giant star works in the same manner but the damage is 1D12 per section. Neutron Stars, Pulsars, and Magnetars work the same as giant stars but their damage is considered Ionized and their presence also prevents the use of basic FTL drives, Jump Drives, and Dimensional Drives. Starships equipped with these FTL drives must begin the game on the table and cannot utilise their drives during the game.

Singularities

Like a star, a singularity is designated as being an unspecified distance off one table edge. This table edge cannot be the same as a primary deployment zone for either player. The intense gravitational effects of a singularity will cause starships and starfighters to skip turns depending on their proximity to the designated table edge.

The table is divided into zones, labelled Zones 1 through 4. Zone 1 is 25% of the table furthest from the singularity; play in this zone proceeds as normal. Zones 2 through 4 are each 25% of the table depth progressively closer to the designated table edge.

In zone 2, all starships and starfighters only play once every two turns. In zone three, all starships and starfighters only play once every three turns. In zone four, all starships and starfighters only play once every four turns.

A starship that is currently skipping a turn can be attacked by any starship that is currently not skipping a turn but cannot attack back, cannot make use of PDS or weapons with a PD value. Any starfighters attacking a starship align their skipped turns with the starship they are attacking. Singularities prevent the use of all FTL drives. Reserves cannot be used and FTL manoeuvres are not permitted.

Asteroids

Asteroids are a controversial topic for the space gaming genre. Famous space opera scenes of freighters outrunning evil empires in dense asteroid fields have incorrectly portrayed real asteroid fields. On any reasonable gaming table, due to the immense distance between asteroids in a field, only a single asteroid would be represented. Taking into account the size of this solitary asteroid, the idea of rules to govern the situation is ridiculous.

However, the space gaming genre has a long tradition of discarding physics and reality in the pursuit of entertainment. The following rules are intended to govern the situation of actually going into an asteroid field and properly telling you the odds.

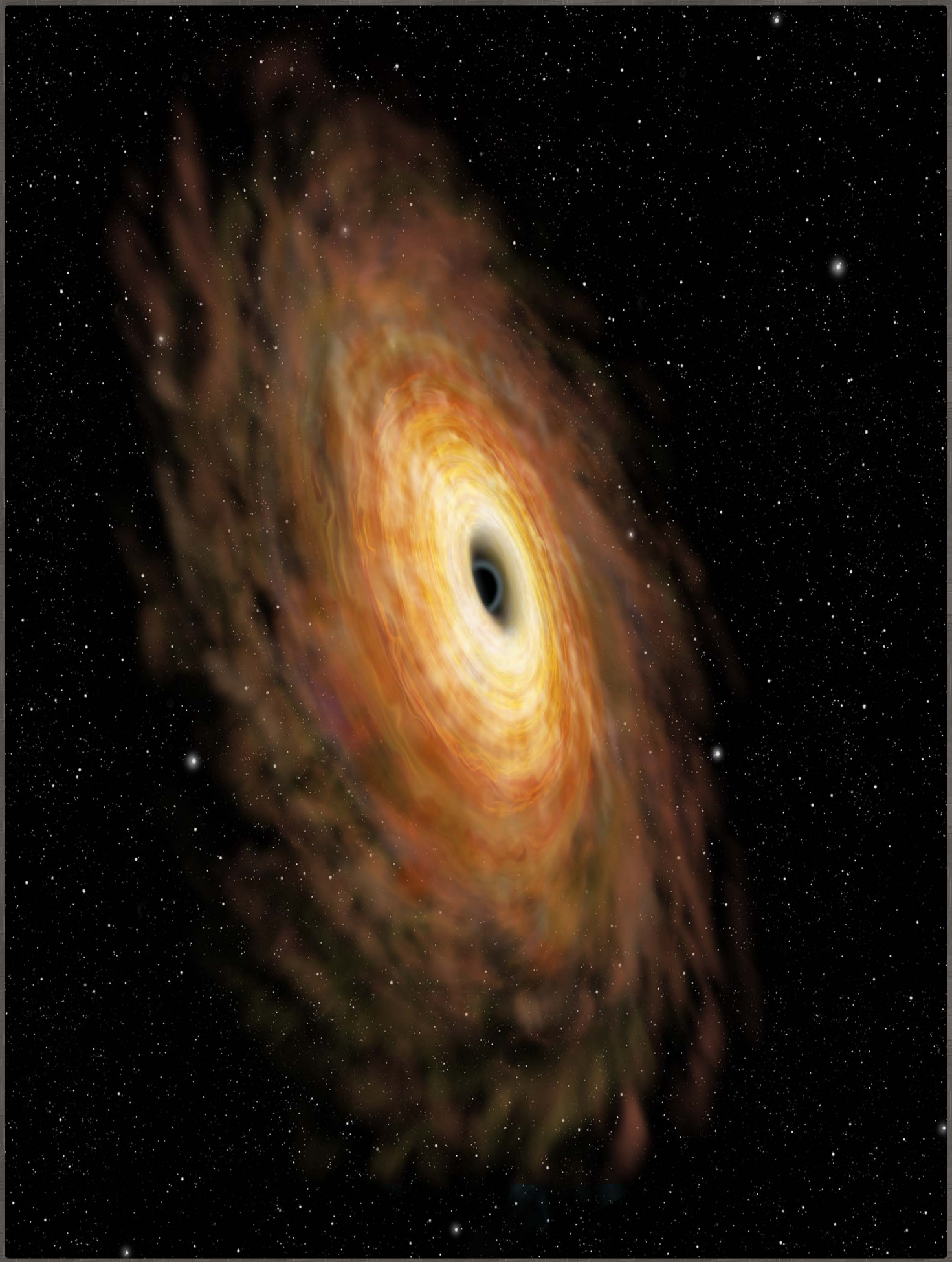
Asteroids come in two forms, asteroid fields and asteroid clusters. Players must determine an area of the table that will be an asteroid field, within which starships are in danger of striking or being struck by a rogue asteroid. Every turn that a starship is in the field, it receives kinetic damage in its front arc using 1D10 per 1 momentum at a minimum of 1D10 (to a random arc, if its velocity is zero).

Newtonian ships receive damage from the arc with the greatest velocity. For velocities which straddle two arcs, the player can choose in which arc the damage is dealt.

To reduce this damage, a starship can also fire weapons at the incoming asteroids or use PDS. A weapon must have a PD value to reduce the damage. 10 PD points are required to cancel one damage die and the normal rules for interception apply.

Starships ignore a number of damage dice equal to their current Target Rating (assuming it is positive). Starships that perform a strategic or tactical FTL jump using a warp drive or hyper drive that transits an asteroid field are destroyed.

Clusters of asteroids share the rules of an asteroid field but 1D20 is rolled per 1 momentum. They can be of any agreed upon size but require a model or template. All other rules are inherited from asteroid fields.



Nebulae

A nebula is a phenomenon which covers the entire table in Match Play or Scenario Play, although players can throw physics out the window and use these rules to represent smaller gas clouds in their custom games if they wish.

Nebulae in *Metaverse* are divided into four categories with different rules but all share one rule: while in a nebula, all weapons fire is considered to be at double the apparent range. This does not change maximum weapons range only the induced modifiers from range.

Nebulae prevent the use of basic FTL drives, jump drives, and spatial drives. These forms of drives cannot use reserves, cannot perform any FTL manoeuvre, and must be deployed onto the table.

Protoplanetary/Emission Nebula

These types of nebulae have as part of their makeup strong stellar winds and currents which alter the plot and heading of starships. At setup, the players must randomly determine the direction of the stellar wind, using the Newtonian momentum compass, and the strength, with the roll of 1D4.

If hexagonal and square starships are both present in the game, the wind direction must conform to the hexagonal compass. North and South will align between the square and hexagonal starships. North-West, North-East, South-West, and South-East will be considered the same direction for wind purposes (they are only separated by 15º). As hexagonal starships cannot have a West or East momentum, the wind cannot be from those directions.

While in the nebula, all starship squadrons will increase their velocities in the direction of the wind by the strength. Cinematic starships will be required to increase or decrease their velocities, if the direction is in their bow or stern arcs, or plot a number of mandatory turns away from the direction of the wind equal to the D4, if it is in their side arcs.

Planetary Nebula

These types of nebulae have as part of their makeup highly ionised gas which affect the targeting systems of starships. When firing inside the nebula, a starship considers its target to have an increased EW rating at a rate of one per 10cm, ignoring the first band.

Dark Nebula

These types of nebulae have as part of their makeup extremely dense gas and/or dust clouds that do not damage the starships but affect their ability to maintain momentum. Any starship squadron conducting a plot within the nebula must roll 1D6 -2 (minimum zero) and subtract this from each velocity it has. This cannot reverse a velocity.

Supernova Remnant

These types of nebulae have as part of their makeup strong chaotic stellar winds and intense radiation that baffle a starship. A nebula of this type uses the rules for the stellar wind in a protoplanetary/emission nebula but the direction and strength of the wind is randomised each turn prior to the plotting phase.

In addition, starships are subject to radiation damage similar to being too close to a star. Every turn, any starship in the nebula receives 1D6 energy damage to the arc the wind is approaching from.

Playing A Game

Games of Metaverse can be easily hashed out between two friendly gamers who mutually decide on the fleets to be used and the composition of the battlespace. However, some structure is occasionally desired to maintain a semblance of mystery.

The simplest structure is Match Play, wherein two players agree on a point total and, through a series of simple mechanisms, deploy their fleets on an even(ish) table and hash out their differences. For a more detailed and complex experience, players can use the scenario play method which allows for uneven fleets forced against each other in more exciting scenarios.

Match Play

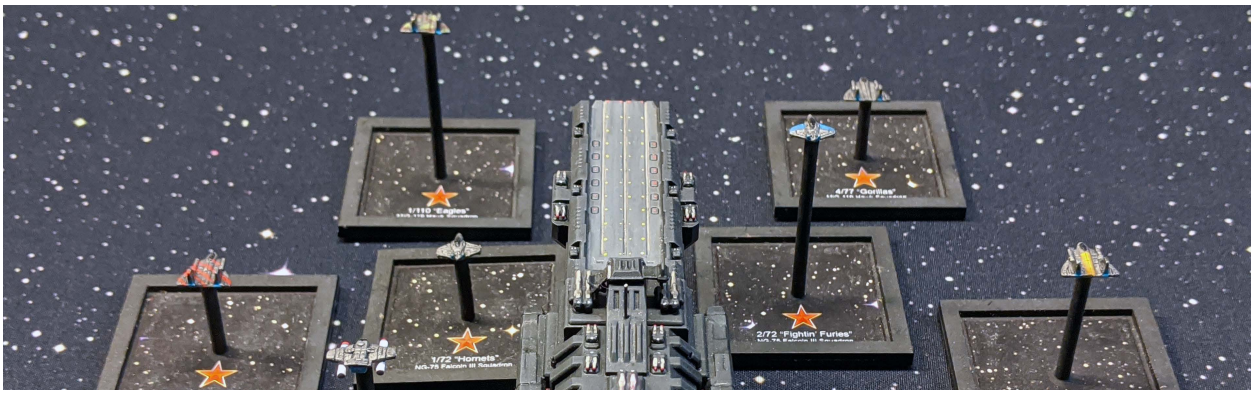
For those players who do not want the detailed mechanisms of scenarios to get in the way or simply don't have the time, Match Play will pit two equal fleets across the table from each other. For a Match Play game, the two squabbling parties must agree on a point maximum for the game. Each player then constructs a fleet from one of their navies that is no more than the agreed upon point level. In a Match Play game, the players do not use support lists or reinforcement lists.

Terrain

Before either player deploys there forces onto the table, the terrain in which they will fight is generated. Each player chooses whether they wish to roll one, two, three, or four D20s for terrain generation. The more dice a player chooses to roll, the greater chance they will have a say in where the terrain is placed. More total dice rolled combined between both players means less chance of interesting terrain.

Once both players have rolled their chosen dice, the two lowest rolls from among all the dice are selected and the players refer to the Terrain Generation Chart. Each die will dictate a terrain feature to be placed on the table (or be the entire table in the case of a nebula).

The placement of each terrain feature is conducted by the player who rolled the die generating the feature. The terrain is placed in descending dice order and each feature cannot be placed inside either player's deployment zone. Asteroid Fields can cross deployment zones perpendicularly but not run the length of a zone. Players are encouraged to modify this procedure to suit their gaming desires (choosing the three lowest dice for instance).



D20 Roll	Terrain Feature
1	Void (No Terrain)
2	Void
3	Void
4	Void
5	Void
6	1D6 Asteroid Clusters (max 10cm diameter each)
7	1D12 Asteroid Clusters (max 10cm diameter each)
8	Asteroid Field (10-20cm wide, table edge to table edge)
9	Asteroid Field (20-40cm wide, table edge to table edge)
10	Small Planet (max 20cm diameter)
11	Medium Planet (20-50cm diameter)
12	Large Planet (50-100cm diameter)
13	Protoplanetary Nebula (entire table)
14	Planetary Nebula (entire table)
15	Dark Nebula (entire table)
16	Supernova Remnant Nebula (entire table)
17	Dwarf Star (off one table edge)
18	Giant Star (off one table edge)
19	Neutron Star/Pulsar/Magnetar (off one table edge)
20	Singularity (off one table edge)

Terrain Generation Table

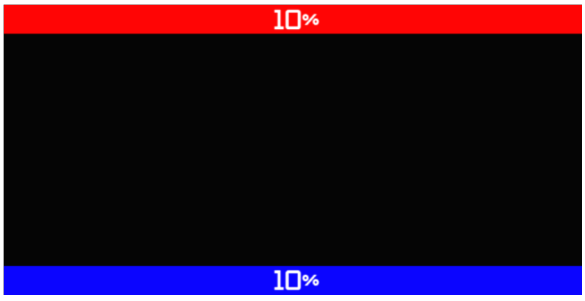
Deployment

After terrain has been placed, respecting the two sides deployment zones, the players then proceed to deploy their squadrons onto the table. Each player has one table edge as the base of their deployment zone (opposite from each other) extending 10% of the depth of the table into the playing area.

The players begin by each rolling the command dice of their flag commander. The lower rolling player must place a squadron onto the table or into reserve. A player can place no more than 50% of their squadrons into reserve and their flag commander must be deployed on the table. In the case of a tied roll, the player who last won the roll loses this roll.

Squadrons placed into reserve must still have a starting velocity recorded with the same restrictions as the rest of the fleet but cannot modify it while in reserve.

Once both players have placed all their squadrons, they each roll 1D4 and the result is their preparation turns. Each squadron can have a starting velocity up to what this many turns would give them at maximum burn, every starship can start with that many turns of charge on their FTL drives, and every starship can launch as many starfighter squadrons as they could in that many turns. With this step complete, the game can begin.



Scenario Play

For those players who wish a more detailed game, scenario play offers the best experience. In a scenario, both players will construct fleets that are not required to be of equal size, including support and reinforcement lists, and roll for a scenario. The variability and dynamic nature of scenarios is a guarantee that games will not be perfectly balanced but rather offer a more interesting gameplay. In future, narrative scenarios and campaign supplements will be released for an even more specific gaming experience.

Fleet Construction

Players who choose to play a scenario are not required to construct fleets of the same point value. It is, however, recommended that a point range be agreed upon, with a minimum and maximum to ensure the split between the two fleets is not too great.

Knowing this range, the players will construct fleets that fall within the range and must include a support list and a reinforcement list. Players are not required to disclose the composition of their fleets until those assets are placed on the table. In a scenario, each starship in a fleet must have either an FTL drive or be brought to the game by another starship with an FTL drive and either a grappler or a tractor beam. This towing starship does not need to be in the same squadron as the FTL-less starship.

Author's Note

Having played countless games of starship combat using a multitude of rule systems I have become tired of the straight up equal points slugfest. With that in mind I sought to create a system that allowed both for uneven point totals for players and a limited scope scenario system with uneven victory conditions.

I recognize that most players will simply use the basic Match Play setup but I hope that some will choose to venture into the unfair world of scenario play. Some players will inevitably complain that scenario play is unbalanced. That is the point. Rarely in real world combat are the odds even. It is my hope players will gain joy out of winning a scenario that was weighted against them or have great stories to tell of the games they lost where the odds were heavily in their flavour.

Choosing the Scenario

Once both players have constructed their fleets, the scenario to be played must be chosen. The players can simply choose the scenario if they can agree or they can roll on the Scenario Generation Chart. The scenario will assign each player as either attack or defender, based on the relative point values of their fleets. Once the scenario has been determined, the attacker chooses a primary deployment edge, with the scenario dictating the relative position of the deployment zones.

D20 Roll	Scenario
1	Meeting Engagement
2	Meeting Engagement
3	Meeting Engagement
4	Meeting Engagement
5	Flank Attack
6	Flank Attack
7	Pincer
8	Pincer
9	Planetary Raid
10	Planetary Raid
11	Convoy Raid
12	Convoy Raid
13	Headhunting
14	Fleet In Being
15	Brawl
16	Wave Attack
17	Lower Fleet Value's Choice
18	Lower Fleet Value's Choice
19	Higher Fleet Value's Choice
20	Higher Fleet Value's Choice

Scenario Generation Table

Adjusting Fleet Values

Many scenarios will allow for an adjustment of the two fleets to balance out the difference in fleet values, with some purposely unbalancing them. This balancing is achieved through the use of support lists and reinforcement lists.

A support list is a collection of starships that the player has deemed can be purchased to bolster their fleet. Starships purchased from a support list must be added to an existing or reinforcement squadron.

Additionally, if a player has selected the option, hanger bays on their starships may provide options for the purchasing of starfighter squadrons and mounted weapons to load on those starfighters. This would require the hanger bays to have at least one capacity unfulfilled.

Every navy can have a reinforcement list that is inherited by every fleet in the navy. The reinforcement list is a collection of starship squadrons that can be brought into a scenario and has a cost per roll. However, players do not purchase these reinforcements directly; rather, they purchase a roll on the reinforcement list. The player then rolls to receive a random reinforcement option.

In every scenario, the attacker and defender may have one or more default reinforcement rolls. These default rolls are free and are always included.

In each scenario the player with the higher fleet value makes purchases first. Both players must make all purchases before rolling their reinforcements. Players are not required to disclose their purchases or reinforcement rolls prior to those assets being placed on the table.

Generating Terrain

After the two players have balanced (or unbalanced) their fleet values as per the dictate of the scenario, they must then generate the terrain. The same method for generating terrain as in Match Play is used; however, the limits on the number of D20s each player can roll is determined by the scenario.

Each player chooses how many D20s they wish to roll for terrain generation. The more dice a player chooses to roll, the greater chance they will have a say in where the terrain is placed. More total dice rolled combined between both players means less chance of interesting terrain.

Once both players have rolled their chosen dice, the two lowest rolls from among all the dice are selected and the players refer to the Terrain Generation Chart. Each die will dictate a terrain feature to be placed on the table (or be the entire table in the case of nebulae). The placement of each terrain feature is conducted by the player who rolled the dice generating the feature. The terrain is placed in descending dice order and each feature cannot be placed inside either player's deployment zone. Asteroid Fields can cross deployment zones perpendicularly but not run the length of a zone. Players are encouraged to modify this procedure to suit their gaming desires (choosing the three lowest dice for instance).

D20 Roll	Terrain Feature
1	Void (No Terrain)
2	Void
3	Void
4	Void
5	Void
6	1D6 Asteroid Clusters (max 10cm diameter each)
7	1D12 Asteroid Clusters (max 10cm diameter each)
8	Asteroid Field (10-20cm wide, table edge to table edge)
9	Asteroid Field (20-40cm wide, table edge to table edge)
10	Small Planet (max 20cm diameter)
11	Medium Planet (20-50cm diameter)
12	Large Planet (50-100cm diameter)
13	Protoplanetary Nebula (entire table)
14	Planetary Nebula (entire table)
15	Dark Nebula (entire table)
16	Supernova Remnant Nebula (entire table)
17	Dwarf Star (off one table edge)
18	Giant Star (off one table edge)
19	Neutron Star/Pulsar/Magnetar (off one table edge)
20	Singularity (off one table edge)

Terrain Generation Table

Morale

Some scenarios modify the standard method by which each fleet suffers morale losses. Each scenario will specify the method through which the players suffer morale losses and the mechanism in any scenario supersedes the standard rules. Certain scenarios dictate that under some conditions a fleet must complete its current morale threshold. In this case, the player loses the number of morale points required to finish the threshold in which they are currently recording. If a fleet has completed a morale threshold but not yet recorded any losses in the next threshold, the next threshold is their current one.

Deployment

After terrain has been placed, respecting the two side's primary deployment zones, the players then proceed to deploy their squadrons onto the table. The size of the deployment zones are dictated by the scenario.

Some scenarios will specify secondary deployment zones in addition to the primary deployment zones. In such scenarios, there will be restrictions on the number of squadrons that can be placed inside each zone.

The players begin by each rolling the command dice of their fleet commanders. The lower rolling player must place a squadron onto the table or into reserve. Each scenario will dictate whether each side is permitted to utilize reserves. A player can place no more than 50% of their squadrons into reserve and their fleet commander must be deployed on the table. In the case of a tied roll, the player who last won the roll loses this roll.

Squadrons placed into reserve must still have a starting velocity recorded with the same restrictions as the rest of the fleet but cannot modify it while in reserve. The number of preparation turns a fleet has is determined by each scenario. Each squadron can have a starting velocity up to what this many turns would give them at maximum burn, every starship can start with that many turns of charge on their FTL drives, and every starship can launch as many starfighter squadrons as they could in that many turns.. With this step complete, the game can begin.

Meeting Engagement

The war has dragged on for months with engagements of every size occurring. The next battle looks to be just another in a long bloody war.

Attacker	Defender
Higher Fleet Value	Lower Fleet Value

Support

The attacker may purchase any number of options from their support list and rolls on their reinforcement list but doubles the cost. They then add the cost of their purchases to their fleet value.

Support

The defender receives the difference in the fleet values (after the attacker has made their purchases) to purchase options from their support list and rolls on their reinforcement list.

Deployment

The attacker is granted a primary deployment zone that extends 10% into the depth of the table opposite the defender's zone.

Deployment

The defender is granted a primary deployment zone that extends 10% into the depth of the table opposite the attacker's zone.

Morale

The attacker suffers morale losses for destroyed starships and starfighter squadrons as normal.

Morale

The defender suffers morale losses for destroyed starships and starfighter squadrons as normal.

Initial Turns For Velocity: 1D4-1
Default Reinforcement Rolls: 1
Reserves: Yes
Generated Terrain: 1-4D20

Initial Turns For Velocity: 1D4-1
Default Reinforcement Rolls: 1
Reserves: Yes
Generated Terrain: 1-4D20

10%

10%

10%

10%

Flank Attack

In a move of tactical brilliance, the attacker has managed to manoeuvre some of their forces to the flank of the defending fleet. Pressing their advantage they approach from two vectors.

Attacker

Higher Fleet Value

Support

The attacker may purchase any number of options from their support list and rolls on their reinforcement list but doubles the cost. They then add the cost of their purchases to their fleet value.

Deployment

The attacker is granted a primary deployment zone that extends 10% into the depth of the table opposite the defender's zone. In addition they are granted one secondary deployment zone along one flank extending 10% into the depth of the table. They must deploy at least 25% of their fleet value in the secondary deployment zone but not more than 50%. Squadrons deployed in the secondary zone receive a +1 to the initial velocity roll.

Morale

The attacker suffers morale losses for destroyed starships and starfighter squadrons as normal.

Initial Turns For Velocity: 1D4-1/1D4+1
Default Reinforcement Rolls: 1 Reserves: Yes
Generated Terrain: 1-4D20

Defender

Lower Fleet Value

Support

The defender receives the difference in the fleet values (after the attacker has made their purchases) to purchase options from their support list and rolls on their reinforcement list.

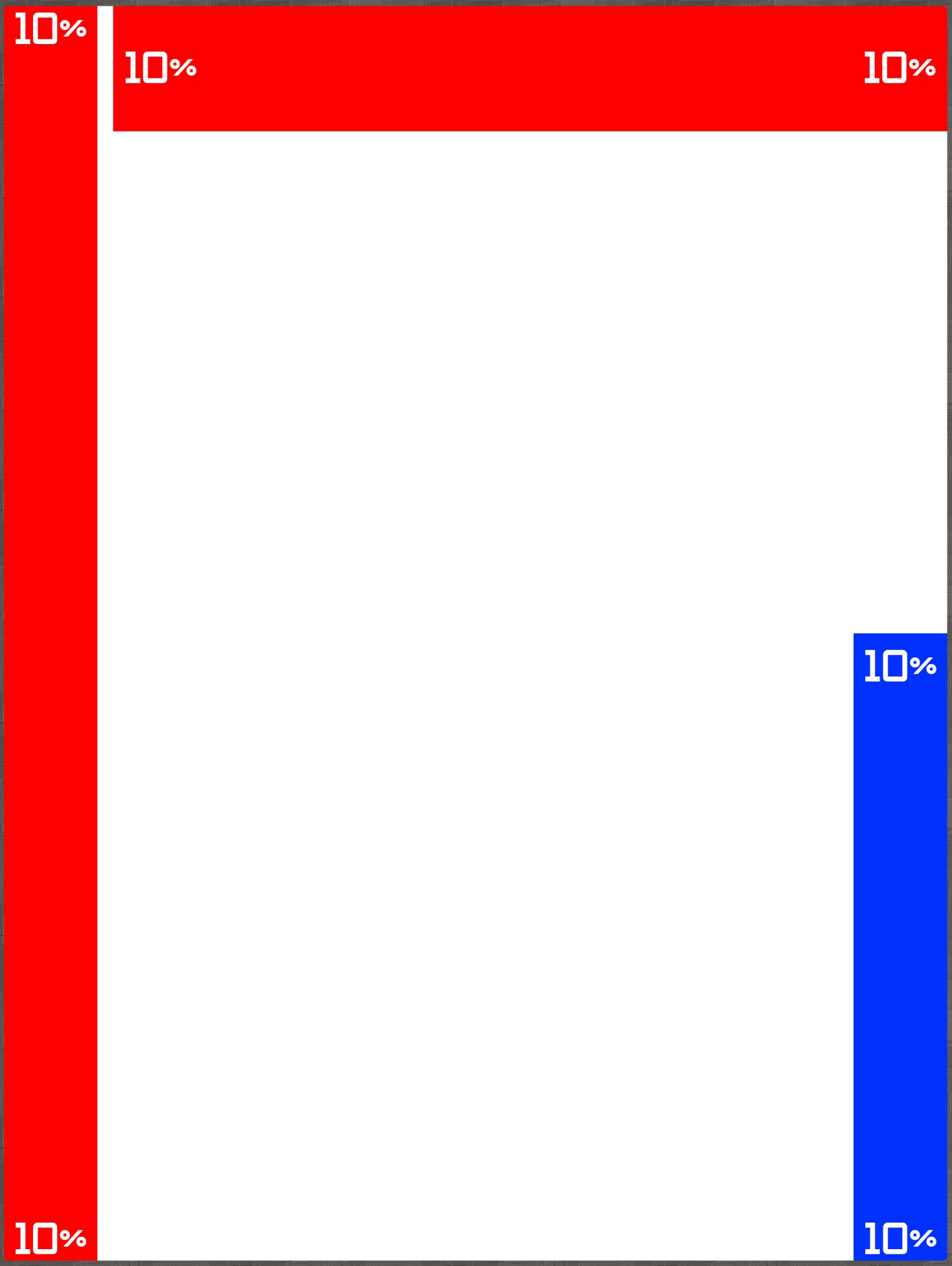
Deployment

The defender is granted a primary deployment zone that extends 10% into the depth of the table opposite the attacker's zone but only 50% of the length opposite the attackers secondary zone.

Morale

The defender suffers morale losses for destroyed starships and starfighter squadrons as normal.

Initial Turns For Velocity: 1D4-1
Default Reinforcement Rolls: 1
Reserves: Yes
Generated Terrain: 1-2D20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Pincer

The attacker has slowly retreated in the face of the defender's advance but now the trap is sprung. Having drawn the defender into a battlespace of their choosing, the attacker stands to face them from three vectors.

Attacker
Higher Fleet Value

Support
The attacker may purchase any number of options from their support list and rolls on their reinforcement list but doubles the cost. They then add the cost of their purchases to their fleet value.

Deployment
The attacker is granted a primary deployment zone that extends 10% into the depth of the table opposite the defender's zone. In addition they are granted two secondary deployment zones along both flanks extending 10% into the depth of the table. They must deploy at least 25% of their fleet value in each secondary deployment zone but not more than 50%. Squadrons deployed in the secondary zones receive a +1 to the initial velocity roll.

Morale
The attacker suffers morale losses for destroyed starships and starfighter squadrons as normal.

Initial Turns For Velocity: 1D4-1/1D4+1
Default Reinforcement Rolls: 1 Reserves: Yes
Generated Terrain: 1-4D20

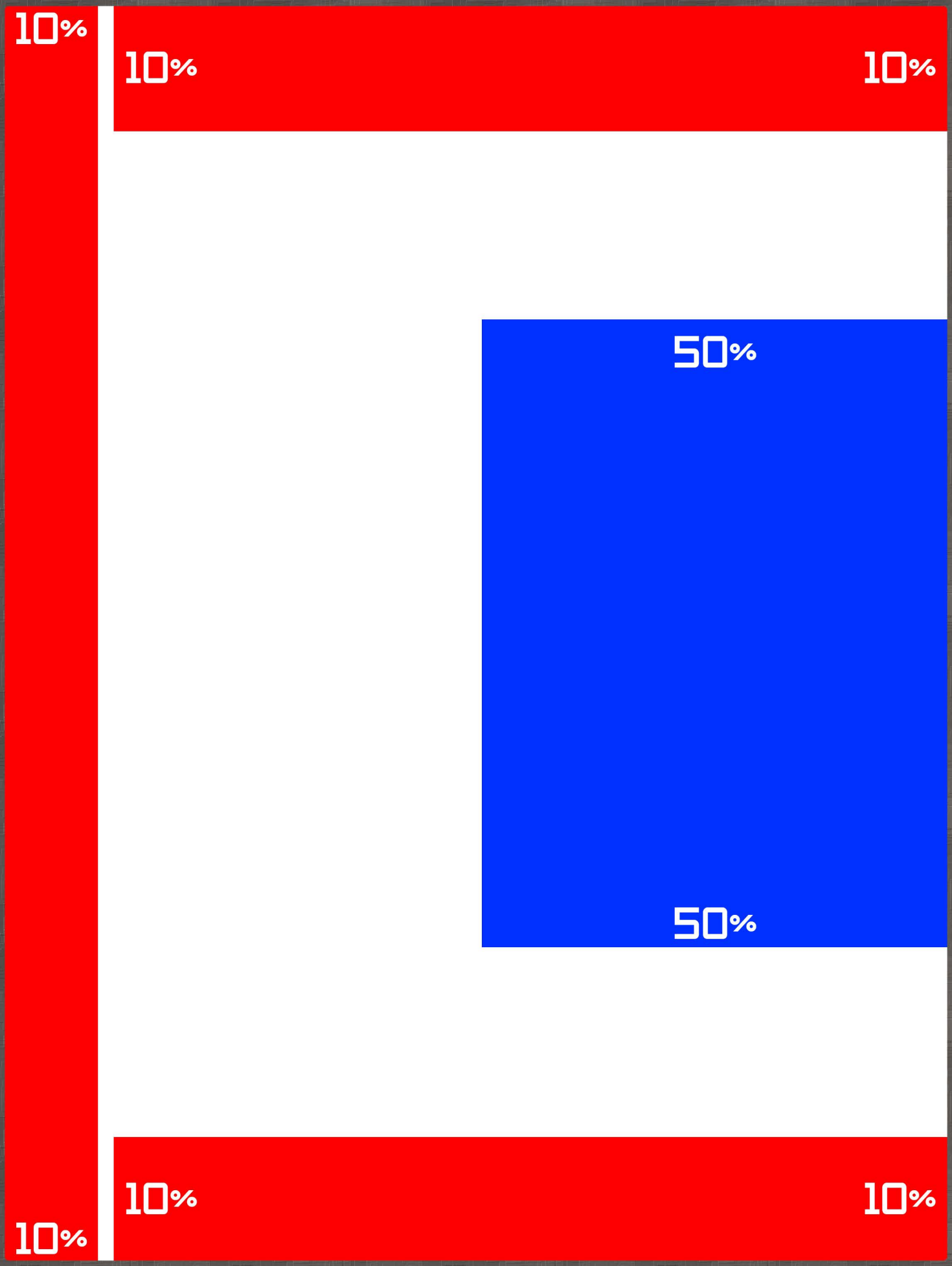
Defender
Lower Fleet Value

Support
The defender receives the difference in the fleet values (after the attacker has made their purchases) to purchase options from their support list and rolls on their reinforcement list.

Deployment
The defender is granted a primary deployment zone that extends 50% into the depth of the table opposite the attacker's zone but only the middle 50% of the length.

Morale
The defender suffers morale losses for destroyed starships and starfighter squadrons as normal.

Initial Turns For Velocity: 1D4-1
Default Reinforcement Rolls: 1
Reserves: Yes
Generated Terrain: None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10%
10%

Planetary Raid

The planetary raid centres on the efforts of one fleet trying to close quickly and strike at an enemy planet, performing rapid bombardment of key ground targets. A list of targets, planet-wide, has been distributed throughout the fleet and they stand ready to strike. However, should the fleet encounter resistance in orbit, the captains have been instructed to defend their ships first and only engage in orbital bombardment if their sector is clear.

Attacker

Lower Fleet Value

Support

The attacker receives the difference in the fleet values (after the defender has made their purchases) to purchase options from their support list and rolls on their reinforcement list.

Deployment

The attacker is granted a primary deployment zone that extends 10% into the depth of the table opposite the defender's zone. They are also granted two secondary deployment zones along the flank edges of the table that extend 10% into the depth of the table. At least one squadron must be deployed in each deployment zone but not more than 50% of their fleet value. Reserves must enter from the primary deployment zone.

Morale

The attacker suffers morale losses for destroyed starships and starfighter squadrons as normal.

Initial Turns For Velocity: 1D4
Default Reinforcement Rolls: 1
Reserves: Yes
Generated Terrain: None

Defender

Higher Fleet Value

Support

The defender may purchase any number of options from their support list and rolls on their reinforcement list but doubles the cost. They then add the cost of their purchases to their fleet value.

Deployment

The defender is granted a primary deployment zone that extends 50% into the depth of the table opposite the attacker's zone but only the middle 50%. Reinforcements start in reserve and cannot enter the table turn one. A medium planet is in the center of the deployment zone. All starships begin with charged FTL drives.

Morale

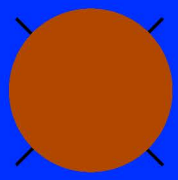
The planet in the primary deployment zone has four 90˚ arcs. Each morale step, check the each arc that has no defending starship within 100cm. If the attacker has starships within 100cm, complete one morale threshold for each enemy squadron in arc.

Initial Turns For Velocity: 1D4-2
Default Reinforcement Rolls: 1
Reserves: Yes
Generated Terrain: None

10%

10% 10%

50%



50%

10%

10% 10%

Convoy Raid

A small group of transports, freighters, and other support craft are being escorted by the defending fleet. The helpless 'targets' have dropped out of FTL to give their systems and crews a rest. The attacker's fleet has happened upon this motley collection of starships and aims to destroy as many of the convoy ships as possible. Tasked with protecting this convoy, the defender must ensure the survival of the fleet.

Attacker

Lower Fleet Value

Support

The attacker receives the difference in the fleet values to purchase options from their support list and rolls on their reinforcement list.

Deployment

The attacker is granted two primary deployment zones on opposite sides of the table that extend 10% into the depth of the table. They can choose which opposing sides to use prior to deployment. A minimum of 25% of the fleet value must be deployed in each zone.

Morale

The attacker suffers morale losses for destroyed starships and starfighter squadrons as normal.

Initial Turns For Velocity: 1D4-1
Default Reinforcement Rolls: 1
Reserves: Yes
Generated Terrain: 1D20

Defender

Higher Fleet Value

Support

The defender may not make any purchases from their support or reinforcement lists. They will select a number of freighters to defend. For every 500 points of fleet value (rounded up, minimum 1) the player must purchase 1 point of freighters in any combination they choose.

Deployment

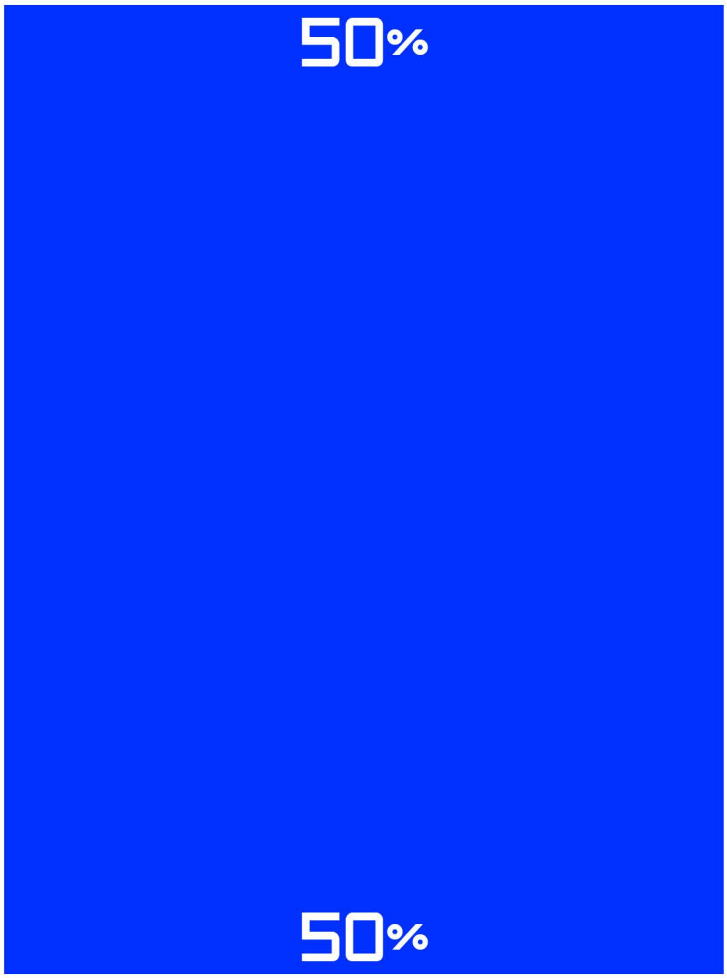
The defender is granted a primary deployment zone in the middle 50% of the table. The convoy starships are deployed before either player deploys their starships. The convoy starships are plotted as normal but start with a velocity of zero. All the defender's starships begin the game with no charge on their FTL drives.

Morale

Each time a convoy starship is destroyed the defender completes their current morale threshold.

Initial Turns For Velocity: 1D4-1
Default Reinforcement Rolls: 2
Reserves: No
Generated Terrain: 1-4D20

10% 10%



10% 10%

Headhunting

While on patrol, the defender's flagship has been struck by an asteroid and its FTL drive has been knocked out. The flagship is hurriedly attempting to repair the drive while the fleet established a security perimeter. The attacker has discovered the situation and is moving quickly to exploit the defender's bad luck.

Attacker

Higher Fleet Value

Support

The attacker may purchase any number of options from their support list and rolls on their reinforcement list but doubles the cost. They then add the cost of their purchases to their fleet value.

Deployment

The attacker is granted a primary deployment zone that extends 10% into the depth of the table opposite the defenders zone.

Morale

The attacker suffers morale losses for destroyed starships and starfighter squadrons as normal.

Initial Turns For Velocity: 1D4+1
Default Reinforcement Rolls: 1
Reserves: Yes
Generated Terrain: None

Defender

Lower Fleet Value

Support

The defender receives the difference in the fleet values (after the attacker has made their purchases) to purchase options from their support list and rolls on their reinforcement list.

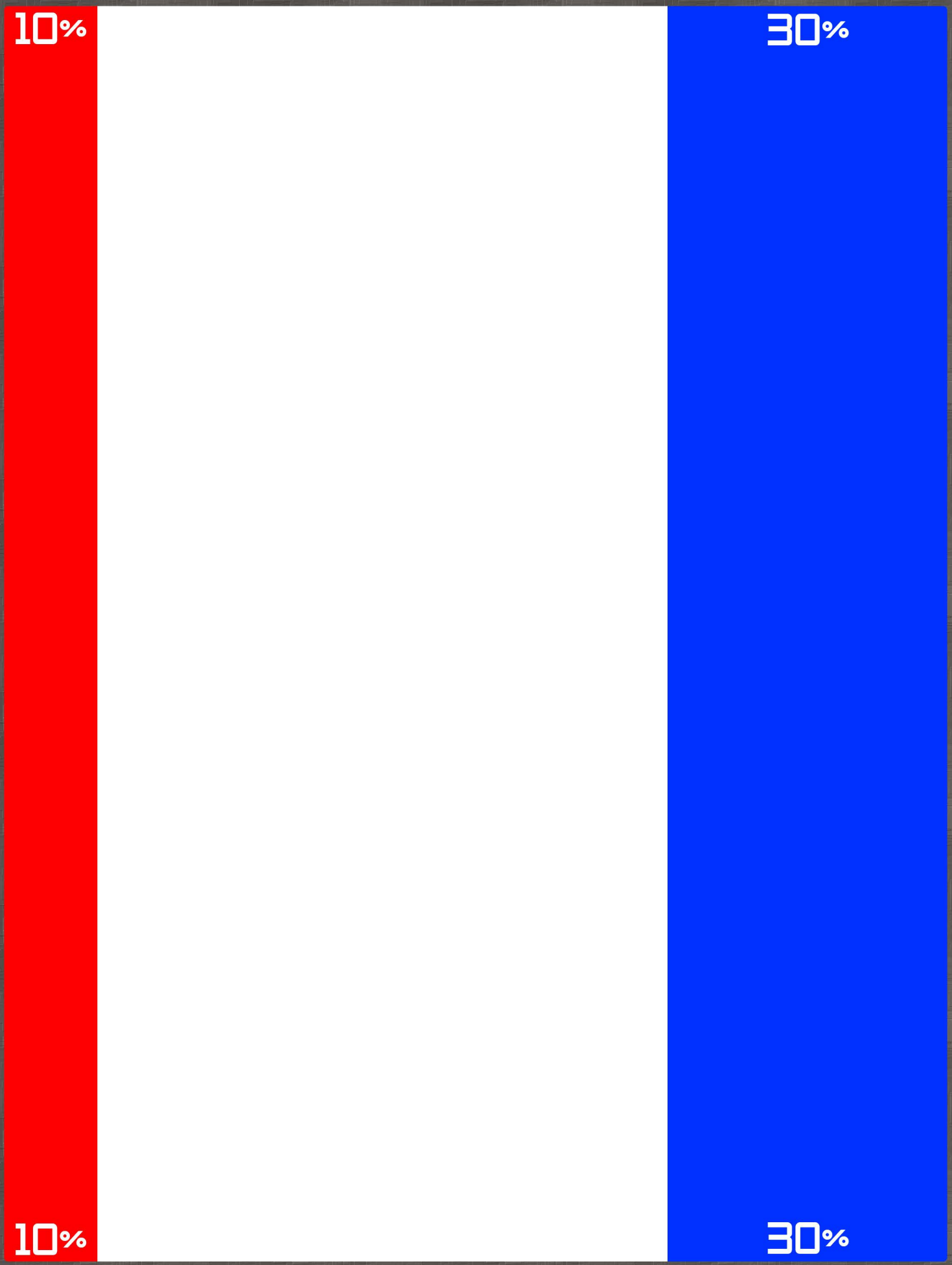
Deployment

The defender is granted a primary deployment zone along one table edge that extends 30% into the depth of the table opposite the attacker's zone. The entire deployment zone is considered an asteroid field. The flagship must be deployed in the center of the deployment zone before all other starships and begins with a velocity of 0.

Morale

If the flagship is destroyed the defender loses the game. Each repair step one repair point is generated on the flagship and an additional point may be generated for 3CP. When ten repair points have been generated the flagship's FTL is fixed and charged and the defender wins.

Initial Turns For Velocity: 1D4-1
Default Reinforcement Rolls: 2
Reserves: No
Generated Terrain: 1-4D20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Fleet In Being

The attacker's navy is strategically inferior to the defender both in quantity of assets and position. Localized force superiority is the only viable path to victory. In this region of the front line, the attacker has managed to swing the force ratio in their favour and is pushing their advantage. However, the defender can still afford losses much higher than the attacker and is sure to press that advantage.

Attacker	Defender
Lower Fleet Value	Higher Fleet Value

Support

The attacker receives the difference in the fleet values (after the defender has made their purchases) to purchase options from their support list and rolls on their reinforcement list.

Support

The defender may purchase up to 1D6 options from their support list and may one roll on their reinforcement list. They then add the cost of their purchases to their fleet value.

Deployment

The attacker is granted a primary deployment zone that extends 10% into the depth of the table opposite the defender's zone.

Deployment

The defender is granted a primary deployment zone that extends 10% into the depth of the table opposite the attacker's zone.

Morale

The attacker suffers double morale losses for destroyed starships and starfighter squadrons as normal.

Morale

The defender suffers morale losses for destroyed starships and starfighter squadrons as normal.

Initial Turns For Velocity: 1D4
Default Reinforcement Rolls: 2
Reserves: Yes
Generated Terrain: 1-4D20

Initial Turns For Velocity: 1D4
Default Reinforcement Rolls: 0
Reserves: No
Generated Terrain: 1-2D20

10%

10%

10%

10%

Brawl

The attacker has given hot pursuit to the defender for several days always missing them by one FTL jump. Finally they have caught up with their prey but the situation is not ideal. Rather than emerging from FTL at a reasonable distance from the enemy, giving space to form the fleet up, the attacker has emerged right on top of the defender. Now the two fleets are intermixed and fighting viciously.

Attacker	Defender
Higher Fleet Value	Lower Fleet Value

Support

The attacker may purchase any number of options from their support list and rolls on their reinforcement list but doubles the cost. They then add the cost of their purchases to their fleet value.

Support

The defender receives the difference in the fleet values (after the attacker has made their purchases) to purchase options from their support list and rolls on their reinforcement list.

Deployment

The attacker and defender share a common deployment zone in the middle 50% of the table.

Deployment

The defender and attacker share a common deployment zone in the middle 50% of the table.

Morale

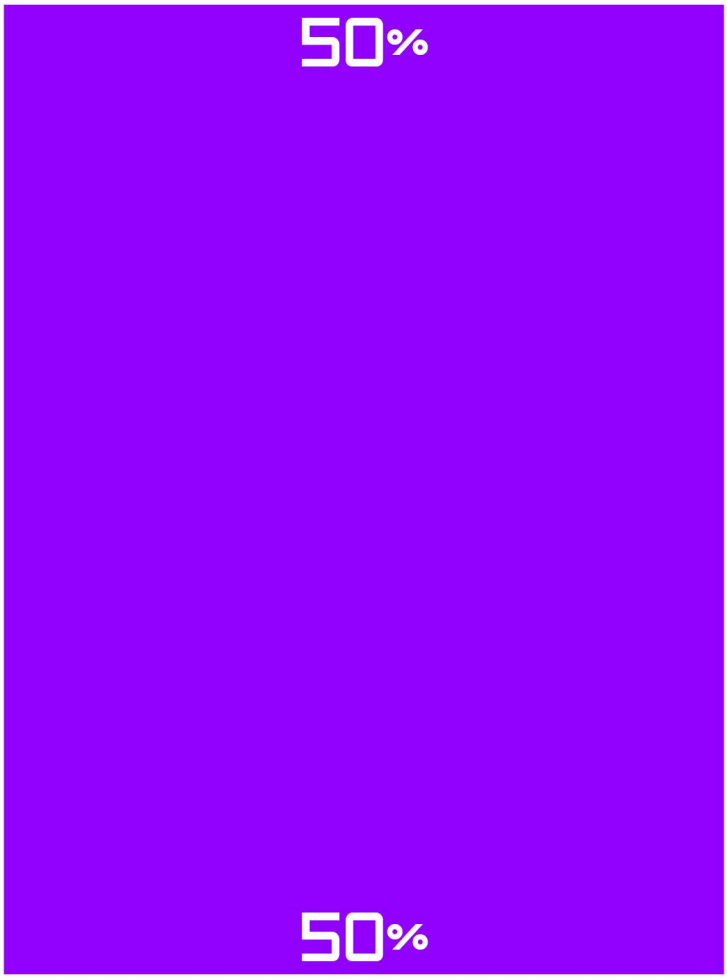
The attacker suffers morale losses for destroyed starships and starfighter squadrons as normal.

Morale

The defender suffers morale losses for destroyed starships and starfighter squadrons as normal.

Initial Turns For Velocity: 1D4-2
Default Reinforcement Rolls: 1
Reserves: No
Generated Terrain: 1-4D20

Initial Turns For Velocity: 1D4-2
Default Reinforcement Rolls: 1
Reserves: No
Generated Terrain: 1-4D20


50%
50%

Wave Attack

The attacker is closing in on the defender's core territory with a nearly limitless force. All along the front, wave after wave of starships slam into hard hit defences. The defender is attempting to slow the advance of the attacker to buy time for firmer defences to be established. Given enough losses the attacker may be forced to temporarily fall back.

Attacker

Higher Fleet Value

Support

The attacker may not make purchases from their support list and may not purchase reinforcement rolls. During each morale step the attacker rolls once on their reinforcement list; the rolled squadron is placed in reserve.

Deployment

The attacker is granted a primary deployment zone that extends 10% into the depth of the table opposite the defender's zone.

Morale

During each morale step, the attacker completes one morale threshold.

Initial Turns For Velocity: 1D4
Default Reinforcement Rolls: 1/Turn
Reserves: Yes
Generated Terrain: None

Defender

Lower Fleet Value

Support

The defender receives double the difference in the fleet values to make purchases on their support list and reinforcement rolls.

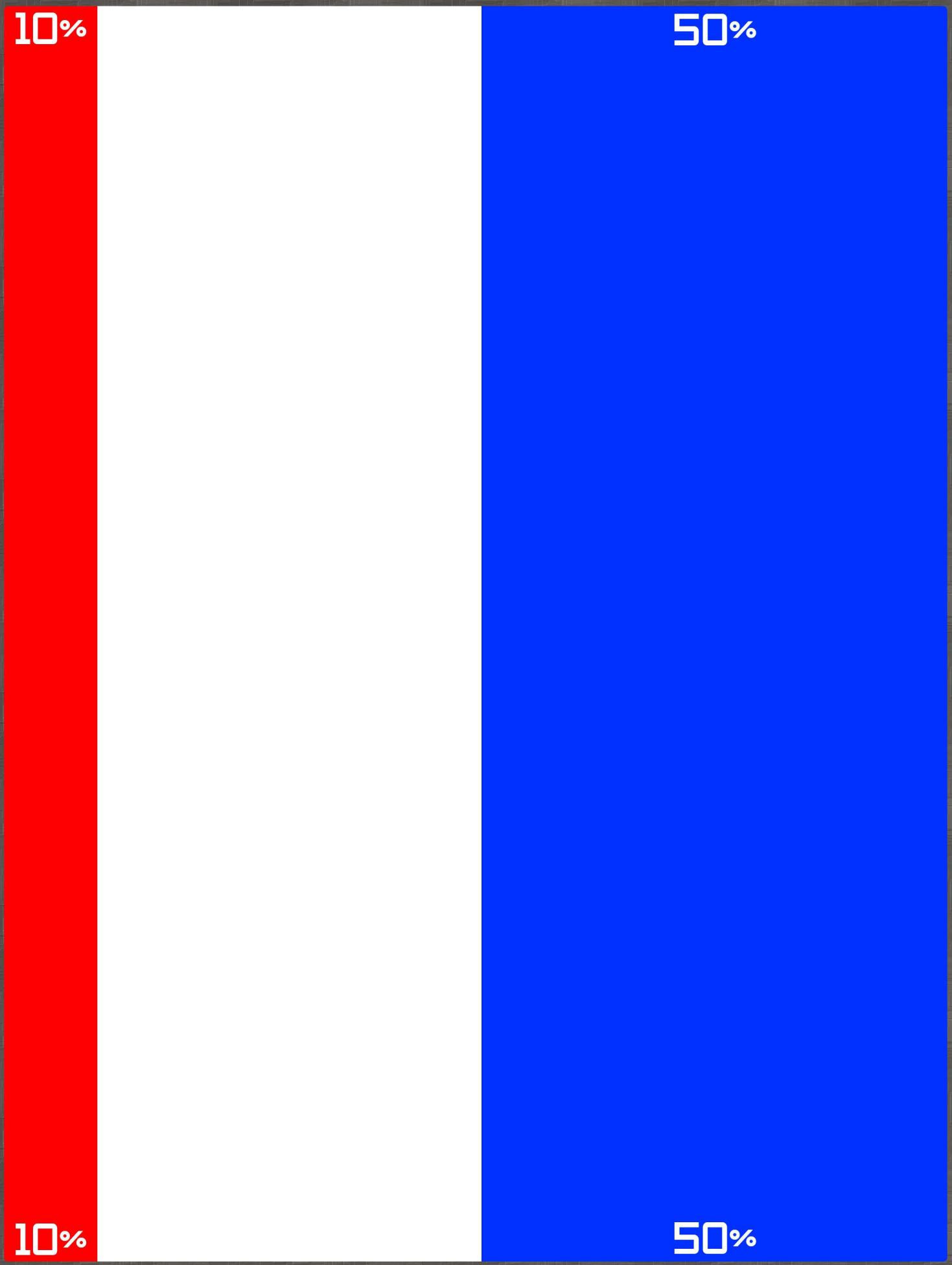
Deployment

The defender is granted a primary deployment zone that extends 50% into the depth of the table opposite the attacker's zone.

Morale

The defender suffers morale losses for destroyed starships and starfighter squadrons as normal.

Initial Turns For Velocity: 1D4
Default Reinforcement Rolls: 1
Reserves: Yes
Generated Terrain: 1-4D20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5pt Freighter

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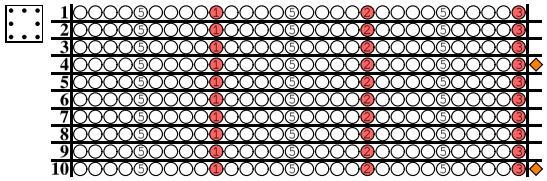
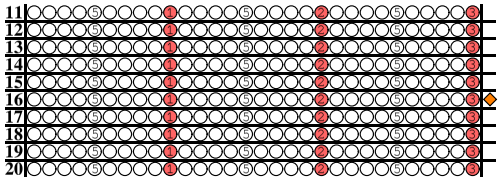
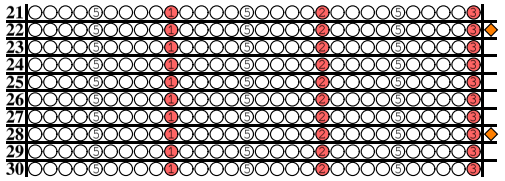
Core Section

○900 ◆5







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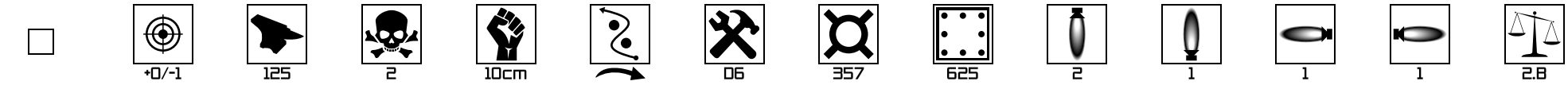
4pt Freighter



Core Section

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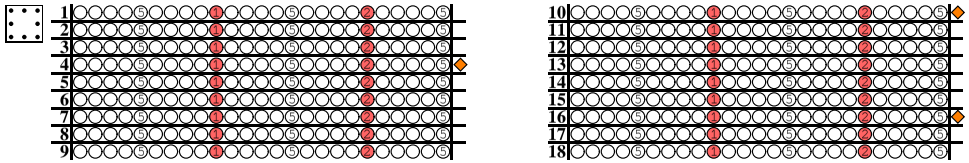
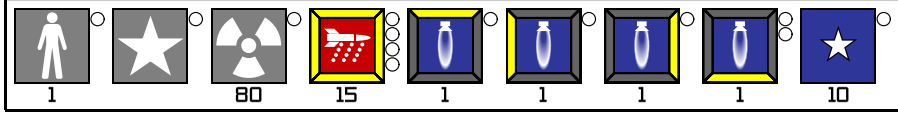
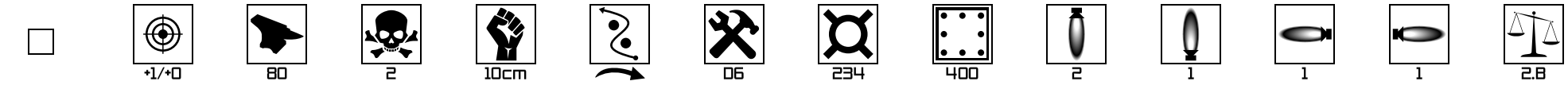


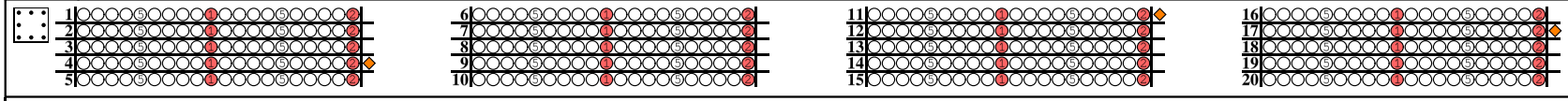


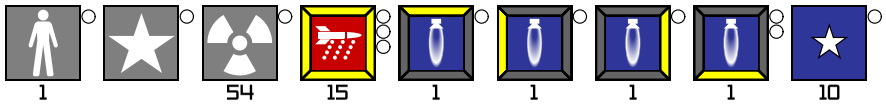
3pt Freighter



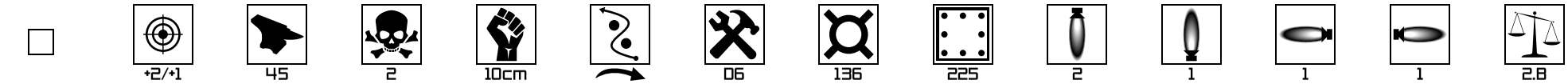
Core Section

○400 ◇3



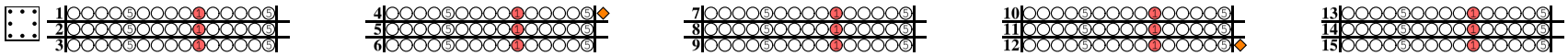


2pt Freighter

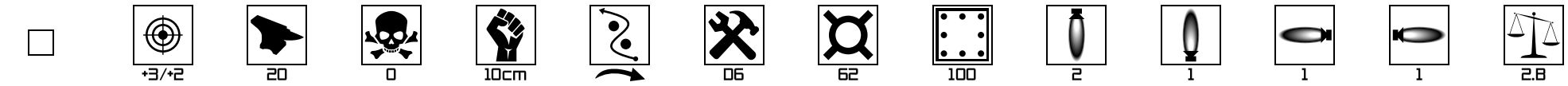


Core Section

○225 ◆2

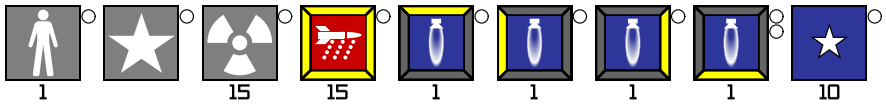


1pt Freighter



Core Section

○100 ◆1



BATTLESPACE PUBLISHING

Earth Federal Navy

Classes

B-95 Bomber
F-128 Interceptor
M-22 Assault Craft
Atlantic Class Corvette
Darwin Class Frigate
Hanoi Class Missile Destroyer
Niger Class Destroyer
Neptune Class Escort Carrier
Leipzig Class Cruiser
Dogger Bank Class Heavy Cruiser
Butler Class Marine Assault Ship
Attila Class Battleship
Midway Class Fleet Carrier

Fleets

Carrier Battlegroup
Battleship Group
Patrol Group
System Defense Group

B-95 Bombers	3	100cm						1	7	4	
1× **55mm Railguns**		1×(D4+1)	S			0		5			
48MT Penetrator Missiles		1×(D6+0)	L			0		6			
144MT Nuclear Missiles		1×(D12+4)	L			0		16			Ionized

F-128 Interceptors	3	100cm						4	6	2
1× **55mm Railguns**		1×(D4+1)	S			0		5		
Interceptor Missiles		1×(D4+0)	L			8		4		

M-22 Assault Craft	2	100cm						1	6	0
1× **55mm Railguns**		1×(D4+1)	S			0		5		

BATTLESPACE PUBLISHING

Atlantic Class

+4/+2	12	2	10cm		06	115	60	6	2	4	4	2.2

CEARU4DNG

Type: Corvette

Core Section

○60 ◆1

1		32	6	6	11	1	3	1	1	1		70		

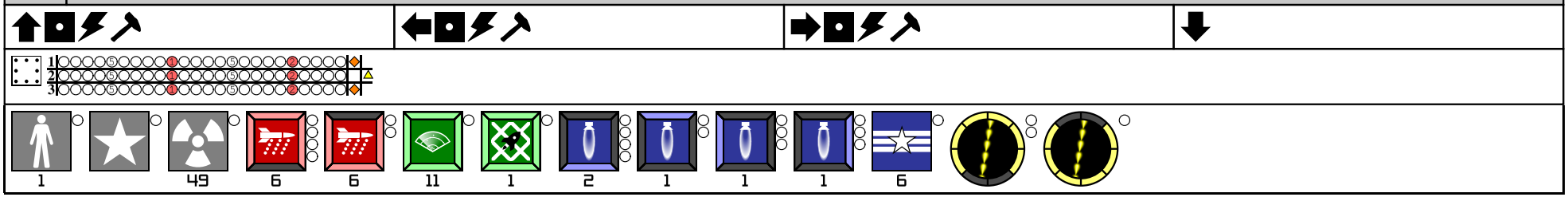
'Archer' Missile Battery													
176MT Nuclear Missile	○○○	1×(D12+10)	20cm/120cm@6		0		22	0		D0	0	Ionized
64MT Penetrator Missile	○○○	1×(D8+0)	20cm/120cm@6		0		8	0		D0	0	
Interceptor Missile	○○○	1×(D6+0)	10cm/60cm		10		6	0		D0	0	
70mm Railgun Battery													
70mm Shell	○○○	1×(D4+2)	10cm/50cm		8		6	0	1	D0	-1	
150PW Plasma Pulse Cannon													
Plasma Pulse	○○○	D6×(5)	5cm/30cm		0		5	0	2	D0	-2	Reactive

Darwin Class

Type: Frigate

Core Section

○72 ◆2 △1



150PW Plasma Pulse Cannon

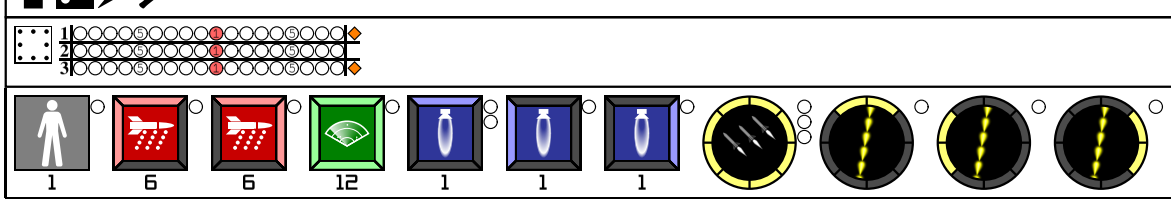
Plasma Pulse ○○○ D6×(5) 5cm/30cm 0 5 0 **2** D0 -2 Reactive

Hanoi Class

Type: Missile Destroyer

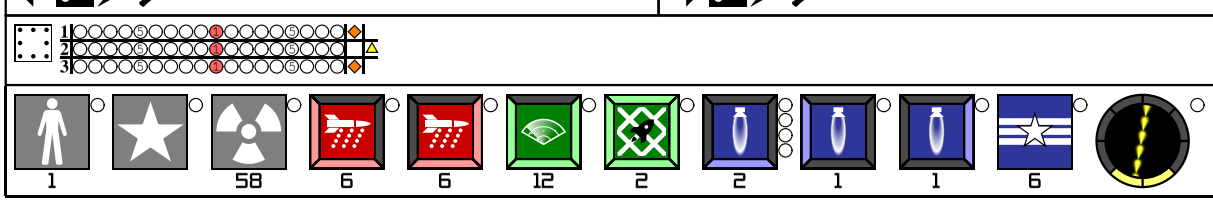
Bow Section

○54 ◆2



Core Section

○54 ◆2 △1



'Archer' Missile Battery

176MT Nuclear Missile	○○○	1×(D12+10)	20cm/120cm@6			0	22	0		D0	0	Ionized
64MT Penetrator Missile	○○○	1×(D8+0)	20cm/120cm@6			0	8	0		D0	0	
Interceptor Missile	○○○	1×(D6+0)	10cm/60cm			10	6	0		D0	0	

150PW Plasma Pulse Cannon

Plasma Pulse	○○○	D6×(5)	5cm/30cm			0	5	0	2	D0	-2	Reactive

Niger Class

+3/+2 | 24 | 3 | 10cm | 06 | 263 | 120 | 12 | 2 | 4 | 4 | 2.2

CVVXNC6QX

Type: Destroyer

Bow Section

○60 ◆2

1 | 6 | 6 | 11 | 1 | 1 | 1 | 70

Core Section

○60 ◆2 △1

1 | 80 | 6 | 6 | 11 | 2 | 3 | 1 | 1 | 6 | 70

'Archer' Missile Battery

176MT Nuclear Missile	○○○	1×(D12+10)	20cm/120cm@6			0	22	0	D0	0	Ionized
64MT Penetrator Missile	○○○	1×(D8+0)	20cm/120cm@6		III	0	8	0	D0	0	
Interceptor Missile	○○○	1×(D6+0)	10cm/60cm			10	6	0	D0	0	

70mm Railgun Battery

70mm Shell	○○○	1×(D4+2)	10cm/50cm			8	6	0	1	D0	-1	

150PW Plasma Pulse Cannon

Plasma Pulse	○○○	D6×(5)	5cm/30cm			0	5	0	2	D0	-2	Reactive

Neptune Class

+2/+1 | 38 | 3 | 10cm | 06 | 254 | 189 | 8 | 2 | 2 | 2 | 2.2 | CVPHN8STT

Type: Escort Carrier

Bow Section

○63 ◆3

1 | Fore | 6 | 6 | 11 | 1 | 1 | 1

Core Section

○63 ◆3 △1

1 | 11 | 11 | 1

Aft Section

○63 ◆2

1 | 92 | Aft | 6 | 6 | 11 | 2 | 1 | 1 | 6

150PW Plasma Pulse Cannon
Plasma Pulse ○○○ D6×(5) 5cm/30cm 0 5 0 **2** D0 -2 Reactive

Fore
1 1 2
¤8 B-95 Bombers, ¤10 F-128 Interceptors

Aft
1 1 2
¤8 B-95 Bombers, ¤10 F-128 Interceptors

 ¤1 48MT Penetrator Missiles, ¤2 144MT Nuclear Missiles, ¤1 Interceptor Missiles

Leipzig Class

+2/+1 | 36 | 3 | 10cm | 06 | 319 | 180 | 9 | 2 | 2 | 2 | 2.2 | C5JKSL15J

Type: Cruiser

Bow Section

○60 ◆2

1 | 6 | 12 | 1 | 1 | 1 | 70 | 110

Core Section

○60 ◆2 △1

1 | 12 | 2

Aft Section

○60 ◆1

1 | 87 | 6 | 12 | 3 | 1 | 1 | 6 | 70

'Archer' Missile Battery

176MT Nuclear Missile	○○○	1×(D12+10)	20cm/120cm@6	0	22	Ionized
64MT Penetrator Missile	○○○	1×(D8+0)	20cm/120cm@6	0	8	
Interceptor Missile	○○○	1×(D6+0)	10cm/60cm	10	6	

	**70mm Railgun Battery** **70mm Shell**	○○○	1×(D4+2)	10cm/50cm		8	6	0	1	D0	-1
	**110mm Railgun Battery**	○○○	1×(D6+3)	10cm/60cm		0	9	0	1	D0	0
	**150PW Plasma Pulse Cannon** **Plasma Pulse**	○○○	D6×(5)	5cm/30cm		0	5	0	2	D0	-2 Reactive

Dogger Bank Class

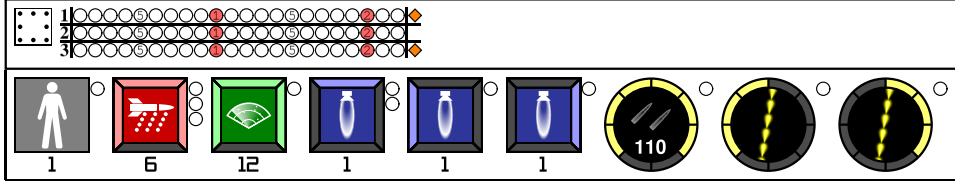
+2/+1	40	3	10cm	06	339	198	8	2	2	2	2.2

C1VTHEN4A

Type: Heavy Cruiser

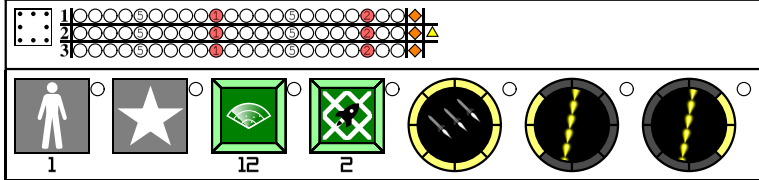
Bow Section

○66 ◆2



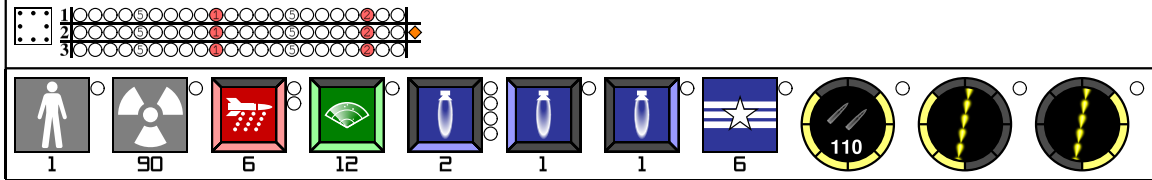
Core Section

○66 ◆3 △1



Aft Section

○66 ◆1



'Archer' Missile Battery

176MT Nuclear Missile	○○○	1×(D12+10)	20cm/120cm@6	0	22	0	D0	0	Ionized
64MT Penetrator Missile	○○○	1×(D8+0)	20cm/120cm@6	0	8	0	D0	0	
Interceptor Missile	○○○	1×(D6+0)	10cm/60cm	10	6	0	D0	0	

 110	110mm Railgun Battery	○○○	1×(D6+3)	10cm/60cm		0		9	0	1	D0	0
	150PW Plasma Pulse Cannon **Plasma Pulse**	○○○	D6×(5)	5cm/30cm		0		5	0	2	D0	-2 Reactive

Butler Class

+2/+1 | 43 | 3 | 10cm | 06 | 286 | 216 | 8 | 2 | 2 | 2 | 2.2 | CUVVKFU1A

Type: Marine Assault Ship

Bow Section

72 ◆3

1 | 6 | 6 | 11 | 1 | 1 | 1 | 70

Core Section

72 ◆3 △12

3 | 11 | 11 | 1

Aft Section

72 ◆2

1 | 101 | Main | 6 | 6 | 11 | 4 | 1 | 1 | 6

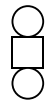
70mm Railgun Battery

70mm Shell ○○○ 1×(D4+2) 10cm/50cm 8 6 0 **1** D0 -1

150PW Plasma Pulse Cannon
Plasma Pulse ○○○ D6×(5) 5cm/30cm 0 5 0 **2** D0 -2 Reactive

1 4 8
6 M-22 Assault Craft

Attila Class

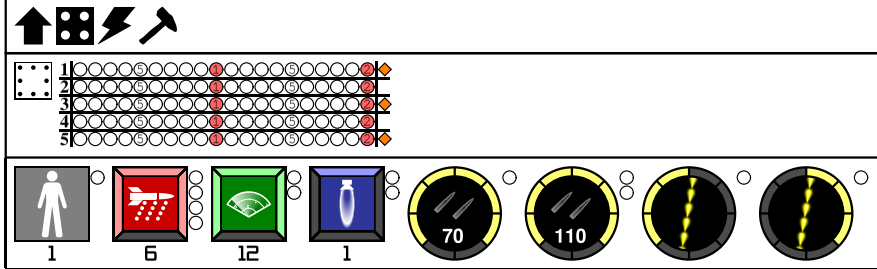




Type: Battleship

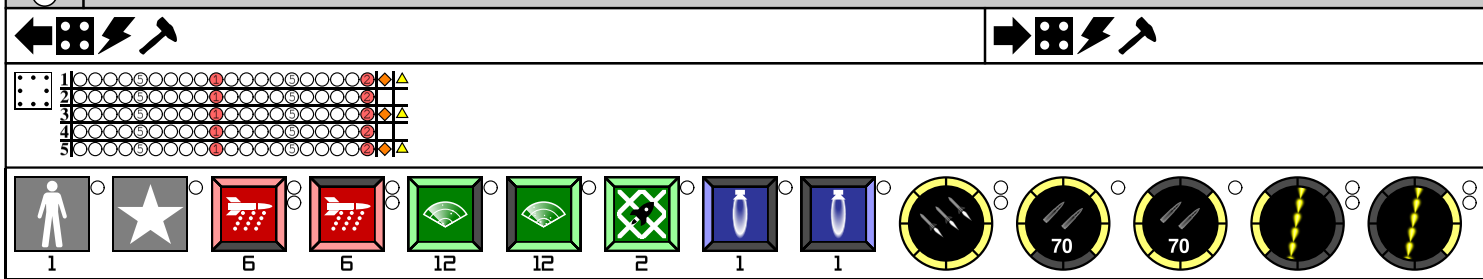
Bow Section

○100 ◆3



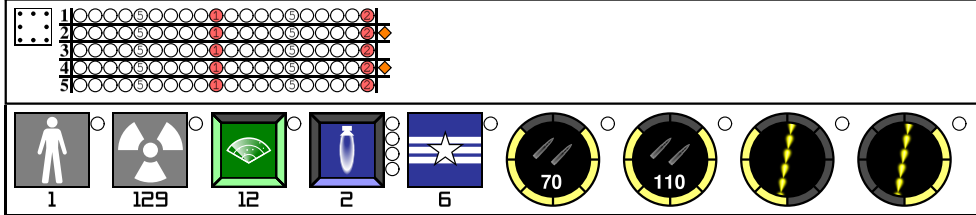
Core Section

○100 ◆3 △3



Aft Section

○100 ◆2



BATTLESPACE PUBLISHING

	**'Archer' Missile Battery**									
	176MT Nuclear Missile	○○○	1×(D12+10)	20cm/120cm@6		0	22	0	D0	0 Ionized
	64MT Penetrator Missile	○○○	1×(D8+0)	20cm/120cm@6		0	8	0	D0	0
	Interceptor Missile	○○○	1×(D6+0)	10cm/60cm		10	6	0	D0	0
	**70mm Railgun Battery**									
	70mm Shell	○○○	1×(D4+2)	10cm/50cm		8	6	0	1 D0	-1
	**110mm Railgun Battery**									
		○○○	1×(D6+3)	10cm/60cm		0	9	0	1 D0	0
	**150PW Plasma Pulse Cannon**									
	Plasma Pulse	○○○	D6×(5)	5cm/30cm		0	5	0	2 D0	-2 Reactive

Midway Class

+1/+0 | 100 | 3 | 10cm | 06 | 615 | 500 | 6 | 2 | 1 | 1 | 2.2

C8IYSYAXB

Type: Fleet Carrier

Bow Section

○100 ◆3

1 | 6 | 6 | 12 | 1 | 70 | 70

Inner Bow Section

○100 ◆3

1 | Fore | 6 | 6 | 12 | 12

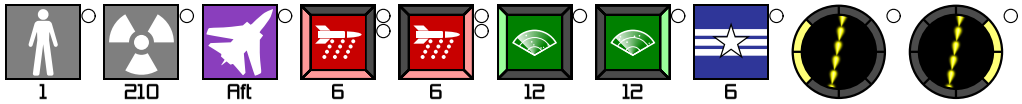
Core Section

○100 ◆5 ▲6

2 | 6 | 6 | 6 | 6 | 12 | 12 | 3 | 1 | 1

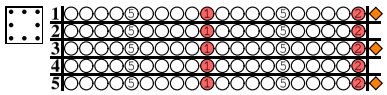
Inner Aft Section

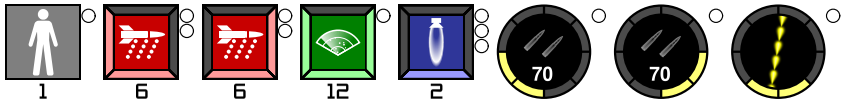
○100 ◆3



Aft Section

○100 ◆3





70mm Railgun Battery
70mm Shell ○○○ 1×(D4+2) 10cm/50cm 8 6 **1** D0 -1

150PW Plasma Pulse Cannon
Plasma Pulse ○○○ D6×(5) 5cm/30cm 0 5 **2** D0 -2 Reactive

1 2 6
2× B-95 Bombers, 4× F-128 Interceptors

1 2 6
2× B-95 Bombers, 4× F-128 Interceptors

¤1 48MT Penetrator Missiles, ¤2 144MT Nuclear Missiles, ¤1 Interceptor Missiles

Carrier Battlegroup

¤3,227 / 3,420 | Command: Average | Crew: Veteran

★★ Midway Class [30], Darwin Class [7], Darwin Class [7]	$1\frac{2}{6}1$	Roll( )	Roll( )
Niger Class [13]	$4\frac{2}{12}4$		Roll( )
Niger Class [13]	$4\frac{2}{12}4$		Roll( )
Niger Class [13]	$4\frac{2}{12}4$		Roll( )
Niger Class [13]	$4\frac{2}{12}4$		Roll( )

B-95 Bombers..... [35] F-128 Interceptors [45]

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

Ace Pilots [2 CP] ***(Starfighter Combat Step; Any Commander)***
Select a starfighter combat. All friendly starfighter squadrons in that combat receive a +1 to their furball ratings until the end of the turn. This tactic cannot raise a furball rating above 7.

Stay on Target [1 CP] ***(Starship Combat Step; Any Commander)***
Select an enemy starship. All friendly starships that did not make any heading changes or advanced manoeuvres receive a +1 to the ratings of their sensor systems while firing on the target starship until the end of the turn.

Carrier Battlegroup (support options)

¤115 Atlantic Class	[2]	¤137 Darwin Class	[2]	¤254 Neptune Class	[4]	¤286 Butler Class....	[4]
¤115 Atlantic Class	[2]	¤137 Darwin Class	[2]	¤263 Niger Class.....	[4]		
¤115 Atlantic Class	[2]	¤245 Hanoi Class....	[4]	¤263 Niger Class.....	[4]		

B-95 Bombers ..... [1] F-128 Interceptors [1] M-22 Assault Craft [1]

Battleship Group

¤3,215 / 3,408 | Command: **Average** | Crew: **Veteran**

★★ Attila Class **[27]**, Darwin Class **[7]**	1 2/8 1	**Roll( )**	**Roll( )**
Attila Class **[27]**, Darwin Class **[7]**	1 2/8 1		**Roll( )**
Attila Class **[27]**, Darwin Class **[7]**	1 2/8 1		**Roll( )**

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

Ace Pilots [2 CP] ***(Starfighter Combat Step; Any Commander)***
Select a starfighter combat. All friendly starfighter squadrons in that combat receive a +1 to their furball ratings until the end of the turn. This tactic cannot raise a furball rating above 7.

Stay on Target [1 CP] ***(Starship Combat Step; Any Commander)***
Select an enemy starship. All friendly starships that did not make any heading changes or advanced manoeuvres receive a +1 to the ratings of their sensor systems while firing on the target starship until the end of the turn.

Battleship Group (support options)

¤115 Atlantic Class	[2]	¤137 Darwin Class	[2]	¤254 Neptune Class	[4]	¤286 Butler Class....	[4]
¤115 Atlantic Class	[2]	¤137 Darwin Class	[2]	¤263 Niger Class.....	[4]		
¤115 Atlantic Class	[2]	¤245 Hanoi Class....	[4]	¤263 Niger Class.....	[4]		

B-95 Bombers ..... **[1]** F-128 Interceptors **[1]** M-22 Assault Craft **[1]**

Patrol Group

¤2,312 / 2,505 | Command: Average | Crew: Veteran

★ Neptune Class [16]	$2\frac{2}{8}2$	Roll( )	Roll( )
Leipzig Class [20]	$2\frac{2}{9}2$		Roll( )
Hanoi Class [15], Hanoi Class [15]	$2\frac{2}{8}2$		Roll( )
Hanoi Class [15], Hanoi Class [15]	$2\frac{2}{8}2$		Roll( )

1 2 3 4 5 6 7 8

B-95 Bombers..... [45] F-128 Interceptors [57]

Ace Pilots [2 CP] ***(Starfighter Combat Step; Any Commander)***
Select a starfighter combat. All friendly starfighter squadrons in that combat receive a +1 to their furball ratings until the end of the turn. This tactic cannot raise a furball rating above 7.

Stay on Target [1 CP] ***(Starship Combat Step; Any Commander)***
Select an enemy starship. All friendly starships that did not make any heading changes or advanced manoeuvres receive a +1 to the ratings of their sensor systems while firing on the target starship until the end of the turn.

Patrol Group (support options)

¤115 Atlantic Class	[2]	¤137 Darwin Class	[3]	¤254 Neptune Class	[5]	¤286 Butler Class....	[6]
¤115 Atlantic Class	[2]	¤137 Darwin Class	[3]	¤263 Niger Class.....	[6]		
¤115 Atlantic Class	[2]	¤245 Hanoi Class....	[5]	¤263 Niger Class.....	[6]		

B-95 Bombers ..... [1] F-128 Interceptors [1] M-22 Assault Craft [1]

System Defense Group ¤2,263 / 2,456 Command: Average Crew: Veteran

★ Dogger Bank Class **[22]**	$2\frac{2}{8}2$	**Roll( )**	**Roll( )**
Niger Class **[17]**	$4\frac{2}{12}4$		**Roll( )**
Niger Class **[17]**	$4\frac{2}{12}4$		**Roll( )**
Atlantic Class **[7]**, Atlantic Class **[7]**, Atlantic Class **[7]**	$4\frac{2}{6}4$		**Roll( )**
Atlantic Class **[7]**, Atlantic Class **[7]**, Atlantic Class **[7]**	$4\frac{2}{6}4$		**Roll( )**

1 2 3 4 5 6 7 8

Ace Pilots [2 CP] ***(Starfighter Combat Step; Any Commander)***
Select a starfighter combat. All friendly starfighter squadrons in that combat receive a +1 to their furball ratings until the end of the turn. This tactic cannot raise a furball rating above 7.

Stay on Target [1 CP] ***(Starship Combat Step; Any Commander)***
Select an enemy starship. All friendly starships that did not make any heading changes or advanced manoeuvres receive a +1 to the ratings of their sensor systems while firing on the target starship until the end of the turn.

System Defense Group (support options)

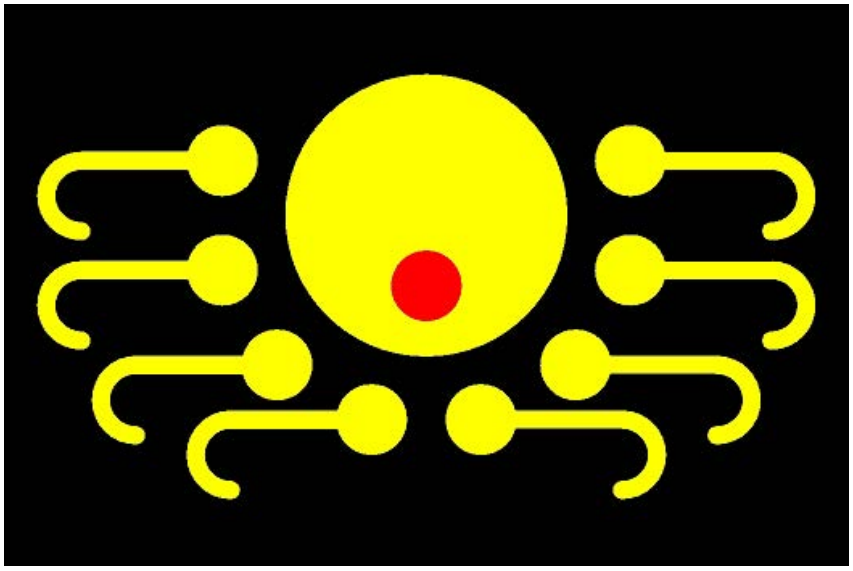
¤115 Atlantic Class	**[3]**	¤137 Darwin Class	**[3]**	¤254 Neptune Class	**[6]**	¤286 Butler Class....	**[6]**
¤115 Atlantic Class	**[3]**	¤137 Darwin Class	**[3]**	¤263 Niger Class.....	**[6]**		
¤115 Atlantic Class	**[3]**	¤245 Hanoi Class....	**[5]**	¤263 Niger Class.....	**[6]**		

B-95 Bombers ..... **[1]** F-128 Interceptors **[1]** M-22 Assault Craft **[1]**

Earth Federal Navy (reinforcements)	¤557	Crew: Veteran	
Midway Class [21], Darwin Class [4], Darwin Class [4]	1 2/6 1	Roll( )	
Attila Class [14], Darwin Class [4]	1 2/8 1	Roll( )	
Attila Class [14], Darwin Class [4]	1 2/8 1	Roll( )	
Butler Class [9]	2 2/8 2	Roll( )	
Dogger Bank Class [9]	2 2/8 2	Roll( )	
Leipzig Class [9]	2 2/9 2	Roll( )	
Leipzig Class [9]	2 2/9 2	Roll( )	
Neptune Class [8], Darwin Class [4]	2 2/8 2	Roll( )	
Hanoi Class [7], Hanoi Class [7]	2 2/8 2	Roll( )	
Niger Class [7]	4 2/12 4	Roll( )	
Niger Class [7]	4 2/12 4	Roll( )	
Atlantic Class [3], Atlantic Class [3], Atlantic Class [3]	4 2/6 4	Roll( )	

B-95 Bombers ..... [1] F-128 Interceptors [1] M-22 Assault Craft [1]

Lokaran Imperial Navy



Classes

Pok'tak Superiority Fighter
Puuj'to Class Stormship
Tietora Class Escortship
Gwara Class Attackship
Kek'sar Class Bloodship
Ul'ree Class Strikeship
Doj'taw Class Warship

Fleets

War Fleet
Attack Fleet
Assault Fleet
Patrol Fleet

Pok'tak Superiority Fighters		4	150cm							2	8	2		
2× **150PW Laser Cannon**		1×(5)	S				0							
1.5kg Antimatter Torpedo		1×(D8+0)	L			8	0	1/2					Antimatter	

Puuj'to Class

+6/+3 | 8 | 2 | 10cm | D6 | 145 | 40 | 12 | 2 | 6 | 6 | 6 | 6 | 2.2

CLG4RR1H9

Type: Stormship

Core Section

40 ◆2

1 | 34 | 10 | 2 | 14 | 2 | 6 | 1 | 1 | 1 | 6 | 180 | 180 | 1

6× **2.25kg Antimatter Torpedo**

180PW Laser Battery
Laser ○○○ 1×(6) 30cm/90cm@2 6 D0 0

Torpedo Launcher
2.25kg Antimatter Torpedo **2×** 1×(D12+0) 20cm/100cm 0 12 0 1/2 D0 +1 Antimatter

Tietora Class

+2/+1 | 36 | 3 | 10cm | 06 | 400 | 180 | 10 | 3 | 4 | 4 | 4 | 4 | 2.2

C6N6DRAEM

Type: Escortship

Bow Section

○30 ◆2

1 | 10 | 1 | 3 | 180

Port Section

○30 ◆1

1 | 1 | 1 | 180

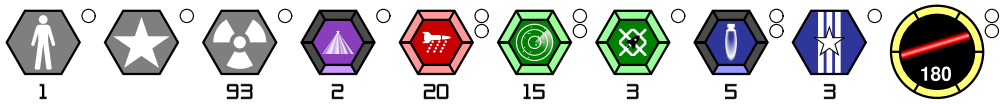
Starboard Section

○30 ◆1

1 | 1 | 1 | 180

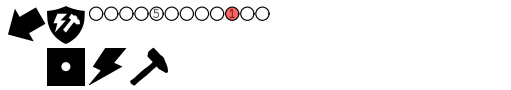
Core Section

○30 ◆2



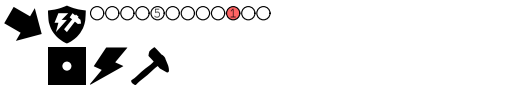
Port-Aft Section

○30 ◆1



Starboard-Aft Section

○30 ◆1

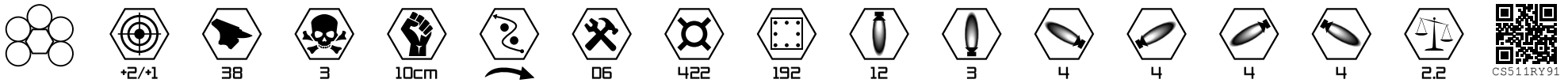


180

180PW Laser Battery

Laser ○○○ 1×(6) 30cm/90cm@2 6 D0 0

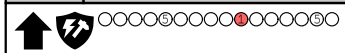
Gwara Class

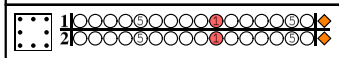


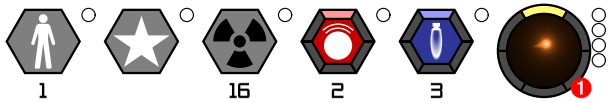
Type: Attackship

Bow Section

○32 ◆2



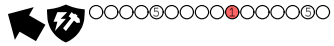


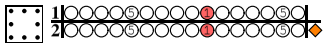


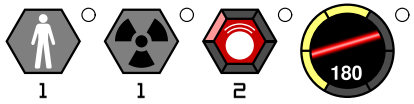
8× **2.25kg Antimatter Torpedo**

Port Section

○32 ◆1

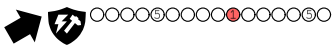


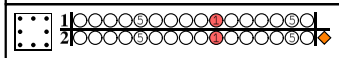


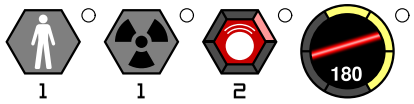


Starboard Section

○32 ◆1







Core Section

○32 ◆2

1 | 96 | Main | 2 | 20 | 15 | 3 | 6 | 3 | 180

4 ..... 24× **2.25kg Antimatter Torpedo**

Port-Aft Section

○32 ◆1

1 | 14 | 2 | 4 | 180

Starboard-Aft Section

○32 ◆1

1 | 14 | 2 | 4 | 180

180 **180PW Laser Battery**
Laser ○○○ 1×(6) 30cm/90cm@2 6 0 D0 0

Torpedo Launcher
2.25kg Antimatter Torpedo **2×** 1×(D12+0) 20cm/100cm 0 12 0 1/2 D0 +1 Antimatter

Main
1 1 1
1× Pok'tak Superiority Fighters

Kek'sar Class

+2/+1 | 43 | 3 | 10cm | 06 | 400 | 216 | 8 | 2 | 3 | 3 | 3 | 3 | 2.2

CNQANJ1XN

Type: Bloodship

Bow Section

○36 ◆3

1 | 10 | 2 | 2 | 270

Port Section

○36 ◆1

1 | 1 | 2 | 270

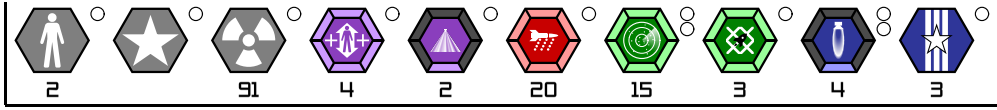
Starboard Section

○36 ◆1

1 | 1 | 2 | 270

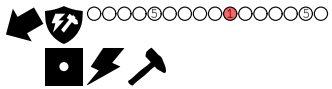
Core Section

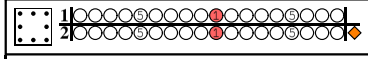
○36 ◆3 △8

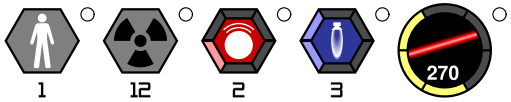


Port-Aft Section

○36 ◆1

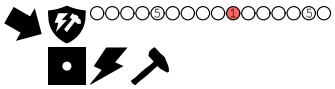


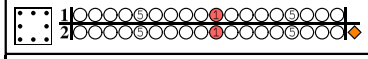


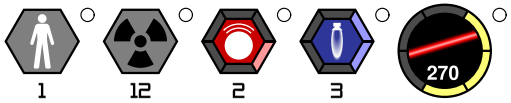


Starboard-Aft Section

○36 ◆1







270PW Laser Battery
Laser ○●○ 1×(9) 30cm/150cm@3 0 D0 0

Gravity Wave Cannon
○●○ 1×(D12+6) 10cm/80cm 0 3 D0 0 Gravitational

Ul'ree Class

+2/+1 | 48 | 3 | 10cm | 06 | 502 | 240 | 10 | 3 | 4 | 4 | 4 | 4 | 2.2

CESJM37RQ

Type: Strikeship

Bow Section

○40 ◆3

1 | 17 | 2 | 3

4 ..... 4× **2.25kg Antimatter Torpedo**

Port Section

○40 ◆1

1 | 1 | 2 | 270

Starboard Section

○40 ◆1

1 | 1 | 2 | 270

Core Section

○40 ◆3

1 | 107 | Main | 2 | 20 | 15 | 3 | 5 | 3 | 180

12× **2.25kg Antimatter Torpedo**

Port-Aft Section

○40 ◆1

1 | 17 | 2 | 4 | 270

Starboard-Aft Section

○40 ◆1

1 | 17 | 2 | 4 | 270

180	180PW Laser Battery **Laser**	○○○	1×(6)	30cm/90cm@2	6	0	D0	0	
270	270PW Laser Battery **Laser**	○●○	1×(9)	30cm/150cm@3	0	0	D0	0	
	Gravity Wave Cannon	○●○	1×(D12+6)	10cm/80cm	0	3	D0	0	Gravitational

Torpedo Launcher

2.25kg Antimatter Torpedo **2×** 1×(D12+0) 20cm/100cm 0 12 0 D0 +1 Antimatter

1 1 1

1× Pok'tak Superiority Fighters

Doj'taw Class

+1/+0 | 72 | 3 | 10cm | 06 | 614 | 360 | 8 | 2 | 3 | 3 | 3 | 3 | 2.2

C2DLIJN5U

Type: Warship

Bow Section

○60 ◆4

1 | 14 | 3 | 2

Port Section

○60 ◆1

1 | 3 | 3 | 270

Starboard Section

○60 ◆1

1 | 3 | 3 | 270

Core Section

○60 ◆4

1 138 Main 2 20 15 3 4 3 180

Port-Aft Section

○60 ◆1

1 19 3 3 270

Starboard-Aft Section

○60 ◆1

1 19 3 3 270

180PW Laser Battery
Laser ○○○ 1×(6) 30cm/90cm@2 6 D0 0

270PW Laser Battery
Laser ○●○ 1×(9) 30cm/150cm@3 0 D0 0

Gravity Wave Cannon
○●○ 1×(D12+6) 10cm/80cm 0 3 D0 0 Gravitational

Main
1 2 2
2× Pok'tak Superiority Fighters

BATTLESPACE PUBLISHING

War Fleet

¤3,945 / 4,252 | Command: **Brilliant** | Crew: **Green**

★★ Doj'taw Class [21], Tietora Class [13]	$3\frac{2}{8}3$	Roll( )	Roll( )
Ul'ree Class [17]	$4\frac{3}{10}4$		Roll( )
Ul'ree Class [17]	$4\frac{3}{10}4$		Roll( )
Puuj'to Class [5], Puuj'to Class [5], Puuj'to Class [5]	$6\frac{2}{12}6$		Roll( )
Puuj'to Class [5], Puuj'to Class [5], Puuj'to Class [5]	$6\frac{2}{12}6$		Roll( )

Pok'tak Superiority Fighters [68]

Fire Discipline [1 CP/Threat] ***(Starship Combat Step; Flag Commander)***
Select a starship that has not yet fired. That starship fires, damage incurred, and critical hits rolled, before other starships fired this turn. All starships utilising this tactic fire simultaneously. The CP cost of this tactic is equal to the Threat of the selected starship.

Shield Wall [2 CP] ***(Repair Step; Any Commander)***
Select a starship. All shield generators and shield batteries on that starship may be used twice this turn.

War Fleet (support options)

¤145 Puuj'to Class [2]	¤145 Puuj'to Class [2]	¤400 Tietora Class [5]	¤400 Tietora Class [5]
¤145 Puuj'to Class [2]	¤400 Kek'sar Class [5]	¤400 Tietora Class [5]	¤422 Gwara Class [5]

Attack Fleet

¤3,121 / 3,428 | Command: **Brilliant** | Crew: **Green**

★★ Gwara Class [18]	4 3/12 4	Roll( )	Roll( )
Gwara Class [18]	4 3/12 4		Roll( )
Gwara Class [18]	4 3/12 4		Roll( )
Ul'ree Class [21]	4 3/10 4		Roll( )
Ul'ree Class [21]	4 3/10 4		Roll( )

Pok'tak Superiority Fighters [85]

Fire Discipline [1 CP/Threat] ***(Starship Combat Step; Flag Commander)***
Select a starship that has not yet fired. That starship fires, damage incurred, and critical hits rolled, before other starships fired this turn. All starships utilising this tactic fire simultaneously. The CP cost of this tactic is equal to the Threat of the selected starship.

Shield Wall [2 CP] ***(Repair Step; Any Commander)***
Select a starship. All shield generators and shield batteries on that starship may be used twice this turn.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

Attack Fleet (support options)

¤145 Puuj'to Class [2]	¤145 Puuj'to Class [2]	¤400 Tietora Class [6]	¤400 Tietora Class [6]
¤145 Puuj'to Class [2]	¤400 Kek'sar Class [6]	¤400 Tietora Class [6]	¤422 Gwara Class [7]

Assault Fleet

¤2,047 / 2,354 | Command: **Brilliant** | Crew: **Green**

★ Kek'sar Class **[24]**, Tietora Class **[24]**	$3\frac{2}{8}3$	**Roll( )**	**Roll( )**
Gwara Class **[25]**	$4\frac{3}{12}4$		**Roll( )**
Gwara Class **[25]**	$4\frac{3}{12}4$		**Roll( )**

Pok'tak Superiority Fighters **[119]**

1 2 3 4 5 6 7 8

Fire Discipline [1 CP/Threat] ***(Starship Combat Step; Flag Commander)***
Select a starship that has not yet fired. That starship fires, damage incurred, and critical hits rolled, before other starships fired this turn. All starships utilising this tactic fire simultaneously. The CP cost of this tactic is equal to the Threat of the selected starship.

Shield Wall [2 CP] ***(Repair Step; Any Commander)***
Select a starship. All shield generators and shield batteries on that starship may be used twice this turn.

Assault Fleet (support options)

¤145 Puuj'to Class **[4]**	¤145 Puuj'to Class **[4]**	¤400 Tietora Class **[10]**	¤400 Tietora Class **[10]**
¤145 Puuj'to Class **[4]**	¤400 Kek'sar Class **[10]**	¤400 Tietora Class **[10]**	¤422 Gwara Class **[10]**

Patrol Fleet

¤2,684 / 2,991 | Command: **Brilliant** | Crew: **Green**

★ Ul'ree Class **[23]**, Tietora Class **[18]**, Tietora Class **[18]** — $4\frac{3}{10}4$ — Roll( ) — Roll( )

- Puuj'to Class **[7]**, Puuj'to Class **[7]**, Puuj'to Class **[7]** — $6\frac{2}{12}6$ — Roll( )
- Puuj'to Class **[7]**, Puuj'to Class **[7]**, Puuj'to Class **[7]** — $6\frac{2}{12}6$ — Roll( )

1 2 3 4 5 6 7 8

Pok'tak Superiority Fighters **[91]**

Fire Discipline [1 CP/Threat] ***(Starship Combat Step; Flag Commander)***
Select a starship that has not yet fired. That starship fires, damage incurred, and critical hits rolled, before other starships fired this turn. All starships utilising this tactic fire simultaneously. The CP cost of this tactic is equal to the Threat of the selected starship.

Shield Wall [2 CP] ***(Repair Step; Any Commander)***
Select a starship. All shield generators and shield batteries on that starship may be used twice this turn.

Patrol Fleet (support options)

¤145 Puuj'to Class [3]	¤145 Puuj'to Class [3]	¤400 Tietora Class [7]	¤400 Tietora Class [7]
¤145 Puuj'to Class [3]	¤400 Kek'sar Class [7]	¤400 Tietora Class [7]	¤422 Gwara Class [8]

Lokaran Imperial Navy (reinforcements)	¤612	Crew: Green	

Doj'taw Class **[8]**, Tietora Class **[5]**, Tietora Class **[5]**	$3\frac{2}{8}3$	**Roll( )**
Ul'ree Class **[7]**	$4\frac{3}{10}4$	**Roll( )**
Ul'ree Class **[7]**	$4\frac{3}{10}4$	**Roll( )**
Gwara Class **[6]**	$4\frac{3}{12}4$	**Roll( )**
Gwara Class **[6]**	$4\frac{3}{12}4$	**Roll( )**
Kek'sar Class **[5]**	$3\frac{2}{8}3$	**Roll( )**
Puuj'to Class **[2]**, Puuj'to Class **[2]**, Puuj'to Class **[2]**	$6\frac{2}{12}6$	**Roll( )**
Puuj'to Class **[2]**, Puuj'to Class **[2]**, Puuj'to Class **[2]**	$6\frac{2}{12}6$	**Roll( )**

Secondary Systems:

1	2	3	4	5	6
Engineering System Offline 1 Secondary System disabled.	**Control Grid Damage** D4 Secondary Systems disabled.	**Computer Overload** D6 Secondary Systems disabled.	**Engineering Disrupted** D8 Secondary Systems disabled.	**Control Grid Destroyed** D10 Secondary Systems disabled.	**Computer Destroyed** D12 Secondary Systems disabled.

Electronic Systems:

1	2	3	4	5	6
External Array Damage 1 Electronic system disabled.	**Network Disruption** D4 Electronic systems disabled.	**Power Surge** D6 Electronic systems disabled.	**Auxiliary Circuits Destroyed** D8 Electronic systems disabled.	**Network Shutdown** D10 Electronic systems disabled.	**Electronic Collapse** D12 Electronic systems disabled.

Propulsion Systems:

1	2	3	4	5	6
Minor Drive Damage 1 STL system disabled.	**Major Drive Damage** D6 STL systems disabled.	**Nav. Computer Shutdown** 1 FTL system disabled.	**Drive Control Error** All Propulsion Systems disabled.	**Fuel Line Rupture** All STL systems disabled, ☠×D6 Hull Hits lost.	**Core Implosion** 1 FTL system disabled, ☠×D12 Hull Hits lost.

Weapon Systems:

1	2	3	4	5	6
Mounting Damage ☠×D4 Weapons and/or Launchers disabled.	**Ammunition Disruption** D4 largest Munitions detonate, if no Munitions exist then: ☠×D4 Hull Hits lost.	**Power Fluctuation** ☠×D6 Weapons and/or Launchers disabled.	**Munition Explosion** D6 largest Munitions detonate, if no Munitions exist then: ☠×D6 Hull Hits lost.	**Target Grid Collapse** ☠×D8 Weapons and/or Launchers disabled.	**Cascade Power Feedback** D8 largest Munitions detonate, if no Munitions exist then: ☠×D8 Hull Hits lost.

Active Defence Systems:

1	2	3	4	5	6
Minor Turret Damage ☠×D4 Active Defence Systems disabled.	**Defence Disruption** ☠×D6 Active Defence Systems disabled.	**Massive Turret Damage** ☠×D8 Active Defence Systems disabled.	**Defence Damage** ☠×D10 Active Defence Systems disabled.	**Turret Destroyed** ☠×D12 Active Defence Systems disabled.	**Defences Destroyed** All Active Defence Systems disabled.

Crew & Marines:

1	2	3	4	5	6
Minor Venting ⇞×1 Crew & Marine Parties lost evenly.	**Atmospheric Contamination** ⇞×2 Crew & Marine Parties lost evenly.	**Internal Fires** ⇞×3 Crew & Marine Parties lost evenly.	**Major Venting** ⇞×4 Crew & Marine Parties lost evenly.	**Major Atmospheric Loss** ⇞×5 Crew & Marine Parties lost evenly.	**Total Atmospheric Loss** ⇞×6 Crew & Marine Parties lost evenly.

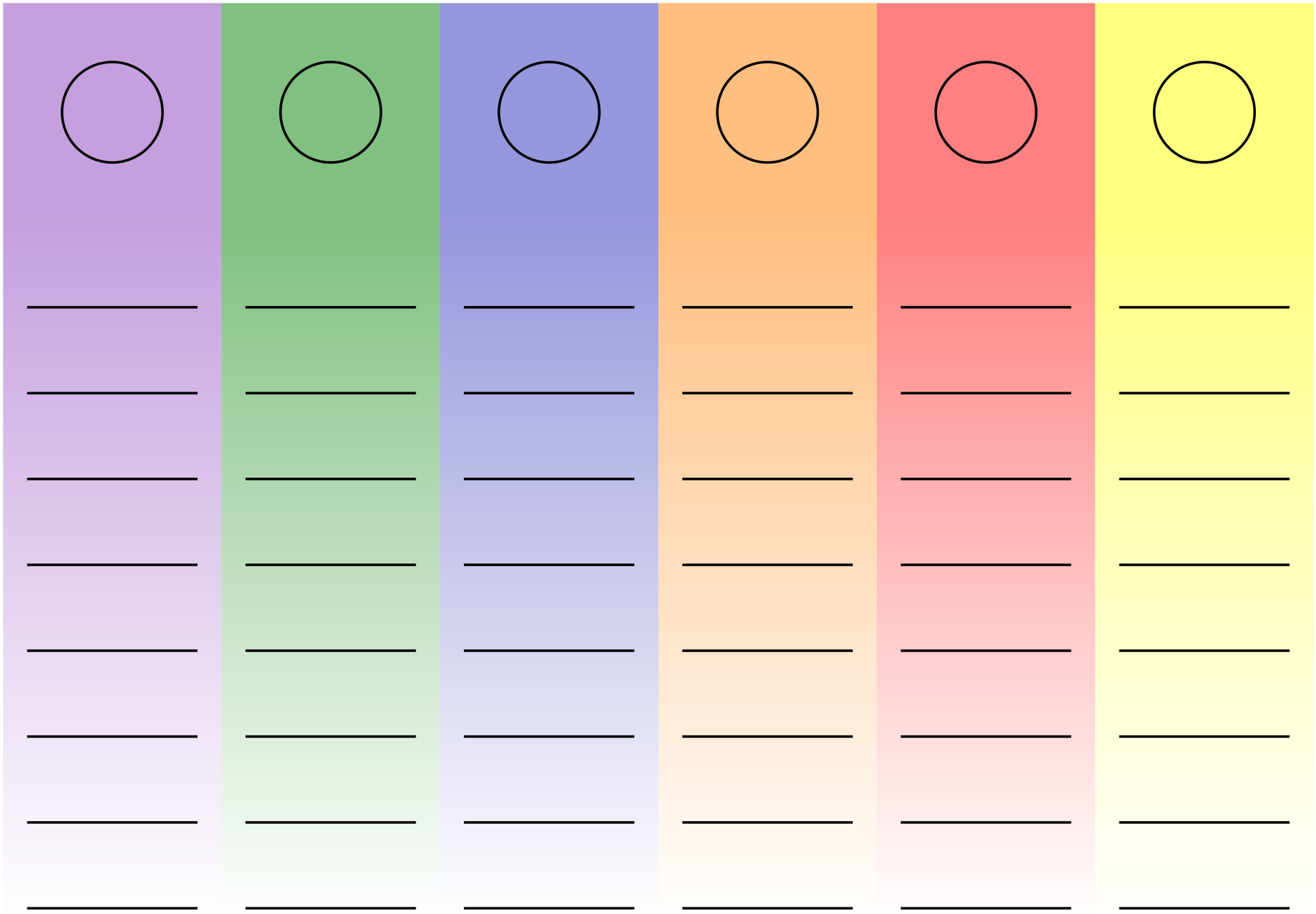
Primary Systems:

1	2	3	4	5	6
Control System Damaged 1 Bridge disabled.	**Environmental Collapse** Life Support disabled.	**Power Disrupted** Reactor disabled.	**Coolant Leak** Detonate Reactor if not repaired in End Phase.	**Complete System Disruption** All Primary Systems disabled.	**Reactor Meltdown** Immediate Reactor detonation.

Structure:

1	2	3	4	5	6
Minor Plasma Fire ☠×D4 Hull Hits lost.	**Minor Hull Breach** ☠×D6 Hull Hits lost.	**Major Plasma Fire** ☠×D8 Hull Hits lost.	**Major Hull Breach** ☠×D10 Hull Hits lost.	**Bulkhead Collapse** ☠×D12 Hull Hits lost.	**Cascade Structural Collapse** Section destroyed.

☠=Starship's Threat Rating ⇞=Affected Starship Section's Life Support Rating



Normal Maneuvers: **Heading Change [CW/CCW#], Acceleration/Deceleration [F#/B#/L#/R#]**

Advanced Maneuvers: **Roll [RL], Flip [FL], Emergency Power [EP], Ram [RAM],**
FTL Retreat [FTL-R], Reserve FTL Jump [R-FTL], Strategic FTL [S-FTL], Tactical FTL [T-FTL], FTL Transition [FTL-T]

Turn Sequence: *pg.2*

Movement Phase:

Command Step	Roll command dice for every commander and acrue CPs.
Plot Movement Step	Plot the movement orders of all squadrons simaultaneously.
Starship Movement Step	Move all starships in accordance with their plots.
Starfighter Operations Step	Launch, rearm, and recover starfighters.
Starfighter Mission Step	Launch starfighter missions.

Combat Phase:

Control Step	Designate targets, activate/deactivate EW systems.
Starship Combat Step	Fire all starships simaultaneously.
Starfighter Combat Step	Prosecute all starfighter combats.
Boarding Combat Step	Conduct all boarding combats.

End Phase:

Critical Step	Adjudicate all critical hits on starships.
Repair Step	Assign crew parties to disabled systems and roll for repairs, move munitions between global magazines or to local magazines.
Morale Step	Record morale losses on the morale threshol chart.

Advanced Manoeuvres: *pg.11*

Manoeuvre:	Requirement:	Effect:
Roll	1 thrust point from each side.	Left and right of the starship mirror each other.
Flip	2 thrust points from the bow, 2 from the stern.	Front and back of starship mirror each other.
Emergency Power	STL drives.	Double the rating of any number of STL drives. Roll 1D6, 4-6 disables all doubled drives; green crew +1, veteran crew -1.
RAM	STL drives and a target.	Refer to page 13.
FTL Retreat	Charged FTL drive.	Squadron removed; half its morale value is lost.
Reserve FTL Jump	Charged FTL drive.	Squadron is placed in reserve.
Strategic FTL	Charged Warp, Hyper, or Jump drive.	Refer to page 15 & 16.
Tactical FTL	Charged Warp, Hyper, or Jump drive.	Refer to page 16 & 17.
FTL Transition	Charged Dimensional drive.	Refer to page 18.

Combat Modifiers: *pg.25*

Condition:	Modifier:
Drift (Blank Plot)	-1 Target Rating
Momentum of 0	-1 Target Rating
RAM Order	-2 Target Rating
Kinetic Weapon	+1 Target Rating/Range Band
Energy Weapon	+1 Damage/Range Band
Indirect Weapon	+1 Sensor Rating/Range Band

Weapon Quality Codes: *pg.72*

AD	Adaptive	**PH**	Phased
AM	Antimatter	**PO**	Polarized
CH	Charged	**QM**	Quantum
DM	Dimensional	**RT**	Reactive
DS	Disruptive	**SP**	Spinal
ER	Erratic	**TM**	Temporal
GR	Gravitational	**UR**	Unreliable
IN	Inert	**UN**	Unstable
IO	Ionized	**VO**	Volatile
ML	Molecular	**WK**	Weak
NU	Null		

Command Points: *pg.3*

Action:	Cost:
Activate Tactic	Variable
Plot Advanced Manoeuvre	1
Launch/Modify Starfighter	1
Nominate Priority Fleet Target	Half of # of squadrons, round up.
Designate Squadron Target	1
Control EW System	1

Target Rating *pg.25*

Mass Factor *pg.47*

Threat *pg.22*

Discipline *pg.22*

Movement *pg.7*

Repair *pg.38*

Combat Rating *pg.48*

Total Hull *pg.44*

Engine Power *pg.51*

Rules Version

Primary Systems:

pg.49

- Life Support
- Primary Reactor
- Secondary Reactor
- Bridge

Active Defence Systems:

pg.59

- Basic Shield Generator
- Modulated Shield Generator
- Adaptive Shield Generator
- Shield Battery
- Shield Projector
- Energy Deflector
- Kinetic Deflector
- Energy-Kinetic Deflector
- Gravity Wall

Secondary Systems:

pg.63

- Basic Teleporter
- Advanced Teleporter
- Grappler
- Tractor Beam
- Gravity Well Projector
- Sub-Space Disruptor

Propulsion Systems:

pg.51

- Engine
- Basic Drive
- Warp Drive
- Hyper Drive
- Jump Drive
- Dimensional Drive

Electronic Systems:

pg.53

- Sensor
- Local Sensor
- Fire Control
- Electronic Warfare Array
- Electronic Countermeasure Array
- Electronic Intelligence Array
- Electronic Jamming Array
- Targeting Array
- Ansible
- Cloak Generator
- Stealth Generator
- Countermeasure Pod

Ship & Starfighters:

- Cinematic
- Newtonian
- Defence Direction
- Fighter
- Shield Adaptation
- Energy
- Shields
- Kinetic
- Ablative Armour
- Indirect
- Adaptive Armour
- Crew
- Metallic Hull
- Marines
- Technological Hull
- Raking
- Biological Hull
- Penetrating
- Unlimited
- Immune
- Limited
- Vulnerable
- One Shot
- Hangar Copies
- Launch/Recover
- Hangar Hold
- Strength
- Range
- FTL
- Breaching
- ECM
- Stealth
- Scout
- Furball
- Defence
- Hardpoints
- Deflection Penetration
- Shield Penetration
- Armour Penetration
- Accuracy
- Fighters Loaded
- Fighters Available
- Ordinance Loaded
- Ordinance Available
- Munitions Available
- Local Magazine
- Global Magazine

Weapons & Launchers

pg.67

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Secondary Systems:
Weapon Systems
Secondary Hull
Nacelles
Phaser Array Type 10 (L)
Burst 3x(12) 10cm/120cm
Sustained 1x(24) 10cm/120cm
Reactive
Reactive
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