

## WASTE Supplemental III-IV

### Space Travel

Space travel in WASTE is a everyday affair, with shuttles and interstellar transportation being commonplace and affordable. As a general rule, only in incredibly outlandish situations will there be an issue with competent, licensed commercial pilots and their vessels. The players are not competent, licensed commercial pilots. They may have had some training, but they will be risking life and limb should they participate in chases, races, or even more mundane long-term flight. WASTE Supplemental III will detail these dangers in terms of mechanics.

Notice: For piloting, a negative value gives a  $-(5 * \text{Piloting})$  penalty, regardless of what the normal bonus amount would be, to reflect unfamiliarity with the systems used.

Sub-light travel is used on a daily basis, usually using computer-decided courses and dedicated channels of travel. However, it may be necessary to leave course to flee pursuit or access forbidden areas. There are a number of factors which make sub-light travel more difficult in some situations, and certain actions are more difficult than others. (Notice: If a penalty is only applied while moving, “stationary” actions do not incur a penalty. All sub-light travel moves at the same speeds (about 60 mph [stationary], 250 mph, .1 lightspeed, and about .8 lightspeed), though vessels may have specialized pursuit systems that allow them to reach .9 lightspeed. Reaction times are augmented by a headset, so there is no concern over reflexes.

#### Sub-light Travel Actions:

Actions:	Required- Stationary-250mph/.1 lightspeed/.8 lightspeed/.9 lightspeed
Leave a channel without a collision	45/10/5/None (Piloting*5 bonus to all)
Enter a channel without a collision	45/45/20/10 (Piloting*5/5/3/2/0 bonus)
Fly down a straight channel without using a computer, avoid collisions	45/40/20/25 (Piloting*5 bonus to all)
Turn at a channel intersection without using a computer, avoid collisions	50/30/45/50 (Piloting*5 bonus to all)
Fly to a destination (per hour)	15/20/30/50 (Piloting*5 bonus to all)
Evasive Action (to avoid attacks, applies 5*Piloting to a defense roll)	50/30/10/15 (Piloting*5 bonus to all)

#### Sub-light Travel Penalties:

Situation:	Penalty- Stationary-250mph/.1 lightspeed/.8 lightspeed/.9 lightspeed
High Traffic or Obstacle Density	-25/-20/-5/-10
Low Traffic or Obstacle Density(bonus)	+10 bonus to all speeds
Deep Space & No Traffic (bonus)	Automatic Success
Massive Structural Damage	-10/-20/-30/-40
In Gravity	None/-30/-40/-50*
Underwater	None/-40/-60/Impossible

\*Accrues 10 points of damage per turn at .9 lightspeed

Faster than light travel is simpler than slower than light travel in that all faster than light transportation is instantaneous (or practically so), the only limitation being a clear sight line to the destination to ensure a successful arrival (as such, it generally consists of astronomical amounts of small jumps so that the computer can see another path, due to complications with moving faster than light). On the upside, it is generally safer, because pilots only are used to decide which route to take, using knowledge of which paths are better.

The main hazard of FTL travel is interdiction by a malevolent force. This occurs more frequently in common paths, so it is the pilot's job to assess the path and make adjustments around known interdiction areas or places with high commercial traffic. Pirates and MCF outposts are frequent sources of interdiction. Any ship hit with interdiction slows to its highest possible sub-light speed.

*FTL interdiction mechanically occurs with a d50 roll of less than 10 on standard paths, or 5 on less-used paths, and as low as 1 for custom plotted paths. In order to plot a less frequent course, a roll of  $d50+5*Piloting$  versus 40 for less-used and 70 for custom. In case of failure, the computer goes back to the standard paths, and the level desired must be stated (custom failure leads to the standard path, even if the roll is over 40).*

## Space Combat and Common Spaceships

Resuming where *WASTE* Supplemental III left off, WS:IV is the finishing part of space combat in the Eridani system, though it is to be finalized with “tactical rules” for additional realism.

Space combat in *WASTE* is handled using either a d50 or d10 system, either is permissible (d50 for higher accuracy, d10 for speed). Each round of combat is divided into three phases: Electronics, Motion, and Firing. One or more ships is designated the target, and others are designated hunters.

The electronics phase allows the use of computers to gain a bonus. A character with Piloting skill can use a flight computer to gain a +1/+5 (d10/d50, this will be used for the rest of this supplemental) bonus for a defensive roll (of d10/d50). The Indirect Offense skill can be used to gain the same bonus for the attacking roll of ( $\frac{1}{2}d10/\frac{1}{2}d50$ ).

Space is large, but all ships have limited speeds. For combat, they are assumed to be moving at .8 or .9 lightspeed [or less, in .1 lightspeed increments], depending on whether or not they have a pursuit drive. Any distance that would be used by the lesser speeds is pretty much nominal given the massive computing power of the weapons systems and thrusters. The speed traveled per .1 lightspeed difference in a round is designated as 1 distance increment. Getting 10 distance increments from the hunter can allow the target to disengage with a successful piloting roll. During the Motion phase, a ship either tries to pull away or catch up to its opponent. This can be done not just by linearly outrunning an opponent, but in an area with obstacles, it is possible to lose an opponent by dodging through obstacles. This requires a piloting roll as if the flying were normal for both sides, but if the hunter fails it, the target will edge ahead 2 distance increments. As a general rule, obstacles can be found every 20 distance increments, except in deep space, in which case obstacles are very rare.

Space combat is difficult, due to the massive distances involved and relatively poor open-market weaponry available. The attacking roll is halved to hit compared to the piloting roll, meaning that a good piloting roll can evade, but at the same time, a roll is made for each weapon, meaning that a cluster of weapons is more likely to hit. During the combat phase, weapons are fired. All except missiles move so fast that they have a negligible delay before hitting the target. Missiles always move at .9 lightspeed, and home in on an opponent unless flares are used or a certain distance is traveled, at which point their fuel runs out and they detonate automatically. Other weapons fire FTL speed projectiles, meaning that the time to hit is negligible. For every 2 full distance increments from the target, any weapon (except missiles, should they have the range to catch up) suffers a -1/-5 to hit.

Below are the weapons and ships.

## Ship Equipment:

<b>Flares</b>	<b>Launcher: \$500,000</b> Used to Evade a missile, each flare targets 1 missile.	<b>Point Defense</b>	<b>Turret: \$2,500,000</b> Anti-missile system, on a gunnery roll it will shoot down a missile
<b>Light Missile</b>	<b>Launcher: \$10,000,000</b> Shot down on gunnery roll of 20, deals 5/25 damage when it hits.	<b>Medium Missile</b>	<b>Launcher: \$500,000,000</b> Shot down on a gunnery roll of 30, deals 10/50 damage when it hits.
<b>Laser</b>	<b>Emitter: \$2,500,000</b> Uses FTL sheath to deliver energy packets, deals 1/5 damage. +1/+5 to hit	<b>Railgun</b>	<b>Launcher: \$50,000,000</b> Fires FTL projectiles,
<b>Shield</b>	<b>Shield: \$500,000</b> Negates 1/5 points of damage per received hit	<b>Computer</b>	<b>\$1,000,000</b> Can be used to increase effective Offense or Piloting rank by 1 point.

Notice the names before the prices of all objects but the Computer. This means that the object can only be mounted in certain slots on a ship. The only objects that can be mounted in other slots are emitters or launchers, which can be mounted in turret slots.

Sample ships are below.

<b>Avenger</b>	This frigate class vessel has 4 turrets, and holds up to two shields. It can travel at .8 lightspeed, and costs \$1,500,000,000. It can take 40/200 points of damage.
<b>Grasshopper</b>	This small freighter is used by smugglers and the like. It can hold one turret, and travel at .9 lightspeed. It costs \$25,000,000. It can resist 20/100 points of damage.
<b>Locust (-L or -E)</b>	A low-end military escort fighter, it holds 1 launcher or emitter (as seen in the designation), and travels at .9 lightspeed. It costs \$10,000,000. It withstands 15/75 points of damage.
<b>War Hawk</b>	A high-tier military fighter/bomber, it holds 2 launchers or emitters, and a shield, though it only travels at .8 lightspeed. It costs \$175,000,000. It is rather flimsy and can withstand 20/100 points of damage.