

## APPENDIX Z: PLAYER RESOURCES



### Z.1 Designer's Notes

The genesis of the *Unity Rulebook* was a set of informal guidelines I started developing early in 2016 to allow cross-platform battles between players who had shifted to the *Nova* edition of the rules, and those who had elected to stick with the *Admiralty Edition*. As I delved deeper into the mechanics of such a battle, it became clear that, despite significant cosmetic differences between the two, the “heart” of the game had remained surprisingly consistent. A number of years had passed since the release of *Nova*, and there were several choices made in that edition which seemed like good ideas at the time, but in retrospect appear less so.

Once the decision was made to begin a new edition, and in reviewing the long history of *Starmada*, I found myself looking more closely at concepts which had for one reason or another been jettisoned. As just one example, a change I had often regretted was the move away from “one damage die, one result” concept which had defined the *Compendium* era of the game. Although I still believe the benefits of the *Starmada X* damage resolution system outweighed the drawbacks, it still never felt “right”. To some degree I regained what I had been seeking with *Admiralty*, but even then there was still the need to account for the possibility of two types of damage result on a single die roll.

Of course, *Nova* did away with the damage roll entirely—which was perhaps the only true mistake I made in that edition. The other changes I could justify for one reason or another; eliminating the damage roll was a “why not?” decision, when I should have been asking “why?”

The *Unity Rulebook* reaches all the way back to the *Compendium* for damage resolution, in essence returning to *Starmada*'s roots: a 50/50 split between hull and systems damage, while retaining *Admiralty*'s proportional degradation as a way of ensuring no starship design will unfairly lose its fighting capability sooner than others. Variance in that area should be left to the whims of combat, not dictated by the construction process.

Speaking of the construction process, one of the things brought back from *Starmada X* will be of interest mainly to math nerds: hull space is now a polynomial equation, rather than an exponential one. Likewise, the exponents have been removed from the engine factor and shield factor calculations.

Over time, the construction process had gotten to the point where it was all but impossible to complete without automation. The online *Starmada Drydock* helped, as did player-designed spreadsheets, but I still feel it should be possible to design a starship from scratch with a pad of paper, a pencil, and a (non-scientific) calculator without losing one's mind. I'm not entirely sure that goal was achieved, but it is closer than it was—and every little bit helps.

Starship construction is also an area in which *Nova* made a healthy contribution to the *Unity Rulebook*. The cost of non-shield defensive systems remains relative to a ship's shield factor, rather than priced as a flat percentage of the ship's available space (as in *Admiralty*). It's a small change, and one hidden from players once the dice start rolling, but I believe it makes a big difference in the choices facing ship designers. Another holdover from *Nova* is the existence of ablative defenses; *i.e.* “Screens” (called “Armor” in the previous edition). This is something players had been clamoring for since the early days of *Starmada*, and it wasn't until relatively recently I was able to bring it into the game. Now, with the *Unity Rulebook*, players can not only simulate “hit 'em until they're gone” shields and/or armor plating, they can assign different strengths in four separate directions.

These defensive arcs are something out of which I believe players will get a lot of use. They provide new opportunities for tactical thinking in a game that, if I'm honest, hasn't always gone out of its way to emphasize such things. In addition to encouraging players to keep weakened side away from the enemy, the fact that defensive arcs cover 90°, while weapon arcs are expressed as multiples of 60°, means it will not always be possible to have the preferred defensive arc facing the enemy while also covering your intended target(s) with the main weapons battery.

Decisions, decisions.

Of course, those who don't want to bother with such things still have the ability to retain the omnidirectional defenses of earlier editions of the game, and be assured their fleet will be appropriately balanced against most any other. As always, the emphasis is on ensuring a fun game is had by all; which includes doing everything possible to eliminate the “munchkin” temptation whenever and wherever possible.

One area in which I admit there may be potential for abuse is in the new rules for seeking weapons. Introduced first in the *Nova* edition, seekers were a bit of a departure for **Starmada**, which has traditionally been exclusively about “direct-fire” weapons (*i.e.* weapons which fire and immediately resolve their attack). *Nova*’s seeking weapons were a bit of a hybrid; still basically direct-fire weapons, but with a delayed impact allowing for a certain degree of defensive activity.

While the *Admiralty Edition* did have “Seekers” as a sub-category of fighter flights, and before that there were “Drones”, such things were more correctly fighter variants and not true seeking weapons, which can fire repeatedly, have limited arcs of engagement, and so on. So long as ships are built with a balance of direct-fire and seeking weapons, there should be no balance issues. However, seeker-heavy (or even seeker-exclusive) fleets have not been fully tested.

Any volunteers?

Speaking of fighter variants, one thing *Admiralty* possessed, which I had initially intended to carry over to *Nova* but never got around to, was the concept of “fighter capacity”. With this, players set aside a certain portion of their starship design for carrier space, which could then be filled by a nearly infinite variety of custom-built fighter flights. In the *Unity Rulebook*, I’ve clamped down on this. There are a number of reasons behind that choice, but ultimately the deciding factor was that **Starmada** is a game of starship combat. Fighters are meant to enhance the game, not dominate it. Nevertheless, some choice is still accounted for by an initial group of five variant fighter flights, with the possibility of more to come. As always, if you have any thoughts or suggestions, let us know.

One of the things I have struggled with since the very first editions of **Starmada** is how to account for damage to weapons; *i.e.* how best to distribute the loss of individual weapon mounts over the course of a starship’s time in combat. This was, of course, the primary motivation behind the change to the damage resolution system in *Starmada X*; it was also one of the deciding factors in the design of the *Nova* edition, in which weapons damage was applied at a high level of abstraction. The *Admiralty Edition* perhaps came closest to a satisfactory resolution; however, it required an additional die roll, which never sat well with me. Further, it took a choice away from players, which is never a great idea, even if it is necessary to achieve a particular goal.

I believe the *Unity Rulebook* provides the best of all worlds: the loss of overall firepower is regulated via introduction of the “weapons track”; player choice is reintroduced by not tying each damage result to specific battery or batteries; and proportional loss is dictated by “loss limits”, preventing players from building damage sinks into their designs.

This change happily provided a solution to another long-term problem: How to account for damage to non-primary systems? A number of methods have been tried over the years, none of which were particularly satisfying. By treating special equipment as just another battery of weapons, I believe we’ve achieved an elegant resolution that will keep the game moving and eliminate the need for “loss checks” or other clumsy intrusions. Retaining *Nova*’s differentiation between equipment, munitions, and traits further alleviates the damage sink problem.

A minor, purely aesthetic corollary to this is the return (last seen in *Starmada X*) of damage boxes for individual weapons and equipment items. I have little to say about this other than I really like them.

In terms of actual gameplay, there’s not much that is changing. The game turn is still divided into Movement, Fighter, and Combat Phases, concluding with an End Phase to perform whatever administrative tasks may be required. The Orders Phase is back, after having been eliminated in *Nova*, which made sequential movement and combat the standard, thus removing the need for written orders. I will spare you the various thought processes that went into that decision, and just say I brought it back because I liked it, and because I think players liked it too. There is nothing quite like the suspense of having committed to a course of action while being unsure whether your opponent is going to do quite what you expected. It’s a relatively minor reversion, but one that enhances the playing experience considerably.

I could continue for another several pages discussing the various tweaks and modifications which came and went during the development process. However, I think I’ll stop here and let you get back to blowing each other up. If you do want to know more, or have a suggestion to make things even better, please join your fellow gamers at our discussion forum, or get in touch via our Facebook page.

Just a couple of shout-outs before I sign off:

- Ken Burnside (of Ad Astra Games) has been a major source of advice and support throughout the revision process. His boundless enthusiasm for blowing up spaceships is infectious; I might not have ever completed this project without it.
- Noel Weer has been a great sounding board and an all-around good egg. Then again, I expected nothing less. You’ll see much more of Noel’s contributions once the *Imperial Starmada Sourcebook* is released.
- Ken Rodeghero did yeoman’s work proofreading this book. I suspect he will never actually play the game, as doing so would require reading these pages yet again.

Happy gaming!

Daniel Kast  
Castle Rock, CO  
April 2017

## Z.2 Starmada Drydock Instructions

This section provides a guide to the use of the *Starmada Drydock* spreadsheet, and assumes you have access to (and a working knowledge of) Microsoft Excel 2010. The spreadsheet may or may not function as intended when using other versions of Excel, or a third-party alternative (such as Apache OpenOffice).

Each of the tabs is protected by default (except "Tables", which is hidden, but not protected; p.75). If you need to unprotect a tab to make any changes, click "Home → Cells → Format → Unprotect Sheet." To protect the sheet again, click "Home → Cells → Format → Protect Sheet," and click "OK" on the confirmation dialog box.

The current version of the *Starmada Drydock* is v1.0 (April 2017).

### Worksheets

The tabs labeled "SHIP1" through "SHIP5" are where the actual starship design process occurs. User-defined values are placed in the yellow cells; the orange cells contain calculations made by the spreadsheet itself. Do not rename these tabs; doing so will prevent the "Display" tab (p.75) from functioning properly.

**Faction, Class, Type:** May be defined by the player as desired. On the starship display sheet, this will be formatted as "[Faction] [CLASS]-class [Type]."

**ORAT, DRAT, CRAT:** The starship's offensive, defensive, and combat ratings, respectively. If the "CRAT" box turns red, this indicates a problem with the ship design; e.g. more space units have been used than are available, or the same equipment or trait has been entered on multiple lines in the starship systems section (see below).

**Hull Size:** Restricted to values from 1 to 35.

**Engines:** Restricted to values from 0 to 12.

**Shields:** Restricted to values from 0 to 5.

- **Fwd, Port, Stbd, Aft.** Used to indicate the presence of directional shielding. If a starship is given both standard and directional shielding, the spreadsheet will only apply the directional shielding.
- **EqSR:** The equivalent shield rating, as computed from the starship's directional shield ratings (**A.1: The Design**, p.24).

**Screens:** Restricted to values from 0 to 50.

- **Fwd, Port, Stbd, Aft.** Used to indicate the presence of directional screens.

A starship may not have both standard and directional screens. If this happens, the screen boxes will turn red.

**Tech Levels:** Restricted to values from -2 to +2.

**Space Units Used, Remain:** These columns provide a running total of how many space units (SUs) have been used by each part of the starship, as well as the number of SUs remaining to be filled. If the "Remain" column turns red, this indicates more space units have been used than are available.

**Weapons:** Up to six batteries may be entered. The pull-down menu contains a list of all available weapon systems, taken from the "Weapons" tab (p.74).

- **RNG, Stats, Traits:** Taken from the "Weapons" tab (p.74): "RNG" is the weapon system's long range value (or a seeking weapon's MA); "Stats" and "Traits" are formatted as they will appear on the starship display sheet. The second row is reserved for the weapon's secondary mode (if any).

The row of boxes below the secondary mode are used to enter the weapon banks, in the following format: "xARCy", where "x" is the number of mounts (1-9); "ARC" is the firing arc designation; and "y" is the number of weapons in a multi-weapon mount. If either "x" or "y" is omitted, the default value is 1.

For example, "3AB" indicates a bank of three single-mounted weapons with the [AB] firing arc; "BCE2" indicates a bank of one dual-mounted weapon firing into the [BCE] arc. A maximum of six banks can be entered for each battery.

The values entered into these boxes are not automatically restricted. Instead, the spreadsheet will resolve invalid entries as follows: any "x" value greater than 9 will result in no weapons being added; unknown firing arc designations will convert to the closest designation found in the list on the "Tables" tab (p.75); any "y" value between 3 and 9 converts to 2; and any "y" value of 10 or higher will resolve using only the last digit.

- **BSUR:** The base space unit requirement of the primary and secondary weapon modes; the third box shows the weapon's final BSUR (the higher value plus one-half the lower value).
- **ORAT:** The total offensive rating (ORAT) of the weapon battery.

**Starship Systems:** Up to ten different starship systems may be entered. The pull-down menu contains all available systems, taken from the list found on the "Tables" tab (p.75). You should not enter the same equipment or trait on multiple lines; if you do, the duplicated systems and the "CRAT" box will turn red.

- **Qty:** Limited to a range from 1 to 30. If omitted, the default value is 1. The spreadsheet will only recognize values greater than 1 for munitions and those equipment/traits that explicitly allow for multiples.
- **ORAT:** The amount this system adds to the starship's ORAT.
- **DRAT+:** The amount this system adds to the starship's defensive rating (DRAT).
- **DRATx:** The multiplicative factor this system applies to the starship's DRAT.

## STARMADE DRYDOCK

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Faction	
Class	
Type	

ORAT	DRAT	CRAT
0	0	0

Hull Size						
Engines		Fwd	Port	Stbd	Aft	EqSR
Shields						0.0
Screens						

Tech Levels	
Engines	
Fighter	
Shields	
Weapons	

Space Units	
Used	Remain
	0
0	0
0	0
0	0

Weapons	RNG	Stats	Traits	BSUR	ORAT			
	0			0.0				
	0			0.0				
				0.0	0	0	0	
	0			0.0				
	0			0.0				
				0.0	0	0	0	
	0			0.0				
	0			0.0				
				0.0	0	0	0	
	0			0.0				
				0.0				
	0			0.0				
	0			0.0				
				0.0	0	0	0	
	0			0.0				
				0.0				
	0			0.0				
	0			0.0				
				0.0	0	0	0	
	0			0.0				
				0.0				
	0			0.0				
	0			0.0				
				0.0	0	0	0	
	0			0.0				
				0.0				
	0			0.0				
	0			0.0				
				0.0	0	0	0	

Starship Systems	Qty

ORAT	DRAT+	DRAT*		
0	0	1.0	0	0
0	0	1.0	0	0
0	0	1.0	0	0
0	0	1.0	0	0
0	0	1.0	0	0
0	0	1.0	0	0
0	0	1.0	0	0
0	0	1.0	0	0
0	0	1.0	0	0
0	0	1.0	0	0
0	0	1.0	0	0
0	0	1.0	0	0
0	0	1.0	0	0
0	0	1.0	0	0
0	0	1.0	0	0

**Weapons**  
 This tab is used to record the capabilities of weapon systems, allowing you to avoid retyping the values for each new starship design. As with the worksheet tabs (p.73), user-defined values are entered into the yellow cells; orange cells indicate spreadsheet calculations. The tab has room for up to 100 entries.

Each weapon system and/or secondary mode is entered on a separate line. Whenever a new system (or mode) is added, you must ensure the list remains sorted in descending order. Highlight all of the cells containing weapon data, and then click "Data → Sort & Filter → Sort," making sure the following options are set:

- "My data has headers" is not checked.
- "Sort by" Column A.
- "Sort On" Values.
- "Order" A to Z.



**Weapon:** May be named by the player as desired, with the exception that the greater-than sign (>) is reserved to indicate a secondary mode. For example, the "Anti-Fighter" mode of the "Laser Cannon" weapon system would be written as: "Laser Cannon>Anti-Fighter". The name of the weapon system (or mode) will be shown on the starship display sheet exactly as entered.

If a secondary mode is entered without a corresponding primary mode, it cannot be selected on the worksheet tabs (p.73); if multiple secondary modes are entered for a single primary mode, only the first (alphabetically) will appear on the worksheet tabs.

**RNG:** Restricted to values from -12 to 30. The spreadsheet will automatically split positive values into short, medium, and long range bands. A negative value indicates a seeking weapon; the absolute value is the weapon's movement allowance (e.g. "-6" indicates a seeking weapon with MA 6).

The spreadsheet will accept positive values for RNG that are not multiples of 3; in such cases, short and medium range bands will be rounded to the nearest integer.

**ROF, IMP, DMG:** Restricted to values from 1 to 5.

**ACC:** Must be 2+, 3+, 4+, 5+, or 6+.

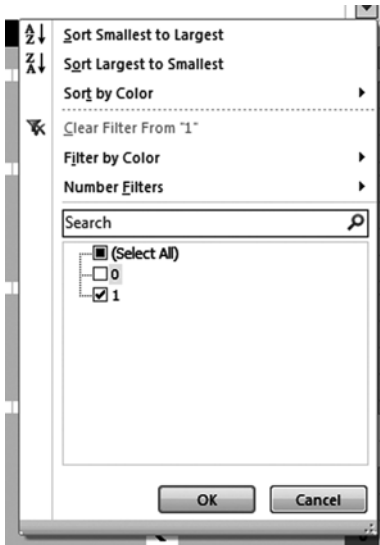
**Traits:** Up to five traits may be entered for each weapon system (or mode). The pull-down menu contains abbreviations for all available traits, taken from the list found on the "Tables" tab (p.75).

**BSUR:** The base space unit requirement of the weapon system (or mode). If this box turns red, it means the weapon has an invalid combination of traits, and will not appear in pull-down menus on the worksheet tabs (p.73).

**Display**

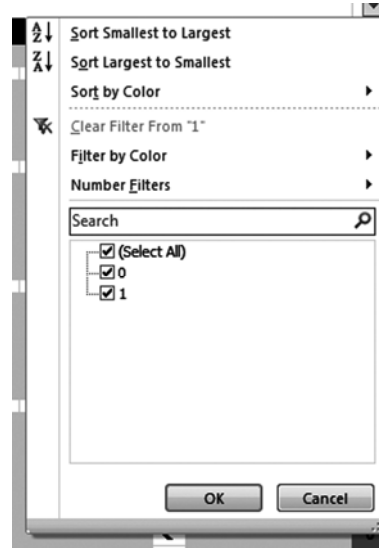
This tab produces a starship display sheet which mimics the format used in official Majestic Twelve Games publications. Fonts are not embedded in the worksheet, which means your system must have the *Eras Bold ITC* and *Tw Cen MT Condensed Extra Bold* fonts installed for it to display properly. These are included with many Microsoft products, and can also be downloaded from [fonts.com](http://fonts.com).

The specific starship design to be displayed is selected from the pull-down menu in cell AD1. To produce the final display, it is necessary to hide all of the unused rows. Click on the arrow located in cell S1 and ensure the checkbox next to "0" is empty, while the checkbox next to "1" contains a checkmark.



Once this has been done, only those rows required for the specific starship design will be displayed, and the sheet can be printed.

To show all rows once again, click on the arrow in cell S1 and ensure the checkbox next to "(Select All)" contains a checkmark (not a black box).



**Drake**

This tab generates a text-only starship display, utilizing **A.6: Drake Notation** (p.29). The starship shown corresponds to the design selected in the "Display" tab (p.75).

To produce the final display, it is necessary to hide all of the unused rows. Click on the arrow located in cell B1 and ensure the checkbox next to "0" is empty, while the checkbox next to "1" contains a checkmark.

Once this has been done, only those rows required for the specific starship design will be displayed. You may then highlight all of the visible cells in column A and select "Home → Clipboard → Copy" to copy the display; from there, you can paste it into a text document.

To show all rows once again, click on the arrow in cell B1 and ensure the checkbox next to "(Select All)" contains a checkmark (not a black box).

**Tables**

This tab is hidden by default, and contains all of the lookup tables referred to by the other tabs. To unhide, right-click on any of the visible tabs and select "Unhide...". To hide it once again, right-click on the "Tables" tab and select "Hide".

The "Tables" tab is not protected by default. None of the cells in this tab are limited by data validation or other settings; care must be taken when making any alterations.

If you do make changes to the tables, be sure that each is sorted in descending order once you have finished. For example, if you add a new firing arc designation, you must highlight columns H, I, and J, and then click "Data → Sort & Filter → Sort," making sure the following options are set:

- "My data has headers" is checked.
- "Sort by" Firing Arc.
- "Sort On" Values.
- "Order" A to Z.



Columns A and B list the valid weapon accuracy (ACC) values and the base space unit requirement (BSUR) modifier for each.

Columns C and D list the abbreviations for all valid weapon traits and the BSUR modifier for each. Column E is used when analyzing combinations of range-based traits.

Columns F and G are used by the spreadsheet to determine the appropriate multiplier for a pair of range-based traits.

Columns H and I contain the valid firing arc designations and the factor used for each when determining the total SU cost of a weapon battery. Column J has no effect on the starship design or combat rating; it is instead used by the spreadsheet when sorting firing arcs on the starship display sheet.

Columns K and L list the valid sizes of multi-weapon mounts and the multiplier applied to the BSUR for each.

Columns M and N are used by the spreadsheet to determine the factor applied to the offensive rating (ORAT) of weapons with the Expendable trait.

Columns O and P list the valid Technology Levels and the space unit (SU) modifier for each.

Columns Q through Y list the valid starship systems and associated values:

- **Type** is either equipment (E), munitions (M), or trait (T). "E1" and "T1" indicate equipment and traits which allow for multiples; "T2" indicates a trait that allows for multiples and forces the spreadsheet to display a quantity even if that quantity is 1 (e.g. "Carrier (1)" instead of "Carrier"). The "X" type is used for traits which are not displayed on the starship display sheet.
- **Space** is the number of SUs required by the system.
- **ORAT** is the addition to the starship's ORAT made by the system.
- **DRAT+** is the addition to the starship's defensive rating (DRAT) made by the system.
- **DRATx** is the multiplicative factor applied to the starship's DRAT by the system.
- **Tech** is the specific Technology Level category which applies to the system.

Each system is duplicated five times, differentiated by "~1" through "~5". This is necessary to ensure the worksheet tabs (p.73) compute their specific space requirements and ORAT/DRAT values properly.

Columns X and Y are used to create the pull-down system lists on the worksheet tabs.

Columns Z and AA are used by the spreadsheet when creating the Drake notation starship display.

### Z.3 Consolidated Tables

This section collects all of the tables and charts from throughout the rules and presents them in one convenient place. It will be updated as corrections/additions are made to the *Starmada* rules.

#### 2.2 Assembling the Fleet (p.12)

Battle Size	Fleet Limit	VP Target
Very Small	500	250
Small	1000	500
Medium	1500	750
Large	2000	1000
Very Large	2500	1250

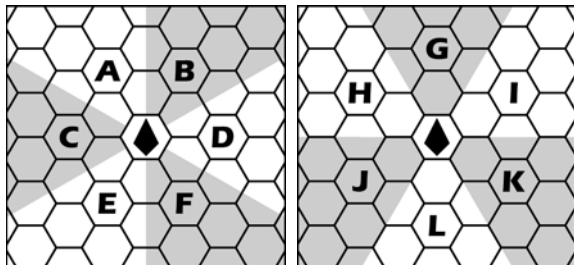
#### 3.1 Movement Orders (p.16)

Code	Maneuver	Rule
<b>Standard Maneuvers</b>		
#	Move forward # hex(es)	3.1
P	Turn one hexside (60°) to port (left/counter-clockwise)	3.1
S	Turn one hexside (60°) to starboard (right/clockwise)	3.1
U	Turn three hexsides (180°/"u-turn")	3.1
<b>Special Maneuvers</b>		
L	Sideslip one hex to the left	3.4
R	Sideslip one hex to the right	3.4
...+#	Pivot # hexside(s) clockwise	3.4
...-#	Pivot # hexside(s) counter-clockwise	3.4
<b>Starship Systems</b>		
C/...	Activate cloaking device	B.5
H/...	Hyperdrive warmup	B.10
<b>Movement Options</b>		
E/...	Emergency thrust	D.1
Z/...	Evasive action	D.3
@/...	Roll	D.7
T/...	Towing	D.9
<b>Terrain</b>		
[#]	Planetary orbit for # hex(es)	G.5
↑	Increase one altitude level	G.6
↓	Decrease one altitude level	G.6

#### 3.2 Engine Requirements (p.15)

Turns	Engine Requirement
None	<b>Difference</b> between previous and current speeds
One	<b>Greater</b> of previous and current speeds
Two or Three or U-Turn	<b>Sum</b> of previous and current speeds

#### 4.1 Declaration of Targets, Firing Arcs (p.19)



#### 4.2 The To-Hit Roll (p.20)

Condition	+/-	Rule
<b>Range Modifiers</b>		
Short	+1	4.2
▪ Dfs weapon	+2	C.5
▪ Fcs weapon	-1	C.5
▪ Dfs/Fcs weapon	-2	C.5
▪ Gid weapon	0	C.5
Medium	0	4.2
Long	-1	4.2
▪ Dfs weapon	-2	C.5
▪ Fcs weapon	+1	C.5
▪ Dfs/Fcs weapon	+2	C.5
▪ Gid weapon	0	C.5
<b>Target Modifiers</b>		
Tiny	-1	4.2
▪ Inc or NPr weapon	-2	C.5
▪ Pnp weapon	0	C.5
Anti-Fighter Batteries ( <i>attacked by seeking weapons</i> )	-1	B.1
Cloaked ( <i>if detected</i> )	-1	B.5
Countermeasures	-1/level	B.6
Adjacent to hex targeted by Prx weapon	-1	C.5
<b>Fire Control Modifiers</b>		
Fire Control	+1/level*	B.8
Probe within 3 hexes of target	+1	B.17
Dfn weapon, firing defensively	-1	C.5
Evasive Action ( <i>attacker or target</i> )	-1/-2/-3	D.3
Directed Damage	-1	E.2
<b>Line of Sight Modifiers</b>		
Flares	-1/flare	B.9
Explosion	-1/hex	E.3
Fighter screen	-1/-2/-3	F.3
Asteroid field	-1/hex	G.1
Cometary coma/tail	-1/hex	G.3
<b>Terrain Modifiers</b>		
Nebula	-1	G.4

\*Only if negative modifiers also apply.

#### 4.4 The Damage Roll (p.21)

Roll	Result
1-3	<b>Hull Hit:</b> Check off one box on the hull track of the target's display sheet.
4	<b>Engine Hit:</b> Check off one box on the engine track of the target's display sheet.
5	<b>Weapon Hit:</b> Check off one box on the weapons track of the target's display sheet.
6	<b>Shield Hit:</b> Check off one box on the shield track of the target's display sheet.

## Sequence of Play (p.14)

*This outline summarizes all potential actions to be conducted during the course of a game turn, and the order in which they should occur. See the relevant rule for details on each entry.*

### 1) Orders Phase

- a. If using random movement initiative, assemble and shuffle activation deck (D.8).
- b. If using sequential movement, alternate proceeding through steps (1d) through (2c) with one starship at a time; if one side has more than twice as many ships, that side moves multiple ships at a time; unless using random movement initiative (D.8).
- c. If not using sequential movement, conduct steps (1d) through (2c) simultaneously for all ships.
- d. Record movement orders (3.1); determine engine requirements (3.2); expend boosters (B.3).
  - i. Record use of secondary weapon modes (C.2); record shield reinforcement (E.6).
- e. Reveal movement orders; confirm orders are valid (3.2).

### 2) Movement Phase

- a. Remove cloaked starships from game board; return uncloaked and detected cloaked starships to game board (B.5).
- b. Make hyperdrive warmup rolls; remove starships entering hyperspace from game board (B.10).
- c. Move all starships on game board according to movement orders (3.3).
  - i. Apply damage due to minefields (B.15) and asteroid fields (G.1); resolve explosions (E.3).
  - ii. Float game board as necessary (D.4).
  - iii. Resolve stacking (3.3).

### 3) Fighter Phase

- a. If using random fighter initiative, assemble and shuffle activation deck (F.7).
- b. Alternate activating one fighter flight at a time; if one side has more than twice as many flights, that side activates multiple flights at a time (5.2); unless using random fighter initiative (F.7).
  - i. Selected LRF flight may attempt to enter hyperspace (F.6).
  - ii. Move selected flight on game board (5.3); or place on combat space patrol (F.1).
  - iii. Interrupt flight's movement with opposing flight on combat space patrol (F.1).
  - iv. Declare attack by selected flight against adjacent target (5.4); or declare dogfight (F.2); or declare screening (F.3); or recover flight (F.5).

- v. Resolve defensive fire from target starship's tractor beams (B.24) and/or Defensive weapons (C.5).
- vi. Resolve declared attack and apply effects immediately (5.4); resolve explosions (E.3).

### 4) Combat Phase

- a. If using random combat initiative, assemble and shuffle activation deck (E.5).
- b. Alternate making attacks with one starship at a time; if one side has more than twice as many ships, that side attacks with multiple ships at a time (4.0); unless using random combat initiative (E.5).
  - i. Declare all targets, confirming range, firing arc, and line of sight restrictions (4.1); declare directed damage (E.2).
  - ii. For each target of each weapon battery, resolve effects of stealth (B.22); make to-hit roll (4.2).
  - iii. For each hit scored, make impact roll (4.3).
  - iv. For each point of impact inflicted, make damage roll (4.4).
  - v. If using sequential combat (E.5), apply effects of weapons damage (4.5); resolve explosions (E.3).
- c. Resolve starship systems/options used at the same time as weapons fire:
  - i. Launch flares (B.9); launch probes and/or fire probes as weapons (B.17).
  - ii. Resolve marine boarding attempts (B.14); trigger shockwave (B.19); use tractor beams (B.24).
  - iii. Place seeker flights (C.4).
  - iv. Make target acquisition (TAG) attempts (E.7).

### 5) End Phase

- a. Apply gravitational pull due to black holes (G.2).
- b. Apply effects of weapons damage (4.5); resolve explosions (E.3).
- c. Evaluate victory conditions (2.5).
- d. Resolve damage from emergency thrust (D.1); perform damage control (E.1).
- e. Reverse pivots (3.4); activate stutterdrives (B.23); declare towing (D.9).
- f. Remove face-up flare/probe/TAG markers; flip face-down flare/probe/TAG markers to face up (B.9; B.17; E.7).
- g. Deploy mines (B.15); launch shuttlecraft (B.20); launch fighter flights (F.5).



## A.1 The Design, Weapons (p.25)

ACC	Factor
2+	0.43
3+	0.35
4+	0.25
5+	0.15
6+	0.10

Weapon Trait	Modifier
Ballistic (Bls)	×0.8
Carronade (Crn)	×0.6
Catastrophic (Cts)	×2.0
Deadly (Dly)	×2.0
Defensive (Dfn)	×1.3
Diffuse (Dfs)	×0.9
Disruptive (Dsr)	×2.0
Expendable (Exp)	×0.2
Fire-Linked (FrL)	×1.0
Focused (Fcs)	×1.3
Guided (Gid)	×1.1
Incapacitating (Inc)	×0.7
Kinetic (Knt)	×3.0
Modulating (Mdl)	×2.5
Non-Piercing (NPr)	×0.7
Piercing +1 (Pr1)	×1.5
Piercing +2 (Pr2)	×2.0
Pinpoint (Pnp)	×1.3
Proximity (Prx)	×2.0
Repeating (Rpt)	×1.4
Scatter (Sct)	×1.8
Slow (Slw)	×0.6
Telescopic (Tls)	×2.2
Volatile (Vlt)	×3.5

	Crn	Dfs	Fcs	Gid	Sct	Tls
Bls	×0.4	×0.7	×1.3	×1.0	×1.2	×2.1
Crn		×0.6	×0.5	×0.5	×1.3	×0.9
Dfs			×1.5	n/a	×1.7	×2.0
Fcs				n/a	×1.9	×3.3
Gid					×1.8	×2.7
Sct						n/a

Weapon Mount	Modifier
Single	×1.0
Double	×1.8
Triple	×2.2
Quad	×2.6

## A.2 The Combat Rating, The Offensive Rating (p.26)

Hull Size	Exp Factor
1-3	×2.5
4-8	×2.0
9-15	×1.5
16-24	×1.0
25-35	×0.5

## A.4 Technology Levels (p.27)

Technology Level	SU Modifier
+2	50%
+1	70%
0	100%
-1	140%
-2	200%

## B.9 Flares (p.33)

Roll	Effect
1	None. The flare was a "dud".
2-4	Place a flare marker face down in a random hex adjacent to the target hex.
5-6	Place a flare marker face down in the target hex.

## B.14 Marines (p.34)

Hull Size	Max Marines
1-3	Two
4-8	Three
9-15	Four
16-24	Five
25-35	Six

## B.14 Marines, Shipboard Combat (p.34)

Roll	Number of Hits
1-2	None
3-5	One
6	Two

## B.17 Probes (p.35)

Roll	Effect
1	None. The probe was a "dud".
2-4	Place a probe marker face down in a random hex adjacent to the target hex.
5-6	Place a probe marker face down in the target hex.

## C.1 Alternate Firing Arcs (p.39)

Firing Arc	Abbr	Standard
Forward	FF	AB
Aft	AA	EF
Port	PP	HJ
Starboard	SS	IK
Forward Port	FP	AC
Forward Starboard	FS	BD
Aft Port	AP	CE
Aft Starboard	AS	DF
Forward Restricted	FR	G
Aft Restricted	AR	L
Port Restricted	PR	C
Starboard Restricted	SR	D
Forward Half	FH	GHI
Aft Half	AH	JKL
Port Half	PH	ACE
Starboard Half	SH	BDF
Forward Extended	FX	ABCD
Aft Extended	AX	CDEF
Turret Restricted	TR	GHIJK
Turret	TT	ABCDEF

Firing Arc	Abbr.
Forward	Fwd
Port	Port
Starboard	Stbd
Aft	Aft

## D.3 Evasive Action (p.44)

Engine Rating	To-Hit Penalty
1-2	None
3-5	-1
6-9	-2
10+	-3

## D.5 Freeform Turns (p.45)

Turns	Engine Requirement
None	Difference between previous and current speeds
One	Difference between previous and current speeds, plus 1
Two	Difference between previous and current speeds, plus 3
Three or U-Turn	Difference between previous and current speeds, plus 6

## A.5 Starship Systems Table (p.28)

Starship System	Type	Space Units	ORAT	DRAT	Tech
Anti-Fighter Batteries	Equipment	Shield Factor × 0.8	-	×1.2	Weapons
Auxiliary Services (Cargo/Hospital/Repair/ Science/Transport)	Trait	Capacity × 50	-	-	N/A
Boosters	Munitions	Engine Factor × 0.25	<i>Note [1]</i>	-	Engines
Carrier	Trait	50/Flight	250/Flight	+10/Flight	Fighter
▪ Launch Tubes	Trait	+10/Flight	+50/Flight	-	Fighter
Cloaking Device	Equipment	Shield Factor × 2.4	-	×2.0	Shields
Countermeasures	Equipment	Shield Factor × 1	-	×1.5	Shields
Directional Shielding	Trait	<i>Note [2]</i>	-	<i>Note [2]</i>	Shields
Fire Control	Equipment	<i>Note [3]</i>	<i>Note [3]</i>	-	Weapons
Flares	Munitions	5/Flare	(Engine Rating+10) × 0.5/Flare	-	Weapons
Hyperdrive	Equipment	Engine Factor × 0.6	-	×1.2	Engines
Ionized Hull	Trait	Shield Factor × 1.6	-	×1.5 <i>Note [4]</i>	Shields
Long Range Sensors	Equipment	<i>Note [5]</i>	<i>Note [5]</i>	-	Weapons
Marines	Munitions	10/Squad	(Engine Rating+5) × 2/Squad	+1/Squad	Weapons
Mines	Munitions	5/Mine	25/Mine	+1/Mine	Fighter
Overthrusters	Equipment	Engine Factor × 0.6	-	×1.3	Engines
Probes	Munitions	5/Probe	(Engine Rating+6) × 1/Probe	-	Fighter
Screens	Trait	50/Box	-	<i>Note [6]</i>	Shields
▪ Directional Screens	Trait	30/Box	-	<i>Note [7]</i>	Shields
Shockwave	Trait	Shield Rating × 100 <i>[Note 8]</i>	Shield Rating × (Engine Rating+3) × 33 <i>[Note 8]</i>	-	Shields
Shuttlecraft	Munitions	10/Shuttle	50/Shuttle	+2/Shuttle	Fighter
Solar Sails	Trait	-	-	-	Engines
Stealth	Equipment	Shield Factor × 0.7	-	×1.2	Shields
Stutterdrive	Equipment	Engine Rating × Engine Factor × 0.5	<i>Note [9]</i>	-	Engines
Tractor Beam	Equipment	2	(Engine Rating+1) × 2	-	Weapons

- [1] Increase the engine rating by 0.25 per Booster when computing all ORATs.
- [2] Use the equivalent shield rating, computed on p.24.
- [3] Increase the SU cost and ORAT of all weapon batteries by 30%.
- [4] The listed modifier applies only to hull points; not to Screens.
- [5] Increase the SU cost and ORAT of all weapon batteries by 50%.
- [6] Each Screen counts as 0.75 hull boxes when computing the DRAT. A starship may not have both standard and Directional Screens.
- [7] Each forward Directional Screen counts as 0.67 hull boxes when computing the DRAT; each port/starboard Directional Screen counts as 0.50 hull boxes; each aft Directional Screen counts as 0.33 hull boxes. A starship may not have both standard and Directional Screens.
- [8] If the starship also has Directional Shielding, use the equivalent shield rating, computed on p.24.
- [9] Increase the engine rating by 50% when computing all ORATs.

### E.1 Damage Control (p.48)

Hull Size	Damage Control Dice
1-3	One
4-8	Two
9-15	Three
16-24	Four
25-35	Five

### E.7 Target Acquisition (p.50)

Hull Size	Number of TAGs
1-3	One
4-8	Two
9-15	Three
16-24	Four
25-35	Five

Roll	Result
1-3	<b>None:</b> There is no effect.
4	<b>Engines Repaired:</b> Restore one box on the starship's engine track.
5	<b>Weapons Repaired:</b> Restore one box on the starship's weapons track, and regain the use of the appropriate number of weapons and/or equipment.
6	<b>Shields Repaired:</b> Restore one box on the starship's shield track.

### F.3 Fighter Screens (p.51)

Number of Fighters	Penalty
1-3	None
4-9	-1
10-15	-2
16+	-3

### F.5 Launch & Recovery (p.52)

Hull Size	Launch Max	Recovery Max
1-3	One	One
4-8	Two	One
9-15	Three	Two
16-24	Four	Two
25-35	Five	Three

### G.2 Black Holes, Gravitational Pull (p.55)

Distance	Size of Black Hole				
	1	2	3	4	5
1	-	-	-	-	-
2	X	-	-	-	-
3	1	X	-	-	-
4	1	X	X	-	-
5	0	2	X	X	-
6	0	1	X	X	X
7	0	1	2	X	X
8	0	1	1	3	X
9-10	0	0	1	2	3
11-13	0	0	1	1	2
14-17	0	0	0	1	1
18-22	0	0	0	0	1
23+	0	0	0	0	0

### Appendix S: Scenarios (p.58)

Roll	Scenario
11-12	<b>S.1: Alone in the Dark</b>
13-14	<b>S.2: Breakout</b>
15-16	<b>S.3: The Chase</b>
21-22	<b>S.4: Fleet Action</b>
23-24	<b>S.5: Hide &amp; Seek</b>
25-26	<b>S.6: Hit &amp; Run</b>
31-32	<b>S.7: On Patrol</b>
33-34	<b>S.8: The Shakedown Cruise</b>
35-36	<b>S.9: Storms in Space</b>
41-42	<b>S.10: Tin Can Dustup</b>
43-44	<b>S.11: To the Rescue</b>
45-46	<b>S.12: The Trap</b>
51-66	<b>None.</b> Play a standard scenario as described on p.12.

### S.8 The Shakedown Cruise (p.62)

Roll	Result
1	The starship has maintenance issues which severely hamper its performance. Apply a -1 modifier to all of its to-hit rolls.
2	As above, plus immediately decrease the starship's engine rating by 1.
3-4	The starship performs as expected; no special rules apply.
5	The starship is much more effective than anticipated. Apply a +1 modifier to all of its to-hit rolls.
6	As above, plus immediately increase the starship's engine rating by 1.

### S.9 Storms in Space (p.63)

Roll	Result
1	Each starship's heading is changed to a random direction. (To determine a random direction, roll one die: 1 indicates the direction of the ship's current heading; 2-6 indicate the remaining hexsides in clockwise order.)
2	No starships may turn during the upcoming Movement Phase.
3-4	No effect.
5	During the upcoming Combat Phase, all attacks suffer an additional -1 to-hit penalty. In addition, no attacks may be made at long range.
6	No starships may attack during the upcoming Combat Phase.

### X.1 Admiralty Edition, Combat (p.68)

Admiralty Trait	Unity Trait
Anti-Fighter	Pinpoint (Pnp)
Area Effect	Proximity (Prx)
Carronade	Carronade (Crm)
Catastrophic	Catastrophic (Cts)
Continuing Damage	Disruptive (Dsr)
Crew-Killer	Deadly (Dly)
Double Damage	No equivalent; use <i>Admiralty</i> rules
Doubled Range Modifiers	Diffuse (Dfs)
Extra Hull Damage	Kinetic (Knt)
Fighter-Exclusive	No equivalent; use <i>Admiralty</i> rules
Fire-Linked	Fire-Linked (FrL)
Halves Shields	No equivalent; use <i>Admiralty</i> rules
Ignores Shields	Modulating (Mdl)
Increased Hits	No equivalent; use <i>Admiralty</i> rules
Increased Impact	No equivalent; use <i>Admiralty</i> rules
Inverted Range Modifiers	Focused (Fcs)
Inv Rng-Based DMG/ROF	No equivalent; use <i>Admiralty</i> rules
Inv Rng-Based IMP	Telescopic (TIs)
Minimum Range	Ballistic (Bls)
No Hull Damage	Incapacitating (Inc)
No Range Modifiers	Guided (Gid)
Non-Piercing	Non-Piercing (NPr)
Piercing [X]	Piercing (Pr1/Pr2)
Range-Based DMG/ROF	No equivalent; use <i>Admiralty</i> rules
Range-Based IMP	Scatter (Sct)
Repeating	Repeating (Rpt)
Slow-Firing	Slow (Slw)
Starship-Exclusive	No equivalent; use <i>Admiralty</i> rules
Variable DMG/IMP/ROF	No equivalent; use <i>Admiralty</i> rules

### X.2 Nova Edition, Playing the Game (p.69)

Shield Dice Icons	Modifier
	+10%
	+5%
	None
	-5%

### X.2 Nova Edition, Combat (p.69)

Roll	Result
1-3	<b>Hull Hit:</b> Check off one hull box from the target's display.
4-5	<b>System Hit:</b> Check off one system box from the target's display.
6	<b>No Effect:</b> The hit has struck a bulkhead or other non-essential section of the target.

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