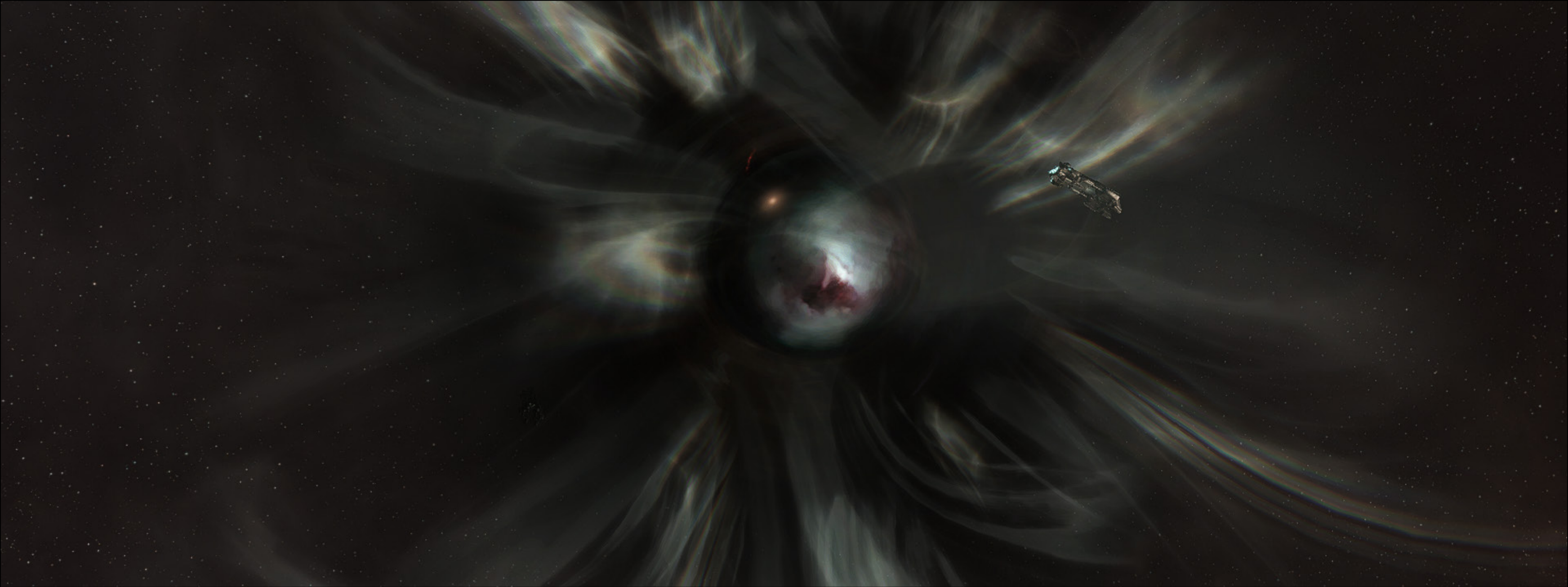




**CATSKULL PRIMER
TO LIFE IN WORMHOLES**

COMING EVENTUALLY



Section : 1

Why Live In Wormholes?

Why Live In Wormholes?

The decision to live in wormhole systems (more often referred to as J-Space) is an unusual one. In doing so, a pilot gives up the stability of stargates, reliable trade hub connections, and asset safety, providing an “off the grid” experience unlike any other in EVE Online. In addition, the lack of active “Local” means that pilots flying in wormholes do so with significant risk of being hunted, without the pilot ever knowing.

Considering these extensive trade-offs, the wormhole life surely has to provide something unique and intriguing, right?

Wormholes provide some of the most engaging and lucrative content in EVE Online, with options for all playstyles, and quick access to pretty much everything else that New Eden offers otherwise. It’s important to note that the Wormhole Life doesn’t mean that pilots should feel constrained to content only within J-Space systems, but rather embrace the ever shifting nature of wormhole connections.

For PvE Pilots, the content found within J-Space is some of the most lucrative available in the game, to provide an enticing lure to counteract the increased risks inherent in wormholing. Combat pilots able to reliably survive the dangers of J-Space (including other pilots) will find themselves able to earn considerably more ISK than they would with Nullsec Anomaly Ratting, or Hisec Mission Running; and industrialists willing to brave the gas clouds and their Sleeper Guardians, will find a steady income to rival any other resource harvesting in New Eden. It should be noted that materials for the production of T3 ships and subsystems, of which there is a constant demand, are exclusively found in J-Space.

For PvP Pilots, J-Space offers an environment unlike any other. On the one hand, the constantly shifting connections give pilots unique opportunities. Being able to leap out of a wormhole into a random K-Space system provides unique hunting grounds daily. If an area of space proves to be quiet, a static wormhole can be rolled to provide a new connection and with it, new opportunities. Pilots engaged in Faction Warfare will find these shifting connections give them access to new warzones frequently.

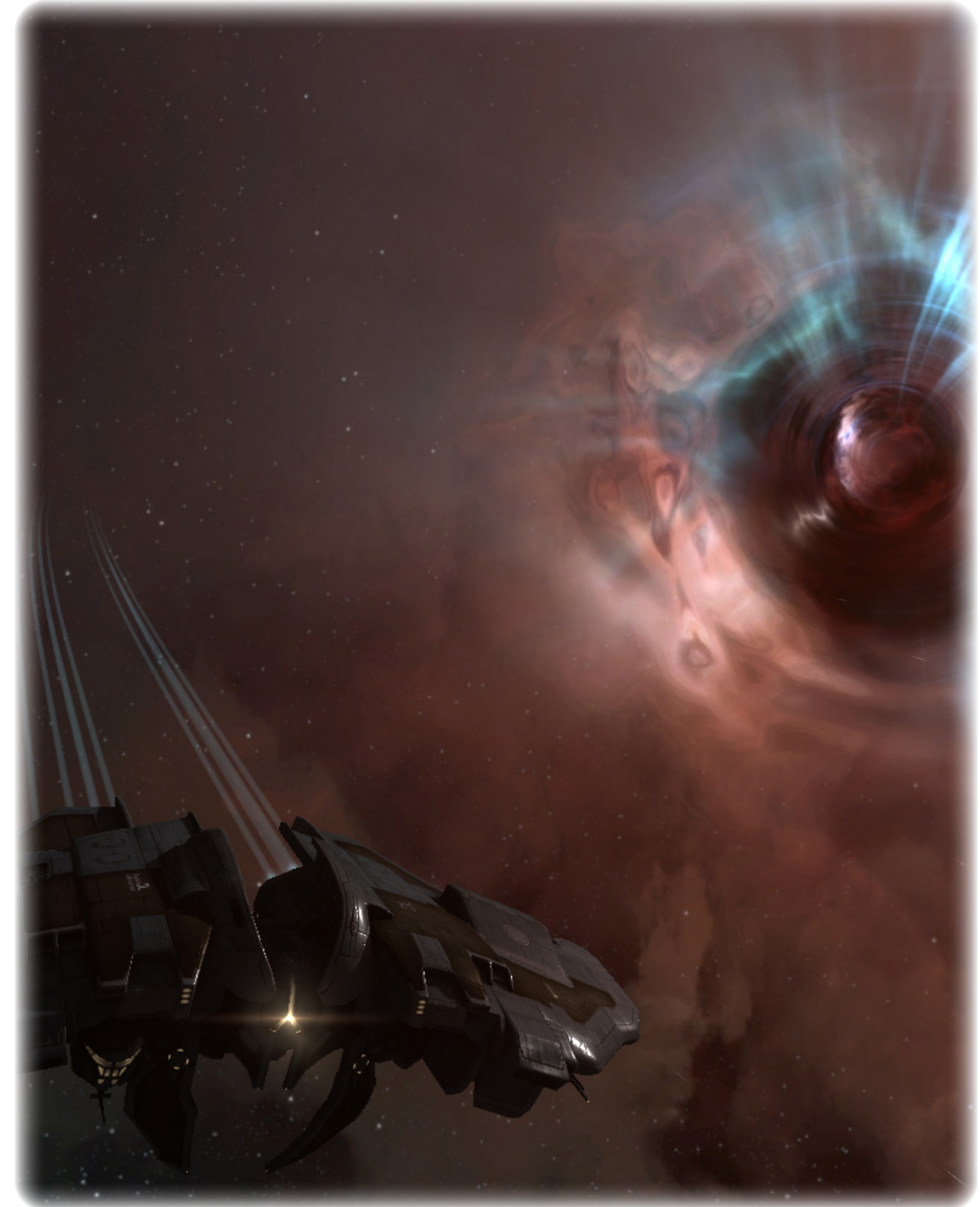
This doesn’t even include the possibility of PvP activities within J-Space itself. J-Space systems do not have “Local” like other K-Space systems - here, you only know that someone is in the same system as you if they happen to talk in local, if you scan them, or if they drop onto grid suddenly. This makes wormholes the perfect playground for pilots to enjoy the benefits of covert ops cloaks - whether for survival, or for ambush.

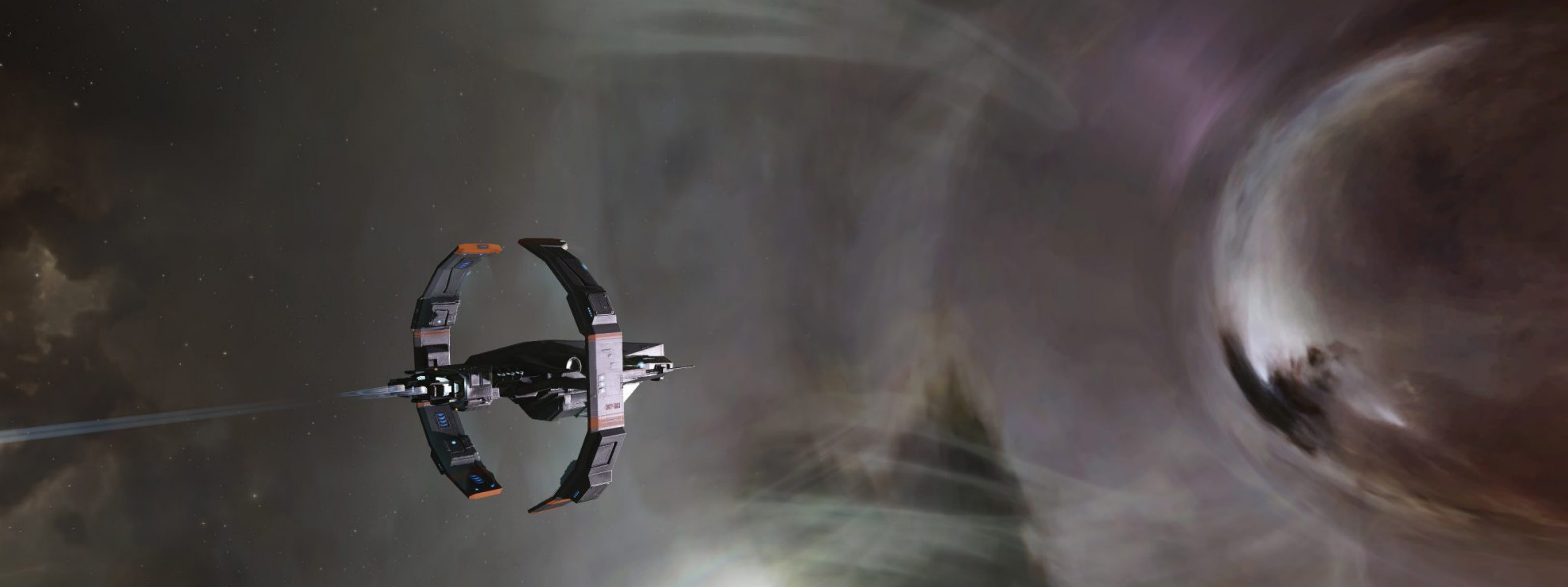
Wormholes can be summed up simply by the phrase “High risk, high reward”. Those willing to not only brave such a hostile environment, but to flourish and thrive in it, will find near endless possibilities in a realm where no two days are ever the same.

Throughout this primer I will detail all the different aspects of gameplay available to pilots living in wormholes, including guides on how to find and complete this content, reasons for doing it, and detailed example ship fits to assist pilots.

It is my sincerest hope that you will find this primer both helpful, and inspiring, and I hope to see you all in J-Space soon!

Captain Benzie, Catskull Scout Division Lead





Section : 2

What Are Wormholes?

What Are Wormholes?

In EVE Online, wormholes are rifts in space that connect two star systems and allow the travel of ships from one star system to another, like stargates. Unlike stargates, however, wormholes are not permanent and connect two systems for only a short period of time and wormholes will collapse when either their lifespan ends or when too many ships have passed through them.

Wormholes can connect **any** two systems regardless of distance from each other, providing temporary shortcuts to areas that would otherwise take many jumps to reach. Wormholes can also connect to an area of uncharted space, known as the Anoikis galaxy (henceforth referred to as J-Space due to the names of these systems all being a J followed by six digits); these systems are uncharted, and do not operate like normal systems.

Before any discussion on wormholes, it is important to make note of the nomenclature. When talking about wormholes, it is common to (incorrectly) refer to a J-Space system as a “wormhole”, but in this primer we must be careful to make clear the distinction between **wormholes** (the rifts that connect systems) and **wormhole systems** (J-Space systems in the Anoikis galaxy)



Finding Wormholes

Wormholes can be found by using Core Scan Probes to scan down cosmic signatures. Once a wormhole is probed down, it can be warped to and jumped through much like a stargate, though unlike gates they must be warped to and then jumped through as a two-step process.

IMPORTANT NEW PLAYER TIP: If you’ve found a wormhole, by all means see what’s on the other side if you’re curious, but use a cheap ship you can afford to lose, and also a clone you can afford to lose. Make sure the ship you use has core probes and a probe launcher fitted on it. When you pass through the wormhole, immediately right-click and bookmark your entry wormhole before doing anything else. The game does not automatically record your entrance’s location, and if you warp away without bookmarking it, you will have to probe your entrance down. If the worst comes to the worst and you find yourself stranded in wormhole space with no probes, you can try contacting Eve-Scout Rescue, who might be able to help.

- EVE University

Destinations

Wormholes lead to a variety of different places: some connect J-Space to the mapped New Eden systems (henceforth Known Space or K-Space) that you are surely already familiar with.

Other wormholes connect from K-Space to J-Space, yet others connect J-Space to other J-Space systems, and some wormholes connect K-Space to K-Space.

Inside J-Space should be noted that wormholes provide the only way to travel between systems. There are no stargates.

K-Space to K-Space Wormholes can be used to quickly travel throughout New Eden. They’re commonly named for their security status on both ends: High-to-high (H2H), low-to-null (L2N), null-to-high (N2H), etc.



Then there are K-Space to J-Space Wormholes. As their name implies, these connect a K-Space system to a J-Space one.

Players who do exploration use these to access J-Space to run cosmic anomalies and signatures, sometimes referred to as “Day Tripping”.

J-Space inhabitants use them to access K-Space trade hubs to sell loot, resupply, and shop; to access K-Space content if desired, or to go on K-Space PvP roams.

Finally, J-Space to J-Space Wormholes provide the only way to travel between different J-Space systems, since there are no stargates available. The way these wormholes form and collapse dynamically creates the dynamic environment that wormhole life is known for.

Since J-Space to K-Space wormholes are fairly rare in comparison to J-Space to J-Space connections, pilots are often forced to navigate multiple J-Space systems to find a halfway decent K-Space connection, providing the friction that often erupts into PvP.

What Are Wormholes?



The Dangers of J-Space

Wormhole space is lawless. It has no presence from CONCORD or any of the four main Empires, nor can any Alliance hold sovereignty as they often do in Nullsec. Instead, the J-Space systems are home to Sleepers, an ancient Artificial Intelligence that dwells within Anoikis.

In J-Space systems, the “Local” chat channel does not automatically update. A pilot will only “appear in local” if they choose to speak in Local chat. This means there is no indication of how many pilots may be in a particular J-Space system, or who they are, unless they speak (which most pilots never will since it gives away their presence). If a pilot is cloaked, it is impossible to tell if they are in the system at all since neither D-Scan nor Combat Probes indicate their presence.

When a pilot enters a wormhole, there is a visible brightening and a sound effect to indicate that the hole has been activated. Tightly-organized wormhole groups will often have cloaked characters sitting on-grid with each wormhole in their home system at all times to watch out for this notification.

Warp Disruption Fields (Interdiction Spheres) can be used in J-Space, so pilots should be wary of gatecamps and the presence of known Interdiction vessels on D-Scan should be taken very seriously.

Weapons Timers have little effect in J-Space since there are no stargates, no sentry guns, no CONCORD, and few stations. Even with Aggression Timers, pilots may still enter wormholes and move around mostly freely. Weapons Timers will still affect your ability to dock or log off safely however.

Polarisation

Pilots may not jump through a single wormhole in the same direction twice within five minutes. For example, if a pilot jumps through a wormhole at 10:00 and then jumps back through the same wormhole at 10:03, they will be polarized until 10:05, five minutes after their last transit in that direction.

Similarly, if they were to jump as soon as their timer was up, they would be polarized on the other side of the hole until 05:08, five minutes after their last transit in that direction.

When polarized, the wormhole will prevent pilots from jumping through, and present a message informing them of how much time is left on their polarization timer.

Ship Size Restrictions & Capital Ships

Wormholes come with restrictions to the mass of vessels that can enter them. It should be noted that this is separate from the limitations on how much mass can transit a wormhole before it collapses (we will cover the details of wormholes collapsing later on in this primer).

Some wormholes will explicitly restrict the size of vessels that may pass through them (for example some wormholes may only permit destroyers or smaller to transit), but special notes should be made for Capital Ships in general, in regards to J-Space.

Capital ships with jump drives can go through wormholes, providing the wormhole can support the ship’s mass.

Cynosural Fields can be created in wormhole space, but ships with jump drives cannot lock on to these fields, nor can they lock on to cynosural fields outside of wormhole space to jump out.

Supercapital ships such as Titans and Supercarriers cannot go through wormholes at all, as they are far too large for even the largest wormholes.



Capital Ships can be built in J-space, but they may be unable to transit any of the connecting wormholes due to the size restrictions as mentioned above. Connections that allow such large ships are fairly rare.

Supercapitals cannot be built in J-Space, as there is no sovereignty in wormhole space.

The colour of the flare around a wormhole can tell you the size of ships that can go enter. Color Effects for wormholes (and size restrictions in general) are described in more detail in the Wormhole Identification section.



Section : 3

Wormhole Identification

Wormhole Identification

Having scanned down a wormhole to the point that you can warp to it, you can right-click on the wormhole and Show Info to learn a lot of information about it. We will cover each of the four details learned in turn.

System Type

The first sentence talks about the type of the wormhole. This will read as follows:

This wormhole seems to lead into {important part} parts of space.

Text	Meaning
Unknown	C1, C2, or C3
Dangerous Unknown	C4 or C5
Deadly Unknown	C6
High security	Hisec
Low Security	Lowsec
Null Security	Nullsec
Triglavian Space	Pochven

Life

The second sentence indicates how much life the wormhole has before it collapses. Show Info on the wormhole will list one of the following:

- This wormhole has not yet begun its natural cycle of decay and should last at least another day
- This wormhole is beginning to decay, and probably won’t last another day
- This wormhole is reaching the end of its natural lifetime
- This wormhole is dissipating into the ether

Text	Meaning	Slang
has not yet begun	Greater than 24 hours	Fresh
beginning to decay	Between 4 and 24 hours	Fresh
reaching the end	Less than 4 hours	EOL
dissipating into the ether	Less than 15 mins	EOL

Mass

The third sentence tells you how much mass has passed through the wormhole.

- This wormhole has not yet had its stability significantly disrupted by ships passing through it
- This wormhole has had its stability reduced by ships passing through it, but not to a critical degree yet
- This wormhole has had its stability critically disrupted by the mass of numerous ships passing through and is on the verge of collapse

Text	Meaning	Slang
not yet	Over 50% allowance remaining	Fresh
not to a critical degree	Between 10% and 50% allowance remaining	Shrink
stability critically disrupted	Less than 10% allowance remaining	Crit

Ship Size

The fourth and final sentence tells you the size of ships that are allowed into the enter the wormhole.

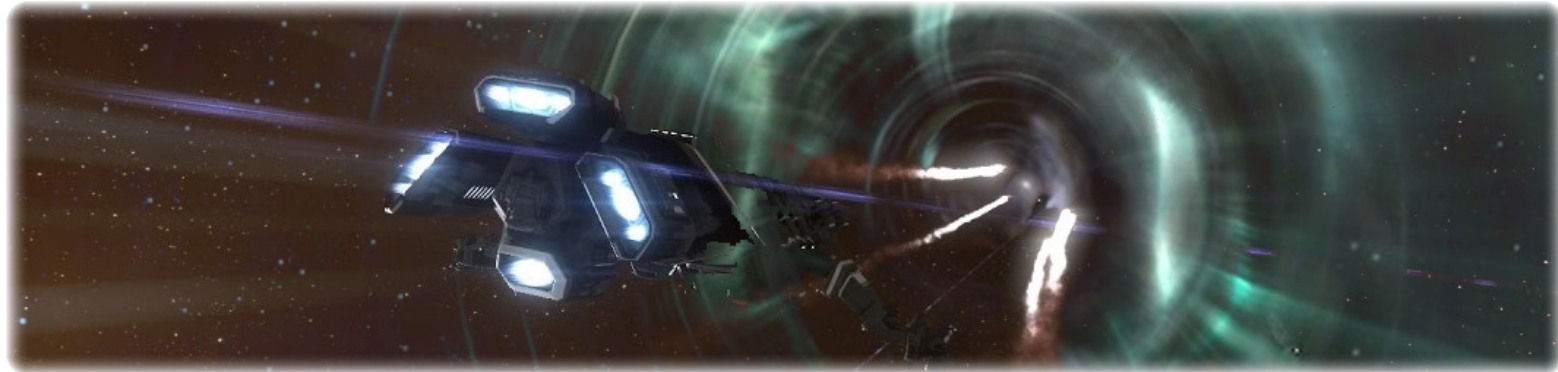
Text	Meaning
Very large ships can pass through this wormhole	All ships except for Titans and supercarriers can pass through this hole
Larger ships can pass through this wormhole	Battleships, Orcas, and smaller ships can pass through this hole (300,000,000kg Max)
Up to medium size ships can pass through this wormhole	Unplated Nestors, battlecruisers and smaller ships can pass through this hole (20,000,000 kg Max)
Only the smallest ships can pass through this worm-hole	Only frigates, destroyers, or specially fit HICs can pass through this hole (5,000,000 kg Max)

It cannot be overstressed that these text prompts refer to **brackets** of data, not strict value. As an example, when the information reads “stability critically disrupted”, this could mean the wormhole has 50% allowance, it could mean it has 10% allowance. A wormhole “reaching the end” may have 3 hours, it may only have 16 minutes.

ALWAYS ASSUME THE LOWEST VALUE UNLESS YOU 100% KNOW OTHERWISE!!

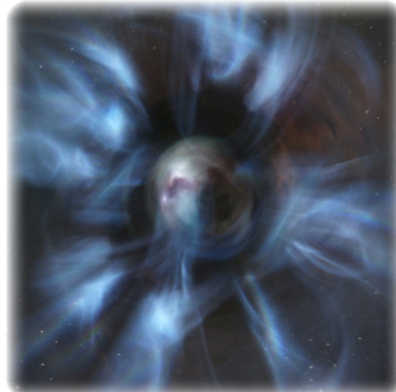


Wormhole Identification



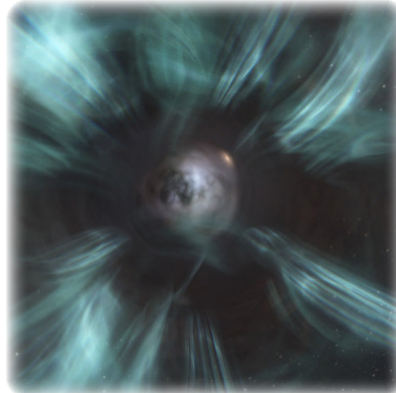
Visual Identification

In addition to the Show Info page, wormholes display a lot of information visually. An experienced pilot can tell a lot about a wormhole from a fairly brief glance.



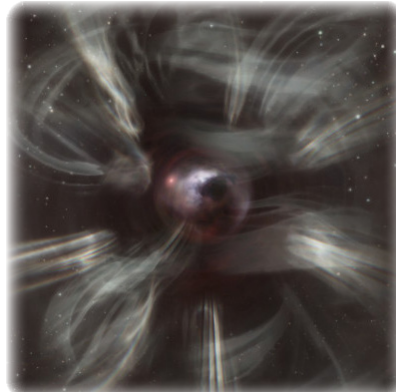
5,000,000 kg and smaller:

A royal blue aurora indicates wormholes that only allow frigate-mass ships. This is the most important one to recognise as it will allow a scouting frigate to pass through but deny the main fleet from jumping.



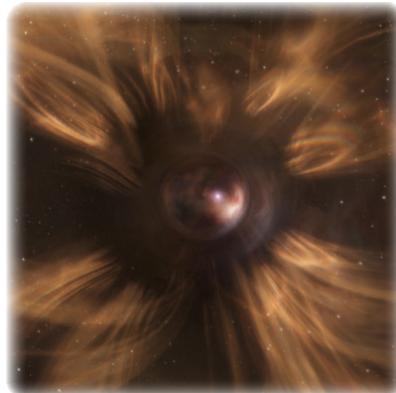
20,000,000 kg and smaller:

A wormhole with a teal aurora allows medium sized ships, including cruisers, battlecruisers and industrials, to pass through



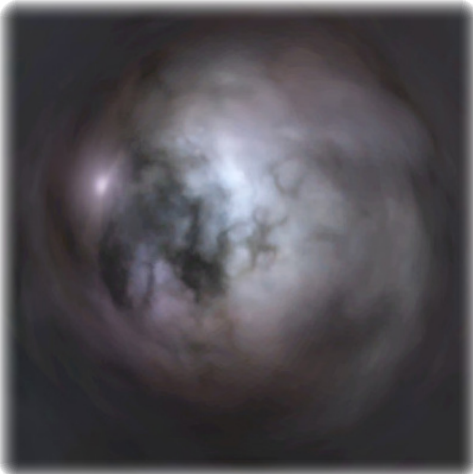
300,000,000 kg and smaller:

A gray aurora highlights a wormhole that allows every ship below capital hulls to pass through.



A yellow aurora indicates wormholes that freighters and capitals can transit

The visuals of a wormhole gives you information on the wormhole and on the target system without need to jump through. The outline corresponds to jump mass limit and the center contains the skybox of the destination system. The wobbling animation tells the lifetime left and the visual size of the whole wormhole tells how much mass is left.



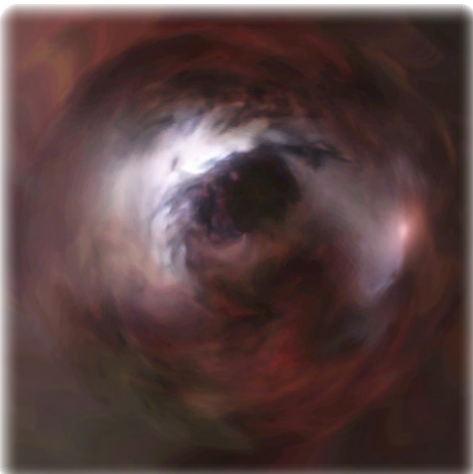
Wormholes leading to Class 1 systems have grayish clouds with some black spots and some blue and cyan details. A wormhole leading to C1 system may look similar to a wormhole leading to C2 or C3 system, the most notable difference is lack of any notable detail.



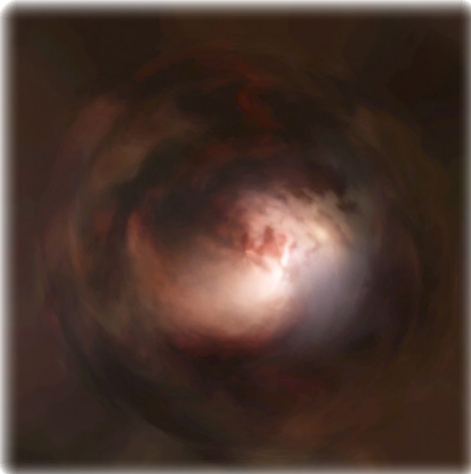
Wormholes leading to Class 2 have a brownish hue with some gray clouds. The most notable feature of this skybox is the black spot in the light gray cloud.



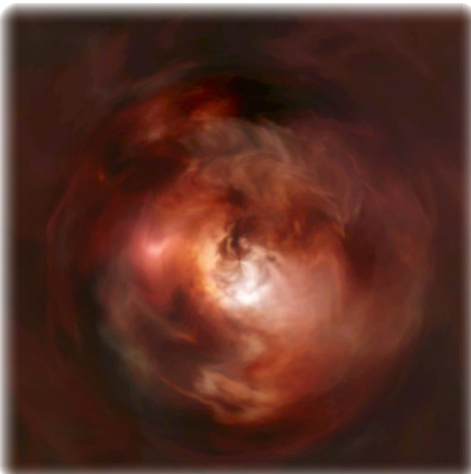
Wormholes leading to Class 3 have again grayish clouds. The distinct red cloud easy to identify mark of a C3 connection.



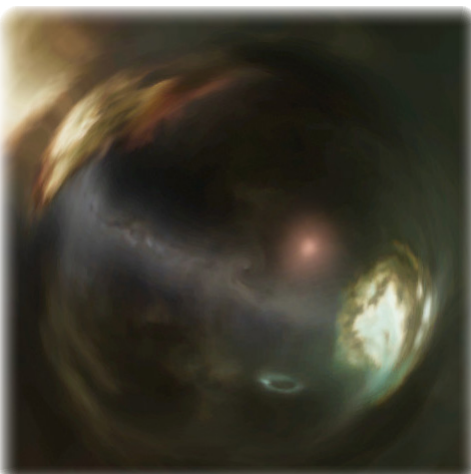
Wormholes leading to Class 4 are mainly dark red with one bright white cloud and some distinct black spots. The color of a wormhole to C4 system is unique making it easier to identify by color instead of shapes.



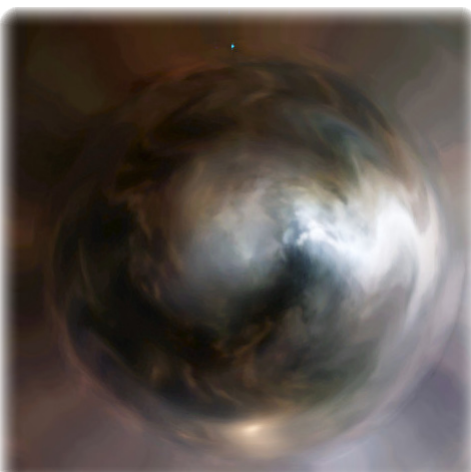
Wormholes leading to Class 5 are again dark red but with some brown hues mixed in. The white cloud is not as bright as it in C4 connection.



Wormholes leading to class 6 are very chromatic orange with black details.

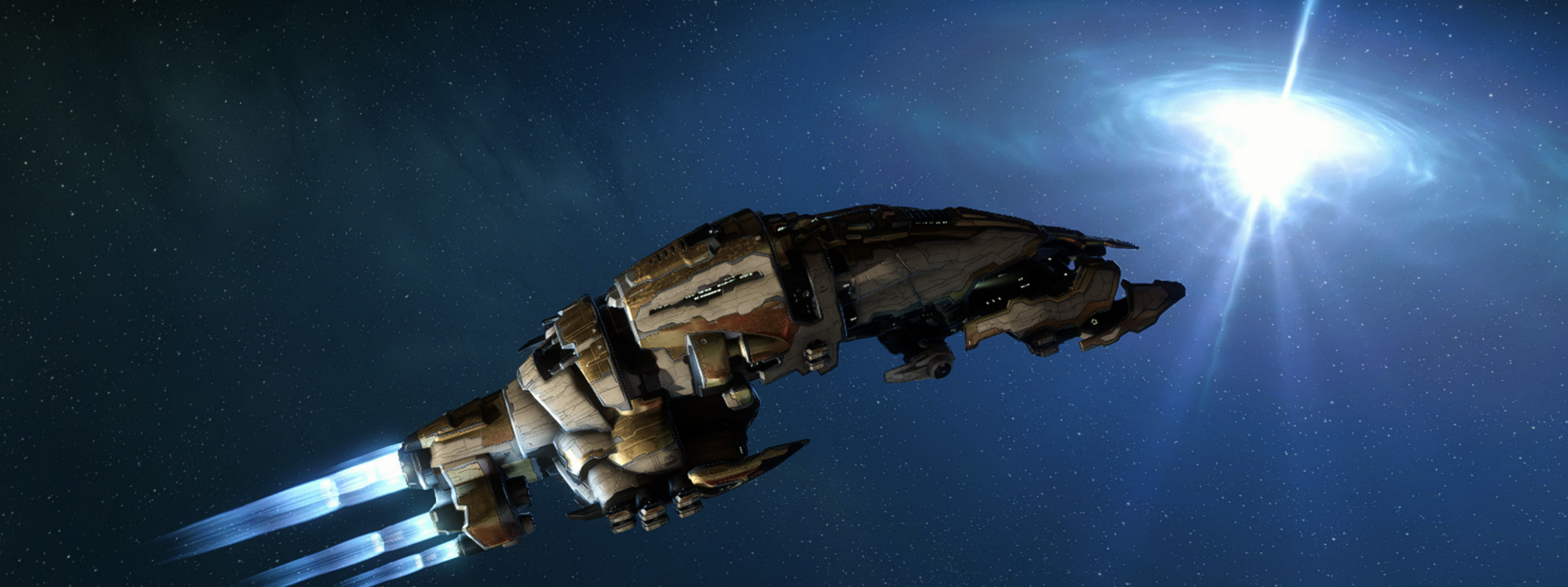


The green color indicates the wormhole leading into a Gallente region. An experienced pilot can also identify various objects visible to make a more accurate estimation on the target system, in this particular image Cloud Ring is clearly visible. The region on the other side of the wormhole is Solitude.



This skybox is shown on Thera wormholes, C13 frigate sized shattered wormholes and on Drifter wormholes. Not all shattered wormholes have this visual.

As the wormhole gets older the visuals change slightly. With 24-4 hours left on the hole the aurora surrounding it wiggle more. With less than 4 hours left on the hole the aurora become faded and have less defined forms.e, as a wormhole becomes destabilized from large amounts of mass traversing it, it starts to shrink. This effect is generally most visible at the moment a hole drops to 50% or 10% mass and thus actively shrinks, as it can be more difficult to get an idea of the wormhole's visible size in a vacuum.



Section : 4

J-Space Systems

J-Space Systems

What follows is a detailed breakdown of the possible contents of each type of J-Space system, from the possible static connections, right up to every type of combat site, ore site, gas site, relic site, and data site. Detailed information regarding the contents of each of these sites can be found later on in the primer to assist pilots in identifying the most lucrative content relevant for their needs.

It is strongly recommended that pilots are familiar with wormhole identification, bookmarking, Tripwire use, and wormhole safety before attempting content inside J-Space. Whilst this content is highly lucrative, it is also exceptionally dangerous. Sleepers make for terrifying opponents on their own, and this is before accounting for the movements of other Capsuleers which can be exceedingly difficult for all but the most seasoned of pilots.



Basic Tips For Visitors to J-Space

HAVE A PLAN - On arrival in J-Space, ensure that the first thing you do is bookmark your exit, and have a plan ready for the moment you end up in a hazardous situation. Trying to make a snap judgement call the moment a T3 Cruiser decloaks on your position is a sure fire way to lose your ship. You should also absolutely check the life and stability of the wormhole (detailed previously) before making the jump through to ensure it's not likely to close behind you.

DO NOT TALK IN LOCAL - Unlike K-Space, Local does not automatically update when a pilot enters system, and pilots will appear in Local only when they speak in Local Chat. Speaking in Local announces your presence to anyone else nearby. The only exception to this rule is to give a sporting "Gf o7" to your attackers if you're already dead.

USE D-SCAN JUDICIOUSLY - You may have a fleet of cloaked combatants stalking you and you will never know about it until they are on grid with you. Keep an eye out for Combat Scanner Probes, or for fast, cloakable ships that may be scouts for a larger force (T2 Explorers and Asteros are popular choices for this). For example, spotting a Buzzard on D-Scan, however briefly, may suggest that you are being hunted. Even if no Combat Scanner Probes appear, it could be assumed that the Buzzard is warping into sites cloaked in an attempt to pinpoint your location for their friends to warp to.

YOUR SHIP IS LOST ALREADY - The Golden Rule of EVE Online has always been "Only fly what you can afford to lose" and this is doubly as important when flying in J-Space. Make the assumption that whatever ship you are taking through that wormhole, and whatever clone and implants you are using, is already lost. In this way, you are already prepared for the worst case scenario, and each safe excursion feels like a pleasant surprise! This mentality can be off-putting to many pilots, but a good pilot running J-Space content can quickly recouperate losses. The trick is to make those losses cheap when first starting out, and increase in value only as confidence levels and skills increase to support that.



J-Space Systems

There are roughly 2600 known wormhole systems, each classified as one of six Class levels, from C1 to C6. This number represents how powerful the Sleeper occupation is, and therefore the kind of content that will spawn in that system. This can also be considered a kind of “difficulty rating” for that system. The Class number also denotes how powerful any relevant system effects will be. We will discuss system effects later on.

Of those 2600 J-Space systems, 100 are referred to as Shattered Wormhole Space. These contain only shattered planets, and no moons. We will discuss Shattered Wormhole Space later on.

Finally, there is one very unique J-Space system referred to as Thera which, again, will be detailed seperately later in this primer.



Statics

Wormholes spawn semi-randomly in J-Space, but each Class of J-Space system will have one or two “Statics”. These are wormholes that always lead to the same type of space, and as soon as a Static Connection collapses, another immediately spawns.

Statics can connect to Hisec, Lowsec, Nullsec, or different Classes of J-Space.

As an example, if a J-Space system has a “Hisec Static” wormhole, as soon as that wormhole collapses, another will immediately open to another randomly selected Hisec system.

If a J-Space system has a C3 Static, as soon as that wormhole collapses, another will spawn immediately, connecting to a random C3 system.

System Effects

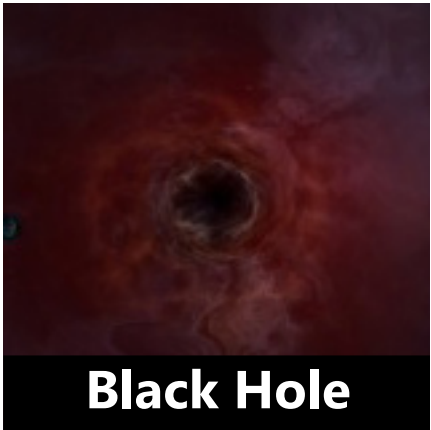
Certain J-Space systems have effects that change the nature of your ship’s statistics and/or modules. These System Effects only apply to capsuleer ships; Sleepers and structures are not affected.

The buff bar (above your capacitor) shows the System Effect in game.



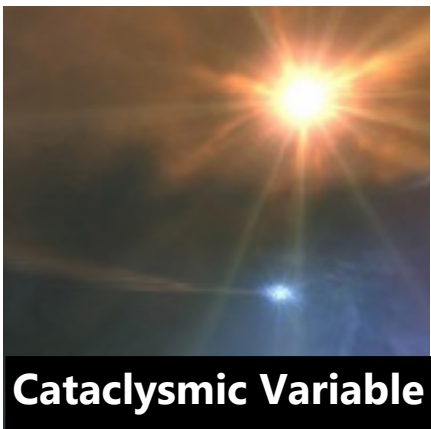
Pulsar

Effects	C1	C2	C3	C4	C5	C6
Shield Capacity	+30%	+44%	+58%	+72%	+86%	+100%
Armor Resists	-15%	-22%	-29%	-36%	-43%	-50%
Capacitor Recharge Time	-15%	-22%	-29%	-36%	-43%	-50%
Signature Radius	+30%	+44%	+58%	+72%	+86%	+100%
Nosferatu/Neutralizer Amount	+30%	+44%	+58%	+72%	+86%	+100%



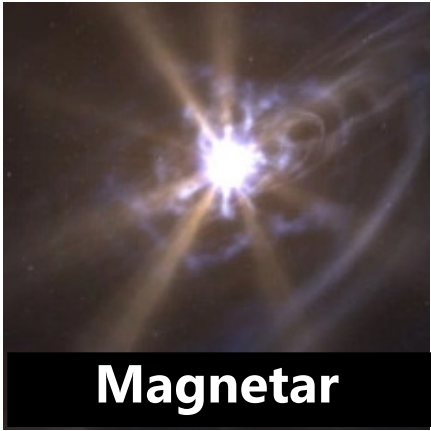
Black Hole

Effects	C1	C2	C3	C4	C5	C6
Missile Velocity	+15%	+22%	+29%	+46%	+43%	+50%
Missile Explosion Velocity	+30%	+44%	+58%	+72%	+86%	+100%
Ship Velocity	+30%	+44%	+58%	+72%	+86%	+100%
Stasis Webifier Strength	-15%	-22%	-29%	-36%	-43%	-50%
Inertia	+15%	+22%	+29%	+46%	+43%	+50%
Targeting Range	+30%	+44%	+58%	+72%	+86%	+100%



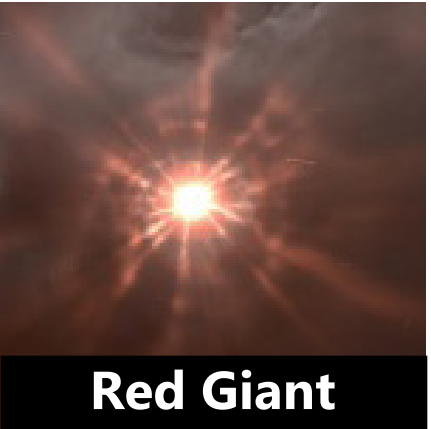
Cataclysmic Variable

Effects	C1	C2	C3	C4	C5	C6
Local Armor Rep Amount	-15%	-22%	-29%	-36%	-43%	-50%
Remote Armor Rep Amount	+30%	+44%	+58%	+72%	+86%	+100%
Local Shield Boost Amount	-15%	-22%	-29%	-36%	-43%	-50%
Remote Shield Boost Amount	+30%	+44%	+58%	+72%	+86%	+100%
Capacitor Capacity	+30%	+44%	+58%	+72%	+86%	+100%
Capacitor Recharge Time	+15%	+22%	+29%	+46%	+43%	+50%
Remote Cap Transmitter Amount	-15%	-22%	-29%	-36%	-43%	-50%



Magnetar

Effects	C1	C2	C3	C4	C5	C6
Damage	+30%	+44%	+58%	+72%	+86%	+100%
Missile Explosion Radius	-15%	-22%	-29%	-36%	-43%	-50%
Drone Tracking	-15%	-22%	-29%	-36%	-43%	-50%
Targeting Range	-15%	-22%	-29%	-36%	-43%	-50%
Targeting Speed	-15%	-22%	-29%	-36%	-43%	-50%
Target Painter Strength	-15%	-22%	-29%	-36%	-43%	-50%



Red Giant

Effects	C1	C2	C3	C4	C5	C6
Heat Damage	+15%	+22%	+29%	+46%	+43%	+50%
Overload Bonus	+30%	+44%	+58%	+72%	+86%	+100%
Smart Bomb Range	+30%	+44%	+58%	+72%	+86%	+100%
Smart Bomb Damage	+30%	+44%	+58%	+72%	+86%	+100%
Bomb Damage	+30%	+44%	+58%	+72%	+86%	+100%



Wolf-Rayet

Effects	C1	C2	C3	C4	C5	C6
Armor HP	+30%	+44%	+58%	+72%	+86%	+100%
Shield Resistances	-15%	-22%	-29%	-36%	-43%	-50%
Small Weapon Damage	+60%	+88%	+116%	+144%	+172%	+200%
Signature Radius	-15%	-22%	-29%	-36%	-43%	-50%

Wolf Rayet systems are worth spending a moment to talk about due to the absolutely massive bonus to small weapon systems (including Rapid Light Missiles). This means that Wolf-Rayet systems are ruled by Frigates, T3 Tactical Destroyers, and Cruisers with RLMLs.

Wolf Rayet systems in general should not be confused with C13 Small Ship Shattered Wormholes, which use C6 strength Wolf-Rayet effects.



Class 1 Systems

Maximum Mass: 62,000 t Number: 348
Minimum Mass: 20,000 t Escalations: No

C1 systems are not very popular for harvesting or site running purposes. C1 statics only allow medium-sized ships, preventing anything larger than a battleship to enter. This makes rolling C1 holes fairly difficult. They are excellent for beginners. They're relatively safe, easy to run and require a low amount of skillpoints. A battlecruiser can solo the sites and a small cruiser gang will easily run the sites efficiently.

Possible Statics	Anomalies	Ore Sites	Gas Sites	Relic Sites	Data Sites
<ul style="list-style-type: none">Hisec (N110)Lowsec (J244)Nullsec (Z060)	<ul style="list-style-type: none">Perimeter Ambush PointPerimeter CampPhase Catalyst NodeThe Line	<ul style="list-style-type: none">Average Frontier DepositUnexceptional Frontier DepositUncommon Core DepositOrdinary Perimeter DepositCommon Perimeter DepositExceptional Core DepositInfrequent Core DepositUnusual Core DepositRarified Core DepositIsolated Core Deposit	<ul style="list-style-type: none">Barren Perimeter ReservoirMinor Perimeter ReservoirOrdinary Perimeter ReservoirSizeable Perimeter ReservoirToken Perimeter ReservoirBountiful Frontier ReservoirVast Frontier Reservoir	<ul style="list-style-type: none">Forgotten Core Assembly HallForgotten Core Circuitry Disassembler *Ruined [Pirate] [Sites]	<ul style="list-style-type: none">Unsecured Core Backup ArrayUnsecured Core Emergence *Central [Pirate] [Sites]

Class 2 Systems

Maximum Mass: 300,000 t Number: 525
Minimum Mass: 20,000 t Escalations: No

C2 wormhole systems have a special role in low-class Wormhole Space systems. They offer slightly more ISK than C1's and can be soloed by low skillpoint Battlecruiser pilots. Their special property is that they come with two statics. These statics provide guaranteed access to K-Space and J-Space making them good options for pilots to settle in.

Possible Statics	Anomalies	Ore Sites	Gas Sites	Relic Sites	Data Sites
<ul style="list-style-type: none">Hisec (B274) & C1 (Z647)Hisec (B274) & C3 (0477)Hisec (B274) & C4 (Y683)Lowsec (A239) & C2 (D382)Nullsec (E545) & C5 (N062)Nullsec (E545) & C6 (R474)	<ul style="list-style-type: none">Perimeter CheckpointPerimeter HangarThe Ruins of Enclave Cohort 27Sleeper Data Sanctuary	<ul style="list-style-type: none">Average Frontier DepositUnexceptional Frontier DepositUncommon Core DepositOrdinary Perimeter DepositCommon Perimeter DepositExceptional Core DepositInfrequent Core DepositUnusual Core DepositRarified Core DepositIsolated Core Deposit	<ul style="list-style-type: none">Barren Perimeter ReservoirMinor Perimeter ReservoirOrdinary Perimeter ReservoirSizeable Perimeter ReservoirToken Perimeter ReservoirBountiful Frontier ReservoirVast Frontier Reservoir	<ul style="list-style-type: none">Forgotten Perimeter GatewayForgotten Perimeter Habitation Coils *Ruined [Pirate] [Sites]	<ul style="list-style-type: none">Unsecured Perimeter Comms RelayUnsecured Perimeter Transponder Farm *Central [Pirate] [Sites]

Class 3 Systems

Maximum Mass: 300,000 t Number: 495
Minimum Mass: 300,000 t Escalations: No

C3 Systems are excellent for beginner wormhole corporations. They come with a K-Space statics of any kind, allowing you to pick your environment. C3’s also offer good ISK for their difficulty, a battlecruiser gang with local rep or a little Tech 1 logi support will burn through the sites.

Possible Statics	Anomalies	Ore Sites	Gas Sites	Relic Sites	Data Sites
<ul style="list-style-type: none">Hisec (D845)Lowsec (U210)Nullsec (K346)	<ul style="list-style-type: none">Fortification Frontier StrongholdOutpost Frontier StrongholdSolar CellThe Oruze Construct	<ul style="list-style-type: none">Average Frontier DepositUnexceptional Frontier DepositUncommon Core DepositOrdinary Perimeter DepositCommon Perimeter DepositExceptional Core DepositInfrequent Core DepositUnusual Core DepositRarified Core DepositIsolated Core Deposit	<ul style="list-style-type: none">Barren Perimeter ReservoirMinor Perimeter ReservoirOrdinary Perimeter ReservoirSizeable Perimeter ReservoirToken Perimeter ReservoirBountiful Frontier ReservoirVast Frontier Reservoir	<ul style="list-style-type: none">Forgotten Frontier Quarantine OutpostForgotten Frontier Recursive Depot <p>*Ruined [Pirate] [Sites]</p>	<ul style="list-style-type: none">Unsecured Frontier DatabaseUnsecured Frontier Reciever <p>*Central [Pirate] [Sites]</p>

Class 4 Systems

Maximum Mass: 300,000 t Number: 505
Minimum Mass: 300,000 t Escalations: No

All C4 systems have two statics of different types (so you never get a C4 with two C3 statics, for example). All combinations exist, except for C1/C5, C1/C6, and C2/C6. Wandering wormholes connecting to K-Space have been observed, though very rarely, and they seem to only connect to Hisec.

Possible Statics	Anomalies	Ore Sites	Gas Sites	Relic Sites	Data Sites
<ul style="list-style-type: none">C1 (P060)C2 (N766)C3 (C247)C4 (X877)C5 (H900)C6 (U574)	<ul style="list-style-type: none">Frontier BarracksFrontier Command PostIntegrated TerminusSleeper Information Sanctum	<ul style="list-style-type: none">Average Frontier DepositUnexceptional Frontier DepositUncommon Core DepositOrdinary Perimeter DepositCommon Perimeter DepositExceptional Core DepositInfrequent Core DepositUnusual Core DepositRarified Core DepositIsolated Core Deposit	<ul style="list-style-type: none">Barren Perimeter ReservoirMinor Perimeter ReservoirOrdinary Perimeter ReservoirSizeable Perimeter ReservoirToken Perimeter ReservoirBountiful Frontier ReservoirVast Frontier Reservoir	<ul style="list-style-type: none">Forgotten Frontier Conversion ModuleForgotten Frontier Evacuation Center	<ul style="list-style-type: none">Unsecured Frontier Digital NexusUnsecured Frontier Trinary Lab

Class 5 Systems

Maximum Mass: 1,350,000 t Number: 512
Minimum Mass: 300,000 t Escalations: Yes

C5 systems are the premium choice for most hardcore wormhole corporations : C5’s are highly connectible to other C5’s, giving the nickname “The C5 Highway” to such connections and chains.

Possible Statics	Anomalies	Ore Sites	Gas Sites	Relic Sites	Data Sites
<ul style="list-style-type: none">• C1 (Y790)• C2 (D394)• C3 (M267)• C4 (E175)• C5 (H296)• C6 (V753)	<ul style="list-style-type: none">• Core Garrison• Core Stronghold• Oruze Osobnyk• Quarantine Area	<ul style="list-style-type: none">• Average Frontier Deposit• Unexceptional Frontier Deposit• Uncommon Core Deposit• Ordinary Perimeter Deposit• Common Perimeter Deposit• Exceptional Core Deposit• Infrequent Core Deposit• Unusual Core Deposit• Rarified Core Deposit• Isolated Core Deposit	<ul style="list-style-type: none">• Barren Perimeter Reservoir• Minor Perimeter Reservoir• Ordinary Perimeter Reservoir• Sizeable Perimeter Reservoir• Token Perimeter Reservoir• Bountiful Frontier Reservoir• Vast Frontier Reservoir• Instrumental Core Reservoir• Vital Core Reservoir	<ul style="list-style-type: none">• Forgotten Core Data Field• Forgotten Core Information Pen	<ul style="list-style-type: none">• Unsecured Frontier Enclave Array• Unsecured Frontier Server Bank

Class 6 Systems

Maximum Mass: 1,350,000 t Number: 113
Minimum Mass: 300,000 t Escalations: Yes

The hardest system to tame of them all, C6 wormholes represent the pinnacle of wormhole life. In truth, there is much debate between C5 and C6 residents on the merits and drawbacks of C6 wormholes.

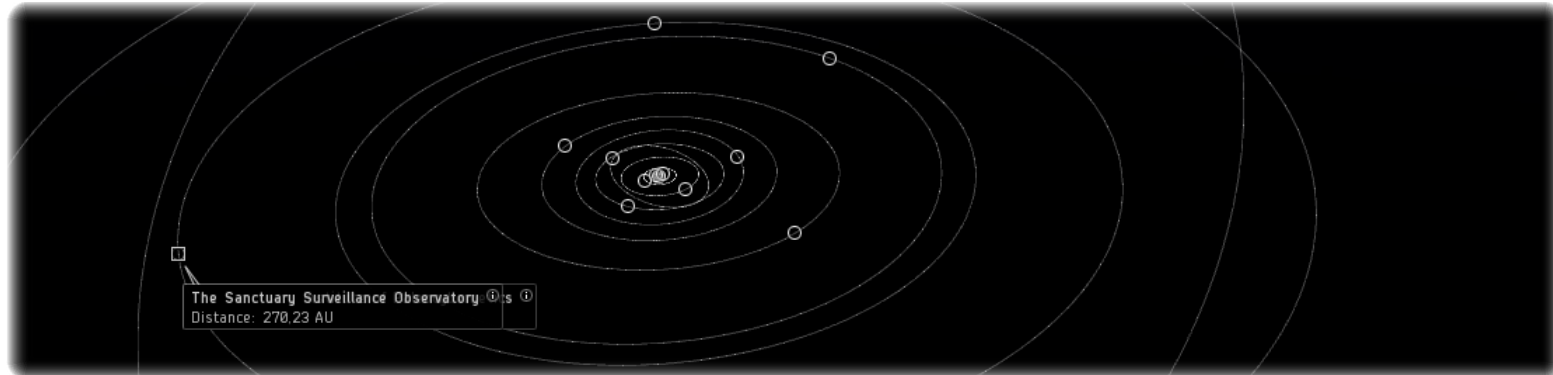
Possible Statics	Anomalies	Ore Sites	Gas Sites	Relic Sites	Data Sites
<ul style="list-style-type: none">• C1 (Q317)• C2 (G024)• C3 (L477)• C4 (Z457)• C5 (V911)• C6 (W237)	<ul style="list-style-type: none">• Core Citadel• Core Bastion• Strange Energy Readings• The Mirror	<ul style="list-style-type: none">• Average Frontier Deposit• Unexceptional Frontier Deposit• Uncommon Core Deposit• Ordinary Perimeter Deposit• Common Perimeter Deposit• Exceptional Core Deposit• Infrequent Core Deposit• Unusual Core Deposit• Rarified Core Deposit• Isolated Core Deposit	<ul style="list-style-type: none">• Barren Perimeter Reservoir• Minor Perimeter Reservoir• Ordinary Perimeter Reservoir• Sizeable Perimeter Reservoir• Token Perimeter Reservoir• Bountiful Frontier Reservoir• Vast Frontier Reservoir• Instrumental Core Reservoir• Vital Core Reservoir	<ul style="list-style-type: none">• Forgotten Core Assembly Hall• Forgotten Core Circuitry Dis-sassembler	<ul style="list-style-type: none">• Unsecured Core Backup Array• Unsecured Core Emergence

J-Space Systems

Thera

Thera is a unique system within wormhole space with several notable features to differentiate itself from other J-Space systems. The system is home to a Sisters of EVE research branch known as The Sanctuary and is the only J-Space system with permanent NPC stations that capsuleers can dock at. At 342AU across, Thera is also the largest system in EVE Online.

The nature of Thera means it's a very active J-Space system that has become a PvP focused arena, where local can sometimes even be chatty!



Connections & EVE-Scout

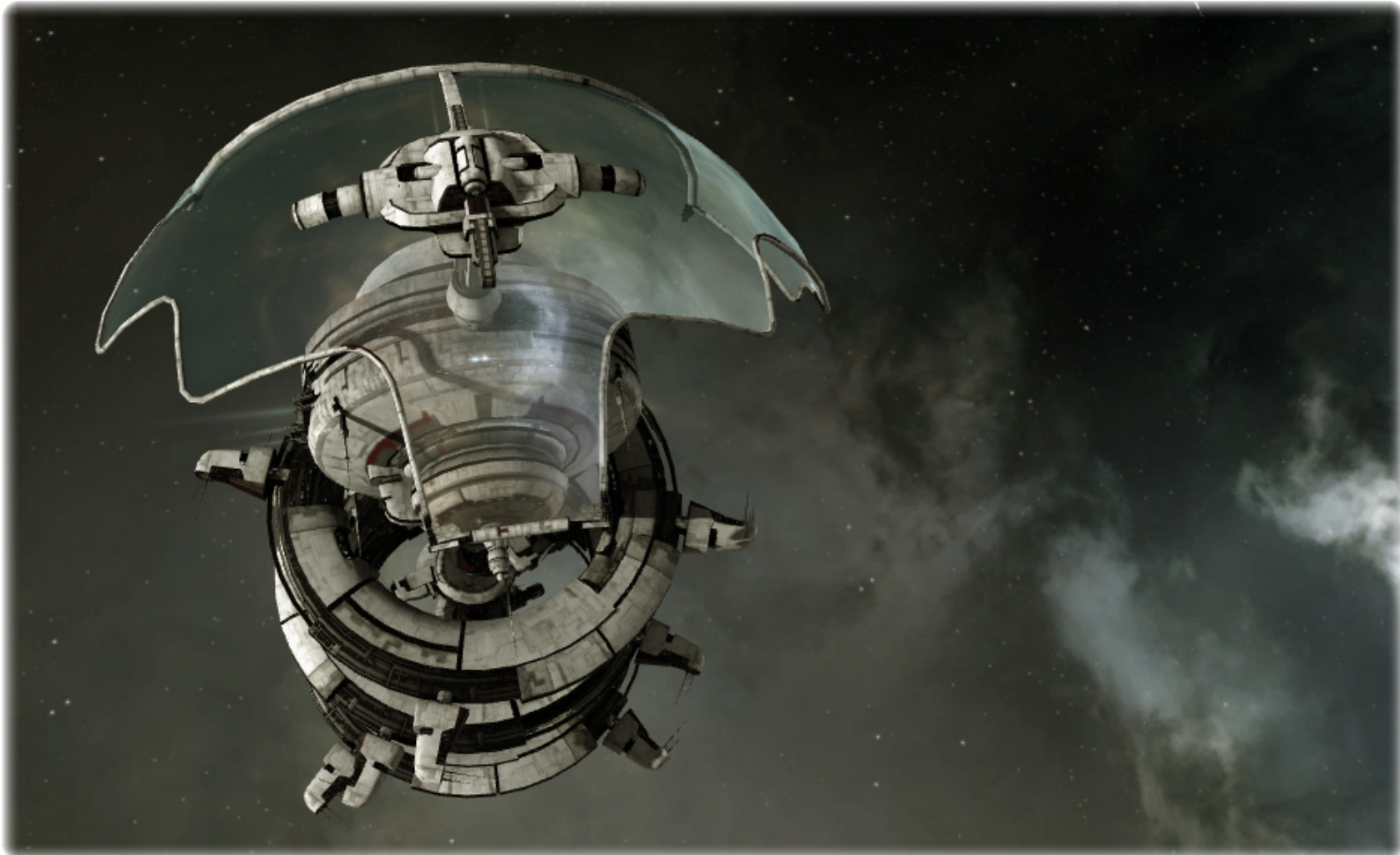
Thera has increased connectivity with other systems, mainly in K-Space, with a dozen or so active wormholes at any one time.

The EVE Scout Alliance seeks to maintain a list of active wormhole connections to/from Thera, which can be found on their website:

<http://eve-scout.com/thera>

This additional connectivity makes Thera a convenient system for taking shortcuts across space. What may be a 30 jump journey across K-Space may be as few as 5-10 if Thera connections are utilised, though this does of course come with all the usual risks of flying through a wormhole system, and an active one at that.

Additionally, since the stations in Thera can be set as a Home Station, it makes an interesting home base for nomadic players.



Sanctuary Stations

All stations in Thera have NPC services as listed below, but notably do not contain Mission Agents of any kind. Though all four of the stations are linked with a market, the most active of these is at

Thera XII - The Sanctuary Institute of Paleocybernetics

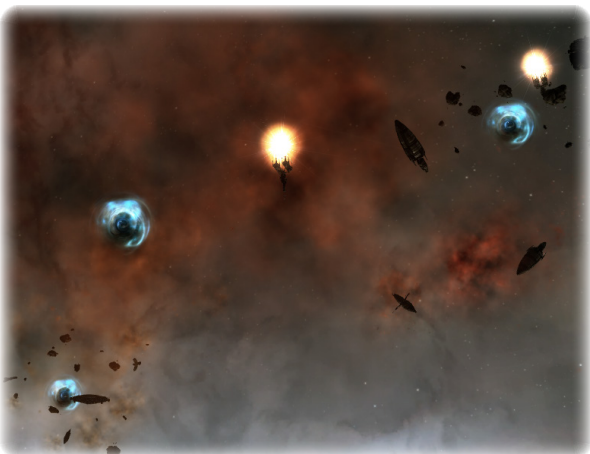
Station guns will shoot at any ship using Interdiction Bubbles within 250km

Station Services Available:

- Bounty Office
- Clone Bay
- Fitting
- Industry
- Insurance
- LP Store
- Market (Thera Only)
- Re-Customisation
- RepairShop
- Reprocessing Plant (50% Base Yield)

Sites in Thera

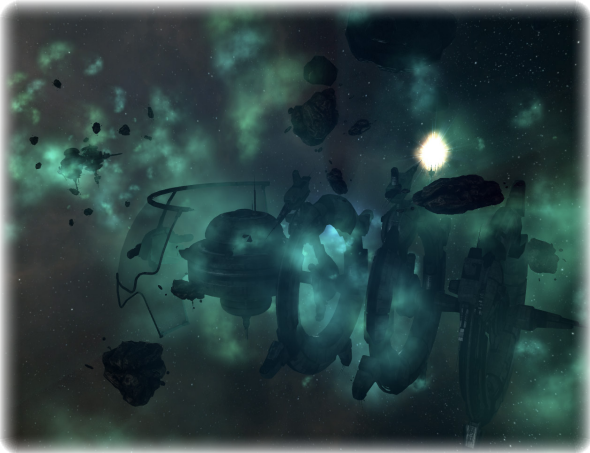
The Sleeper occupation in Thera is equivalent that of standard C3/C4 J-Space systems, but due to the busy nature of Thera, running sites is extremely risky. There are, however, four notable sites that may be of interest to space tourists, or pilots with an interest in the lore of EVE Online, especially that of the Sleepers.



The Epicentre of Thera contains scattered Talocan and Sleeper debris, including Sleeper Preservation Conduits, along with four unusable "violent" wormholes.



The Expedition Office site is the wreck of a Gallente Station with some unusual damage signatures. The site, curiously, also contains wreckage of the lost Thukker Lakat-Hro Great Caravan, which disappeared from the Great Wildlands in YC111, including a Hel-class Supercarrier.



The wreckage of a Testing Site apparently set up to study nearby Talocan technology, this station has been buckled and broken by numerous impacts. The array of Talocan static gates nearby is eerily intact and seems to be functional to some degree.



This wrecked Planetary Colonization Office seems to have been established as a coordinating center for the colonization of the planet it orbits. As Thera VIII is shattered and wracked by titanic quakes, such an effort would seem improbable unless the shattering happened relatively recently.

J-Space Systems

Drifter Wormholes

Drifter Wormhole systems are galactic portal hubs, with each generally having a whopping 50-70 connections to K-Space, and a Static C2 connection.

Every Cosmic Signature in a Drifter Wormhole is guaranteed to be an incoming wormhole. The K-Space to Drifter wormholes are special in that they have a beacon called “Unidentified Wormhole” on the known space side, so they do not need to be scanned down from that side. They each have a unique wormhole signature in K-Space which is listed below.

There are 5 known Drifters wormhole systems that are similar to shattered C2 wormholes with certain system effects. Although they are named by the typical J-type designations, they are often informally named after their predominant structure: Vidette, Redoubt, Sentinel, Barbican and Conflux.

J-Name	Drifter System Name	System Effect	K-Space Signature
J164710	Vidette	Magnetar	V928
J174618	Redoubt	Wolf-Rayet	R259
J055520	Sentinel	Red Giant	S877
J110145	Barbican	Cataclysmic Variable	B735
J200727	Conflux	Pulsar	C414

K-Space connections always appear in system with a Jove Observatory, and appear as a beacon in the default overview marked as “Unidentified Wormhole”

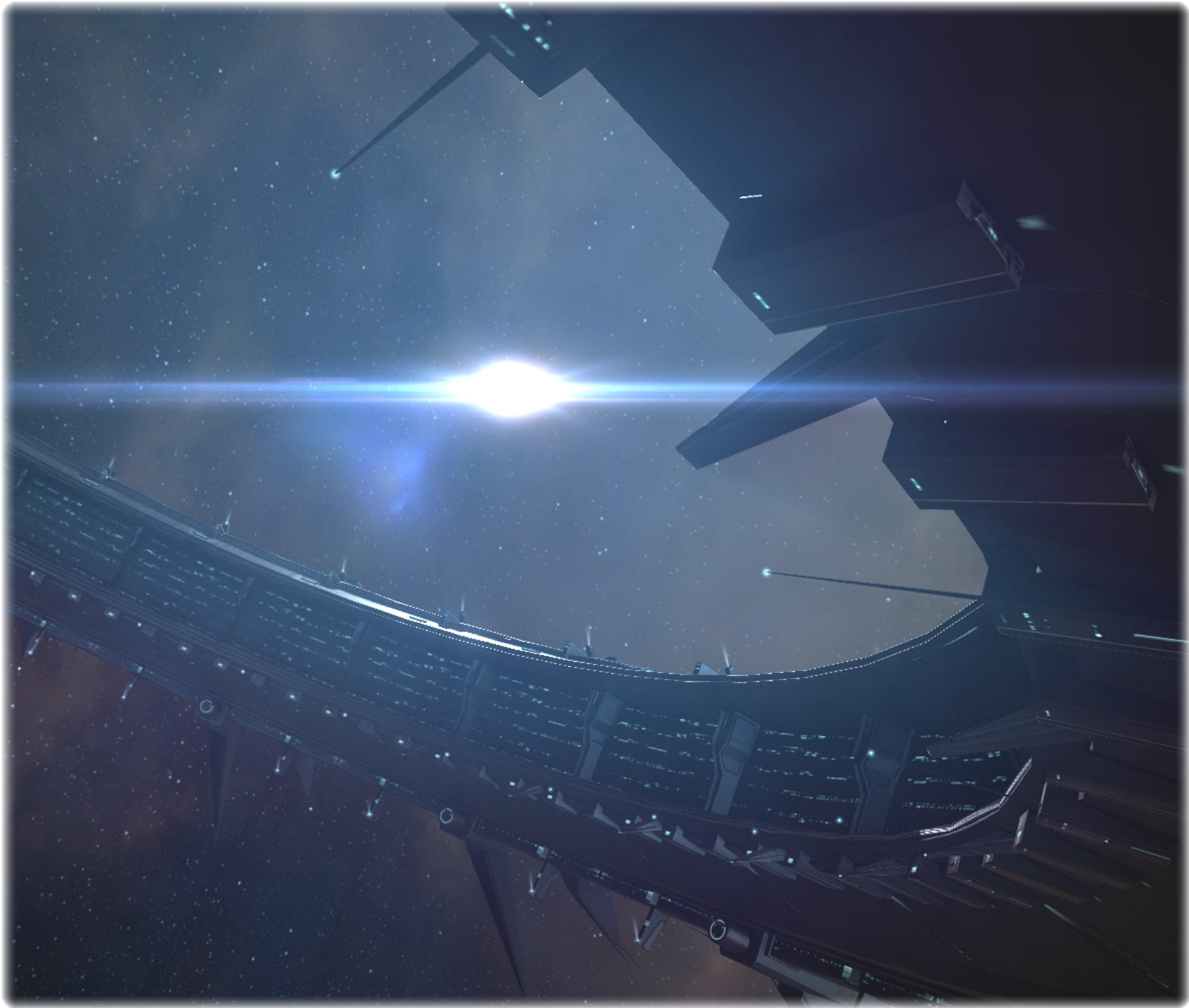
On the J-Space side, the connections are designated K162 after being opened but are deadspaced, so pilots will warp in at 80km.

Drifter Battleships regularly visit these connections, and will attack anyone who attempts to approach. A cloak and/or MWD are strongly recommended.

Combat Anomalies

Each of the Drifter systems has five unique combat anomalies which will be detailed in full later on in this Primer. All of these sites are defended by Drifters, and visited by Drifter patrols. Please note that listed wormholes here are “violent” and cannot be entered.

Vidette	Ship Graveyard	Sleeper Engineering Station	Spatial Rift	Sleeper Enclave in Coral Rock	Crystals and Stone Circle
Redoubt	Ship Graveyard	Caged Wormhole	Spatial Rift Generator	Sleeper Enclave	Hollow Asteroid
Sentinel	Monolith	Wormhole in Rock Circle	Opposing Spatial Rifts	Sleeper Enclave Debris	Crystal Resource
Barbican	Wrecked Ships	Unstable Wormhole	Spatial Rift	Heavily Guarded Spatial Rift	Crystals
Conflux	Monolith	Caged Wormhole	Rock Formation and Wormhole	Particle Acceleration Array	Guarded Asteroid Station



Hive Sites

All Drifter wormholes contain a huge Drifter Hive, which appears as a beacon on the overview with the name of the specific site, e.g. “Vidette”

These Hive Sites are protected by a sequence of deadspace pockets, connected via acceleration gates and warpable Rifts. The layout of these sites is slightly different in each of the 5 different Drifter wormholes, but the main rooms are the same.

- **Entrance:** Contains the warp-in beacon. Warp at range is possible. The beacon is 50-80km from the acceleration gate.
- **Lobby** or **Split:** This room contains two acceleration gates and also a warpable rift that leads back to the Entrance. The room is protected by 5 EmergentPatrollers(Sleepers).Theaccelerationgatesleadtoanumberof TransferandAccessroomswhoselayoutdependsonthespecificsystem.
- **Antechamber** or **Antichamber:** This room contains the gate to the final room, the Hive. It is protected by various Sleeper ships, including battleships and webbing Sleeper frigates.
- **Hive:** The final room of the complex contains the main hive structure. Protected by **Hikanta Tyrannos** (starts at 250-400km and immediately aggresses on warp in, moving at ~2km/s) with a fleet of Sleepers up to battleship size. The Hive also contains the Vault (if you access this with the index in hold you can get 10 elements). The Nexus Transfer gate leads to Nexus room.
- **Nexus:** A giant cluster made up of hundreds of “bars” engulfed by a huge blue sphere.

Additionally, there are rooms that are specific to certain sites:

- **Acces Alpha etc.** These contain access units and are hackable using data analyzers, and are protected by Sleepers.
- **Transfer Alpha etc.** These contain no specific installations but are still protected by Sleepers.



Section : 5

Rolling Wormholes

Rolling Wormholes



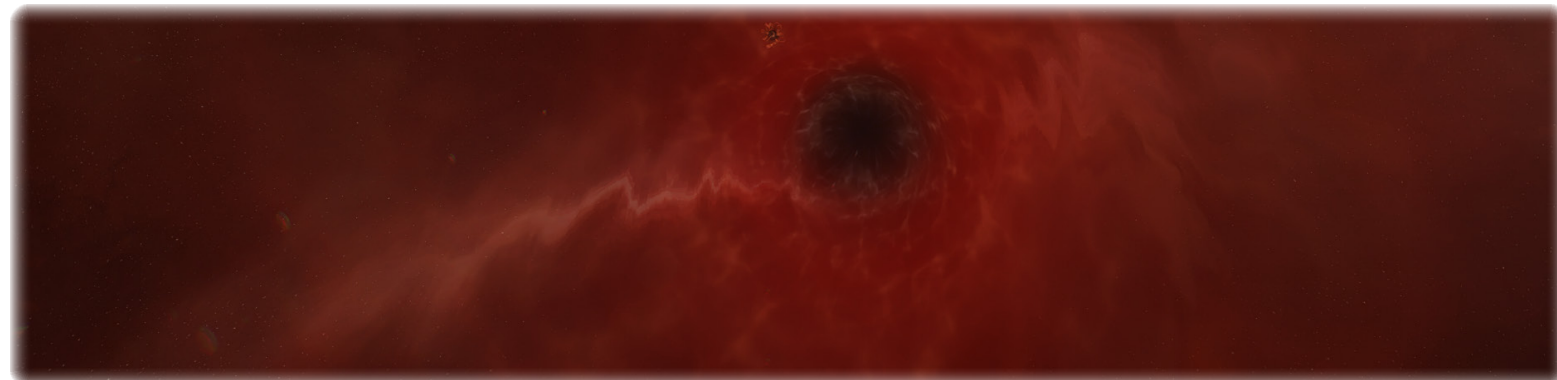
Rolling Wormholes

As has already been detailed, wormholes only permit a certain amount of mass to transit before destabilising and collapsing. Whilst this can be problematic at times, it can also be extraordinarily beneficial to folks living in J-Space.

Imagine for a moment that you and your friends set up operations in a Nullsec system. You do well, enjoy the content, and are having fun. A few weeks later, some other guys set up the system across from you and decide to start griefing you, constantly attacking and blowing up all your progress. There is nothing you can do in this situation as the connections between your system and theirs is permanent.

In J-Space, if you wake up one morning to find that an aggressor is based one system away, you can simply force the wormhole to collapse and cut them off. This is called “rolling a wormhole”, it is the bread and butter of wormhole life, and is what makes Statics so desirable. The ability to roll an undesired static connection and have a new opportunity open immediately is powerful.

It is absolutely vital, therefore, that pilots living within J-Space understand the mechanics behind rolling a wormhole, and become comfortable with the practice.



How To Roll A Wormhole

When making bookmarks of content in a system, its important to also detail the Signature ID. Tripwire, discussed later, will also help keep track of Cosmic Signatures and their six digit IDs. This is vital for spotting when a new signature spawns, so that it can be immediately identified. Keeping tabs on your connections, and closing undesirable ones is key to safety in J-Space.

In short, the process is as follows:

- Jump to the other side, check for hostiles, and check the ID of the wormhole on the other side. For example it might be C427.
- Check the mass remaining on the wormhole (is it critical? what does the description say?). Jump back.
- Check the Wormhole ID (using a tool like [anoik.is](#) or this primer), it will tell you its maximum mass restrictions.
- Do the math. More on this later.

Now we know what kind of wormhole we are dealing with, and we know the max mass that can transit before it collapses.

From here, its a simple matter to take some heavy ships, preferably Battleships and/or Battlecruisers, and start jumping them back and forth through the connection, keeping an eye on the status of mass of the wormhole.

It’s a good idea to keep one battleship on the far side while doing this. For this example imagine that it’s a C427 Wormhole which, at it’s critical state, (about 10% of total mass limit) allows to jump another 100.000 tons of mass. That is one battleship worth of mass.

Keep track of the number of ships you’ve jumped through so far (jumping them one at a time), and as soon as it gets into Critical stage, jump back the battleship from the far side. If you’ve done everything right, the unwanted wormhole should close with all ships inside the starting system.

If it is a Static, then a new one will have immediately spawned and should be scanned down, and possibly rolled again, if required.

Wormhole Spawn Mechanics

When you Show Info on a wormhole, it will give a four digit identifier, like C427, B274, H900, etc. This can be used to give an idea of where this wormhole may lead, if its a particular static connection etc. One of these codes is more notable than others.

K162 means that the wormhole is the exit side. To get the actual ID, you will need to jump the wormhole and check the other side.

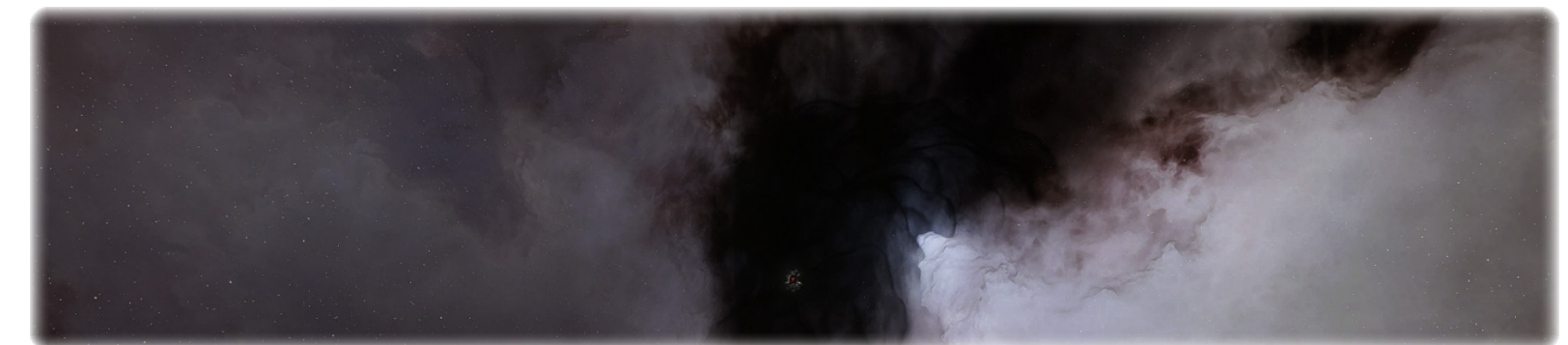
When a wormhole first spawns, only the entrance is actually visible, the exit does not yet exist. The moment that a pilot warps to the Cosmic Signature containing a wormhole entrance, the corresponding K162 exit will spawn in the destination system and can now be scanned down by pilots in that system.

This makes it possible for small disciplined collective to fully seal a wormhole system in which they live. If all the following are true, then no new hostile capsuleer can find the J-Space system until a new wormhole exit emerges:

- All signatures are scanned and the list is constantly updated
- All non-static wormholes are rolled
- Static wormholes are identified, but nobody initiated jump to any of them
- There is no trace of non-friendly pilots present in the system

When goods are needed to be transfered to/from the J-Space system, a capsuleer warps to static wormhole, after good exchange happened, the static route is rolled, re-sealing the J-Space system.

A sealed system provides better security for PvE activities including mining and planetary industry. It also won’t be spotted quickly by groups who specialize in Evictions, but it does require organization to effectively pull off.



Rolling Wormholes



“Doing the Math”

What follows is a list of every possible wormhole ID and its corresponding mass limits (both limit per jump and total mass allowed before collapse). As such, simply work out how many times the ships you are using can jump the wormhole before it collapses and ensure that the final jump will result in that ship being where it needs to be (usually inside the “friendly” J-Space system).

The total mass allowed can vary +/- 10% for each individual wormhole. e.g. a **D364** is listed as **1,000,000t**, but and individual D364 wormhole may actually have a limit anywhere between **900,000t** and **1,100,000t**

These limits are in tonnes, and a single tonne is 1000kg. Ergo, a ship with 1,000,000kg mass is a 1000t ship.

Wormhole Type	Total Mass Allowed (t)	Max Individual Mass (t)
A009	500,000	5,000
A239	2,000,000	375,000
A641	2,000,000	1,000,000
A982	3,000,000	375,000
B041	5,000,000	375,000
B274	2,000,000	375,000
B449	2,000,000	1,000,000
B520	5,000,000	375,000
B735	750,000	375,000
C008	1,000,000	5,000
C125	1,000,000	62,000
C140	3,300,000	2,000,000
C247	2,000,000	375,000
C248	3,300,000	2,000,000
C391	5,000,000	2,000,000
C414	750,000	375,000
C729	1,000,000	375,000
D364	1,000,000	375,000
D382	2,000,000	375,000
D792	3,000,000	1,000,000
D845	5,000,000	375,000
E004	1,000,000	5,000
E175	2,000,000	375,000
E545	2,000,000	375,000
E587	3,000,000	1,000,000
F135	750,000	375,000
F216	1,000,000	375,000
F353	100,000	62,000
F355	100,000	62,000
G008	1,000,000	5,000
G024	2,000,000	375,000
H121	500,000	62,000

Wormhole Type	Total Mass Allowed (t)	Max Individual Mass (t)
H296	3,300,000	2,000,000
H900	3,000,000	375,000
I182	2,000,000	375,000
J244	1,000,000	62,000
K162	NA	NA
K329	5,000,000	2,000,000
K346	3,000,000	375,000
L005	1,000,000	5,000
L031	3,000,000	1,000,000
L477	2,000,000	375,000
L614	1,000,000	62,000
M001	1,000,000	5,000
M164	2,000,000	375,000
M267	1,000,000	375,000
M555	3,000,000	1,000,000
M609	1,000,000	62,000
N062	3,000,000	375,000
N110	1,000,000	62,000
N290	5,000,000	2,000,000
N432	3,300,000	2,000,000
N766	2,000,000	375,000
N770	3,000,000	375,000
N944	3,300,000	2,000,000
N968	2,000,000	375,000
O128	1,000,000	375,000
O477	2,000,000	375,000
O883	1,000,000	62,000
P060	500,000	62,000
Q003	1,000,000	5,000
Q063	500,000	62,000
Q317	500,000	62,000
R051	3,000,000	1,000,000

Wormhole Type	Total Mass Allowed (t)	Max Individual Mass (t)
R081	1,000,000	450,000
R259	750,000	375,000
R474	3,000,000	375,000
R943	750,000	375,000
S047	3,000,000	375,000
S199	3,300,000	2,000,000
S804	1,000,000	62,000
S877	750,000	375,000
T405	2,000,000	375,000
T458	500,000	62,000
U210	3,000,000	375,000
U319	3,300,000	2,000,000
U372	1,000,000	375,000
U574	3,000,000	375,000
V283	3,000,000	1,000,000
V301	500,000	62,000
V753	3,300,000	2,000,000
V898	2,000,000	375,000
V911	3,300,000	2,000,000
V928	750,000	375,000
W237	3,300,000	2,000,000
X450	1,000,000	375,000
X702	1,000,000	375,000
X877	2,000,000	375,000
Y683	2,000,000	375,000
Y790	500,000	62,000
Z006	1,000,000	5,000
Z060	1,000,000	62,000
Z142	3,300,000	2,000,000
Z457	2,000,000	375,000
Z647	500,000	62,000
Z971	100,000	62,000

Rolling Wormholes

Rolling Ships

A variety of ships can be used in the rolling process.

“Rolling 300 Battleship” - These are battleships that have 200M (200,000t or 200,000,000kg) mass and are equipped with 100MN Afterburner.

When the Afterburner is activated the ship gains another 100M kg mass, for a total of 300M kg.

They are often equipped with a range of defensive modules including cloaking devices, heavy energy neutralizers, a micro jump drive, shield boosters, ECM drones and probe launchers for emergency usage if something goes wrong or the ship is attacked.

“Regular rolling Battleship” - Any battleship with or without a propulsion module but definitely without the Higgs anchor. Regular rolling battleships are used when the hole we want to roll has already shrunk before we started rolling. This means we cannot accurately predict the remaining wormhole mass to ensure the safety of everyone involved.

As an example, a B274 could have just above 180M kg mass remaining and still not be critical. It is therefore possible to jump a Rolling 300 battleship with afterburner off through a non-critical wormhole and still end up collapsing it - leaving the ship stranded on the other side.

In this scenario, we jump out of the wormhole in a battleship without a Higgs anchor and with prop mod off (mass should be around 100M kg and well under the 180M kg limit) and then jump back in,

Heavy Interdiction Cruiser (HIC) - If a hole is Crit, it means that it may not be safe to transit a larger rolling ship through. In these situations, we need something considerably smaller.

Zero Point Mass Entanglers are high slot modules that reduce a ship’s mass by 80%, and the reductions stack with multiple ZPMEs fitted. Therefore, a Rolling HIC with 4 ZPMEs fitted, and with propulsion modules off, has a lower mass than a frigate. This should allow it to transit a Crit hole safely, without collapsing the hole behind it. Activating a 100MN Afterburner can give the ship around 65,000,000kg, which is usually sufficient to collapse the hole on the return transit.

Rolling Cruiser - These are exceedingly rare, but worth detailing briefly. If there are no HIC pilots around and you absolutely need to close a hole asap, a rolling cruiser can be used to try collapsing the hole.

Rolling Cruisers are usually fit with an oversized 100MN Afterburner, a cloak, and probe launchers, since there is a higher chance of getting stranded while jumping out since they can’t reduce their mass as HICs can.

The idea is to jump a rolling cruiser out with the AB off (~15,000,000kg) and then come back with AB on (~65,000,000kg) and hopefully collapse the hole.

Many wormholing corporations give low level access to a set of rolling ships for their members to use, but its also recommended that wormhole pilots with the skills to fly any of the above archetypes should maintain their own options in their own hangars too.



Rolling Battleship Wormhole Roll/Control Quick Reference Chart

Assuming your rolling ship has a mass of ~200Gg Cold and ~300Gg Hot, and a zero mass hole.
If the hole has had any significant mass passed through it, follow the chart from the "YES" point at reduction and have a HIC standing by.
Some Wormhole Designations omitted due to mass restrictions (Class 1, 500Gg)

1000Gg

D364	M267
O128	X702

2000Gg

A239	A641	B274
B449	C247*	D382
E175	E545	G024
I182	L477	N766
N968	O477	T405
X877	Y683	Z457

3000Gg

A982	H900*	K346
M555	N062	N432
N770	N944	R051
R474	S199	U210
U319	U574	V283

3300Gg

B520?	C140?
C248?	C391?
D792?	H296
W237	Z142?

(High Class to K-Space
Designations not verified)

by Algar Thiesant of
Catastrophic Overview Failure
Aug 2016

1 Cold Jump
1 Hot Jump

Is the hole reduced?

YES

To Roll:
2 Hot Jumps

To Crit:
2 Cold Jumps

NO

To Roll:
2 Hot Jumps

To Crit:
1 Cold Jump
1 Hot Jump

2 Cold Jumps
2 Hot Jumps

Is the hole reduced?

YES

To Roll:
2 Cold Jumps
2 Hot Jumps

To Crit:
4 Cold Jumps

NO

To Roll:
4 Hot Jumps

To Crit:
2 Cold Jumps
2 Hot Jumps

5 Hot Jumps

Is the hole reduced?

YES

To Roll:
Return Hot
4 Hot Jumps

To Crit:
Return Cold
2 Cold Jumps
2 Hot Jumps

NO

To Roll:
Return Hot
3 Cold Jumps
3 Hot Jumps

To Crit:
Return Hot
4 Hot Jumps

1 Cold Jumps
5 Hot Jumps

Is the hole reduced?

YES

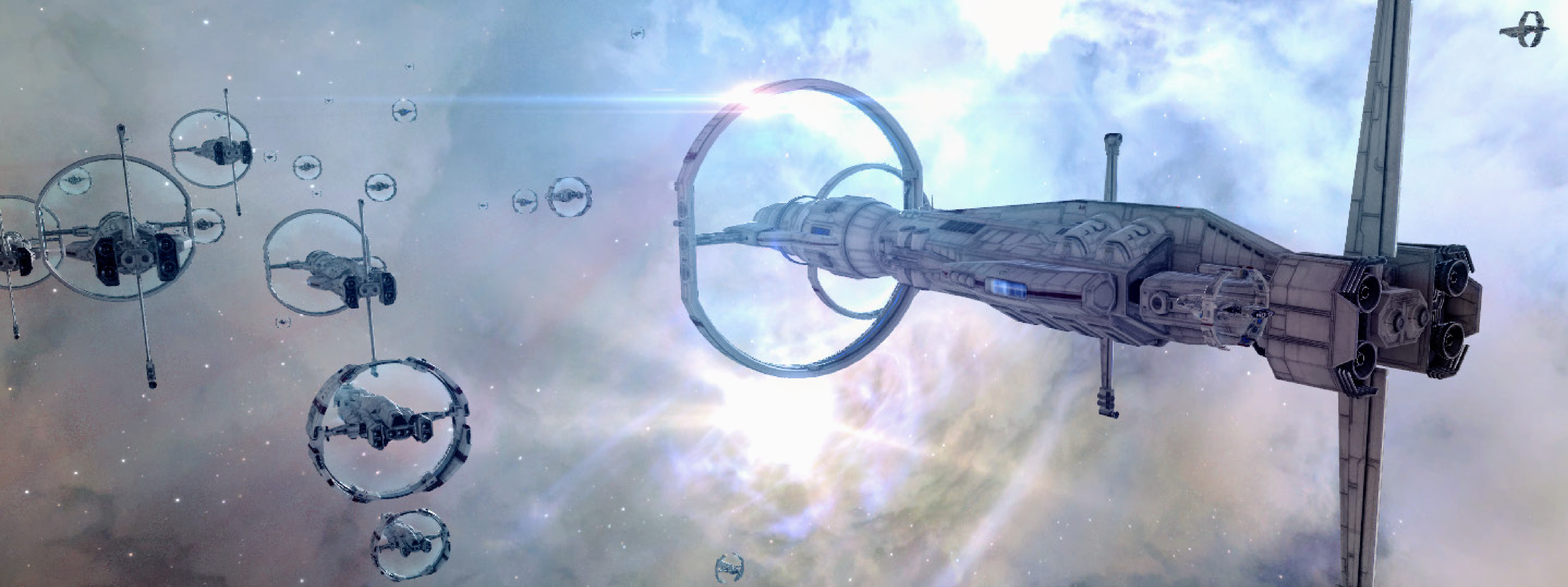
To Roll:
2 Cold Jumps
4 Hot Jumps

To Crit:
4 Hot Jumps
HIC once
(if needed)

NO

To Roll:
6 Hot Jumps
HIC once
(if needed)

To Crit:
1 Cold Jumps
5 Hot Jumps



Section : 6

Tripwire

Mapping Wormhole Connections

Unlike K-Space, there is no starmap in J-Space. Navigation requires the use of Scanner Probes to identify wormhole connections, and pilots who wish to be able to warp to these connections at will must ensure that they bookmark the sites, since wormholes only appear in the overview if the pilot is “on grid” with them.

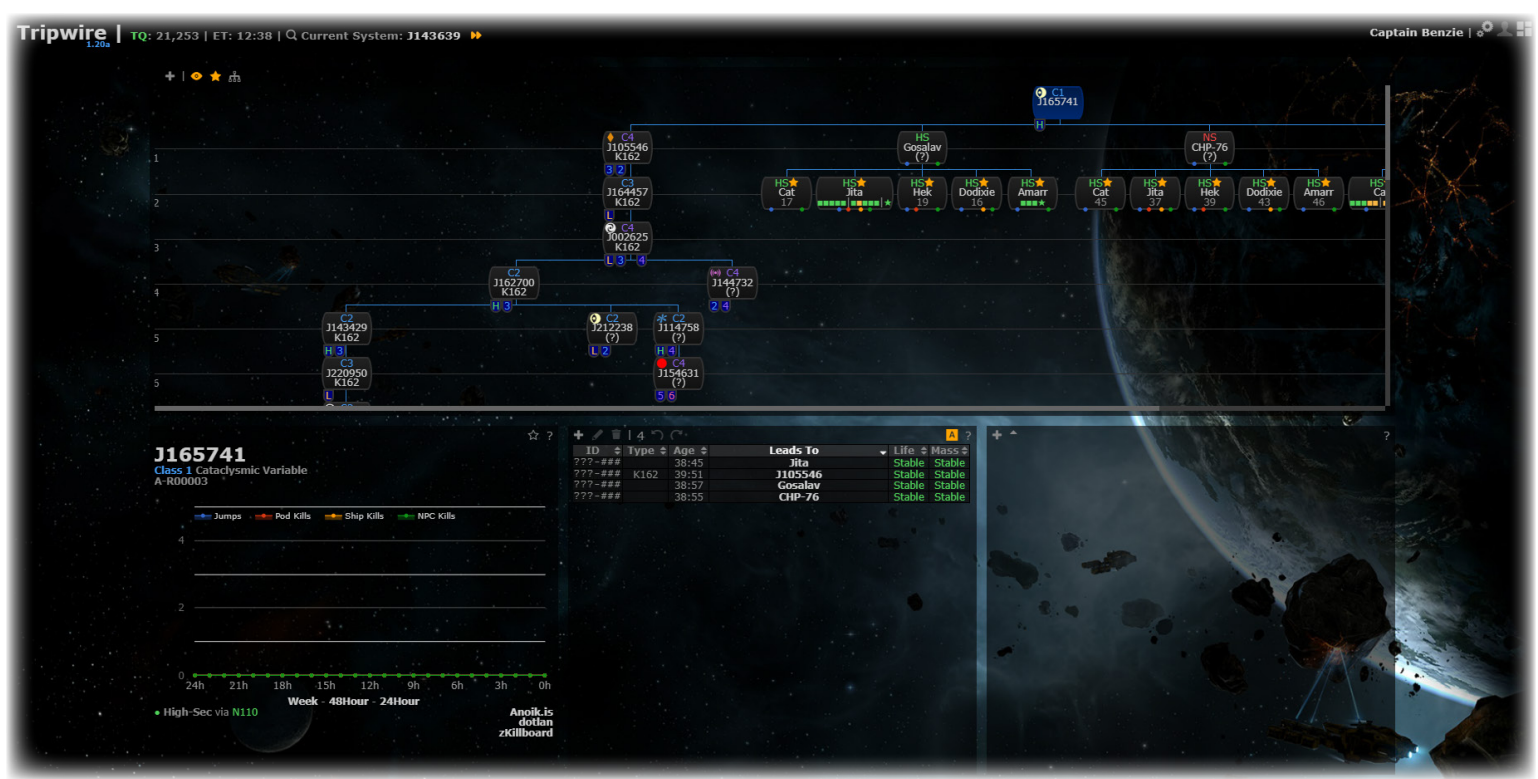
This can make traversing multiple J-Space systems difficult and confusing, as pilots navigate from bookmark to bookmark, trying to remember which systems connect to which.

For simple day-tripping or entering only a handful of J-Space systems in a “chain”, this isn’t necessarily a huge problem, but since this Primer intends to educate pilots on travelling deep into J-Space, the issue becomes much more prevalent.

Fortunately, we have a powerful tool available to us: **Tripwire**

Tripwire is a web-based wormhole connection mapping tool that uses the EVE Online API to assist pilots in mapping wormholes. This section of the Primer aims to teach its use.

You can find Tripwire at: <https://tripwire.eve-apps.com/>



Setting Up Tripwire

Before Tripwire can be used, you’ll need to set up an account. It is strongly recommended that you load up Tripwire on the same device as you use to play EVE Online for optimal integration for mapping, preferably on a seperate screen.

If this is not possible, or if you won’t be using Tripwire for map-ping (for example when only using connections mapped by other players) it can instead be loaded on a second device, like a phone or tablet.

Creating an account is very simple and beyond the scope of this Primer, and it is strongly recommended that you use the “EVE SSO” tool to log in using your EVE Online account as this will di-rectly integrate your character with Tripwire.

If you have multiple characters on an account, ensure to use your Main for Tripwire, as alts can readily be added later.

Once logged in, you should see the main Tripwire screen, similar as shown above. We will start by describing and detailing the main parts of this screen.

From the top left of the screen, proceeding right:

TQ xx,xxx ET xx:xx - These refer to the current number of play-ers active on the Tranquility Server, and the current EVE Time, in game.

A **Search Icon** that will allow you to search and view a particular system quickly (this works for both J-Space and K-Space systems)

Current System displays the system the active character is cur-rently in.

Two Arrows that look like a “**Fast Forward**” icon. This is the Pilot Tracking Toggle. If it is currently grey (tracking off), click it to turn it orange (tracking on). We will explain this later.

At the top right, you should see your **Character Name**. You can click this to change the Active Character, or to log out of Tripwire.

Two cogs that open up the Settings. We will click this to ensure our Mask is correctly set (more on Masks later).

A **set of squares** that when toggled on allow you to move the four primary “windows” that make up Tripwire. If Tripwire looks different to you than the screenshots shown, this will be why. Set it up however you prefer - the functionality will be the same.

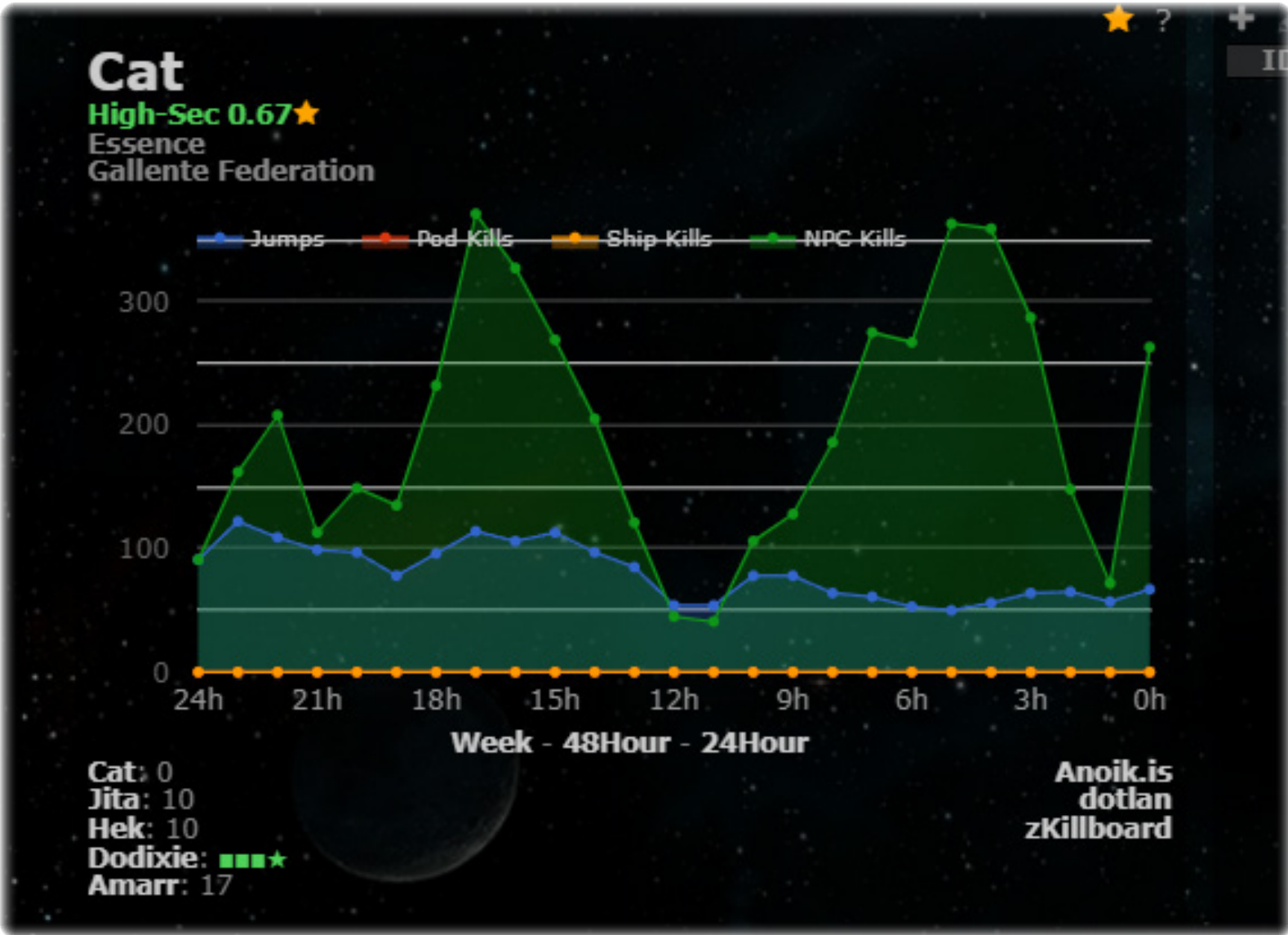
The final four windows may be in a different layout for you to that shown. You can move them using the set of squares mentioned above.

The top window (as shown at least) is the **Connections Map**. This is where the majority of our attention will be spent as it will show all the systems and connections we have mapped.

The **Activity Window** in the bottom left shows how active the system is by tracking various kills, both player and NPCs.

The bottom center window is the **Signature List**. We will populate this with all the signatures in a system to help find content.

The bottom right is the Notes window.



The Activity Window

This wonderful little window pulls information from several sources (Anoik.is, dotlan, and zKillboard) to provide a quik glance chart of activity in this system over the past 24 hours.#

The most important information here is, by far, Ship Kills and Pod Kills, as these will indicate the presence of active PvP players. It should be noted that these can also be caused by players being destroyed by Sleepers within the system, but multiple Ship or Pod kills usually suggests active roamers.

Of course, this doesn't guarantee they're still in system, but it could point to a connection to a System out of which a wormhole corporation is based.

You can toggle the Star icon in the top right of this window to set a system as a Favourite, meaning it can quickly be added to any chains that you map.

ID	Type	Age	Leads To	Life	Mass
PFE-830	Gas	00:02	Token Perimeter Reservoir		
EGI-888	Combat	00:02	Solar Cell		
TTK-443	Combat	00:02	Outpost Frontier Stronghold		
QAC-128	Combat	00:02	Fortification Frontier Stronghold		
EKS-408	Combat	00:02	Fortification Frontier Stronghold		
BKY-594	Combat	00:02	Fortification Frontier Stronghold		
INY-404	Relic	00:02	Forgotten Frontier Quarantine Outpost		
COU-776	Ore	00:02	Average Frontier Deposit		
SVQ-004	Ore	00:02	Average Frontier Deposit		
RKA-743		00:02		Stable	Stable
VEM-098	Unknown	00:02			
CAG-870		00:02	7D-PAT	Stable	Stable

The Cosmic Signature List

This list will initially be empty in any system you enter (unless you are using a Mask, as we will discuss later) but can be populated quickly and easily to provide a full list of all Cosmic Signatures active in the system.

Coupled with the use of masks, this can provide a Corporation all of the content that it's members are looking for at a quick glance, but even for a solo player, you may find this helpful if you map J-Space in one ship, then travel back out to complete that content in a different ship.

Having scanned down one or more Cosmic Signatures in a system, you can click in the in-game Cosmic Signature list (part of the Probe Scanner interface), then press Ctrl-A to select all, then Ctrl-C to copy the list to your computers clipboard. Moving into Tripwire and then pressing Ctrl-V will then paste all the signatures into Tripwire, quickly, and easily. This is the main reason that it is strongly recommended to use Tripwire on the same device as you are using to play EVE Online.

The Cosmic Signature list can also be manually edited. This allows you to rename sites as required, perhaps advising that the rats in a Gas Cloud have already spawned, or have already been dealt with.

Please take careful note to manually delete any Cosmic Signatures you complete to ensure that you (or anyone else who shares your mask) don't later return to a site that no longer exists.

The Notes Window

The Notes window is one of the most understated parts of using Tripwire, especially for those working with a Mask.

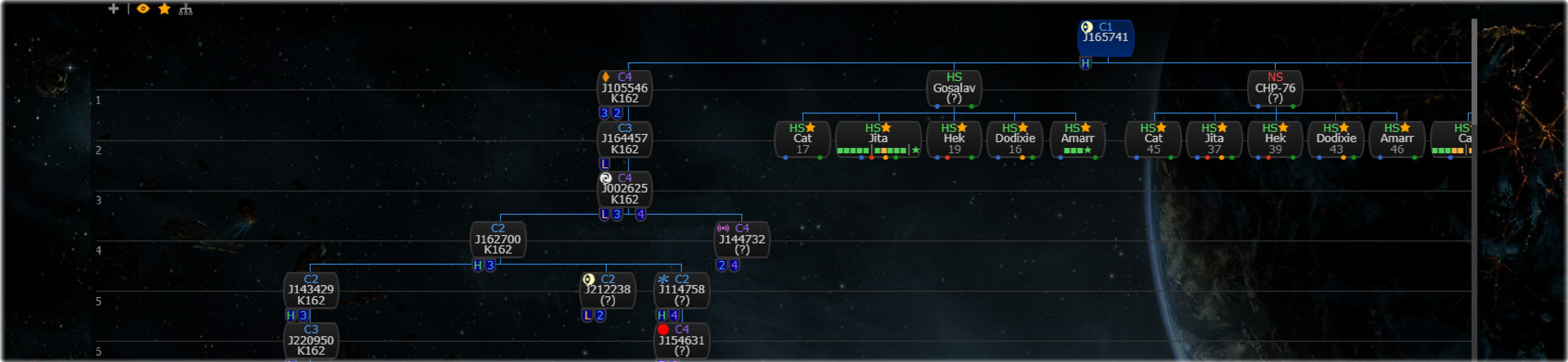
By clicking the + icon, a new note can be created, that you and anyone sharing the Mask will be able to see. This is an incredibly powerful tool to record Capsuleer movements in and around the system, whih could assist PvPers in finding activity, or help PvE pilots avoid dangerous situations.

In this case, more detail is better than insufficient detail.

e.g. "Legion ratting C3 sites @ ET 14:20"

If you find a J-Space system that another corporation has set up shop in, you could write a note detailing their presence.





Mapping Connections In Tripwire

In order to effectively map connections using Tripwire, we must first ensure a few settings are active.

Ensure Tripwire is currently set to the correct character by clicking the Character Name in the top right. Secondly, ensure that the "Tracker" is active (fast forward icon in the top left should be orange) and the Auto-Track should also be active (A at the top right of the Cosmic Signature window set to orange)

As a pilot moves through wormholes into different J-Space systems, Tripwire will automatically update your position. If you have already copied across the Cosmic Signatures from the system you are in when you jump through a wormhole to a new system, Tripwire will prompt you as to which Cosmic Signature corresponded to the wormhole transitted, and then update both the Cosmic Signature list and the Connections Map.

When viewing the Connections Map, Tripwire displays a decent amount of intel we can gather purely from the node corresponding to a system.

Each node displays the system type - HS for Hisec, LS for Lowsec, NS for Nullsec, then C1/2/3/4/5/6 for different J-Space systems. This is then followed by the System Name, (e.g. Hek, J165741, etc) and then the type of connection (e.g. K162, B274, etc).

If a K-Space system is set as a favourite, and the Connections Map is set to "Add favourite systems to the chain" (star icon in the top left of the Connections Map window), then Tripwire will add these favourites to the chain, and replace the connection type with the number of jumps. You can see in the above example that Goslav is 19 jumps from Hek, or 4 jumps from Amarr.

You can change how short numbers of jumps are displayed in the settings menu.

Below the node you may see a shield icon with a letter or number in it. These correspond to that system's Static Connections. H for Hisec, L for Lowsec, N for Nullsec, and 1-6 for J-Space Statics.

This can be very helpful if you are scanning J-Space for a K-Space connection in a hurry, as it can help you focus on systems with possibly useful connections.

In the top left of the node an icon is sometimes displayed corresponding to the System Effects (if any) present in that system. You can mouse over these to confirm which System Effect is present.

The lines connecting nodes will detail the Health of the wormhole. A solid blue line denotes a stable and fresh connection, whereas a dotted line denotes a wormhole in EOL. A yellow line denotes that the mass has been destabilised below 50%, and a red line shows destabilisation below 10%. Lastly, a green line denotes a frigate only connection.



Masks

In Tripwire, Masks are a way to share or limit the information you share with others. Essentially, you can think of these kind of like sharing groups.

When first using Tripwire, you should decide which Mask you intend to use.

For Solo Pilots, the standard Default or Private should be selected, since no sharing options are required.

If you are part of a Corporation, check with Leadership as to which Mask you should be using. This will usually be the "Corp" Mask on the Default row.

With this Mask selected, any connections you map, and any Cosmic Signatures that you add will be displayed to everyone else sharing the mask, and you will see any connections and Cosmic Signatures that they have mapped to Tripwire also.

Using Masks, you can easily map out connections and provide up-to-date lists of content for other pilots, as they can for you. This is why it is vital to manually delete a Cosmic Signature from Tripwire if you complete the relevant site.

Pilots sharing a Mask can also see each others position within a wormhole chain by a small "person" icon next to the system node for the system they are in. Hovering your mouse over this icon will display their name and the ship that they are flying, which can be very useful for pilots moving through wormholes and J-Space systems together.

However, this should not replace proper fleet or comms usage as both of these methods are more obvious to pilots and faster to update, which can be life or death in J-Space.





Section : 7

Exploration & Scanning

Exploration

If there's any group in New Eden likely to become familiar with wormholes and J-Space, then it's the Explorers. For a start, every wormholer needs to know the basics of exploration - with Probe Scanning being a near vital skill to anyone who spends a decent amount of time within the depths of J-Space - so many pilots will train the basic scanning skills to at least a rudimentary level.

Beyond this, many career explorers eventually find their way through a wormhole in search of Relic or Data sites, only to end up enrapt by the mysteries of Anoikis and find themselves widening their capabilities by training into combat skills, gas harvesting skills or the like in order to take advantage of the other sites they're finding.

Finally, wormholing corporations are always looking for good scouts to scan down connections, and manage content via apps like Tripwire, often giving them first dibs on any content located, or in some cases even a salary.



Scanning Skills

Basic Scanning skills are fairly quick and easy to train into. Below we will detail the skills, and what they are used for.

Astrometrics is, by far, the most vital of these skills as it allows the operation of scan probes, and increases the scan strength of your probes, whilst also decreasing scan deviation and scan time.

Astrometric Ranging is also important as it boosts the scan strength of your probes, making it easier to successfully scan a signature down to full 100%. Some signatures can be very difficult to scan down without the proper probe strength. Of course, probe strength can also be increased with better Probe Launcher modules, or even with better scan probes.

Astrometric Pinpointing reduces scan deviation, which reduces the movement as a signature is brought closer to 100%. It is not as important as Astrometric Ranging, however.

Astrometric Acquisition is the least useful for the casual scanner, as it merely reduces the time taken for your probes to actually scan. For a career scanner, though, this time reduction quickly adds up, and for a combat scanner, it is much more important as it results in faster scans, and thus gives the prey less time to react.

Hacking and **Archaeology** are used by pilots who want to run Relic and Data sites respectively. Each of these skills first unlocks the ability to use the relative Analyzer module, whilst increasing the Virus Cohesion of that same module. At level V, it unlocks the ability to use T2 Analyzers. It should be noted that the Integrated Analyzers benefit from **both** Hacking and Archaeology.

Survey is arguably the most unusual of the Scanning skills, in that it affects Ship Scanners, Survey Scanners, and , reducing the time it takes to complete their scans. This does not in any way affect probe scanners and so should only be trained by pilots utilising the above-named modules.

Choosing a Scanning Ship

Which scanning ship you choose to use is entirely up to personal preference, but here we will discuss some of the pros and cons of several of the more popular options. This is not meant to be an exhaustive list!

T1 Exploration Frigates - Probe, Heron, Magnate, Imicus

These ships are cheap, fast moving and have bonuses for scanning and analyzers, alongside sizeable cargo holds for a frigate. The skills required to undock them are also incredibly cheap and quick to train. However, they are unable to use covert ops cloaking devices, so must decloak in order to warp.

T2 Exploration Frigates - Cheetah, Buzzard, Anathema, Helios

More expensive than the T1 frigates, and with a smaller cargo hold, the T2 Exploration frigates do, however, get notably larger bonuses to scanning and analyzers. They also have the ability to fit both covert ops cloaking devices and interdiction nullifiers, making them much harder to catch!

Astero & Pacifier

These two frigates both have bonuses to scanning, analyzers, and have the ability to use covert ops cloaking devices. They also have bonuses to weapon systems, making them considerably more dangerous in combat than a T1/2 Exploration Frigate. However, they are also orders of magnitude more expensive, and for players not looking for PvP combat, the combat bonuses are ultimately pointless.

T3 Strategic Cruisers - Loki, Tengu, Legion, Proteus

Although predominantly combat vessels, the Tech 3 Strategic cruisers all have Defensive Subsystems that allow them to use covert ops cloaks, and give them bonuses to analyzers. For someone looking to scan a wormhole down and run combat sites, these are arguably the best choice, although they do come at a premium cost! The Stratios also technically comes under this category, but lacks the combat capabilities that a T3C has for the more difficult J-Space combat anomalies.

Exploration

Unsecured and Forgotten J-Space Sites

As detailed in **Section 4**, every Class of J-Space system has unique anomalies associated with it, and this is true for Relic and Data sites also.

In J-Space systems, Relic sites are denoted by the name “Forgotten”, whilst Data sites having “Unsecured” as the start of their name. Players already familiar with Relic and Data sites should note, however, that these are **NOT** safe sites, and do contain a strong Sleeper presence. These should rather be considered as **combat sites** that also have containers in them that need to be successfully analyzed to open. In fact, this primer will detail these Unsecured and Forgotten sites later on after the **Combat Sites** section.

A standard rule of thumb is that Unsecured and Forgotten sites are approximately the difficulty of one class up, so a C2 Forgotten Site is approximately on par with a C3 Combat Site. This is not a hard and fast rule, however.

Many pilots, especially those in wormholing corporations, will run the sites purely as a combat site, collecting Blue Loot as normal, to sell before handing off the remnants of the site to salvagers and explorers to finish clearing.

Pirate Relic & Data Sites

Whilst Forgotten and Unsecured sites may be too dangerous for an unarmed solo exploration pilot, there are considerably safer options. C1, C2, and C3 systems also spawn the same “Pirate” Relic and Data sites as would be found in Nullsec - those with names beginning with “Central” or “Ruined”

Like their Nullsec equivalents, these sites are considered safe; they do not contain NPC enemies, nor do they contain any hazards like exploding boxes. Of course, this is J-Space, so they very well may contain other players!

The Astero, in particular, is notorious for this use, sitting cloaked, just alongside one of the containers, like a spider awaiting its prey. When an unsuspecting explorer approaches, locks the container and begins the hacking minigame, the Astero decloaks, locks, scrams, and opens fire. You have been warned!

The loot found within these sites also uses the same loot table as the Nullsec sites. For all intents and purposes, a Central Guristas Sparking Transmitter in J-Space is exactly the same as a Central Guristas Sparking Transmitter in -1.0 Nullsec.

Since a C1/2/3 wormhole can spawn in Hisec, this makes J-Space an excellent option for Hisec based explorers looking for more lucrative sites.





Section : 8

Rock & Ice Mining

Rock & Ice Mining

Mining is an incredibly popular activity in EVE Online, but mining in J-Space is in a bit of a weird space. Mining tends to be a more passive activity for pilots, but J-Space is almost actively hostile to all but the most active of playstyles.

Ultimately, mining in J-Space isn't bad. You'll certainly find ores (like Arkanor, Bistot, and Crokite) that are not present in Hisec or Lowsec, but J-Space is also less safe than even Nullsec to the unprepared.

Ultimately, the big question with mining in J-Space is "Why do you want to do it?". If the answer to that question is "To sell the ores or minerals for ISK", then you're doubtless better off looking into the notably more lucrative industry of gas harvesting instead. But if you're looking to turn those ores into something... well, that's a different issue entirely.

Whilst this section aims to focus primarily on ore harvesting within J-Space, I feel that I would be doing the reader a disservice by not also spending a moment to talk about one of the greatest benefits that a wormholer has access to: Static connections.

Pilots that choose to live in J-Space still have access to K-Space, and decent connections are often readily available to all other ore types too. Even Nullsec connections can be very beneficial as if spotted by the local inhabitants, jumping into a wormhole where friendly pilots are lurking is often enough for persuers to halt their chase and pause for thought.

This does, of course, rely on pilots having a good corporation of pilots around them to maintain those systems, but if one were to leap out, harvest Hisec or Lowsec ores for a project, then return to J-Space, having friends watching the interior makes this a fairly safe endeavour; and if those friends are able to secure a J-Space system as described in the Rolling Wormholes section, then mining inside a J-Space system is the safest form of mining there is!

As is so often the case when discussing wormholing, it all depends on the resources available to an individual!

What Ores Are Available In J-Space?

As any miner worth their minerals knows, not all space is created equal and the different empires and different security statuses each have their own spread of available ores.

J-Space is no different, and here, prospectors will find arkanor, bistot, crokite, gneiss, kernite, omber, and pyroxeres in almost every ore anomaly to spawn (a few of the sites do not contain pyroxeres)

Ore Anomalies

In J-Space, mining belts do not spawn, instead we find Deposits and Fields that spawn and appear automatically in the Cosmic Signature list, and can be warped to without needing to be scanned down first.

This is a double-edged sword, however, as any aggressive pilot to enter a system and immediately cloak up, will have appeared on D-Scan for only the briefest of moments, and can now immediately warp to any and all ore sites, whilst cloaked, without needing to drop any form of scanner probe. That brief window between their jump cloak dropping and covert ops cloak activating is an exceptionally short window, and is very easy to miss on D-Scan. In the meantime, the agressor is warping around with no way to be detected, closing in on the miner's position.

Ore Anomalies in J-Space do not spawn the same way that mining belts in K-Space do. All sites in J-Space follow the same mechanic, which is to say that when a site is completed in J-Space, a similar site respawns in a random wormhole of the same Class. If a pilot clears an ore anomaly in a C2, another ore anomaly will respawn in a random C2 system.

This means that most of the content available to wormholers is in the neighbouring systems, and with the inherent dangers of mining in J-Space, operating in fleets where all players are using D-Scan, or even having combat pilots on grid, is strongly recommended.

Considerations

The actual act of mining and the fits used are no different in J-Space to riskier regions of K-Space, and since mining is so ubiquitous, this Primer will not attempt a full guide. Instead, we will detail some important considerations for mining in J-Space:

The Venture and the Prospect are excellent frigates capable of making a decent haul of ore, whilst minimising the risk of ship loss.

While both Barges and Exhumers can be quite useful in wormholes they are also huge targets and should never be flown without the support of a PVP fit defense fleet nearby.

Without such a defense fleet it is folly to even try using Mining Command Ships like the Orca and Porpoise. Even with a fleet active, these are the sort of targets that agressors will actively gather a fleet together to kill, even in spite of the defensive fleet.

The Orca in particular is popularly used as a home base for solo wormhole nomads who effectively live out of the ship, thus giving it the reputation of being filled with a large amount of valuable goodies.



Common Perimeter Deposit

Ore values are approximate. They may change depending on the class of the system.

Ore Type	# of Asteroids	Size (m3 each)	Size Total (units)	Size Total (m3)
Arkonor	1	320,000	20,000	320,000
Bistot	1	480,000	30,000	480,000
Gneiss	1	200,000	40,000	200,000
Kernite	1	360,000	300,000	360,000
Omber	1	180,000	300,000	180,000
Pyroxeres	2	78,000	520,000	156,000

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
F	5x Emergent Patroller	N/A	35	1750 m/s	15km	8km @ 250 m/s	8, 40 (5s)	10, 76 (9s)	3,000

Ordinary Perimeter Deposit

Ore values are approximate. They may change depending on the class of the system.

Ore Type	# of Asteroids	Size (m3 each)	Size Total (units)	Size Total (m3)
Arkonor	1	160,000	1,000	160,000
Bistot	1	320,000	20,000	320,000
Gneiss	1	100,000	20,000	100,000
Kernite	4	36,000 - 84,000	200,000	240,000
Omber	4	18,000 - 42,000	200,000	120,000
Pyroxeres	13	24,000 - 60,000	1,620,000	486,000

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
F	3x Emergent Patroller	N/A	35	1750 m/s	15km	8km @ 250 m/s	8, 40 (5s)	10, 76 (9s)	3,000
F	2x Emergent Watchman	Neut	35	1925 m/s	15km	5km @ 275 m/s	4, 20 (5s)	10, 76 (9s)	2,000

Average Frontier Deposit

Ore values are approximate. They may change depending on the class of the system.

Ore Type	# of Asteroids	Size (m3 each)	Size Total (units)	Size Total (m3)
Arkonor	3	160,000	30,000	480,000
Bistot	3	213,328	39,999	639,984
Gneiss	6	50,000 - 2,000,000	450,000	2,250,000
Kernite	20	18,000	300,000	360,000
Omber	15	12,000	300,000	180,000
Pyroxeres	3	60,000 - 90,000	700,000	210,000

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
F	3x Emergent Patroller	N/A	35	1750 m/s	15km	8km @ 250 m/s	8, 40 (5s)	10, 76 (9s)	3,000
C	1x Awakened Patroller	N/A	150	1190 m/s	30km	15km @ 170 m/s	20, 100 (5s)	20, 300 (15s)	19,167

Unexceptional Frontier Deposit

Ore values are approximate. They may change depending on the class of the system.

Ore Type	# of Asteroids	Size (m3 each)	Size Total (units)	Size Total (m3)
Arkonor	1	480,000	30,000	480,000
Bistot	1	800,000	50,000	800,000
Gneiss	1	300,000	60,000	300,000
Kernite	1	480,000	400,000	480,000
Omber	1	240,000	400,000	240,000

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
F	1x Emergent Escort	Web	35	2100 m/s	15km	5km @ 300 m/s	10, 50 (5s)	14, 112 (9s)	1,300
F	2x Emergent Patroller	N/A	35	1750 m/s	15km	8km @ 250 m/s	8, 40 (5s)	10, 76 (9s)	3,000
F	2x Emergent Watchman	Neut	35	1925 m/s	15km	5km @ 275 m/s	4, 20 (5s)	10, 76 (9s)	2,000

Exceptional Core Deposit

Ore values are approximate. They may change depending on the class of the system.

Ore Type	# of Asteroids	Size (m3 each)	Size Total (units)	Size Total (m3)
Arkonor	4	320,000	80,000	1,280,000
Bistot	5	320,000 - 640,000	120,000	1,920,000
Gneiss	6	100,000 - 200,000	160,000	800,000
Kernite	12	48,000 - 144,000	1,000,000	1,200,000
Omber	12	24,000 - 72,000	1,000,000	600,000
Pyroxeres	10	36,000 - 54,000	1,530,000	459,000

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
BS	1x Sleepless Sentinel	Web, Neut & Disrupt	400	1125 m/s	75km	19km @ 125 m/s	202, 1008 (5s)	264, 4738 (18s)	147.714

Infrequent Core Deposit

Ore values are approximate. They may change depending on the class of the system.

Ore Type	# of Asteroids	Size (m3 each)	Size Total (units)	Size Total (m3)
Arkonor	2	25,000	400,000	1,280,000
Bistot	3	35,000	560,000	1,920,000
Gneiss	4	45,000	225,000	800,000
Kernite	11	400,000	480,000	1,200,000
Omber	10	400,000	240,000	600,000
Pyroxeres	11	868,000	260,400	459,000

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
C	2x Awakened Defender	N/A	150	1480 m/s	45km	15km @ 185 m/s	28, 140 (5s)	28, 420 (15s)	26,833

All Ore Anomalies can spawn in any J-Space system, though Core Deposits are considerably more common in C5 and C6 systems.



Isolated Core Deposit

Ore values are approximate. They may change depending on the class of the system.

Ore Type	# of Asteroids	Size (m3 each)	Size Total (units)	Size Total (m3)
Arkonor	6	96,000	36,000	576,000
Bistot	6	128,000	48,000	768,000
Gneiss	6	60,000	72,000	360,000
Kernite	6	144,000	720,000	864,000
Omber	6	72,000	720,000	432,000

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
C	1x Awakened Watchman	Neut	150	1400 m/s	53km	30km @ 200 m/s	20, 100 (5s)	10, 300 (15s)	19,167
F	2x Emergent Patroller	N/A	35	1750 m/s	15km	8km @ 250 m/s	8, 40 (5s)	10, 76 (9s)	3,000

Rarified Core Deposit

Ore values are approximate. They may change depending on the class of the system.

Ore Type	# of Asteroids	Size (m3 each)	Size Total (units)	Size Total (m3)
Arkonor	1	1,600,000	100,000	1,600,000
Bistot	1	2,560,000	160,000	2,560,000
Gneiss	1	1,000,000	200,000	1,000,000
Kernite	4	360,000	1,200,000	1,440,000
Omber	3	180,000 - 240,000	1,000,000	600,000
Pyroxeres	6	48,000	960,000	288,000

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
BS	1x Sleepless Sentinel	Web, Neut & Disrupt	400	1125 m/s	75km	19km @ 125 m/s	202, 1008 (5s)	264, 4738 (18s)	147.714
F	2x Awakened Sentinel	Web	150	1800 m/s	60km	15km @ 200 m/s	36, 180 (5s)	36, 540 (15s)	42,167

Uncommon Core Deposit

Ore values are approximate. They may change depending on the class of the system.

Ore Type	# of Asteroids	Size (m3 each)	Size Total (units)	Size Total (m3)
Arkonor	4	160,000	40,000	640,000
Bistot	6	160,000	60,000	960,000
Gneiss	1	350,000	70,000	350,000
Kernite	7	98,400 - 103,200	590,000	708,000
Omber	5	72,000	600,000	360,000
Pyroxeres	5	23,400 - 42,000	500,000	150,000

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
C	1x Awakened Escort	N/A	150	980 m/s	68km	45km @ 140 m/s	44, 220 (5s)	10, 150 (15s)	12,000
F	2x Emergent Watchman	Neut	35	1925 m/s	15km	5km @ 275 m/s	4, 20 (5s)	10, 76 (9s)	2000

Unusual Core Deposit

Ore values are approximate. They may change depending on the class of the system.

Ore Type	# of Asteroids	Size (m3 each)	Size Total (units)	Size Total (m3)
Arkonor	1	70,000	1,120,000	480,000
Bistot	1	100,000	1,600,000	800,000
Gneiss	1	120,000	600,000	300,000
Kernite	4	800,000	960,000	480,000
Omber	3	800,000	480,000	240,000

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
C	2x Awakened Patroller	n/a	150	1190 m/s	30km	15km @ 170 m/s	20, 100 (5s)	20, 300 (15s)	19,167

Shattered Debris Field

Ore values are approximate. They may change depending on the class of the system.

Ore Type	# of Asteroids	Size (m3 each)	Size Total (units)	Size Total (m3)
Prime Arkonor	4	800,000 - 1,200,000	250,000	4,000,000
Monoclinic Bistot	7	640,000 - 1,280,000	460,000	7,360,000
Prismatic Gneiss	3	300,000 - 350,000	200,000	1,000,000
Fiery Kernite	1	25,612	21,344	25,612
Luminous Kernite	7	20,884 - 38,515	159,218	191,058
Kernite	10	14,395 - 32,688	203,168	243,798
Viscous Pyroxeres	3	19,890 - 26,350	236,952	71,084
Solid Pyroxeres	3	17,965 - 25,792	230,394	69,117
Pyroxeres	16	11,544 - 34,777	1,163,934	349,174

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
F	2x Emergent Defender	Web	35	2160 m/s	15km	7km @ 270 m/s	12, 56 (5s)	12, 106 (9s)	4200
C	1x Awakened Defender	N/A	150	1480 m/s	45km	15km @ 185 m/s	28, 140 (5s)	28, 420 (15s)	26,833

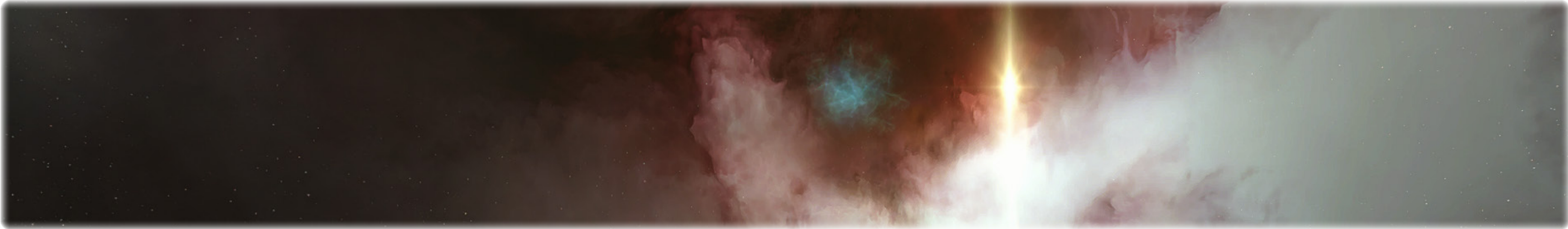
Shattered Ice Field

Ore values are approximate. They may change depending on the class of the system.

Ice Type	# of Asteroids	Size (m3 each)	Size Total (units)	Size Total (m3)
Thick Blue Ice	22	139,000 - 163,000	3,434	3,434,000
Enriched Clear Icicle	22	139,000 - 163,000	3,436	3,436,000
Dark Glitter	27	192,000 - 209,000	5,401	5,401,000
Gelidus	22	55,000 - 65,000	1,378	1,378,000
Smooth Glacial Mass	21	139,000 - 163,000	3,228	3,228,000
Glare Crust	45	36,000 - 56,000	2,040	2,040,000
Krystallos	26	44,000 - 56,000	1,310	1,310,000
Pristine White Glaze	20	139,000 - 163,000	3,100	3,100,000

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
F	2x Emergent Defender	Web	35	2160 m/s	15km	7km @ 270 m/s	12, 56 (5s)	12, 106 (9s)	4200
C	1x Awakened Defender	N/A	150	1480 m/s	45km	15km @ 185 m/s	28, 140 (5s)	28, 420 (15s)	26,833

Shattered Debris Field and Shattered Ice Field, as the name implies, will only spawn in Shattered Wormhole Systems.





Section : 9

Gas Huffing

Gas Huffing

Gas Huffing (more accurately referred to as “Gas Harvesting”) is one of the most profitable resource harvesting options in the game and is one of the best known facets of wormholing, perhaps due to its possible profit, its low skill entry point, and the ease of simply daytripping into a wormhole for gas.

Whilst the act of huffing gas is fundamentally as simple as strap-ping Gas Scoops to a ship, finding a cloud and harvesting the gas until such time as you need to run, this section of the Primer aims to give a thorough breakdown on how to make the most out of this resource.

Whether you’re looking to fly a Venture, Prospect, or barge, and whether you’re looking to huff purely as a daytripper or as part of a larger wormholing operation, this section will cover everything from how to find the sites and the differences between them, to the different methods of gas harvesting, and some sample ship fits to get you started.



What is Gas in EVE Online?

Gas is a harvestable resource that comes in three broad types, **mykoserocin**, **cytoserocin**, and **fullerene**. The two serocin types are used in booster production but are not found in J-Space so we will instead be focusing on fullerenes - which are exclusively found in J-Space.

Fullerene gasses are used in Tech 3 and Capital Ship production, making them ever in demand. This, coupled with the inherent risks of J-Space harvesting makes the harvest and sale of fullerenes a lucrative opportunity.

Fullerene gas sites can spawn in any class of J-Space system, with the exception of Instrumental Core Reservoirs and Vital Core Reservoirs, which only spawn in C5 and C6 systems; and the fullerenes themselves come in a number of different flavours with different values.

Type	Volume (m3)	Found In	Value
C50	1	Barren Perimeter Reservoir; Sizable Perimeter Reservoir	Low
C60	1	Token Perimeter Reservoir; Barren Perimeter Reservoir	Low
C70	1	Minor Perimeter Reservoir; Token Perimeter Reservoir	Mid
C72	2	Ordinary Perimeter Reservoir; Minor Perimeter Reservoir	Mid
C84	2	Sizable Perimeter Reservoir; Ordinary Perimeter Reservoir	Low
C28	2	Bountiful Frontier Reservoir; Vast Frontier Reservoir	Mid
C32	5	Vast Frontier Reservoir; Bountiful Frontier Reservoir	Low
C320	5	Instrumental Core Reservoir; Vital Core Reservoir	High
C540	10	Vital Core Reservoir; Instrumental Core Reservoir	High

Pilots will need to make sure that they have gas clouds displayed in their overview, as they are not selectable by default.

To do this, right click the overview, select **Open Overview Settings**, select the **Filter** tab, open the **Celestials** folder, and ensure that the **Harvestable Clouds** box is checked.

Skills

Gas Harvesting has very few skills related to it. The primary skill is **Gas Cloud Harvesting**, found under the Resource Harvesting tab of the skill book, and requires **Mining IV** to train.

This skill simply allows pilots to fit one Gas Cloud Scoop per skill level, and level 5 allows for Tech 2 Gas Cloud Scoops (which have double the yield of the Tech 1 Gas Cloud Scoops) to be fitted. It is recommended to train this skill at least to 2 for the ability to fit both scoops, but pilots keen on making the most out of a Gas Harvesting career should train to 5.

Additionally, Ventures and Prospects decrease their gas harvesting cycle duration with the Mining Frigate skill. This is the only other skill that increases gas harvesting yield.

General fitting and tanking skills are also recommended in order to safely fly a well fitted harvesting ship. We will discuss these ships in detail later.

Equipment

To harvest gas, you need Gas Cloud Scoops (for a Venture or Prospect) or Gas Harvesters (for barges) and a ship to put them on. There are very few real options in fitting a gas harvesting ship.

Unlike regular mining, there are no modules or rigs to increase gas harvesting yield. There are also no gas equivalents to the Mining Laser Upgrade.

For each level of the Gas Cloud Harvesting skill you can fit one gas cloud scoop or gas harvester (up to a total of 5 at skill level V); all gas cloud miners have a range of 1.5 km

Once the gas harvest modules are fitted, other slots should be fitted for survivability and navigation, such as tank modules, and propulsion.

Gas Huffing

Methods for Harvesting Gas

At its most basic level, gas harvesting is near identical to asteroid mining; equip the appropriate harvesting module to a ship, locate a gas cloud, approach and target it, and activate the harvesting module. At the end of each module cycle, gas will be deposited into the cargo hold or ore bay.

There are, however, two notable differences. Firstly in the act of finding a gas site. Asteroid sites do not need scanning down first, whereas gas sites do. As such, pilots will either need probe launchers fitted to their mining ship, or will need to use a seperate ship to locate and bookmark the sites first. In a wormholing corporation, other pilots may have already bookmarked gas sites and added them to Tripwire.

Sleepers

The second main difference is that gas sites are defended by Sleepers, not belt rats, and these are significantly more dangerous to a mining vessel.

The first time that a pilot lands, uncloaked, on grid with a gas cloud, a hidden timer is started, and 20 minutes later Sleepers will spawn on the site. The type and number of Sleepers that spawn is set per site and will be detailed later.

The danger of these Sleepers gives rise to three main methods of gas cloud harvesting.



Method #1: Ninja Huffing

Ninja Huffing is probably the most common of all gas harvesting methods, and at its core can be summarised as: “Get in, grab as much as you can, and get out before the Sleepers destroy you”

For this approach, cheap Ventures are usually used as you don’t need the larger hold, smaller signature radius, and cloaking functionality of the more expensive Prospect. These are usually fitted with minimal tank, and maximum align and warp functionality.

Sleepers spawn in a gas cloud 15-20 minutes after the first pilot lands, uncloaked, on grid with the cloud. As such, many pilots opt to start a 15 minute timer on their phone or other device as they initiate warp to the cloud, sit stationary at the cloud’s centre, and warp out as soon as the timer alerts them. You do not need to “pre-align” as a stationary ship faces every direction at once.

Remember, you may not be the first person to warp to the site, so the hidden timer may already be active on arrival! D-Scan judiciously, and be prepared to warp out as soon as someone else lands on grid! One of the advantages of sitting at the centre of the cloud is that this will decloak anyone attempting to agres you, but an Interdictor Destroyer landing on zero and immediately dropping an Interdiction Sphere will still cause big problems!

Method #2: Jedi Huffing in a Prospect

Jedi Huffing is ship specific and will require a pilot to be flying a Prospect, with good skills in Expedition Frigates, and Navigation skills. The basic concept is that the Prospect, with its high flight velocity and very small signature radius, will be able to avoid the majority of damage that the Sleepers put out, orbiting the gas cloud at high speeds, and using a Shield Booster to repair any incidental damage that they do apply.

The biggest advantage of this method is that it is possible to harvest the entire cloud, rather than whatever you can grab before the Sleepers spawn in.

However, Jedi Huffing is not without its own inherent risks and downsides. Firstly, it is a much more skill intensive method, requiring the Expedition Frigates skill trained high, along with good levels of Navigation, Acceleration Control, Afterburner, Evasive Maneuvering, and Fuel Conservation.

The second concern is that a Jedi fit Prospect will cost in the region of 60m ISK, some ten times that of the Ninja Venture. Whilst the ability to harvest the full cloud may increase the payoff, the loss of a ship to another pilot is significantly more expensive.

Finally, it should be noted that both the Prospect itself and the Expedition Frigates skill, along with higher tiers of the required Navigation skills, are unavailable to Alpha Clones.

Method #3: Clearing the Sites

This may appear to be obvious, but it is astonishingly rare of an approach. If the Sleepers are likely to cause issues for someone harvesting the gas, could we not simply destroy the Sleepers?

Absolutely! The main advantage of this is that the pilots harvesting gas simply never have to worry about Sleepers spawning because they’re already gone, and so even Ventures can gladly sit in the cloud and harvest until their holds are full (obviously being aware of the possibility of hostile pilots).

The second advantage is that Sleepers will drop so-called “Blue Loot” which can be sold on the market for a guaranteed price, alongside valuable salvage if one has the skills to collect it.

The only notable issue with this approach is that it requires a combat vessel, which not all harvesters may have, or another pilot to do the dirty work for you (though they will get their own rewards as mentioned above), and that one must wait for the Sleepers to spawn before they can be dealt with.

Gas Huffing

Ninja Huffing Venture

[Venture, Ninja Gas Huffer]
[empty low slot]
5MN Microwarpdrive I
[empty med slot]
[empty med slot]
Gas Cloud Scoop I
Gas Cloud Scoop I
Core Probe Launcher I, Core Scanner Probe I
[empty rig slot]
[empty rig slot]
[empty rig slot]

At first glance, this doesn't look like much of a suggested fit at all, but that's because this is ultimately all that is needed. This fit is cheap and works. Anything additional is extra cost but you can use those slots to assist if needed.

The low slot could be fitted with **Inertial Stabilizers** or **Nanofiber Internal Structures** in order to decrease your time to warp. This will help you navigate to and from the cloud faster, and may help you escape faster if an uninvited guest arrives.

The mid slots are usually where your tank options go. Do note that **Shield Extenders**, whilst commonly used, also increase your signature radius, making it faster for hostiles to lock onto you. Alternatively, a **Scan Rangefinding Array** could be used to make up for lower scanning skills.

The rigs have some options. If you're lacking decent scanning skills, these could be fitted with **Gravity Capacitor Upgrades**. Alternatively, **Low Friction Nozzle Joints** could be used to reduce your time to warp.



Jedi Huffing Prospect

[Prospect, Jedi Huffer]
Capacitor Flux Coil II
Capacitor Flux Coil II
Damage Control II
Overdrive Injector System II
Multispectrum Shield Hardener II
Small Shield Booster II
1MN Afterburner II
Gas Cloud Scoop II
Gas Cloud Scoop II
Covert Ops Cloaking Device II
Small Polycarbon Engine Housing I
Small Polycarbon Engine Housing I

The aim of this fit is simply to capitalise on the Prospect's bonuses to flight velocity and signature radius reduction to essentially avoid all incoming damage. For most gas cloud sites, the Prospect will **Signature Tank** the vast majority of incoming damage and will often simply be out of range of the Sleepers.

Some incoming damage is unavoidable, hence the Small Shield Booster II.

The best candidates for Jedi Huffing are the Minor Perimeter Reservoir, Ordinary Perimeter Reservoir, and Instrumental Core Reservoir. Others can be Jedi Huffed, but contain Sleepers with webs or neutralizers that make this risky.

It should also be noted that there are risks with the Ordinary Perimeter Reservoir due to the 5 Sentry Towers immediately present. Pilots should warp to this site at 100km cloaked, bookmark the larger cloud, then warp out and back in to this bookmark.

Gas Huffing

Barren Perimeter Reservoir

All times assume a Venture with T2 Gas Scoops, Mining Frigate V.

Units	Gas Type	Total m3	# Cycles	# Hours	Value
6,000	Fullerite-C60	6,000	76	0.64	Low
12,000	Fullerite-C50	12,000	150	1.26	Mid

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
F	3x Emergent Patroller	n/a	35	1750 m/s	15km	8km @ 250 m/s	8, 40 (5s)	10, 76 (9s)	3000
F	2x Emergent Watchman	Neut	35	1925 m/s	15km	5km @ 275 m/s	4, 20 (5s)	10, 76 (9s)	2000

Total of 6GJ/s Neut, and 82 dps - 2,000,000 ISK Blue Loot

Minor Perimeter Reservoir

All times assume a Venture with T2 Gas Scoops, Mining Frigate V.

Units	Gas Type	Total m3	# Cycles	# Hours	Value
6,000	Fullerite-C72	12,000	150	1.26	Mid
12,000	Fullerite-C70	12,000	150	1.26	Mid

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
C	2x Awakened Patroller	n/a	150	1190 m/s	30km	15km @ 170 m/s	20, 100 (5s)	20, 300 (15s)	19,167

Total of 80 dps - 2,000,000 ISK Blue Loot

Ordinary Perimeter Reservoir*

All times assume a Venture with T2 Gas Scoops, Mining Frigate V.

Units	Gas Type	Total m3	# Cycles	# Hours	Value
6,000	Fullerite-C84	12,000	150	1.26	Low
12,000	Fullerite-C72	24,000	300	2.5	Mid

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
N/A	5x Vigilant Sentry Tower	n/a	50	0 m/s	250km	n/a	52, 780 (15s)	n/a	10,833

Total of 260dps / 3,900 alpha - No Blue Loot

***Sentries are spawned with site and will be active IMMEDIATELY!**

Sizeable Perimeter Reservoir

All times assume a Venture with T2 Gas Scoops, Mining Frigate V.

Units	Gas Type	Total m3	# Cycles	# Hours	Value
6,000	Fullerite-C50	6,000	76	0.64	Mid
12,000	Fullerite-C84	24,000	300	2.5	Low

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
F	3x Emergent Patroller	n/a	35	1750 m/s	15km	8km @ 250 m/s	8, 40 (5s)	10, 76 (9s)	3000
F	3x Emergent Watchman	Neut	35	1925 m/s	15km	5km @ 275 m/s	4, 20 (5s)	10, 76 (9s)	2000

Total of 9GJ/s of neut, and 96dps - 2,400,000 ISK Blue Loot

Token Perimeter Reservoir

All times assume a Venture with T2 Gas Scoops, Mining Frigate V.

Units	Gas Type	Total m3	# Cycles	# Hours	Value
6,000	Fullerite-C70	6,000	76	0.64	Low
12,000	Fullerite-C60	12,000	150	1.26	Low

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
F	2x Emergent Escort	Web	35	2100 m/s	15km	5km @ 300 m/s	10, 50 (5s)	14, 112 (9s)	1300
C	1x Awakened Watchman	Neut	150	1400 m/s	53km	30km @ 200 m/s	20, 100 (5s)	10, 300 (15s)	19,167

Total 6GJ/s of neut, and 78dps - 1,800,000 ISK Blue Loot - **Very low value site**

Bountiful Frontier Reservoir

All times assume a Venture with T2 Gas Scoops, Mining Frigate V.

Units	Gas Type	Total m3	# Cycles	# Hours	Value
4,000	Fullerite-C32	20,000	250	2.08	Mid
20,000	Fullerite-C28	40,000	500	4.16	Mid

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
F	6x Emergent Defender	Web	35	2160 m/s	15km	7km @ 270 m/s	12, 56 (5s)	12, 106 (9s)	4200
C	4x Awakened Defender	N/A	150	1480 m/s	45km	15km @ 185 m/s	28, 140 (5s)	28, 420 (15s)	26,833

Total of 368dps / 3,212 alpha - 20,000,000 ISK Blue Loot - **Lots of webs! Watch speed tank!**

Vast Frontier Reservoir

All times assume a Venture with T2 Gas Scoops, Mining Frigate V.

Units	Gas Type	Total m3	# Cycles	# Hours	Value
4,000	Fullerite-C28	8,000	100	0.84	Low
20,000	Fullerite-C32	100,000	1250	10.42	Mid

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
C	4x Awakened Defender	N/A	150	1480 m/s	45km	15km @ 185 m/s	28, 140 (5s)	28, 420 (15s)	26,833
C	4x Awakened Upholder	Web & Neut	150	1728 m/s	79km	30km @ 216 m/s	28, 140 (5s)	14, 210 (15s)	12,250

Total of 24GJ/s Neut, 392dps - 23,200,000 ISK Blue Loot

May spawn in 2 waves with 10 mins delay

Instrumental Core Reservoir

All times assume a Venture with T2 Gas Scoops, Mining Frigate V.

Units	Gas Type	Total m3	# Cycles	# Hours	Value
24,000	Fullerite-C320	120,000	1,500	12.5	High
2000	Fullerite-C540	20,000	250	2.08	High

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
BS	4x Sleepless Sentinel	Web, Disrupt & Neut	400	1125 m/s	75km	19km @ 125 m/s	202, 1008 (5s)	264, 4738 (9s)	147,714

Total 72GJ/s Neut, 1864dps - 63,600,000 ISK Blue Loot

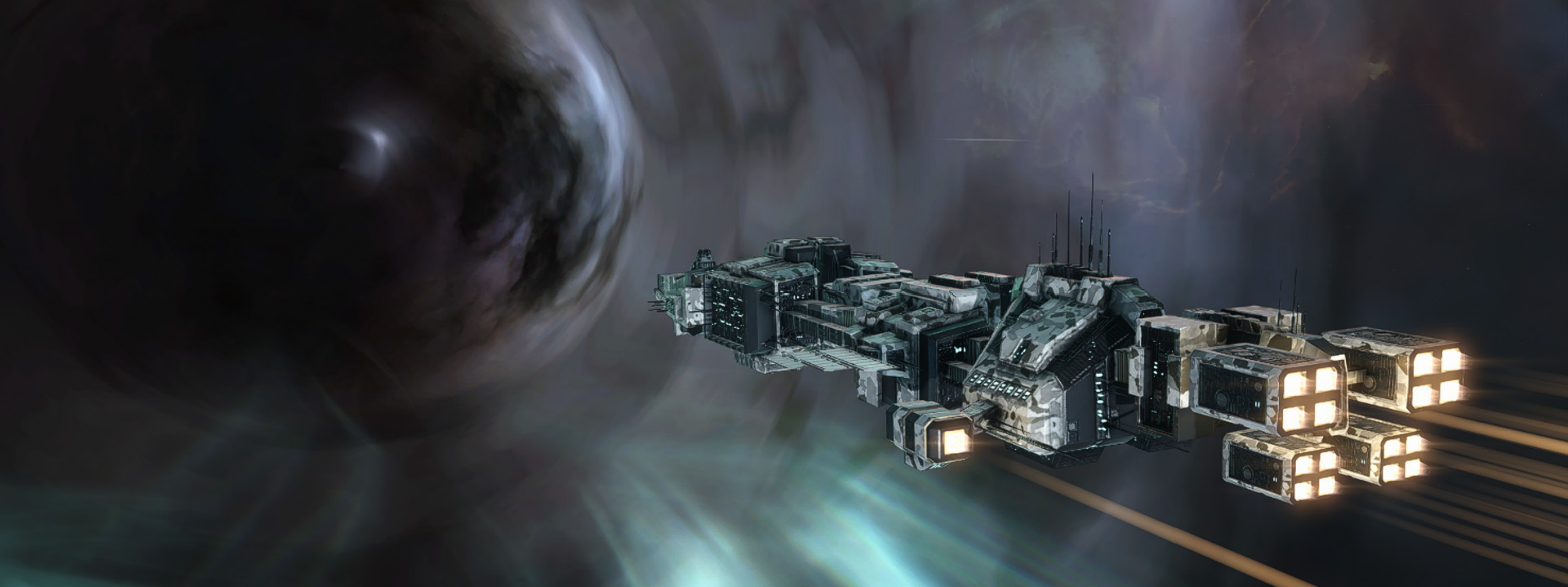
Vital Core Reservoir

All times assume a Venture with T2 Gas Scoops, Mining Frigate V.

Units	Gas Type	Total m3	# Cycles	# Hours	Value
2,000	Fullerite-C320	10,000	126	1.06	High
24,000	Fullerite-C540	240,000	3000	25	High

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
F	4x Emergent Keeper	Neut & Remote Rep	35	2880 m/s	15km	5km @ 320 m/s	8, 36 (5s)	16, 136 (9s)	4400
BS	4x Sleepless Keeper	Neut	400	945 m/s	300km	65km @ 105 m/s	490, 2448 (5s)	76, 1354 (18s)	88,629

Total of 60GJ/s Neut, 2360dps, 104HP/s of repairs - 74,800,000 ISK Blue Loot



Section : 10

Hauling

Hauling

There will come a time in every pilots career when they need to move more stuff than can fit in the cargo hold of any of their usual ships. Pilots who have completed their starting race’s Career Agent Missions will already have one of their races Tech 1 Haulers (e.g. the Wreathe for Minmatar pilots, the Tayra for Caldari, etc) but whilst these can carry more than the standard ship, they’re not ideal for the risks of J-Space transportation.

Enter the Tech 2 Transport ships; Blockade Runners and Deep Space Transports. These ships have bonuses and capabilities that allow them to handle the additional dangers inherent in J-Space, helping them to avoid and survive the ganks and gatecamps so common in this environment.

The Requirements

Both Deep Space Transports and Blockade Runners require pilots to have active Omega to train the required skills, and to undock.

For skills, the required Racial Hauler skill should be trained all the way to level 5, and the Transport Ship skill trained as high as possible. Strong Navigation skills, especially Evasive Maneuvering, is strongly recommended, as are the Jury Rigging and Astronautics Rigging skills to reduce the downsides of fitted rigs. Finally, relevant tanking skills are highly recommended, specifically skills like Shield Management and Shield Upgrades that will increase your transport’s EHP.

In addition, pilots should be comfortable performing the MWD/ Cloak trick, which is detailed later.



Interdiction Nullifiers

Both Deep Space Transports and Blockade Runners are capable of fitting Interdiction Nullifiers. These wonderful High Slot modules can be activated to nullify the effects of Interdiction Spheres, allowing the fitted ship to warp out from inside one (assuming they are not also affected by Warp Disruptors, or Warp Scramblers).

It is important to note that these modules **do not work** if the ship also has a Burst Jammer or Higgs Anchor fitted!

Module	CPU	Activation Cost	Activation Delay	Duration
Interdiction Nullifier I	38	50 GJ	100 seconds	10 seconds
Compact Interdiction Nullifier	32	50 GJ	130 seconds	12 seconds
Enduring Interdiction Nullifier	38	35 GJ	130 seconds	12 seconds
Interdiction Nullifier II	46	50 GJ	150 seconds	15 seconds

As we can see from the chart above, the standard Tech 1 Interdiction Nullifier has the shortest Activation Delay, which means it can be re-activated sooner if required. This means less time sitting at a Celestial, cloakedm waiting for the cooldown to expire before moving to the next gate.

On the other hand, the Interdiction Nullifier II has the longest duration and can be active for a full 15 seconds. This assists ships with a longer align time to achieve warp whilst still under the effects of the nullifier.

Interdiction Nullifiers can be activated whilst under the effects of a gate cloak. The nullifier lasts as long as the Duration, and during that time, the ship can enter warp while in Interdiction Bubble as if the Interdiction Bubble were not there.

Interdiction Nullifiers negate both warp disruption fields that the ship is currently in and any that the ship could get into after warping (i.e. it negates effect of drag/catch bubbles).

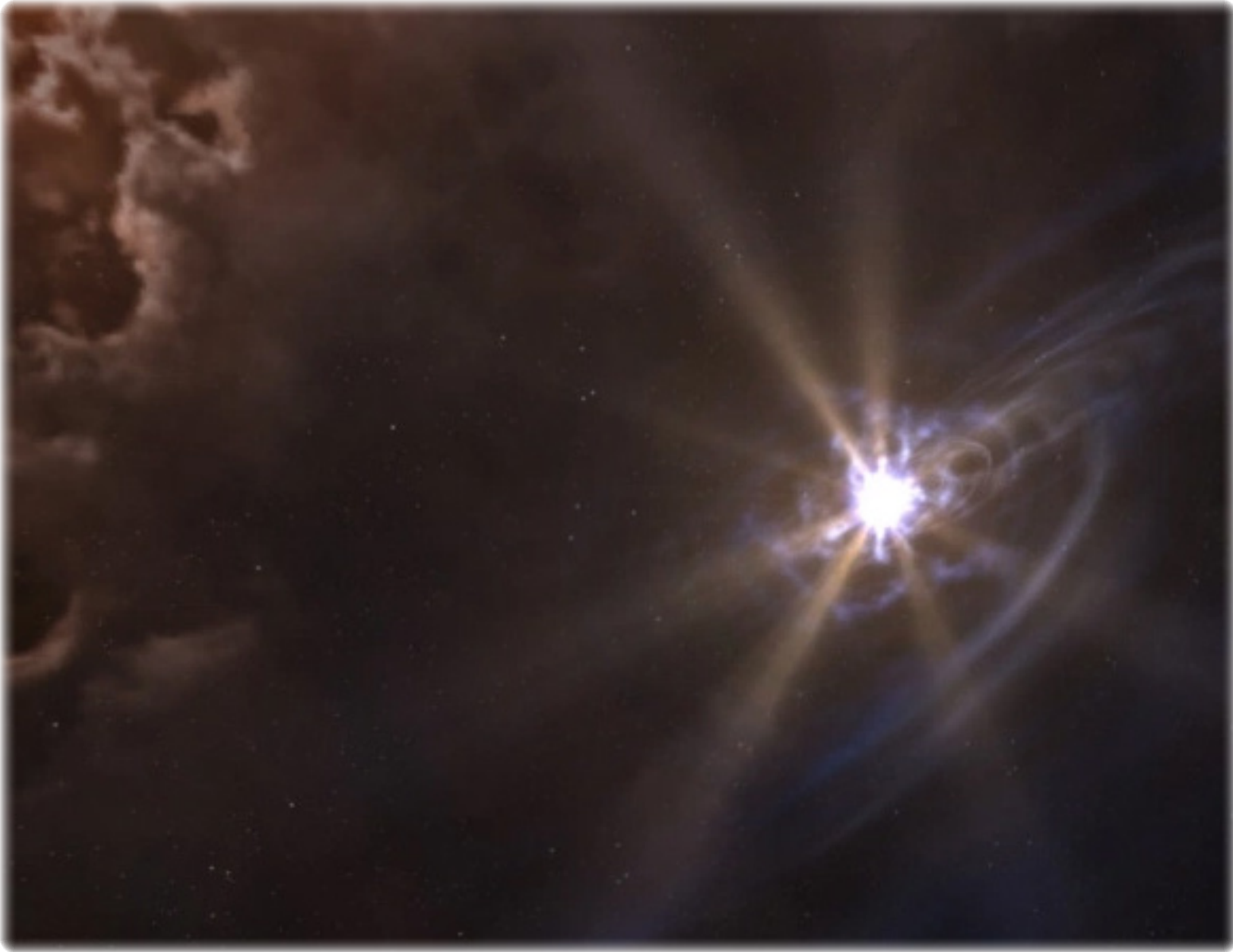
If you fail to warp out of the bubble before your nullifier ends, your ship fails to warp.

Interdiction Nullifiers do come with some downsides. A ship with an Interdiction Nullifier fitted has its drone bandwidth, targeting range, and scan resolution all reduced by 50%.

For a transport vessel, however, none of these downsides actually matter to us.

Finally, whilst this section is detailing Deep Space Transports and Blockade Runners, Interdiction Nullifiers may be fitted to any of the following ships:

- Interceptors
- Tech I Haulers
- Blockade Runners
- Deep Space Transports
- Covert Ops Frigates (except Stealth Bombers)
- Strategic Cruisers
- Victorieux Luxury Yacht



Hauling

Deep Space Transports (DSTs)

Deep space transports are designed with the depths of lawless space in mind. Possessing defensive capabilities far in excess of standard industrial ships, they provide great protection for whatever cargo is being transported in their massive holds. They are, however, some of the slowest ships to be found floating through space.

DSTs are essentially traditional haulers dialled up to 11. Their bonuses are all based around increasing the size of their fleet hangar, their shield or armor resistances, the amount repaired by local shield boosters or armor repairers, and flight velocity. They also all have role bonuses to increase their warp stability, making them harder to pin down, and bonuses to overheating propulsion modules, and tanking modules.

The essence of a DST is the ability to land into a gatecamp, activate an interdiction nullifier, and tank any damage that it takes whilst warping away to safety. Once safe, the DST cloaks up, awaits the cooldown of the interdiction nullifier, and proceeds onwards with its journey.

A DST can be expected to haul around 67,000m³ of cargo thanks to its sizeable fleet hangar.



The Fleet Hangar

A fleet hangar is a special type of cargo bay found on certain ships, including the Deep Space Transports. These sizeable cargo holds can also be made available to other pilots in the same fleet as the DST, allowing them to treat the fleet hangar in a similar way to a cargo container.

Pilots within 2,500m who have been allowed access can open the fleet hangar and move items to and from their own cargo hold. This can be useful for re-arming a fleet with ammunition or other charges.

For our purposes, the main use of a fleet hangar on a DST is to carry large amounts of cargo. It should be noted that a fleet hangar cannot contain assembled and fitted ships, but can carry packaged ones.

A DST starts with a fleet hangar with a capacity of 50,000m³, but all of them gain 5% additional fleet hangar capacity per level in the Transport Ships skill, giving a total of 62,500m³ at level 5.

Cargohold Optimization rigs and Expanded Cargo Hold modules only affect the DSTs standard cargo hold, so don't tend to be used in fitting, with rigs and low slots instead used for tank or agility.

Which Deep Space Transport For You?

Each of the four main empires has its own Deep Space Transport and whilst they do all ultimately each have their own advantages and disadvantages, they all work fairly similarly.

As such, you should really just use the one that appeals to you the most, though it should be noted that if you already have skills in one kind of particular tank, then you should strongly consider a related DST; the Impel and Occator are bonused for armor tanking, whereas the Bustard and Mastodon have bonuses for shield tanking.

Sample Mastodon Fit

[Mastodon, 2023 DST]
'Aura' Warp Core Stabilizer I
Nanofiber Internal Structure II
Inertial Stabilizers II
Inertial Stabilizers II

Caldari Navy Medium Shield Extender
Compact Multispectrum Shield Hardener
Compact Multispectrum Shield Hardener
Medium Micro Jump Drive
50MN Y-T8 Compact Microwarpdrive

Compact Interdiction Nullifier
Improved Cloaking Device II

Medium Ancillary Current Router II
Medium Core Defense Field Extender II

This particular fit has over 60,000 EHP, a Warp Core Stabilizer, a Micro Jump Drive, and an align time of less than 12 seconds, which fits into the 12 second duration of the Compact Interdiction Nullifier. You should tweak this as you see fit to improve alignment or tank.



Hauling

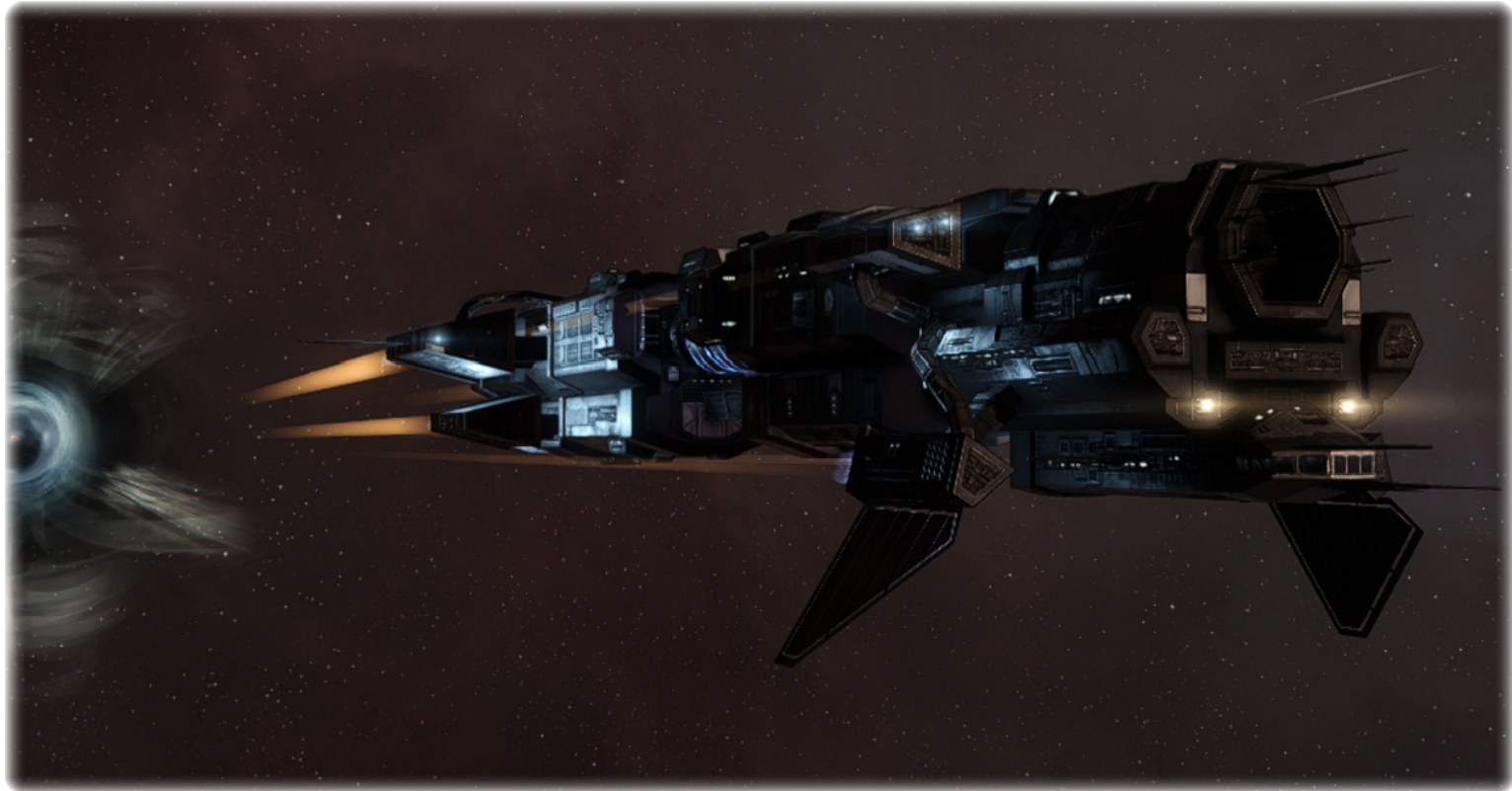
Blockade Runners

Blockade runner transports are the fastest type of industrial available. Utilizing sturdy but lightweight construction materials and sacrificing some cargo space, these haulers are able to reach speeds greater than those of a cruiser while withstanding heavy fire - factors which make them ideal for zipping through dangerous territories with valuable cargo.

Blockade Runners are a very unique type of hauler, specialising in getting in and out of the most hostile of environments. They do this by utilising covert ops cloaking devices, high speeds, and extraordinary agility to maneuver fully cloaked.

Blockade Runners are immune to cargo scanners which, on the face of it seems fantastic as nobody knows what you are hauling. In practice, this means that many gatecampers will simply assume that you are carrying expensive goods, using this bonus to hide it, and take a shot anyway.

As such, the aim of a Blockade Runner is to remain unseen at all times. Get in and get out without them even knowing you were there!



Which Blockade Runner For You?

Each of the four main empires has its own Blockade Runner, and whilst they do all ultimately each have their own advantages and disadvantages, they all work fairly similarly.

As such, you should really just use the one that appeals to you the most, though it should be noted that if you already have skills in one kind of particular tank, then you should strongly consider a related Blockade Runner; the Prorator and Viator are bonused for armor tanking, whereas the Crane and Prowler have bonuses for shield tanking.

Sample Prowler Fit

[Prowler, Prowler]

Inertial Stabilizers II

Inertial Stabilizers II

Inertial Stabilizers II

10MN Y-S8 Compact Afterburner

Republic Fleet Large Shield Extender

Kinetic Shield Amplifier II

Covert Ops Cloaking Device II

Interdiction Nullifier I

Medium Cargohold Optimization II

Medium Cargohold Optimization II

Expanded Cargohold II x3

This particular fit has around 20,000 EHP, so should just about survive a shot from a lucky Tornado. The align time is below 4 seconds, but the Inertial Stabilizers can be swapped out for the Expanded Cargoholds to increase the hold from 6300m³, to 13,000m³ with an align time of under 6 seconds.



Hauling

The MWD/Cloak Trick

The cloak trick is a maneuver that takes advantage of the secondary effects of cloaking devices (reduction to maximum velocity) to reach 75% of maximum velocity, and thus enter warp, more quickly than would normally be possible.

This maneuver is primarily used to avoid being targeted after jumping through a gate by aligning whilst cloaked.

Equipment

You will need:

- one Improved Cloaking Device II
- one Microwarpdrive (MWD) of the correct size for your ship.
5MN for frigates and destroyers,
50MN for cruisers, battlecruisers and haulers,
500MN for battleships
- the shortcuts for these should be placed somewhere easily accessible, as you will need to hit them quickly

You should not use:

- a Prototype Cloaking Device; although it can help to make some of your align time cloaked, it is not possible to reach the required speed to warp instantly after, so the ship will spend a few seconds uncloaked and vulnerable
- a smaller-sized microwarpdrive, as this will not give a high enough velocity bonus
- an afterburner; as this will not give enough velocity bonus. Even an oversized afterburner will not work due to the increase in mass that will reduce acceleration too much.

How It Works

- Hit align to your point of interest.
- Immediately after, activate the cloak.
- Immediately after you activate the cloak, activate the MWD (this works as you can activate non-offensive modules for 5 seconds after you activate a cloaking device).
- When your MWD cycle is about 90-95% complete, deactivate your cloak and spam warp to your point of interest.
- The MWD will deactivate automatically, and when it does you will instantly enter warp.

While a ship is cloaked the cloak will apply 75% speed penalty but at the same time the MWD boosts its speed by 500%. As a result your ship is able to reach at minimum 75% of its unmodified top speed in the ten seconds of single MWD cycle while cloaked.

Since the ship was aligning before the cloak was activated, it will be aligned and at warp speed when the cloak drops. As the cloak deactivates (right before the MWD cycle is complete) the ship is able to enter warp immediately.

This makes for near instant warp. With practice, a pilot can be uncloaked for less than a second total on a gate. It is recommended to practice this maneuver in Hisec.

Larger Ships

Part of the requirement to make the MWD/Cloak Trick work is to have a size-appropriate microwarpdrive, 5MN for a frigate, 50MN for a cruiser, 500MN for a battleship etc.

The Orca is technically a capital-class sized ship, but can only fit 500MN microwarpdrives due to fitting restraints. As such they cannot normally use the MWD/Cloak Trick.

It does however appear that the Orca can use the MWD trick utilizing Overheating on a Microwarpdrive in order to successfully perform the cloak trick, though this should not be taken as a guarantee of success in all cases

For normal capital ships, there are capital sized 50,000MN microwarpdrives, that can allow them to do the same MWD/Cloak trick, although they have a longer cycle-time of 20 seconds and may require agility modules to ensure they get the speed up in time.

Some of the smaller capital ships, like carriers and dreadnoughts, can also use the undersized 500MN microwarpdrives to align in ~15 seconds by pulsing the MWD once then warp shortly after.

While they are normally not agile enough to warp in 10 seconds flat, it's usually much faster than aligning normally or through the use of an appropriately sized 50,000MN microwarpdrive due to its cycle time of 20 seconds.

Freighters are unable to utilize the cloak trick due to not having any fitting slots, and thus cannot equip a cloak or MWD regardless.





Section : 11

Combat Anomalies

Combat Anomalies

Running combat anomalies (often referred to as “ratting” due to originally being hunting “pirates” in K-Space) is probably the single most popular ISK making activity for pilots in EVE Online. In K-Space, ratting is a versatile activity that comes in many different flavours, but in J-Space, as should be expected, things are a little different.

Pilots accustomed to running Agent Missions may be disappointed to know that J-Space has no real analogue since Agents simply do not exist within J-Space. Those accustomed to running Cosmic Signatures (like DED Rated Complexes) will find that the Drifter Hives found in Drifter Wormhole Systems (detailed earlier) are fairly similar, but the closest analogue to how ratting works in J-Space would be Combat Anomalies (like pirate hideaways, dens, or rally points found across K-Space).

In J-Space, your main opponents will be the elusive and secretive and ancient AI of the Sleepers. These are not opponents to be underestimated, and it can surprise many an unwary K-Space Trained Capsuleer as to just how dangerous these opponents can be.

This section of the Primer aims to detail each of the different J-Space Combat Anomalies, where to find them, and how to run them, but again, it should be stressed that the life of a wormholer need not be spent entirely within J-Space, and indeed, should not.

K-Space connections exist and should be utilised by pilots whenever they wish. Having connections that lead to Nullsec may allow for DED Complex ratting, or Combat Anomalies which can be very lucrative. For those living in K-Space, they wake up each day with the same opponents, and the same loot, but this is not the case for a J-Space capsuleer who may one day be ratting Blood Raiders in Delve, the next Guristas Pirates in Venal, and at all times, the options of the Sleeper Combat Anomalies in the wormholes they drift through.

Variety is the spice of life, and wormholers live the spiciest lives of them all!

Finding Combat Anomalies

J-Space Combat Anomalies, much like Ore Anomalies, don’t require scanning down; they appear in the Cosmic Signature list already green, ready to warp to.

Just like the Ore Anomalies, this can be a double-edged sword that pilots should be aware of. If you miss a cloaking ship on D-Scan (or if they enter the system from further than 13.4AU away) they can manually fly in and out of every site in system, cloaked, at range, and watch you ratting, ready to pounce at a moments notice.

How J-Space Combat Anomalies Work

In the J-Space Systems section earlier, this Primer has detailed the names of the different Combat Anomalies that can spawn in the different Classes of J-Space. Naturally, as the Class of system increases, so too does the difficulty of the sites.

It is recommended to check this guide before warping to a site to see full details of what to expect from the enemies within. Each site spawns in waves, with the death of certain enemies triggering the next wave. It is of vital importance to ensure that you do not accidentally trigger the next wave too early, as this can often be fatal. It should be noted that many Sleepers hit hard, many use Neutralizers, Webs, and even Warp Disruptors/Scramblers. You can see which enemies are the triggers in the sections below.

If you feel prepared to run a site, it is strongly suggested to use a Mobile Tractor Unit (MTU) as the ISK earned from Sleeper Sites comes solely from the so-called Blue Loot (because of the colour of the icons) that drops from their wreckage, and from the Salvage. Sleeper Sites do not award bounties.

Drop the MTU immediately and **make sure to bookmark it!** Once the site is complete, warp out, warp back to the bookmark, loot the MTU, scoop it, and move on!

As always in J-Space, judicious use of D-Scan is vital to survival as ratting ships are easy prey for wandering roams of PvP hunters.

Sleeper Loot

As previously stated, the ISK earned from Sleeper Combat Sites comes from so-called Blue Loot. This is dropped from the Sleeper wreckage and sold to NPC Buy Orders at certain stations, similar to how Abyssal Deadspace “Red Loot” works.

When in K-Space, the easiest way to ofind these stations is to right-click a piece of blue loot, Find Details In Market and look for stations with thousands of Buy Orders set at the prices below. Be aware of Player Buy Orders attempting to undercut these prices!

- **Neural Network Analyzers** can be sold for 200,000 ISK and drop in all Sleeper ship classes.
- **Sleeper Data Libraries** can be sold for 500,000 ISK and drop in all Sleeper ship classes.
- **Ancient Coordinates Databases** can be sold for 1,500,000 ISK and can drop from cruisers and battleships.
- **Sleeper Drone AI Nexuses** can be sold for 5,000,000 ISK and drop mostly from battleships in C3 and higher wormholes.

In addition to the blue loot, the Sleeper wreckage can be Salvaged with Salvagers or Salvage Drones for **Ancient Salvage Materials** which are used in T3 Production and are sold to other players.

Keep in mind that some Sleeper ships take a long time to salvage, even with good salvaging skills. Also since a salvaging ship in wormhole fleets is often also responsible for looting the sleeper wrecks; salvaging ships are prime targets for hostile players, and even a solo Stealth Bomber provides a very real threat.

Therefore, unlike with K-space salvaging, stay with your fleet, keep an eye on D-Scan, and consider fitting Warp Core Stabilizer modules in place of Expanded Cargohold modules (as Sleeper loot takes up comparatively little volume).

C1 static wormholes only allow cruisers or below to enter, so can be difficult to role without specialist fit HIC cruiser. These systems are a good introduction to J-Space ratting, although the ISK/hour earnable in these sites is quite low.

These sites can be run in a well-fit T2 Assault Frigate, Destroyers with a T2 fitting, T3 Tactical Destroyers, well fit and flown cruisers, or even a cheap T1 Battlecruiser. Of course, small groups can clear content even faster!

Remember to drop your MTU early (and bookmark it!) as all the ISK comes from the Blue Loot (no bounties!) looted from the wreckage. For a bit of extra ISK, take a Salvage fit Destroyer through to grab the salvage!

C1 Systems tend to be the home of Tech 3 Production Industrial Corps, and due to the low desirability of the content here, PvP roamers are less frequent but **still keep D-Scanning!!**

Perimeter Camp

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
N/A	5x Vigilant Sentry Tower	n/a	50	0 m/s	250km	n/a	52, 780 (15s)	n/a	10,833
F	4x Emergent Patroller	N/A	35	1750 m/s	15km	8km @ 250 m/s	8, 40 (5s)	10, 76 (9s)	3,000
F	2x Emergent Watchman	Neut	35	1925 m/s	15km	5km @ 275 m/s	4, 20 (5s)	10, 76 (9s)	2,000

Wave 2 Trigger: Emergent Watchman

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
F	5x Emergent Patroller	N/A	35	1750 m/s	15km	8km @ 250 m/s	8, 40 (5s)	10, 76 (9s)	3,000
F	2x Emergent Watchman	Neut	35	1925 m/s	15km	5km @ 275 m/s	4, 20 (5s)	10, 76 (9s)	2,000
C	1x Awakened Patroller	n/a	150	1190 m/s	30km	15km @ 170 m/s	20, 100 (5s)	20, 300 (15s)	19,167

Wave 3 Trigger: Awakened Patroller

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
F	2x Emergent Patroller	N/A	35	1750 m/s	15km	8km @ 250 m/s	8, 40 (5s)	10, 76 (9s)	3,000
C	2x Awakened Patroller	n/a	150	1190 m/s	30km	15km @ 170 m/s	20, 100 (5s)	20, 300 (15s)	19,167
C	1x Awakened Watchman	Neut	150	1400 m/s	53km	30km @ 200 m/s	20, 100 (5s)	10, 300 (15s)	19,167

Perimeter Ambush Point

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
N/A	5x Vigilant Sentry Tower	n/a	50	0 m/s	250km	n/a	52, 780 (15s)	n/a	10,833
F	1x Emergent Escort	Web	35	2100 m/s	15km	5km @ 300 m/s	10, 50 (5s)	14, 112 (9s)	1300
C	1x Awakened Escort	N/A	150	980 m/s	68km	45km @ 140 m/s	44, 220 (5s)	10, 150 (15s)	12,000

Wave 2 Trigger: Awakened Escort

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
F	3x Emergent Patroller	N/A	35	1750 m/s	15km	8km @ 250 m/s	8, 40 (5s)	10, 76 (9s)	3,000
C	2x Awakened Escort	N/A	150	980 m/s	68km	45km @ 140 m/s	44, 220 (5s)	10, 150 (15s)	12,000

Wave 3 Trigger: Awakened Escort

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
C	2x Awakened Escort	N/A	150	980 m/s	68km	45km @ 140 m/s	44, 220 (5s)	10, 150 (15s)	12,000
C	2x Awakened Patroller	n/a	150	1190 m/s	30km	15km @ 170 m/s	20, 100 (5s)	20, 300 (15s)	19,167

Phase Catalyst Node

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
N/A	4x Vigilant Sentry Tower	n/a	50	0 m/s	250km	n/a	52, 780 (15s)	n/a	10,833
F	2x Emergent Escort	Web	35	2100 m/s	15km	5km @ 300 m/s	10, 50 (5s)	14, 112 (9s)	1300
F	4x Emergent Watchman	Neut	35	1925 m/s	15km	5km @ 275 m/s	4, 20 (5s)	10, 76 (9s)	2,000

Wave 2 Trigger: Vigilant Sentry Tower

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
C	1x Awakened Escort	N/A	150	980 m/s	68km	45km @ 140 m/s	44, 220 (5s)	10, 150 (15s)	12,000
C	2x Awakened Patroller	n/a	150	1190 m/s	30km	15km @ 170 m/s	20, 100 (5s)	20, 300 (15s)	19,167

Wave 3 Trigger: Awakened Escort

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
F	6x Emergent Patroller	N/A	35	1750 m/s	15km	8km @ 250 m/s	8, 40 (5s)	10, 76 (9s)	3,000
F	3x Emergent Watchman	Neut	35	1925 m/s	15km	5km @ 275 m/s	4, 20 (5s)	10, 76 (9s)	2,000

The Line

The site is composed of a large collection of rocks and debris. It is about 100-150 km wide and long; enemies will spawn fairly far away.

Wave 1

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
F	0-4x Emergent Patroller	N/A	35	1750 m/s	15km	8km @ 250 m/s	8, 40 (5s)	10, 76 (9s)	3,000
F	2x Emergent Watchman	Neut	35	1925 m/s	15km	5km @ 275 m/s	4, 20 (5s)	10, 76 (9s)	2,000
C	1x Awakened Watchman	Neut	150	1400 m/s	53km	30km @ 200 m/s	20, 100 (5s)	10, 300 (15s)	19,167

Wave 2 Trigger: Awakened Watchman (Spawn 70-90km)

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
F	3x Emergent Patroller	N/A	35	1750 m/s	15km	8km @ 250 m/s	8, 40 (5s)	10, 76 (9s)	3,000
C	2x Awakened Patroller	n/a	150	1190 m/s	30km	15km @ 170 m/s	20, 100 (5s)	20, 300 (15s)	19,167

Wave 3 Trigger: Awakened Patroller

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
C	5x Awakened Watchman	Neut	150	1400 m/s	53km	30km @ 200 m/s	20, 100 (5s)	10, 300 (15s)	19,167



Unsecured Perimeter Amplifier

4x Malfunctioning Sleeper Databank

Wave 1

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
C	2x Awakened Patroller	n/a	150	1190 m/s	30km	15km @ 170 m/s	20, 100 (5s)	20, 300 (15s)	19,167

Wave 2 Trigger: Awakened Patroller

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
F	3x Emergent Watchman	Neut	35	1925 m/s	15km	5km @ 275 m/s	4, 20 (5s)	10, 76 (9s)	2,000
C	3x Awakened Escort	N/A	150	980 m/s	68km	45km @ 140 m/s	44, 220 (5s)	10, 150 (15s)	12,000

Wave 3 Trigger: Awakened Escort

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
C	2x Awakened Escort	N/A	150	980 m/s	68km	45km @ 140 m/s	44, 220 (5s)	10, 150 (15s)	12,000
C	2x Awakened Watchman	Neut	150	1400 m/s	53km	30km @ 200 m/s	20, 100 (5s)	10, 300 (15s)	19,167

Forgotten Perimeter Power Relay

4x Forgotten/Lost Sleeper Artifact
0-1x Derelict Talocan Frigate

Wave 1

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
C	2x Awakened Patroller	n/a	150	1190 m/s	30km	15km @ 170 m/s	20, 100 (5s)	20, 300 (15s)	19,167

Wave 2 Trigger: Awakened Patroller

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
F	3x Emergent Watchman	Neut	35	1925 m/s	15km	5km @ 275 m/s	4, 20 (5s)	10, 76 (9s)	2,000
C	3x Awakened Escort	N/A	150	980 m/s	68km	45km @ 140 m/s	44, 220 (5s)	10, 150 (15s)	12,000

Wave 3 Trigger: Awakened Escort

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
C	2x Awakened Escort	N/A	150	980 m/s	68km	45km @ 140 m/s	44, 220 (5s)	10, 150 (15s)	12,000
C	2x Awakened Watchman	Neut	150	1400 m/s	53km	30km @ 200 m/s	20, 100 (5s)	10, 300 (15s)	19,167

Unsecured Perimeter Information Center

3x Malfunctioning Sleeper Databank

Wave 1

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
F	3x Emergent Patroller	N/A	35	1750 m/s	15km	8km @ 250 m/s	8, 40 (5s)	10, 76 (9s)	3,000
F	1x Emergent Watchman	Neut	35	1925 m/s	15km	5km @ 275 m/s	4, 20 (5s)	10, 76 (9s)	2,000
C	1x Awakened Patroller	n/a	150	1190 m/s	30km	15km @ 170 m/s	20, 100 (5s)	20, 300 (15s)	19,167

Wave 2 Trigger: Awakened Patroller

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
F	1x Emergent Escort	Web	35	2100 m/s	15km	5km @ 300 m/s	10, 50 (5s)	14, 112 (9s)	1300
C	3x Awakened Patroller	n/a	150	1190 m/s	30km	15km @ 170 m/s	20, 100 (5s)	20, 300 (15s)	19,167

Wave 3 Trigger: Awakened Patroller

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
F	2x Emergent Patroller	N/A	35	1750 m/s	15km	8km @ 250 m/s	8, 40 (5s)	10, 76 (9s)	3,000
C	2x Awakened Patroller	n/a	150	1190 m/s	30km	15km @ 170 m/s	20, 100 (5s)	20, 300 (15s)	19,167
C	3x Awakened Watchman	Neut	150	1400 m/s	53km	30km @ 200 m/s	20, 100 (5s)	10, 300 (15s)	19,167

Forgotten Perimeter Coronation Platform

3x Forgotten Sleeper Artifact

Wave 1

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
F	1x Emergent Escort	Web	35	2100 m/s	15km	5km @ 300 m/s	10, 50 (5s)	14, 112 (9s)	1300
F	2x Emergent Patroller	N/A	35	1750 m/s	15km	8km @ 250 m/s	8, 40 (5s)	10, 76 (9s)	3,000
C	2x Awakened Patroller	n/a	150	1190 m/s	30km	15km @ 170 m/s	20, 100 (5s)	20, 300 (15s)	19,167

Wave 2 Trigger: Awakened Patroller

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
F	1x Emergent Escort	Web	35	2100 m/s	15km	5km @ 300 m/s	10, 50 (5s)	14, 112 (9s)	1300
C	3x Awakened Patroller	n/a	150	1190 m/s	30km	15km @ 170 m/s	20, 100 (5s)	20, 300 (15s)	19,167

Wave 3 Trigger: Awakened Patroller

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
F	3x Emergent Patroller	N/A	35	1750 m/s	15km	8km @ 250 m/s	8, 40 (5s)	10, 76 (9s)	3,000
C	2x Awakened Patroller	n/a	150	1190 m/s	30km	15km @ 170 m/s	20, 100 (5s)	20, 300 (15s)	19,167
C	3x Awakened Watchman	Neut	150	1400 m/s	53km	30km @ 200 m/s	20, 100 (5s)	10, 300 (15s)	19,167

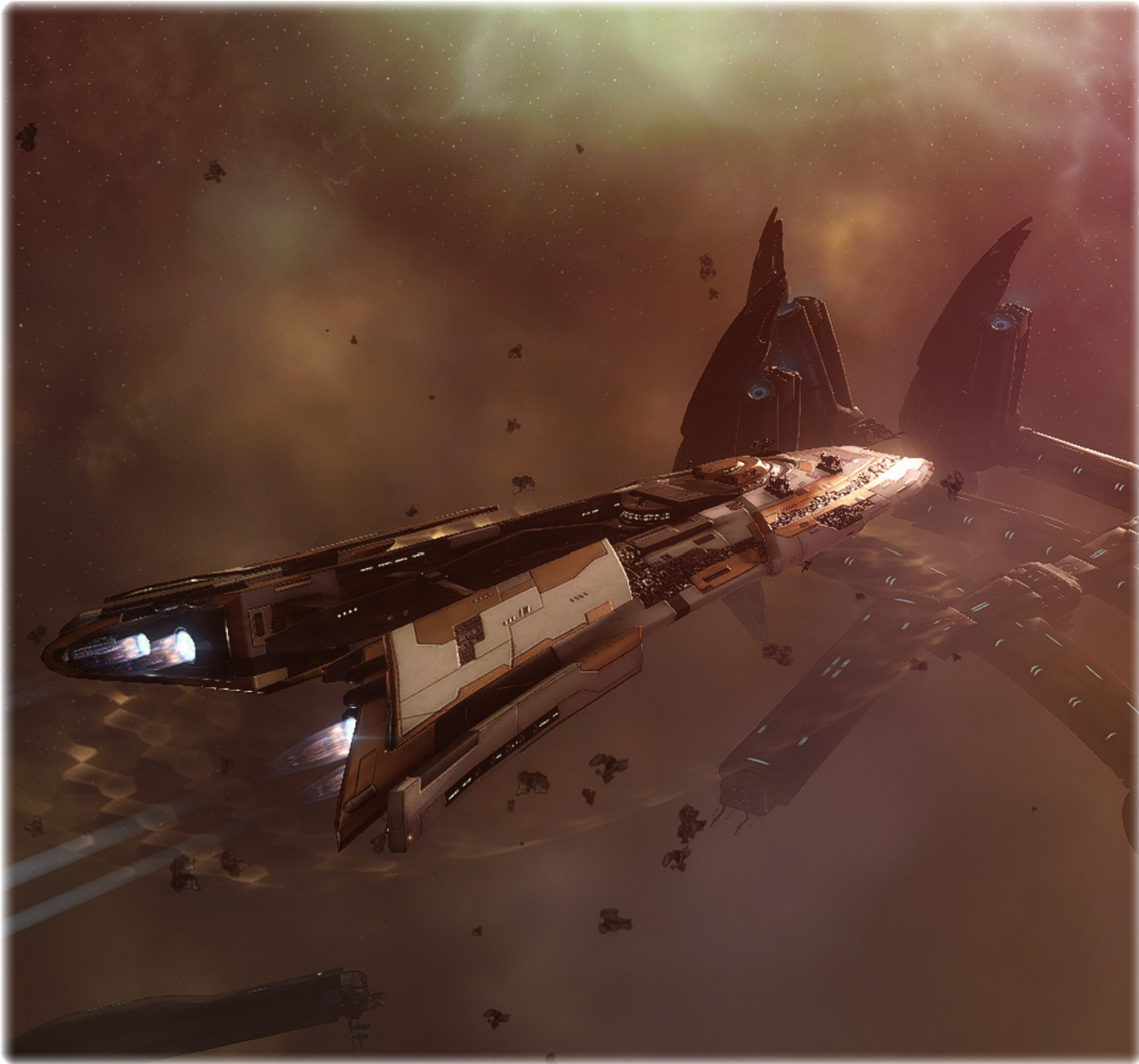


C2 J-Space systems are some of the most popular “entry level” J-Space content as they’re fairly easy to find, and can be completed using fairly low tier ships, yet the ISK/hour is considerably better than C1 systems.

These sites can be run in a T1 Battlecruiser (with the Drake, Harbinger, and Myrmidon being popular choices as detailed later), but certain T2 Cruisers, and T3 Tactical Destroyers can also be used.

It should be noted that alpha damage can be quite high in some of these sites, so pilots attempting to use a T3 Destroyer should be more capable of manual piloting to avoid wrecking hits that simply one-shot your ship.

Remember to drop your MTU early (and bookmark it!) as all the ISK comes from the Blue Loot (no bounties!) looted from the wreckage. For a bit of extra ISK, take a Salvage fit Destroyer through to grab the salvage!



Perimeter Checkpoint

Wave 1

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
N/A	2x Vigilant Sentry Tower	n/a	50	0 m/s	250km	n/a	52, 780 (15s)	n/a	10,833
F	2x Emergent Patroller	n/a	35	1750 m/s	15km	8km @ 250 m/s	8, 40 (5s)	10, 76 (9s)	3,000
C	2-3x Awakened Patroller	n/a	150	1190 m/s	30km	15km @ 170 m/s	20, 100 (5s)	20, 300 (15s)	19,167

Wave 2 Trigger: Awakened Patroller

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
C	2x Awakened Escort	N/A	150	980 m/s	68km	45km @ 140 m/s	44, 220 (5s)	10, 150 (15s)	12,000
C	2x Awakened Patroller	n/a	150	1190 m/s	30km	15km @ 170 m/s	20, 100 (5s)	20, 300 (15s)	19,167

Wave 3 Trigger: Awakened Escort

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
F	3x Emergent Patroller	n/a	35	1750 m/s	15km	8km @ 250 m/s	8, 40 (5s)	10, 76 (9s)	3,000
BS	1x Sleepless Patroller	n/a	400	735 m/s	45km	19km @ 105 m/s	112, 560 (5s)	148, 2632 (18s)	90,000

Perimeter Hangar

Wave 1

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
F	2x Emergent Watchman	Neut	35	1925 m/s	15km	5km @ 275 m/s	4, 20 (5s)	10, 76 (9s)	2,000
C	3x Awakened Patroller	n/a	150	1190 m/s	30km	15km @ 170 m/s	20, 100 (5s)	20, 300 (15s)	19,167

Wave 2 Trigger: Awakened Patroller

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
C	2x Awakened Escort	n/a	150	980 m/s	68km	45km @ 140 m/s	44, 220 (5s)	10, 150 (15s)	12,000
BS	1x Sleepless Watchman	n/a	400	630 m/s	105km	65km @ 90 m/s	272, 1360 (5s)	42, 752 (18s)	40,286

Wave 3 Trigger: Awakened Escort

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
C	2x Awakened Escort	n/a	150	980 m/s	68km	45km @ 140 m/s	44, 220 (5s)	10, 150 (15s)	12,000
BS	1x Sleepless Escort	n/a	400	875 m/s	75km	55km @ 125 m/s	32, 160 (5s)	188, 3384 (18s)	61,333

Ruins of Enclave Cohort 27

The Battleships in this anomaly are only **possible** spawns and are not always present.

Wave 1

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
F	6x Emergent Patroller	N/A	35	1750 m/s	15km	8km @ 250 m/s	8, 40 (5s)	10, 76 (9s)	3,000
BS	1x Sleepless Patroller	n/a	400	735 m/s	45km	19km @ 105 m/s	112, 560 (5s)	148, 2632 (18s)	90,000

Wave 2 Trigger: Emergent Patroller

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
F	1x Emergent Watchman	Neut	35	1925 m/s	15km	5km @ 275 m/s	4, 20 (5s)	10, 76 (9s)	2,000
C	5x Awakened Patroller	n/a	150	1190 m/s	30km	15km @ 170 m/s	20, 100 (5s)	20, 300 (15s)	19,167

Wave 3 Trigger: Awakened Patroller

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
BS	1x Sleepless Escort	n/a	400	875 m/s	75km	55km @ 125 m/s	32, 160 (5s)	188, 3384 (18s)	61,333

Sleeper Data Sanctuary

Wave 1

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
N/A	3x Vigilant Sentry Tower	n/a	50	0 m/s	250km	n/a	52, 780 (15s)	n/a	10,833
F	3x Emergent Patroller	N/A	35	1750 m/s	15km	8km @ 250 m/s	8, 40 (5s)	10, 76 (9s)	3,000
C	2x Awakened Escort	n/a	150	980 m/s	68km	45km @ 140 m/s	44, 220 (5s)	10, 150 (15s)	12,000

Wave 2 Trigger: Awakened Watchman (Spawn 70-90km)

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
F	4x Emergent Escort	Web	35	2100 m/s	15km	5km @ 300 m/s	10, 50 (5s)	14, 112 (9s)	1,300
BS	1x Sleepless Escort	n/a	400	875 m/s	75km	55km @ 125 m/s	32, 160 (5s)	188, 3384 (18s)	61,333

Wave 3 Trigger: Awakened Patroller

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
BS	1x Sleepless Outguard	Neut	400	1050 m/s	135km	15km @ 150 m/s	176, 800 (5s)	210, 3760 (18s)	112,5000

Sample Fits



[Svipul, Sample C2 Runner]

Gyrostabilizer II
Gyrostabilizer II
Coreli B-Type Small Armor Repairer
Multispectrum Energized Membrane II

Shadow Serpentis 1MN Afterburner
Thukker Small Cap Battery
Cap Recharger II
Target Painter II

280mm Howitzer Artillery II
280mm Howitzer Artillery II
280mm Howitzer Artillery II
280mm Howitzer Artillery II
Prototype Cloaking Device I
Expanded Probe Launcher I /OFFLINE

Small Auxiliary Nano Pump II
Small Auxiliary Nano Pump II
Small Explosive Armor Reinforcer II

Hail S x3000
Barrage S x3000

[Harbinger, Sample C2 Runner]

Medium Armor Repairer II
Damage Control II
Multispectrum Energized Membrane II
Multispectrum Energized Membrane II
Medium Armor Repairer II
Heat Sink II

10MN Afterburner II
Cap Recharger II
Cap Recharger II
Cap Recharger II

Core Probe Launcher I
Focused Medium Pulse Laser II
Focused Medium Pulse Laser II
Focused Medium Pulse Laser II
Focused Medium Pulse Laser II
Focused Medium Pulse Laser II
Focused Medium Pulse Laser II

Medium Auxiliary Nano Pump I
Medium Capacitor Control Circuit I
Medium Capacitor Control Circuit I

Hobgoblin II x5
Hammerhead II x5

Microwave M x6
Scorch M x12
Core Scanner Probe I x8
Conflagration M x6
Gamma M x6

[Drake, Simple C2 Runner]

Shield Power Relay II
Shield Power Relay II
Shield Power Relay II
Ballistic Control System II

Large Shield Extender II
Large Shield Extender II
Large Shield Extender II
Missile Guidance Computer II
Pithum C-Type Thermal Dissipation Amplifier
EM Ward Amplifier II

Heavy Missile Launcher II
Heavy Missile Launcher II
Heavy Missile Launcher II
Heavy Missile Launcher II
Heavy Missile Launcher II
Heavy Missile Launcher II
Core Probe Launcher I

Medium Core Defense Field Purger I
Medium Core Defense Field Purger I
Medium Core Defense Field Purger I

Acolyte II x5

Scourge Fury Heavy Missile x3000
Scourge Precision Heavy Missile x3000
Caldari Navy Scourge Heavy Missile x1500
Scourge Heavy Missile x3000

Sample Fits

[Arbitrator, Sample C2 Runner]

Type-D Restrained Shield Power Relay
Type-D Restrained Shield Power Relay
Type-D Restrained Shield Power Relay
Type-D Restrained Shield Power Relay
Drone Damage Amplifier II

Multispectrum Shield Hardener II
Large Shield Extender II
Large Shield Extender II
10MN Afterburner II

Prototype 'Arbalest' Rapid Light Missile Launcher
Prototype 'Arbalest' Rapid Light Missile Launcher
200mm AutoCannon II
200mm AutoCannon II

Medium Core Defense Field Purger I
Medium Core Defense Field Purger I
Medium Core Defense Field Purger I

Valkyrie II x10
Warrior II x10

Barrage S x6000
Caldari Navy Mjolnir Light Missile x6000

[Myrmidon, Sample C2 Runner]

Medium Armor Repairer II
Medium Armor Repairer II
Energized Adaptive Nano Membrane II
Energized Adaptive Nano Membrane II
Drone Damage Amplifier II
Drone Damage Amplifier II

Large Cap Battery II
Cap Recharger II
Cap Recharger II
Drone Navigation Computer II
Medium Micro Jump Drive

Armor Command Burst I
Armor Command Burst I
Drone Link Augmentor I
Core Probe Launcher I /OFFLINE
Auto Targeting System I

Medium Auxiliary Nano Pump I
Medium Auxiliary Nano Pump I
Medium Command Processor I

Acolyte II x5
Hammerhead II x5
Hobgoblin II x5
Praetor II x4

[Confessor, Sample C2 Runner]


Heat Sink II
Heat Sink II
Coreli A-Type Small Armor Repairer
True Sansha Multispectrum Coating
Damage Control II

Shadow Serpentis 1MN Afterburner
Republic Fleet Small Cap Battery
Cap Recharger II

Small Focused Beam Laser II
Small Focused Beam Laser II
Small Focused Beam Laser II
Small Focused Beam Laser II
Expanded Probe Launcher I /OFFLINE
Prototype Cloaking Device I

Small Capacitor Control Circuit II
Small Nanobot Accelerator I
Small Auxiliary Nano Pump II

Aurora S x4
Gleam S x4
Imperial Navy Multifrequency S x4
Imperial Navy Standard S x4



C3 systems are likely one of the most popular classes of J-Space for ratting as their ISK/hour is fairly considerable and can often reimburse the cost of the ship running the sites in a matter of hours.

These sites can be run in certain T1 Battlecruisers, but the time taken to clear sites with these can be slow. Instead, Tech 3 Strategic Cruisers, the Praxis, and certain Faction Cruisers (like the Gila) are popular choices for these sites. This does entail a certain entry level of cost - expect to pay anywhere from 300m too 1bn ISK for a C3 ratting ship.

C3 Systems are very popular with ratters, which makes them very popular with PVP Roamers too, looking for easy ratting targets to kill. You should be constantly using D-Scan and consider keeping friends close by.

Remember to drop your MTU early (and bookmark it!) as all the ISK comes from the Blue Loot (no bounties!) looted from the wreckage. Take a Salvage fit Destroyer through to your MTU bookmarks to grab the salvage for some extra ISK!

Solar Cell Wave 1

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
F	1x Emergent Preserver	Web, Scram, Neut	35	2600 m/s	15km	5km @ 325m/s	14, 70 (5s)	18, 158 (9s)	1,820
C	1x Awakened Upholder	Web, Neut	150	1728 m/s	79km	30km @ 216 m/s	28, 140 (5s)	14, 210 (9s)	12,250
BS	1x Sleepless Defender	Web	400	920 m/s	60km	19km @ 115 m/s	158, 784 (5s)	206, 3684 (18s)	94,000

Wave 2 Trigger: Emergent Preserver

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
F	2x Emergent Defender	Web	35	2160 m/s	15km	7km @ 270m/s	12, 56 (5s)	12, 106 (9s)	4,200
F	2x Emergent Upholder	Neut, Remote Reps	35	1925 m/s	15km	5km @ 275 m/s	4, 20 (5s)	10, 76 (9s)	2,000
C	3x Awakened Defender	n/a	150	1480 m/s	45km	15km @ 185 m/s	28, 140 (5s)	28, 420 (9s)	26,833
C	1x Awakened Upholder	Web, Neut	150	1728 m/s	79km	30km @ 216 m/s	28, 140 (5s)	14, 210 (9s)	12,250

Wave 3 Trigger: Emergent Upholder

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
C	2x Awakened Defender	n/a	150	1480 m/s	45km	15km @ 185 m/s	28, 140 (5s)	28, 420 (9s)	26,833
BS	1x Sleepless Defender	Web	400	920 m/s	60km	19km @ 115 m/s	158, 784 (5s)	206, 3684 (18s)	94,000
BS	1x Sleepless Preserver	Remote Reps	400	1080 m/s	195km	55km @ 135 m/s	46, 2244 (5s)	264, 4738 (18s)	85,867

Fortification Frontier Stronghold Wave 1

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
F	2x Emergent Defender	Web	35	2160 m/s	15km	7km @ 270m/s	12, 56 (5s)	12, 106 (9s)	4,200
C	2x Awakened Defender	n/a	150	1480 m/s	45km	15km @ 185 m/s	28, 140 (5s)	28, 420 (9s)	26,833

Wave 2 Trigger: Awakened Defender

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
C	2x Awakened Defender	n/a	150	1480 m/s	45km	15km @ 185 m/s	28, 140 (5s)	28, 420 (9s)	26,833
C	2x Awakened Upholder	Web, Neut	150	1728 m/s	79km	30km @ 216 m/s	28, 140 (5s)	14, 210 (9s)	12,250

Wave 3 Trigger: Awakened Upholder

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
C	2x Awakened Defender	n/a	150	1480 m/s	45km	15km @ 185 m/s	28, 140 (5s)	28, 420 (9s)	26,833
C	1x Awakened Upholder	Web, Neut	150	1728 m/s	79km	30km @ 216 m/s	28, 140 (5s)	14, 210 (9s)	16,800
C	1x Awakened Preserver	Remote Reps	150	1240 m/s	101km	45km @ 155 m/s	62, 308 (5s)	14, 210 (9s)	12,250
BS	1x Sleepless Upholder	Neut	400	800 m/s	225km	65km @ 100 m/s	382, 1904 (5s)	60, 1052 (18s)	56,400

Outpost Frontier Stronghold Wave 1

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
N/A	3x Wakeful Sentry Tower	n/a	50	0 m/s	250km	n/a	74, 1092 (15s)	n/a	15,167
BS	1x Sleepless Defender	Web	400	920 m/s	60km	19km @ 115 m/s	158, 784 (5s)	206, 3684 (18s)	94,000

Wave 2 Trigger: Sleepless Defender

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
C	4x Awakened Defender	n/a	150	1480 m/s	45km	15km @ 185 m/s	28, 140 (5s)	28, 420 (9s)	26,833

Wave 3 Trigger: Awakened Defender

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
F	4x Emergent Defender	Web	35	2160 m/s	15km	7km @ 270m/s	12, 56 (5s)	12, 106 (9s)	4,200
BS	2x Sleepless Defender	Web	400	920 m/s	60km	19km @ 115 m/s	158, 784 (5s)	206, 3684 (18s)	94,000

The Oruze Construct Wave 1

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
N/A	3x Wakeful Sentry Tower	n/a	50	0 m/s	250km	n/a	74, 1092 (15s)	n/a	15,167
C	4x Awakened Upholder	Web, Neut	150	1728 m/s	79km	30km @ 216 m/s	28, 140 (5s)	14, 210 (9s)	12,250
C	1x Awakened Preserver	Remote Reps	150	1240 m/s	101km	45km @ 155 m/s	62, 308 (5s)	14, 210 (9s)	12,250

Wave 2 Trigger: Awakened Upholder

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
F	4x Emergent Defender	Web	35	2160 m/s	15km	7km @ 270m/s	12, 56 (5s)	12, 106 (9s)	4,200
BS	1x Sleepless Defender	Web	400	920 m/s	60km	19km @ 115 m/s	158, 784 (5s)	206, 3684 (18s)	94,000

Wave 3 Trigger: Sleepless Defender

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
C	1x Awakened Preserver	Remote Reps	150	1240 m/s	101km	45km @ 155 m/s	62, 308 (5s)	14, 210 (9s)	12,250
BS	1x Sleepless Upholder	Neut	400	800 m/s	225km	65km @ 100 m/s	382, 1904 (5s)	60, 1052 (18s)	56,400



Sample Fits

[Praxis, Sample C3 Runner]

Capacitor Flux Coil II
Capacitor Flux Coil II
Capacitor Flux Coil II
Capacitor Flux Coil II
'Dyad' Co-Processor I
C3-A 'Hivaa Saitsuo' Ballistic Control System
Crosslink Compact Ballistic Control System

X-Large Shield Booster II
Multispectrum Shield Hardener II
Multispectrum Shield Hardener II
Shield Boost Amplifier II
Copasetic Compact Shield Boost Amplifier
Eutectic Compact Cap Recharger
Eutectic Compact Cap Recharger

Cruise Missile Launcher II
Cruise Missile Launcher II
Cruise Missile Launcher II
Cruise Missile Launcher II
Cruise Missile Launcher II
Cruise Missile Launcher II
[Empty High slot]

Large Capacitor Control Circuit I
Large Core Defense Operational Solidifier I
Large Core Defense Operational Solidifier I

Caldari Navy Wasp x5
Hornet II x5
Vespa II x5

Nova Fury Cruise Missile x4500
Nova Precision Cruise Missile x2500

[Gila, Sample C3 Runner]

Shield Power Relay II
Shield Power Relay II
Drone Damage Amplifier II

Large Shield Extender II
Large Shield Extender II
Caldari Navy Large Shield Extender
Caldari Navy Large Shield Extender
Pithum C-Type EM Shield Amplifier
Pithum C-Type Thermal Shield Amplifier

Rapid Light Missile Launcher II
Rapid Light Missile Launcher II
Rapid Light Missile Launcher II
Rapid Light Missile Launcher II
Drone Link Augmentor I

Medium Core Defense Field Purger II
Medium Core Defense Field Purger II
Medium Core Defense Field Purger II

Valkyrie II x2
Hammerhead II x2
Vespa II x2
Infiltrator II x4

Caldari Navy Scourge Light Missile x9000

[Tengu, Sample C3 Runner]

Missile Guidance Enhancer II
Ballistic Control System II
Ballistic Control System II

Pith C-Type Large Shield Booster
Target Painter II
Republic Fleet Large Cap Battery
Multispectrum Shield Hardener II
Pithum B-Type EM Shield Amplifier
Shield Boost Amplifier II
10MN Afterburner II

Heavy Assault Missile Launcher II
Heavy Assault Missile Launcher II
Heavy Assault Missile Launcher II
Heavy Assault Missile Launcher II
Heavy Assault Missile Launcher II
Heavy Assault Missile Launcher II
Sisters Expanded Probe Launcher

Medium Capacitor Control Circuit I
Medium Ancillary Current Router I
Medium Rocket Fuel Cache Partition II

Tengu Core - Augmented Graviton Reactor
Tengu Defensive - Amplification Node
Tengu Offensive - Accelerated Ejection Bay
Tengu Propulsion - Fuel Catalyst

Sisters Core Scanner Probe x32
Caldari Navy Scourge Heavy Assault Missile x8000

Sample Fits

[Legion, Sample C3 Runner]

Heat Sink II
True Sansha Heat Sink
True Sansha Heat Sink
Multispectrum Energized Membrane II
Multispectrum Energized Membrane II
Corpum C-Type Medium Armor Repairer

10MN Afterburner II
Republic Fleet Large Cap Battery
Shadow Serpentis Stasis Webifier

Heavy Pulse Laser II
Heavy Pulse Laser II
Heavy Pulse Laser II
Heavy Pulse Laser II
Heavy Pulse Laser II
Heavy Pulse Laser II
Covert Ops Cloaking Device II
Sisters Expanded Probe Launcher

Medium Auxiliary Nano Pump I
Medium Auxiliary Nano Pump II
Medium Nanobot Accelerator II

Legion Core - Augmented Antimatter Reactor
Legion Defensive - Covert Reconfiguration
Legion Offensive - Liquid Crystal Magnifiers
Legion Propulsion - Wake Limiter

Conflagration M x12
Imperial Navy Multifrequency M x6
Scorch M x12

[Loki, Sample C3 Runner]

Republic Fleet Gyrostabilizer
Republic Fleet Gyrostabilizer

Large C5-L Compact Shield Booster
Pith A-Type Shield Boost Amplifier
Dread Guristas Multispectrum Shield Hardener
Caldari Navy Stasis Webifier
Dark Blood Cap Recharger
Thukker Large Cap Battery
Gistum C-Type 10MN Afterburner

425mm AutoCannon II
425mm AutoCannon II
425mm AutoCannon II
425mm AutoCannon II
425mm AutoCannon II
[Empty High slot]
Covert Ops Cloaking Device II
Sisters Expanded Probe Launcher

Medium Thermal Shield Reinforcer II
Medium Kinetic Shield Reinforcer II
Medium EM Shield Reinforcer II

Loki Core - Immobility Drivers
Loki Defensive - Covert Reconfiguration
Loki Offensive - Projectile Scoping Array
Loki Propulsion - Wake Limiter

Republic Fleet Warrior x5

Hail M x4000
Barrage M x4000

[Proteus, Sample C3 Runner]

Damage Control II
Explosive Energized Membrane II
Reactive Armor Hardener
Federation Navy Multispectrum Energized Membrane
Drone Damage Amplifier II
Medium Armor Repairer II

Thukker Large Cap Battery
Republic Fleet Target Painter
10MN Afterburner II

200mm Railgun II
200mm Railgun II
200mm Railgun II
200mm Railgun II
200mm Railgun II
Covert Ops Cloaking Device II
Expanded Probe Launcher II

Medium Explosive Armor Reinforcer II
Medium Auxiliary Nano Pump II
Medium Auxiliary Nano Pump II

Proteus Core - Augmented Fusion Reactor
Proteus Defensive - Covert Reconfiguration
Proteus Offensive - Drone Synthesis Projector
Proteus Propulsion - Hyperspatial Optimization

Medium Hull Maintenance Bot I x1
Caldari Navy Wasp x9
Medium Armor Maintenance Bot I x1

Javelin M x3000
Spike M x3000

Frontier Barracks

Wave 1

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
BS	1x Sleepless Preserver	Remote Reps	400	1080 m/s	195km	55km @ 135 m/s	46, 2244 (5s)	264, 4738 (18s)	85,867
BS	1x Sleepless Upholder	Neut	400	800 m/s	225km	65km @ 100 m/s	382, 1904 (5s)	60, 1052 (18s)	56,400

Wave 2 Trigger: Sleepless Preserver

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
C	2x Awakened Preserver	Remote Reps	150	1240 m/s	101km	45km @ 155 m/s	62, 308 (5s)	14, 210 (9s)	12,250
BS	3x Sleepless Upholder	Neut	400	800 m/s	225km	65km @ 100 m/s	382, 1904 (5s)	60, 1052 (18s)	56,400

Wave 3 Trigger: Sleepless Upholder

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
F	3x Emergent Preserver	Web, Scram, Neut	35	2600 m/s	15km	5km @ 325m/s	14, 70 (5s)	18, 158 (9s)	1,820
C	4x Awakened Preserver	Remote Reps	150	1240 m/s	101km	45km @ 155 m/s	62, 308 (5s)	14, 210 (9s)	12,250
BS	2x Sleepless Preserver	Remote Reps	400	1080 m/s	195km	55km @ 135 m/s	46, 2244 (5s)	264, 4738 (18s)	85,867

C4 systems are a notable step up from C3 sites in terms of DPS, webs, scrams, and neutralisation. Whereas some C2 runners can clear C3 content slowly (making it less viable), C3 runners will find most of the C4 sites lethal.

This means that C4s are commonly run solo with advanced battleships like the Triglavian Leshak, the Rattlesnake, or T2 Marauder Battleships. However, many pilots choose to clear these sites in small gangs of C3 capable ships, such as T3 Cruisers, T1 Battlecruisers, or Battleships, with Logistics support.

Frontier Command Post

Wave 1

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
N/A	5x Wakeful Sentry Tower	n/a	50	0 m/s	250km	n/a	74, 1092 (15s)	n/a	15,167
F	4x Emergent Defender	Web	35	2160 m/s	15km	7km @ 270m/s	12, 56 (5s)	12, 106 (9s)	4,200
F	4x Emergent Preserver	Web, Scram, Neut	35	2600 m/s	15km	5km @ 325m/s	14, 70 (5s)	18, 158 (9s)	1,820

Wave 2 Trigger: Emergent Preserver

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
F	4x Emergent Upholder	Neut, Remote Reps	35	1925 m/s	15km	5km @ 275 m/s	4, 20 (5s)	10, 76 (9s)	2,000
C	6x Awakened Defender	n/a	150	1480 m/s	45km	15km @ 185 m/s	28, 140 (5s)	28, 420 (9s)	26,833
BS	2x Sleepless Defender	Web	400	920 m/s	60km	19km @ 115 m/s	158, 784 (5s)	206, 3684 (18s)	94,000

Wave 3 Trigger: Awakened Defender

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
C	2x Awakened Defender	n/a	150	1480 m/s	45km	15km @ 185 m/s	28, 140 (5s)	28, 420 (9s)	26,833
C	2x Awakened Preserver	Remote Reps	150	1240 m/s	101km	45km @ 155 m/s	62, 308 (5s)	14, 210 (9s)	12,250
BS	3x Sleepless Preserver	Remote Reps	400	1080 m/s	195km	55km @ 135 m/s	46, 2244 (5s)	264, 4738 (18s)	85,867

Sleeper Information Sanctum

Wave 1

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
C	2x Awakened Upholder	Web, Neut	150	1728 m/s	79km	30km @ 216 m/s	28, 140 (5s)	14, 210 (9s)	12,250
BS	2x Sleepless Preserver	Remote Reps	400	1080 m/s	195km	55km @ 135 m/s	46, 2244 (5s)	264, 4738 (18s)	85,867
F	2x Emergent Upholder	Neut, Remote Reps	35	1925 m/s	15km	5km @ 275 m/s	4, 20 (5s)	10, 76 (9s)	2,000

Wave 2 Trigger: Sleepless Preserver

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
BS	3x Sleepless Defender	Web	400	920 m/s	60km	19km @ 115 m/s	158, 784 (5s)	206, 3684 (18s)	94,000
BS	1x Sleepless Safeguard	Web, Scram, Neut	400	1320 m/s	255km	15km @ 165 m/s	248, 1232 (5s)	294, 5264 (15s)	157,500

Wave 3 Trigger: Awakened Patroller

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
F	2x Emergent Preserver	Web, Scram, Neut	35	2600 m/s	15km	5km @ 325m/s	14, 70 (5s)	18, 158 (9s)	1,820
F	3x Emergent Upholder	Neut, Remote Reps	35	1925 m/s	15km	5km @ 275 m/s	4, 20 (5s)	10, 76 (9s)	2,000
C	2x Awakened Preserver	Remote Reps	150	1240 m/s	101km	45km @ 155 m/s	62, 308 (5s)	14, 210 (9s)	12,250
C	2x Awakened Upholder	Web, Neut	150	1728 m/s	79km	30km @ 216 m/s	28, 140 (5s)	14, 210 (9s)	12,250



Integrated Terminus

Wave 1

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
N/A	4x Wakeful Sentry Tower	n/a	50	0 m/s	250km	n/a	74, 1092 (15s)	n/a	15,167
F	3x Emergent Upholder	Neut, Remote Reps	35	1925 m/s	15km	5km @ 275 m/s	4, 20 (5s)	10, 76 (9s)	2,000
C	4x Awakened Defender	n/a	150	1480 m/s	45km	15km @ 185 m/s	28, 140 (5s)	28, 420 (9s)	26,833

Wave 2 Trigger: Awakened Defender

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
F	2x Emergent Preserver	Web, Scram, Neut	35	2600 m/s	15km	5km @ 325m/s	14, 70 (5s)	18, 158 (9s)	1,820
C	2x Awakened Preserver	Remote Reps	150	1240 m/s	101km	45km @ 155 m/s	62, 308 (5s)	14, 210 (9s)	12,250
C	4x Awakened Upholder	Web, Neut	150	1728 m/s	79km	30km @ 216 m/s	28, 140 (5s)	14, 210 (9s)	12,250

Wave 3 Trigger: Awakened Upholder

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
F	4x Emergent Defender	Web	35	2160 m/s	15km	7km @ 270m/s	12, 56 (5s)	12, 106 (9s)	4,200
F	2x Emergent Upholder	Neut, Remote Reps	35	1925 m/s	15km	5km @ 275 m/s	4, 20 (5s)	10, 76 (9s)	2,000
BS	2x Sleepless Preserver	Remote Reps	400	1080 m/s	195km	55km @ 135 m/s	46, 2244 (5s)	264, 4738 (18s)	85,867

The Integrated Terminus is the easiest of the C4 sites and can be run even with a properly tanked battleship or T3 Cruiser. It earns 55,300,000 ISK making it more lucrative than C3 sites if it can be cleared timeously.



Sample Fits

[Leshak, Sample C4 Runner]
Damage Control II
Corpus A-Type Large Armor Repairer
Reactive Armor Hardener
Core B-Type Explosive Armor Hardener
Core B-Type Kinetic Armor Hardener
True Sansha Energized Adaptive Nano Membrane
True Sansha Energized Adaptive Nano Membrane
Entropic Radiation Sink II
Thukker Large Cap Battery
Republic Fleet Large Cap Battery
Cap Recharger II
Stasis Webifier II
Supratidal Entropic Disintegrator II
True Sansha Heavy Energy Nosferatu
Corpum C-Type Medium Energy Nosferatu
Small Tractor Beam II
Salvager II
Large Auxiliary Nano Pump I
Large Auxiliary Nano Pump I
Large Thermal Armor Reinforcer I
Wasp II x4

[Vargur, Sample C4 Runner]
Capacitor Flux Coil II
Capacitor Flux Coil II
Republic Fleet Gyrostabilizer
Republic Fleet Gyrostabilizer
Republic Fleet Gyrostabilizer
Republic Fleet Large Cap Battery
Republic Fleet Large Cap Battery
Imperial Navy Cap Recharger
Large Micro Jump Drive
Gistum C-Type Multispectrum Shield Hardener
Pith X-Type X-Large Shield Booster
Heavy 'Vrykolakas' Energy Nosferatu
Imperial Navy Large EMP Smartbomb
Imperial Navy Large EMP Smartbomb
800mm Repeating Cannon II
800mm Repeating Cannon II
800mm Repeating Cannon II
800mm Repeating Cannon II
Bastion Module I
Large Capacitor Control Circuit II
Large Capacitor Control Circuit II
Acolyte II x5
Hobgoblin II x5
Hornet II x5
Barrage L x5000
Hail L x9000
Republic Fleet EMP L x6000
Republic Fleet Phased Plasma L x6000
Republic Fleet Titanium Sabot L x2000
Optimal Range Script x2
Tracking Speed Script x2

[Golem, Sample C4 Runner]
Caldari Navy Ballistic Control System
Caldari Navy Ballistic Control System
Caldari Navy Ballistic Control System
Capacitor Flux Coil II
Republic Fleet Large Cap Battery
Republic Fleet Large Cap Battery
Gist X-Type X-Large Shield Booster
Pithum A-Type Multispectrum Shield Hardener
Republic Fleet Target Painter
Missile Guidance Computer II
Dark Blood Cap Recharger
Caldari Navy Torpedo Launcher
Caldari Navy Torpedo Launcher
Caldari Navy Torpedo Launcher
Caldari Navy Torpedo Launcher
Bastion Module I
Dark Blood Large EMP Smartbomb
Dark Blood Large EMP Smartbomb
True Sansha Heavy Energy Nosferatu
Large Bay Loading Accelerator II
Large Warhead Rigor Catalyst I
Caldari Navy Hornet x15
Missile Range Script x1
Missile Precision Script x1
Scourge Rage Torpedo x6000
Scourge Javelin Torpedo x6000
Caldari Navy Scourge Torpedo x6000

J-Space Escalations

C5/C6 J-Space ratting anomalies have a unique mechanic not found in lower Class J-Space ratting. In addition to the basic site itself, C5 and C6 sites can be “Escalated” via two different methods, spawning in new ships. These two escalation types are referred to as **Capital** or **Drifter** escalations.

One **Drifter Response Battleship** will spawn if you damage the object that appears at the end of a C5 or C6 combat anomaly.

Upgraded Avengers will spawn for the first of each type of capital ship (Dreadnoughts, Carrier, and Force Auxiliaries) that warp into the anomaly.

- C5 anomalies will spawn 3x Upgraded Avenger
- C6 anomalies will spawn 4x Upgraded Avenger

Capital Escalations can be repeated once for each type of Capital ship, resulting in up to three Capital Escalations per anomaly, with the notable exception that the Core Bastion anomaly in C6 J-Space will not spawn a wave for a Force Auxiliary.

Drifter Response Battleship

Type	Scram	Webs	Neut	SigRad	Speed	DPS	EHP	Blue Loot
B	20	1	-200GJ	25,000	3,500 m/s	40km @ 400m/s	2,350,000 - 4,118,627	300,000,000

Upgraded Avenger

Type	Scram	Webs	Neut	SigRad	Speed	DPS	EHP	Blue Loot
B	15	1	-75GJ	35,000	3,000 m/s	20km @ 300m/s	1,150,000 - 1,400,000	20,000,000



Core Garrison

Wave 1

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
N/A	2x Vigilant Sentry Tower	n/a	50	0 m/s	250km	n/a	52, 780 (15s)	n/a	10,833
F	2x Emergent Patroller	n/a	35	1750 m/s	15km	8km @ 250 m/s	8, 40 (5s)	10, 76 (9s)	3,000
C	2-3x Awakened Patroller	n/a	150	1190 m/s	30km	15km @ 170 m/s	20, 100 (5s)	20, 300 (15s)	19,167

Wave 2 Trigger: Awakened Patroller

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
C	2x Awakened Escort	N/A	150	980 m/s	68km	45km @ 140 m/s	44, 220 (5s)	10, 150 (15s)	12,000
C	2x Awakened Patroller	n/a	150	1190 m/s	30km	15km @ 170 m/s	20, 100 (5s)	20, 300 (15s)	19,167

Wave 3 Trigger: Awakened Escort

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
F	3x Emergent Patroller	n/a	35	1750 m/s	15km	8km @ 250 m/s	8, 40 (5s)	10, 76 (9s)	3,000
BS	1x Sleepless Patroller	n/a	400	735 m/s	45km	60km @ 125 m/s	272, 1360 (5s)	42, 752 (18s)	40,286

Core Stronghold

Wave 1

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
F	2x Emergent Watchman	Neut	35	1925 m/s	15km	5km @ 275 m/s	4, 20 (5s)	10, 76 (9s)	2,000
C	2x Awakened Patroller	n/a	150	1190 m/s	30km	15km @ 170 m/s	20, 100 (5s)	20, 300 (15s)	19,167

Wave 2 Trigger: Awakened Patroller

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
C	2x Awakened Escort	n/a	150	980 m/s	68km	45km @ 140 m/s	44, 220 (5s)	10, 150 (15s)	12,000
BS	1x Sleepless Watchman	n/a	400	630 m/s	105km	65km @ 90 m/s	272, 1360 (5s)	42, 752 (18s)	40,286

Wave 3 Trigger: Awakened Escort

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
C	2x Awakened Escort	n/a	150	980 m/s	68km	45km @ 140 m/s	44, 220 (5s)	10, 150 (15s)	12,000
BS	3x Emergent Watchman	n/a	400	875 m/s	75km	55km @ 125 m/s	32, 160 (5s)	188, 3384 (18s)	61,333

Oruze Osobnyk

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
N/A	5x Vigilant Sentry Tower	n/a	50	0 m/s	250km	n/a	52, 780 (15s)	n/a	10,833
F	4x Emergent Patroller	N/A	35	1750 m/s	15km	8km @ 250 m/s	8, 40 (5s)	10, 76 (9s)	3,000
F	2x Emergent Watchman	Neut	35	1925 m/s	15km	5km @ 275 m/s	4, 20 (5s)	10, 76 (9s)	2,000

Trigger: Emergent Watchman

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
F	5x Emergent Patroller	N/A	35	1750 m/s	15km	8km @ 250 m/s	8, 40 (5s)	10, 76 (9s)	3,000
F	2x Emergent Watchman	Neut	35	1925 m/s	15km	5km @ 275 m/s	4, 20 (5s)	10, 76 (9s)	2,000
C	1x Awakened Patroller	n/a	150	1190 m/s	30km	15km @ 170 m/s	20, 100 (5s)	20, 300 (15s)	19,167

Wave 4 Trigger: Awakened Patroller

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
F	5x Emergent Patroller	N/A	35	1750 m/s	15km	8km @ 250 m/s	8, 40 (5s)	10, 76 (9s)	3,000
C	1x Awakened Patroller	n/a	150	1190 m/s	30km	15km @ 170 m/s	20, 100 (5s)	20, 300 (15s)	19,167
C	1x Awakened Watchman	Neut	35	1925 m/s	15km	5km @ 275 m/s	4, 20 (5s)	10, 76 (9s)	2,000

C3 systems are likely one of the most popular classes of J-Space for ratting as their ISK/hour is fairly considerable and can often reimburse the cost of the ship running the sites in a matter of hours.

These sites can be run in certain T1 Battlecruisers, but the time taken to clear sites with these can be slow. Instead, Tech 3 Strategic Cruisers, the Praxis, and certain Faction Cruisers (like the Gila) are popular choices for these sites. This does entail a certain entry level of cost - expect to pay anywhere from 300m too 1bn ISK for a C3 ratting ship.

C3 Systems are very popular with ratters, which makes them very popular with PVP Roamers too, looking for easy ratting targets to kill. You should be constantly using D-Scan and consider keeping friends close by.

Remember to drop your MTU early (and bookmark it!) as all the ISK comes from the Blue Loot (no bounties!) looted from the wreckage. Take a Salvage fit Destroyer through to your MTU bookmarks to grab the salvage for some extra ISK!

Quarantine Area

The site is composed of a large collection of rocks and debris. It is about 100-150 km wide and long; enemies will spawn fairly far away.

Wave 1

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
F	0-4x Emergent Patroller	N/A	35	1750 m/s	15km	8km @ 250 m/s	8, 40 (5s)	10, 76 (9s)	3,000
F	2x Emergent Watchman	Neut	35	1925 m/s	15km	5km @ 275 m/s	4, 20 (5s)	10, 76 (9s)	2,000
C	1x Awakened Watchman	Neut	150	1400 m/s	53km	30km @ 200 m/s	20, 100 (5s)	10, 300 (15s)	19,167

Wave 2 Trigger: Awakened Watchman (Spawn 70-90km)

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
F	2x Emergent Patroller	N/A	35	1750 m/s	15km	8km @ 250 m/s	8, 40 (5s)	10, 76 (9s)	3,000
C	1x Awakened Patroller	n/a	150	1190 m/s	30km	15km @ 170 m/s	20, 100 (5s)	20, 300 (15s)	19,167

Wave 3 Trigger: Awakened Patroller

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
C	1x Awakened Watchman	Neut	150	1400 m/s	53km	30km @ 200 m/s	20, 100 (5s)	10, 300 (15s)	19,167

Core Citadel

Wave 1

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
N/A	2x Vigilant Sentry Tower	n/a	50	0 m/s	250km	n/a	52, 780 (15s)	n/a	10,833
F	2x Emergent Patroller	n/a	35	1750 m/s	15km	8km @ 250 m/s	8, 40 (5s)	10, 76 (9s)	3,000
C	2-3x Awakened Patroller	n/a	150	1190 m/s	30km	15km @ 170 m/s	20, 100 (5s)	20, 300 (15s)	19,167

Wave 2 Trigger: Awakened Patroller

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
C	2x Awakened Escort	N/A	150	980 m/s	68km	45km @ 140 m/s	44, 220 (5s)	10, 150 (15s)	12,000
C	2x Awakened Patroller	n/a	150	1190 m/s	30km	15km @ 170 m/s	20, 100 (5s)	20, 300 (15s)	19,167

Wave 3 Trigger: Awakened Escort

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
F	3x Emergent Patroller	n/a	35	1750 m/s	15km	8km @ 250 m/s	8, 40 (5s)	10, 76 (9s)	3,000
BS	1x Sleepless Patroller	n/a	400	735 m/s	45km	59km @ 105 m/s	272, 1360 (5s)	42, 752 (18s)	40,286

Core Bastion

Wave 1

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
F	2x Emergent Watchman	Neut	35	1925 m/s	15km	5km @ 275 m/s	4, 20 (5s)	10, 76 (9s)	2,000
C	2x Awakened Patroller	n/a	150	1190 m/s	30km	15km @ 170 m/s	20, 100 (5s)	20, 300 (15s)	19,167

Wave 2 Trigger: Awakened Patroller

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
C	2x Awakened Escort	n/a	150	980 m/s	68km	45km @ 140 m/s	44, 220 (5s)	10, 150 (15s)	12,000
BS	1x Sleepless Watchman	n/a	400	630 m/s	105km	65km @ 90 m/s	272, 1360 (5s)	42, 752 (18s)	40,286

Wave 3 Trigger: Awakened Escort

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
C	2x Awakened Escort	n/a	150	980 m/s	68km	45km @ 140 m/s	44, 220 (5s)	10, 150 (15s)	12,000
BS	3x Emergent Watchman	n/a	400	875 m/s	75km	55km @ 125 m/s	32, 160 (5s)	188, 3384 (18s)	61,333

Strange Energy Readings

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
N/A	5x Vigilant Sentry Tower	n/a	50	0 m/s	250km	n/a	52, 780 (15s)	n/a	10,833
F	4x Emergent Patroller	N/A	35	1750 m/s	15km	8km @ 250 m/s	8, 40 (5s)	10, 76 (9s)	3,000
F	2x Emergent Watchman	Neut	35	1925 m/s	15km	5km @ 275 m/s	4, 20 (5s)	10, 76 (9s)	2,000

Trigger: Emergent Watchman

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
F	5x Emergent Patroller	N/A	35	1750 m/s	15km	8km @ 250 m/s	8, 40 (5s)	10, 76 (9s)	3,000
F	2x Emergent Watchman	Neut	35	1925 m/s	15km	5km @ 275 m/s	4, 20 (5s)	10, 76 (9s)	2,000
C	1x Awakened Patroller	n/a	150	1190 m/s	30km	15km @ 170 m/s	20, 100 (5s)	20, 300 (15s)	19,167

Wave 2 Trigger: Awakened Patroller

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
F	3x Emergent Patroller	n/a	35	1750 m/s	15km	8km @ 250 m/s	8, 40 (5s)	10, 76 (9s)	3,000
C	2x Awakened Patroller	n/a	150	1190 m/s	30km	15km @ 170 m/s	20, 100 (5s)	20, 300 (15s)	19,167
C	2x Awakened Watchman	Neut	150	1400 m/s	53km	15km @ 170 m/s	20, 100 (5s)	10, 300 (15s)	19,167

C3 systems are likely one of the most popular classes of J-Space for running as their ISK/hour is fairly considerable and can often reimburse the cost of the ship running the sites in a matter of hours.

These sites can be run in certain T1 Battlecruisers, but the time taken to clear sites with these can be slow. Instead, Tech 3 Strategic Cruisers, the Praxis, and certain Faction Cruisers (like the Gila) are popular choices for these sites. This does entail a certain entry level of cost - expect to pay anywhere from 300m too 1bn ISK for a C3 ratting ship.

C3 Systems are very popular with ratters, which makes them very popular with PVP Roamers too, looking for easy ratting targets to kill. You should be constantly using D-Scan and consider keeping friends close by.

Remember to drop your MTU early (and bookmark it!) as all the ISK comes from the Blue Loot (no bounties!) looted from the wreckage. Take a Salvage fit Destroyer through to your MTU bookmarks to grab the salvage for some extra ISK!

The Mirror

The site is composed of a large collection of rocks and debris. It is about 100-150 km wide and long; enemies will spawn fairly far away.

Wave 1

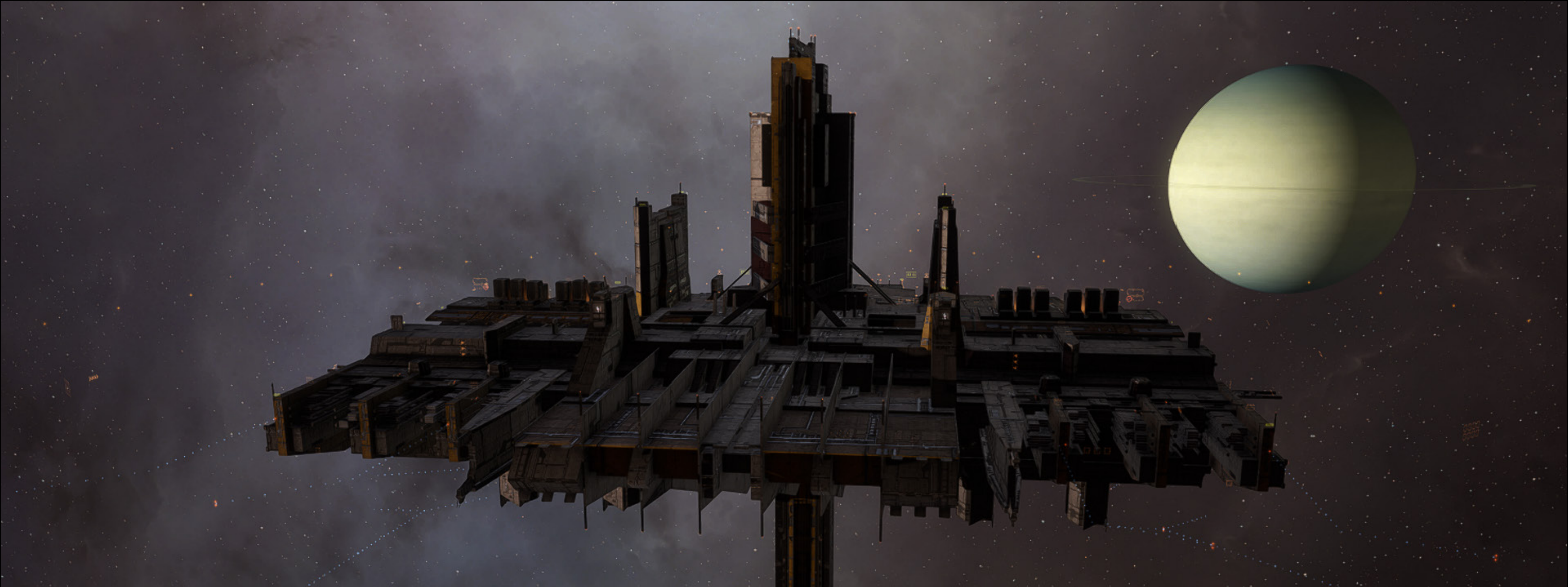
Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
F	0-4x Emergent Patroller	N/A	35	1750 m/s	15km	8km @ 250 m/s	8, 40 (5s)	10, 76 (9s)	3,000
F	2x Emergent Watchman	Neut	35	1925 m/s	15km	5km @ 275 m/s	4, 20 (5s)	10, 76 (9s)	2,000
C	1x Awakened Watchman	Neut	150	1400 m/s	53km	30km @ 200 m/s	20, 100 (5s)	10, 300 (15s)	19,167

Wave 2 Trigger: Awakened Watchman (Spawn 70-90km)

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
F	3x Emergent Patroller	N/A	35	1750 m/s	15km	8km @ 250 m/s	8, 40 (5s)	10, 76 (9s)	3,000
C	2x Awakened Patroller	n/a	150	1190 m/s	30km	15km @ 170 m/s	20, 100 (5s)	20, 300 (15s)	19,167

Wave 3 Trigger: Awakened Patroller

Type	Name	Effects	Sig	Speed	Attack	Orbit	Turret Dps/Volley	Missile DPS/volley	EHP
C	2x Awakened Watchman	Neut	150	1400 m/s	53km	15km @ 170 m/s	20, 100 (5s)	10, 300 (15s)	19,167



Section : 12

Setting Up Home



Section : 13

Honour Amongst Outlaws



Section : Abyssal Deadspaces

Abyssal Deadspaces

Some may consider the inclusion of Abyssal Deadspace content within this primer to be a little unorthodox, as Abyssal Deadspaces by their very nature, can be run almost anywhere. However, as it is a popular activity for many players, including those who choose to live within wormholes, I feel a brief section detailing some of the intricacies is important.

Please note that this document does not intend in any way to provide a guide for the completion of Abyssal Deadspaces. Such guides exist all over the internet and can go into a depth that would be unwarranted here. Instead, I seek to discuss how and why you may choose to run these as someone who lives in J-Space.

Opening Rifts

Whilst filaments can be used to open Abyssal Rifts in any system with a 0.8 Security Rating or lower, opening higher tier rifts in higher tier security systems does cause a suspect flag, opening players to the possibility of being ganked within a 0.8 sec system.

At -1.0 security, J-Space applies no suspect flag, not that it would matter either way, since CONCORD and the four empires hold no presence there, and the likelihood of being ganked on return from the Abyss is surely high. So why would you run Abyssals in J-Space?

Ultimately, with the right circumstances, J-Space can provide the single safest place in EVE Online to run Abyssals. In Hisec, Lowsec, or Nullsec, no matter how safe it may seem, there is always the risk that another pilot happens to be roaming and spots the Trace.

If a pilot is in a Secured J-Space System, as described in the Wormhole Rolling section, then they are completely safe on return.

Alternatively, if their J-Space system is unsecured, pilots can always choose to simply Day Trip to K-Space and open Rifts within systems on the other side. Smart use of Tripwire's Activity Window to check the activity of those systems is strongly advised.





Section X:



EVE-Scout



Signal Cartel (1420.) is an EVE Online corporation designed from the ground up by founders Johnny Splunk, G8keeper, and Mynxee for peaceful explorers.

Dedicated to the highest ideals of exploration, our corp culture is one of wanderlust, camaraderie, helpfulness, respectful behavior,

and peaceful intent. Led today by Aldar Roanaok, Signal Cartel is part of the EvE-Scout Enclave which is headed by Katia Sae.

What Does Signal Cartel Do?

Signal Cartel is likely best known for two important public services. The first being their work mapping the massive wormhole system of Thera. Allowing connections across all different spaces, Thera's full potential as a transit hub would be unrealized unless entry and exit points could be freely used by all pilots in New Eden. Signal Cartel's Thera map and associated bookmarks ensures no one has a monopoly on utilizing such a resource.

Famously, though, Signal Cartel provides Search & Rescue to any member of New Eden lost or stranded in Anoikis. This impressive operation, led by players for players, has a dedicated team ready 24/7 to answer lost pilots' request for help. For many, help comes in the form of a rescue cache providing probes and launcher. For others it means a Signal Cartel team searching for the lost pilot's system and extracting that lost pilot to safety.

Thera Bookmarks

The J-Space system of Thera has already been detailed earlier in this Primer, and it is thanks to the efforts of Signal Cartel and EVE-Scout that this system remains mapped for all to use.

There are two steps to using this knowledge. First is heading to the EVE-Scout website:

<http://eve-scout.com/thera>

Using this website, it is possible to quickly identify where the nearest Thera connection is to both you and your intended destination.

As an example, if I were in the system C-J6MT and looking to visit Jita, I could search for C-J6MT on the EVE-Scout website, and find my closest link into Thera. Then, I could search for Jita and find the closest connection. In this way, what could otherwise be a 30+ jump journey ends up being sometimes fewer than ten.

The second step is to "online" the Shared Thera Bookmark folder. To access this in-game, click the "+" icon on your chat panel, and search for the "EvE-Scout" channel. The bookmarks folder will be linked in that chat.

This Bookmark Folder is kept up to date by the pilots of Signal Cartel and EVE-Scout, and will help you to actually find the wormhole connections in the system that the EVE-Scout website tells you they will be in. Of course, you can scan them yourself, but the Shared Thera Bookmarks Folder saves a LOT of time and effort!

Wormhole Pilot Rescue

Signal Cartel are also dedicated to assisting pilots stranded in J-Space systems. This is done in two ways.

Firstly, Signal Cartel maintains a "Rescue Supply Cache" in any wormholes they find, which contains a minimum of one Core Probe Launcher and eight Core Scanner Probes. If pilots have a way to refit their ship, these caches can be a life saver to help someone who is stranded.

However, if refitting isn't possible, then the EVE-Scout Rescue Service may be able to assist! Stranded pilots should head to

<https://evescoutrescue.com/home/>

and click on the Rescue 911 box at the top of the screen. From here, a member of the Rescue Team will be in contact to assist!

At the time of writing, EVE-Scout Rescue has over 4400 confirmed rescues, and is tending over 2450 caches.

How Can I Help?

- 1. Leave the caches be!** Simply do not access or destroy the Rescue Caches supplied by Signal Cartel.
- 2. Send them an ISK Tip!** Donations go straight to the scouts providing these services. Send your donations to the in-game corp "Signal Cartel". Be sure to indicate ESR or Rescue on the memo line!
- 3. Join Them!** If helping Capsuleers or being part of an active exploration corp sounds cool, consider joining them!

