Psijump

Alternative FTL Type 0 Travel

These rules were designed for a universe where humankind has begun to unlock its psionic potential and the benefits of the Psijump Network have discouraged most research into other types of FTL travel.

The Psijump Network – Executive Summary

The galaxy is peppered with wormholes called Psijump Points that enable direct travel between star systems. Travel though Psijump Points requires a ship with a Psijump Drive and someone who can initiate transit called a Psijumper. A few thousand of the shortest, safest routes between key star systems support primary trade routes, tens of thousands of other routes are used primarily for local access and FTL communications, and hundreds of thousands of explored and unexplored Psijump Points are known to exist. While the Psijump Network travel is well-understood, little is known about how Psijump Points function. The origin of the Psijump Network is frequently debated.

Psijump Points

All known Psijump Points are located at the edges of star systems, and lead to the edges of other star systems. Scientists do not agree whether a star system's gravity wells affect where Psijump Points can be found; Psijump Point locations are not easily modeled or predicted. Psijump Points are most frequently found near commercially or strategically interesting star systems, leading many to believe that Psijump Points are not natural phenomena.

Although Psijumps are typically 10 – 20 parsecs in distance, the duration of travel is always identical (about 7 seconds.) Psijump passengers experience instantaneous travel, so a clock returning to its origin after traveling via the Psijump Network would be 7 seconds behind a clock that did not travel for each Psijump along its route. Some frequent travelers report feeling a sense of "lost time," but scientists believe this to be a purely psychological phenomenon.

While routes across the Psijump Network are usually described using the number of Psijumps, the distance between Psijump Points at any given star system along the way have a much larger impact on travel times than the number of jumps. New travelers are often surprised that a 10 Psijump journey may take less time than a 5 Psijump journey with greater in-system travel.

Some Psijump Points are described as "stronger" or "larger" than others and are both easier and safer to use, especially when transporting larger masses. Since trade routes tend to be built around strong Psijump Points,

shorter, riskier routes to the same destination can sometimes be found.

Table 1: Effect of Psijump Point Size on Psijump Activation or Detection

Psijump Point Size	Modifier
Tiny	- 2D6
Small	- 1D6
Medium	0
Large	+ 1D6
Huge	+ 2D6

Psijump Points can be "felt" by people with psionic abilities, but they cannot be detected by machines. While anyone with psionic sensitivity can sense a Psijump Point to some degree, there are specialists who excel at finding, measuring, and mapping Psijump Points. Some travelers have become aware of their own latent psionic abilities only during their first Psijump.

Detecting Psijump Points

A Psijumper can focus their thoughts and seek out nearby Psijump Points with a PSI (clairvoyance) or PSI (teleportation) check modified by the Psijump Point size (Table 1) and a difficulty based on distance (Table 2).

Table 2: Psijump Point Detection Distance

Distance	Difficulty
3000km	Routine 10
1ls = 300,000km	Challenging 13
5ls	Difficult 16
15ls	Demanding 21
30ls	Strenuous 25
60ls	Severe 29

Psijump Network Management

All Psijump Points along major trade routes are managed by nearby space stations. These stations collect Psijump fees, provide pinpoint navigational detail, schedule jumps to maximize throughput and safety, manage FTL passenger and communications services, collect customs for ships headed down-system, and provide law enforcement. Most stations will also have maintenance, trade, and recreation facilities for travelers. Major stations offer scheduled passenger ferry services and lodging on each end, where passengers can await in-system transport on ships without Psijump capabilities.

Minor trade routes may be managed by smaller stations with few services, or even automated buoys. Unmonitored Psijump points can be dangerous and should be avoided; please review navigational library data for known hazard warnings and lists of lost exploration ships.

Fees typically vary based on ship class and current Psijump demand. The fees pay for the station's services, and nicer stations featuring more services will have higher fees. Companies with frequent, stable shipping routes often negotiate service contracts rather than paying ala-carte.

One way ships can offset Psijump fees is by carrying communications. So-called FTL communications consist of data sent through conventional means within a star system and buffered at stations or buoys near Psijump Points. Encrypted data packets are transmitted to reserved storage on passing ships and collected by stations or buoys on the other side. Once the data has been verified and acknowledged back to the sender, the ship's account is credited. Reputation systems reward reliable couriers and discourage bad actors. Some systems with heavy communications and

light Psijump traffic support pure curriers who Psijump when there is no other traffic just to carry communications data.

Table 3: Psijump Communications Buffers

Buffer	Cost	CPU	Capacity
CP1	1	1	1
CP2	5	3	8
CP3	12	5	20
CP4	20	7	44
CP5	45	8	62

Psijump Communications Buffers are reserved portions of the Control Computer and do not require additional CU (space) in the ship.

Psijump Drives

Psijump Drives are built around a core of an extremely rare and valuable mineral colloquially named Psirite. This mineral has sometimes been found in a light turquoise crystalline structure, but when refined from ore it forms into the more common deep blue crystals used in Psijump Drives. The lighter form of crystal glows when psionic energy is being used nearby, while the refined form emits a detectible electrical potential, leading to its use in so-called "psi sensor" technologies. The largest crystal ever found was reported to have been more than 25cm wide, but it was broken up for sale and smelting. The most expensive part of a Psijump Drive, accounting for 50-80% of the cost, is its Psirite core which typically costs around 200 Mcr/kg.

Psijump Drives are not technically complex devices. Precise Psijumps require a Psijump Pilot to activate the core as close as possible to the center of mass of the ship and as close as possible to the Psijump Point. Carefully loaded cargo and a slow, precise approach to the Psijump Point are key factors for a successful Psijump. The large volumes of Psijump drives allow the core to better align itself for the jump, compensating for minor load imbalances and trajectory imperfections. Older drives were fixed to the center of the ship and were supplemented by some kinds of automated mass adjustment systems (e.g. piped liquids or masses on extendable booms) around the ship's periphery, but these were unable to compensate for trajectory variations. Much safer modern Psijump Drives feature mobile cores suspended inside a large cylindrical volume of vacuum at the center of the ship, aligned with the direction of travel.

Table 4: Psijump Drives

Psijump Engine	Cost	Size	CPU	Space	Activation Bonus	Max Class
LP1	87	L	4	15	0	2
LP2	189	L	7	38	+ 1D6	4
LP3	276	L	10	80	+ 2D6	6
EP1	155	E	6	123	0	8
EP2	344	E	11	161	+ 1D6	10
EP3	502	E	16	217	+ 2D6	12
GP1	392	G	14	297	0	14
GP2	800	G	16	389	+ 1D6	16

Psijump Pilots

While the ship's computer coordinates the Psijump Drive and its related systems based on ship's telemetry and precise Psijump Point mapping data, the Psijump Pilot must mentally trigger the Psijump at the right moment. While the Psijump Pilot can trigger a Psijump from anywhere on the ship, most find it much more difficult without the precise status and timing information provided by a piloting station, which is typically located on a ship's bridge. Psijump Pilots are often accomplished sub-luminal pilots as well.

Misalignment or poor piloting can result in "successful" Psijumps that give passengers debilitating nausea, damage the ship, and/or leave parts of the ship behind. Usually, a bad Psijump attempt will simply fail but may damage the ship or the Psijump Drive. In rare occasions a ship Psijumps away but does not arrive at the other end, never to be seen again. Exiting a Psijump at an occupied Psijump Point is dangerous; the exiting ship appears in unoccupied vacuum as near the Psijump Point as possible, usually within meters of the occupying mass and resulting in a collision. If something very large occupies the exit Psijump Point the Psijump may fail altogether.

The ability to successfully trigger a Psijump is rare, and those with proper training are even more rare, so Psijump Pilots are often among the best-paid crew on a ship. Responsibility for the survival of an entire ship and crew during a split-second thought-powered operation gives some Psijump Pilots a rush much like that experienced by extreme sports athletes. Many find it difficult to hold down more mundane jobs after a few years working as a Psijump Pilot.

Psijump Point Activation

Roll a Routine 10 PSI (teleportation) check modified by the Psijump Point size (Table 1) and Psijump Drive Activation Bonus (Table 4). The Psijumper spends 4 PP, minus 1 PP per ship Class below the Psijump Drive's Max Class. Success means the Psijump Point was successfully activated, and if the destination is not blocked the ship teleports to the destination. Failure can have consequences (Table 5).

Example 1: A Class 7 ship equipped with an oversized EP2 Psijump Drive is Psijumping through a Large Psijump Point. The Psijumper spends (4-(10-7)) = 1 PP and rolls PSI (teleportation) with +2d6.

Example 2: A Class 8 ship equipped with an EP1 Psijump Drive is Psijumping through a Tiny Psijump Point. The Psijumper spends 4 PP and rolls PSI (teleportation) with -2d6.

Other factors can affect the Difficulty at the GM's discretion. For example, Psijumping with a damaged ship, loose cargo, during combat, or while moving at high speed will increase the difficulty. Exceptional piloting, stopping on the Psijump Point, or expending extra PP may decrease the difficulty.

Table 5: Activation Failures

Failed By	Effect
1-3	Nothing happens
4-5	Severe passenger discomfort, minor damage to ship/cargo
6	Major damage to ship/cargo
7	Psijump Drive destroyed
8+	Catastrophe

While the so-called "Golden Age of Psijump Exploration" was over a century ago there are still many unexplored Psijump points, especially in distant uninhabited systems. Exploration is risky and difficult to fund, but there are always Psijump Pilots willing to travel into the unknown. Many prospectors travel through dozens of systems with no compelling commercial value only to give up when their funding runs out. Others depart through an unexplored Psijump point and never return, leaving Psijump Points in many systems that ship owners dare not attempt to use.

Psijump Character Options

Career Event: Psijump Awakening

Time: [event]
Prerequisites: PSI = 0.

Attributes: INT +1, WIL +1, PSI +2

Skill choices: [psionic]

Your first Psijump, or something was very different about this Psijump, and you felt something awaken deep inside your mind. You've heard of this happening, but it's very rare. Some have described it as opening their third eye for the first time.

Exploits
Psionic Recognition. As an action you can sense psionic ability and relative strength in a person within 10m of you.

Psionic Curtain. +1 to DEFENSE or MENTAL DEFENSE vs. psionic attacks.

Homeworld: Ship / Space Station

Attributes: END +1, STR -1
Bonus Skill: astrogation or accounting

Career (Origin): Raised in the Lanes

Time: [2d6+6 years]
Prerequisites: none.

Attributes: INT +1, LUC +1, REP +1, PSI +1

Skill choices: astrogation, accounting, bureaucracy, carousing, low g, piloting, zero g

You spent your formative years travelling the Psijump Network. Ships and space stations were your playgrounds and you rarely (if ever) spent time downside. Everyone around you was tied in one way or another to the business of interstellar trade.

Exploits
Been There. You have poked around almost every space station and every class of ship in the trade lanes, and you know your way around them. You can navigate even unfamiliar ships and stations with an Easy INT check.

Career: Psijump Pilot

Time: [1d6 years]
Prerequisites: teleportation.

Attributes: AGI +1, LOG +1, WIL +1, PSI +1

Skill choices: astrogation, astronomy, computers, gunnery, piloting, reactions, starship tactics, teleportation

You can bend the fabric of the universe to your will. Or at least that's what you feel like for a few minutes each day when you make the ship disappear from one system and appear in another. Maybe you run your own ship, or maybe you're a cog in a giant corporate or military machine.

Exploits
Precision Psijump. When Activating Psijump Points, treat them as one size larger than they really are (up to Huge.)

Speed Psijump. Activating Psijump Points while moving at high speed is Routine for you.

Company Account. You can charge all your port fees to a company account (do you even still work for them?) and have access to some of the nicer parts of the nicer stations.

Auto Pilot. You can program subluminal navigational instructions between Psijump Points without an attribute check.

Career: Psijump Prospector

Time: [1d6 years]
Prerequisites: none.

Attributes: END +1, INT +1, LUC +1, PSI +1

Skill choices: accounting, diplomacy, [hobby], leadership, linguistics, [personal], [scientific]

There are plenty of unexplored Psijump Points, and some that have swallowed ships. The opportunity to find new routes or new valuable systems is worth the risks - if you can find the funding. Long voyages to unknown destinations require varied crews.

Exploits
Bridge Team. Gain two ranks in each of the following primary skills: astrogation, piloting. Gain one rank in each of the following secondary skills: computers, gunnery, starship tactics, teleportation.

Engineering Team. Gain two ranks in each of the following primary skills: computers, electronics, engineering. Gain one rank in each of the following secondary skills: robotics, [scientific], zero-g.

Away Team. Gain two ranks in each of the following primary skills: rifles, [scientific], survival. Gain one rank in each of the following secondary skills: [outdoor], [physical], [vehicle].

Medical Team. Gain two ranks in each of the following primary skills: computers, two [medical] skills. Gain one rank in each of the following secondary skills: two additional [medical] skills, [scientific].

Career: Psijump Cartographer

Time: [1d6 years]
Prerequisites: astrogation.

Attributes: INT +1, LOG +1, CHA +1, PSI +1

Skill choices: astrogation, astronomy, cartography, computers, carousing, linguistics, piloting, teleportation, zero g

You love maps, and there is always demand for maps of better Psijump routes. Travelling through less-frequented systems, collecting local lore, plotting cross-system courses, and verifying stale Psijump Point data allows you to fill this demand.

Exploits
That Can't Be Right. Automatically find a map error or a shortcut saving 10% travel time.

Travel Reviewer. Your influence in travel publications is so strong that many travel related businesses offer you gratuities or discounts if you are recognized.

Trade Speak. Your extensive travels and contact with others gives you +1d6 to verbal linguistics checks.

Psijump Spotter. Your Psijump Point detection distances are doubled for each time this exploit is chosen.

Career: Psijump Currier

Time: [1d6 years]
Prerequisites: teleportation.

Attributes: AGI +1, CHA +1, REP +1, PSI +1

Skill choices: computers, electronics, low g, piloting, [social], teleportation, zero g

You are either a Psijump ferry pilot or you carry bulk communications back-and-forth through a single Psijump Point multiple times a day.

Exploits
With My Eyes Closed. Automatically succeed Psijump Activation if you've been through the Psijump Point more than 10 times.

Fly Free. You can always find room for you and a few friends to squeeze aboard a ferry, if they don't mind forgoing the paying customers' amenities.

Newest News. No, you can't decrypt the communications you carry, but you do seem to be the first to hear all the most interesting news and rumors.

Invisible Ship. Your Psijumps are logged as background system traffic and avoid scrutiny. You can spoof the logs to obscure the name, pilot, and contents of your ship and skip customs at major stations.

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