



Arriving In A System

A major part of astrogation is planning the journey from one system to the next.

Arrival

ARRIVAL

A starship's arrival in a system is fraught with danger. One moment, the ship is (relatively) safe in Jump Space; the next it is in a new location in totally new circumstances.

Momentum is Conserved. A ship retains its speed and direction in Jump. When it emerges, it continues in its original direction and at its original speed. The final direction may seem random, but it is not. For example, two ships from the same origin jumping to the same destination will emerge at the same speed and direction relative to each other.

ASTROGATION

An Astrogator calculates a Jump based on the intended distance in Parsecs.

Calculating Jumps

To calculate an interstellar jump-1.

Easy (1D) < Int + Astrogator

Uncertain (1D)

The dice for difficulty of the interstellar jump calculation equals the distance in parsecs (Jump-1 difficulty is 1D; Jump-6 Difficulty is 6D).

To manually confirm jump-1 calculations (24 hours).

Average (2D) < Edu + Astrogator

Uncertain (1D).

The difficulty of manually confirming the jump calculation is one level higher than the automated calculation difficulty. Many Astrogators omit this step.

The Astrogator's Role. The Astrogator's responsibility is to plan a straight line course to the destination and avoiding objects which may force it out of jump before the destination.

Uncertainty. If the jump calculation is wrong (the calculation task fails) and it is used, the actual jump destination is random.

THE 100D RULE

A ship automatically breaks out of Jump Space if its straight line course intersects a sphere 100 Diameters out from a gravity source larger than the ship.

THE 100D RULE

Gravity Source	S=	Comment
Spectral A F Star	12	(usually
Spectra G Star	11	(just beyond
Spectral K M Star	10	(the HZ.
Gas Giant Size	9	includes all Satellites.
World Size 15+	8	
World Size 3+	7	most worlds.
World Size 1, 2	6	
World Size 0	5	Asteroids
Oort Cloud Objects	4	

TYPES OF ARRIVAL

There are three general types of arrival.

The Easy Way

Most Astrogators plot a straight line course from their startpoint to the destination world; in fact, they aim for the center of mass of the destination world. The 100D automatically forces Breakout at 100D from the world.

Planned

Astrogators can plan a breakout anywhere in a system at least 100D from all gravity sources.

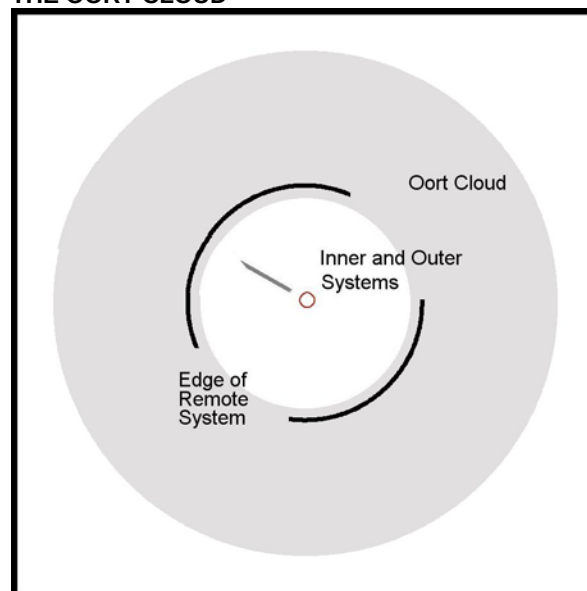
Unplanned

A straight line course may intersect the 100D limit of an object (an asteroid, a comet, a remote system object) which forces the ship out of Jump before reaching the destination world.

Some Pilots plan for this contingency by jumping at zero velocity (so they don't crash into the asteroid that knocked them out of Jump).

It is impossible to foresee an object this small at such great distances, so an unplanned destination arrival is always a possibility.

THE OORT CLOUD



The Oort Cloud is a potential problem: its swarm of many small objects potentially ends jump short of the destination.