Appendix A

Starship Design Walkthrough

This is a walkthrough of the starship design rules in more detail. It covers the creation of a typical starship for player characters, housing 4 people for longer periods of time. It can be hard to pinpoint exactly what type of ship this is, so I will call it an Explorer. It has a good cargo hold, a sick bay, a small common area and is lightly armed. (The cubicles can theoretically hold two people, but then it will be a bit too crowded for any real privacy. As a temporary solution, if the number of players vary between scenarios, it should be fine though).

Step 1

The first step is to determine the ideal number of people that's going to use the ship. As stated above, I'm going for 4 people. That's 1 pilot and 3 crew members or passengers.

Step 2

Let's start with the cockpit. 1 Module would be enough, but as some of the storytelling action often happens in the cockpit, I'm making it 3 Modules. The second cockpit Module will be ideal for a gunner. I add "Cockpit, 3" under the Modules heading on the starship sheet.

modules
Cockpit 3

Step 3

As the ship must be functional for longer trips, cubicles are needed: that means 4 Cubicle Modules per person, a total of 16 Modules. I add "Crew (4), 16" to the sheet.

Step 4

Time to add a common room. As it will be a combined meeting, dining & hanging out type of space, I make it a bit bigger than necessary: 15 Modules.

Step 5

Cargo holds are always difficult to determine the size of, but I'll go for 22 Modules here. Not big enough for a regular trader, but enough to fit an ATV and some dandy exploration equipment (not included in the purchase though…).

Step 6

Characters tend to get hurt a lot, so a good 4 Module sick bay is needed. And as a precaution I throw in an Autodoc too (2 Modules). That's 6 Modules.

Step 7

The ship also needs reasonable hyperspace capabilities: 3 Modules. The ship will be able to go 3 hexes per jump when used together with a standard subsector map.

Step 8

Regarding weapons, two lasers will do (one operated by the pilot, the other by the gunner). I'm upping damage to 2d6 though, using the rules from the advanced combat rules. This will take 2 Modules.

Step 9

This is what the list of Modules looks like now (sidebar):

Step 10

All in all, 67 Modules so far. I take a moment to look through what Modules I have. Flicking through the rulebook, I make sure I haven't missed any of the functions the ship needs. After some consideration, I decide that I'm happy as it is. (The main reason for double-checking at this stage, is to avoid recalculating Speed and Maneuver more than necessary).

Step 11

Now that the ship's layout is firmly set, it's time for Engines and Maneuver; I grab my iPhone calculator. I will try with a Thrust Rating (TR) of 70, and see how it works. I start with a size 1/10th of the total Modules, just to get my bearings on the Speed and Maneuver values: 7 Engine Modules and 7 for Maneuver. Let's see what Speed and Maneuver values we get with that:

modules

Cockpit	3
Crew (4)	16
Open Space	15
Cargo hold	22
Sick Bay	4
Autodoc	2
Hyperspace	3
Weapons	2

TR multiplied with the number of Engine (or Maneuver) Modules: 70x7=490. That's the total TR.

Total ship Modules will now be 67+7+7=81

Total TR divided by ship Modules: 490/81=6

$$\text{SPEED} = \frac{\text{Total Thrust Rating}}{\text{Number of Ship Modules}}$$

Speed and Maneuver at 6 is a bit low for what I had in mind. So, either I increase the number of Modules or raise TR. Let's try 10 Modules of each; if that's not enough, I will raise the TR. The new calculations look like this:

70x10=700 in total TR

Total Modules: 67+10+10=87

700/87=8

$$\text{HANDLING} = \frac{\text{Total Thrust Rating}}{\text{Number of Ship Modules}}$$

8 is still a bit low. Raising TR to 100:

100x10=1000 in total TR

Total Modules is the same: 67+10+10=87

1000/87=12 (11.5 rounded up)

Speed and Maneuver at 12 is a good start! I will keep 12 for Maneuver, but go back to TR70 for the Engine Modules (the engine, I decide, is a bit old).

Step 12

That means ship stats are ready!

Step 13

SPEED	8
HANDLING	12
SIZE	87

Armor and Shields are next. In the context of the intended setting, Armor will be fine at 2 and Shields at 7. The values can be determined in one of two ways: either by deciding what is normal in the setting, or just add as much as the ship builder affords. As I'm not doing the economic calculations for this ship, I'm going for the first method here.

Step 14

For the remaining attributes I go for: Stealth (no), Streamlining (yes) and Apps (no). I will not use Recovery, to keep any combats simpler.

Step 15

If you don't want to use Hit Locations, the ship is done! Just set General Hit Points to 87 and you're good to go. I prefer Hit Locations for the detailed story hooks they can provide though, so stay with me for a few moments if you want to see how they work.

shields 7

armor 2

hyperspace 3

Step 16

To calculate Hit Locations, I bring out my calculator again. I'm dividing the number of Modules for each individual section with the total number of Modules. So, for the cockpit it's 3/87=0.03. Times 100, we get 3. Thus, the Hit Location table starts like this:

Cockpit 01-03

Step 17

Next, cubicles (Crew): 16 Modules. 16/87=0.18. Multiplied by 100, we get 18. Just take the last number in the table (3) and add 18 to that: the range will be between 04 and 21.

Cockpit 01-03
Crew 04-21

Step 18

For the rest of the sections it looks like this (sidebar):

Step 19

That's it! The ship is done. I will call it Aajege, a Sïmmedh word meaning a spring of water. But there's one more thing I want to add...

Hit Locations	Hit Points
01-03 Bridge	3
04-21 Crew	16
22-38 Open Space	15
39-63 Cargo Hold	22
64-69 Sick Bay	4
70-71 Autodoc	2
72-74 Hyperspace	3
75-76 Weapons	2
77-87 Engines	10
88-00 Maneuver	10

Step 19

I'm planning for this ship to be slightly old, a bit battered and to have some personality. I'm halving hit points for some of the sections (Open Space and Cargo Hold) and take away 3 Hit Points each from Engines and Maneuver. I also set Ship Condition to -20; all Pilot rolls will be Hard, just as all Mechanics rolls. The GM is also free to call for Pilot rolls for standard maneuvers, and any failed such roll may result in a malfunction. (See more about Ship Condition at page 101). Just enough to keep the players on their toes, not relying too heavily on their tech.