

Kyna's Safer Null Mining Advisory

Hey team,

There's a higher risk of losses in null, often to the same regular hunters, which has led players to feel frustrated or that they can't even play anymore. Others are continuing to play semi-afk and coming back to pods. Others are at keyboard, but simply unaware of safe practices. So, I gathered advice from our veterans and compiled it here for you.

In short summary of this notice, you must take seriously that it is not safe here. It never has been, and never will be. There is no Concord here. Death comes within seconds, after hours of silence.

We cannot be foolproof even with guards on duty. So, we want to avoid the hunters catching us in the first place.

Value is your enemy.

Tank is not foolproof.

Time to warp is your only true safety, and for that, we have a few neat little tricks.

This guide is for null mining, but many of the tips also apply to mission runners and explorers.

Summary

The Most Important Tips:

1. Do not bring ships through a system that has hostile presence, between safe places. They will likely die on the way.
2. Dock up at a station if you have to go AFK. Even if only for fifteen seconds.
3. Watch local and intel constantly. If you cannot watch every ten to fifteen seconds, you need to dock.
4. Immediately dock up if you see someone enter system who's not green, blue, or purple.
5. If you have to warp to a safe bookmark first, warp to and dock at a station immediately afterward.
6. Report neutrals and hostiles in null area in intel channel. Include the system they're in.
7. Use scout alts when moving things between "safe" systems. Blank pods are great scouts!
8. Join your alliance standing fleet, so we can help each other out!

Extended Guide: How to Avoid / Reduce Trouble

The following is more detail on saying safe. It is not required reading, but it can help. If you're short on time, simply follow the "Quick Tips" above, and read this section later.

These tips can save your in-game life. But so too will the summary tips above.

#1: Awareness

If you don't see them coming, how can you possibly react in time?

Chat Channels – Intel and Local – Who's in system or nearby?

1. Separate your intel channel and the local channel from others, so they're always visible.
2. You can shrink the local channel so you only see the members list, to save space.
3. Look at local member list every few seconds for hostiles or neutrals. The more often, the better.
4. Adjust your overview settings so "no standing" pilots show a color in local. Yellow is advised.
5. Watch intel for reports of hostiles or neutrals. Check at least every ten seconds.
6. Learn which systems are near you, so you know if a report is nearby, and prepare to get safe.
 - a. Never assume you will have advanced warning of hostiles, or that allies are able to assist in case of attack. Allies may be AFK or not close enough to help.
7. If you are working while mining, make sure your work is narrow enough that you can see intel and local channel at all times while working.
 - a. If you are distracted and can't keep watching local and intel every 10-15 seconds, dock up. It's not worth the risk.
8. Report neutrals and hostiles in intel channel while getting safe. Always include the system.
9. Report when neutrals and hostiles leave your system.
10. Keep reporting neutrals who are regularly in a system, when you enter it.
11. You can drag into chat the hostile name from "local" member list, and the system name from upper left corner, instead of having to type.
12. If lots of hostiles enter your system, you can say "+# system". Include group if you can.
13. You can make a Dscan report instead of manually listing visible ships, if many hostiles present.
14. If someone attacks, please report ASAP the ship type(s) and location inside the system.

The Overview Panel – What’s around me?

1. The Overview is your most local information. What’s within visibility of your ship, and where you can send yourself for safety.
2. Most people use custom overview setups to organize what they can see and sort
3. Recommendations:
 - a. The most popular Overview setups can be found at the bottom of the page here: <https://wiki.eveuniversity.org/Overview>
 - b. You want a pane that lets you warp away to safe locations, such as stations, without being cluttered by enemies.
 - i. Switch to this when there’s trouble. Don’t stay on it; you need to see enemies.
 - c. You want a pane to see enemies if they come in your area
 - i. Especially useful if there are cloaky campers and you are taking the risk; “Local” does not help much as they are already in system, likely next to you, but waiting to jump you
 - ii. This should be your primary view most of the time. If you can’t see them when they warp in, immediately, you cannot react in time.
 - d. You want a pane that helps you see nearby ore / asteroids by type or distance
 - i. Only use this when choosing a new rock, then immediately switch back to the pane that lets you see enemies.

Scouts – Put your eyes where you need to go

1. You can’t count on allies to be online, at keyboard, and able to report hostile movements
2. Use a blank pod or interceptor
3. Visit the system ahead of your valued ship
4. If there are neutrals active in your area, abandon plans to travel. Dock up. Wait until later.
 - a. If they are only docked, they may come out when they see you enter system.
 - b. If you can, get 2 scouts. One to see if they come out of station, and one to go to the next system ahead to ensure there’s no ambush waiting for you.
5. If the trip’s important, keep the scout in that system (and stay docked) until the neutrals clear out.
6. Take each system one at a time. You may only get partway done before you have to abandon it. Better than losing your ship!

D Scan – Not the end-all, be-all of safety. But quite the hunting tool!

1. Dock up first, or warp to safety, then check D Scan window.
 - a. Use D Scan to see what ships are in a system, -after- you get safe.
 - b. If you are not aligned beforehand, you cannot escape in time if they are coming to you.
 - c. If you do not dock up, they can use D scan to find your mining location.
 - d. They don't need combat probes to find you if you're at a moon station or ice / asteroid belt.
2. If hostiles have D Scan open when they enter a system, it automatically scans.
 - a. They don't need to decloak to D scan. They'll see you up to a full minute before you see them, which gives them time to locate you very precisely.
 - b. It is very easy to locate mining ships when they are at an ice belt or moon station.
3. You cannot rely on D Scan to tell you fast enough if someone is a threat.
4. D Scan will also not detect cloaked ships, such as Force Recons.
 - a. Your only warning that they are there is when they decloak next to you with less than 7 seconds to lock and scam you.
 - b. These ships also frequently call in reinforcements via cyno, also within seconds!

#2 Reaction time

You see the enemy is here, but what do you do about it? Can you warp away in time? Even if you're alert, you can't if you don't follow the below advice.

Align, align, align

1. Actively move towards a warp point (bookmark, station) at half speed or greater
 - a. less than half speed, or worse, sitting still but facing bookmark, do next to nothing for your warp time. Test it!
 - b. Must be greater than 150km away; much further if using a boosting ship
 - c. Away from warpable objects (asteroids, structures), unless an insta-dock bookmark and you are NOT in a boosting ship (Porpoise, Orca)
 - d. Start aligning as the FIRST THING you do when you arrive at a resource
 - i. Make sure there are no rocks or barriers between you and safety
 - ii. If there are, align to another point of safety ASAP

Higgs anchor rig

1. Reduces your speed significantly (to 25%)
 - a. Less frequent vulnerability, due to re-aligning or warping back to rocks
 - b. In range of target rock for at least 5x longer, so you don't have to target nearly as often.
2. Improves align time by about 20%
3. Allows you to always be ready to warp within 2s or less, if moving 2/3 of max speed+
 - c. Warp barges to a station dock bookmark
 1. Warp booster ship (Porpoise, Orca) to a further warp point, ideally a safe point in the middle of empty space.
 2. Warp to a station to dock as soon as possible.

Don't attack them with your combat drones unless last resort!

1. Your drones will "combat timer" block you, and likely won't kill them anyway.
2. Exception would be ECM drones, which may break their scram and let you warp to a distant safe point.
3. When scrambled, always maintain alignment to a warp point, so you can warp immediately as soon as scram is broken (if possible).

Take small ships seriously and RUN

1. "Just an interceptor" that you think you can kill with your drones, or an explorer / miner – Mistake!
 - a. These are always bait and/or a trap for them to bring bigger ships
 - i. Next system over, waiting on gate
 - ii. In a wormhole or behind a cyno
 - iii. Logged out nearby, so they can warp on you quickly

Bookmarks & Safe Points

1. Add alliance shared bookmarks, for safe warp points, docking bookmarks, and gate safes.
2. Use these bookmarks to align/approach location, and maintain 2/3 or higher speed.
3. Press "L" to see a list of bookmarks in current system only.
4. Set bookmarks around your mining area (use a frigate), so your ship is constantly moving towards a warp point. Remember "align" has to include 2/3+ max speed to work.

- a. 300-500km+ to either side of your moon belts (for non-boosters)
 - i. While aligned, you pass from one side of asteroid field to the other
 - ii. Simply target new rocks as old ones pass out of range
 - iii. Able to warp to safety quickly, without coming out of range of rocks
 - b. 300-500km+ to either side of asteroid fields (for non-boosters)
 - i. Also add several points near rock clusters to warp to when you start your mining.
 - ii. Never warp to 0 on an asteroid belt or ice belt. Never sit still. Always align to warp.
 - c. A boosting ship will require a full minute to be able to dock, after cancelling boost. Their warp points need to be in space so enemies cannot catch up without combat probes.
 - i. If you warp to a station and still have timer, enemy can warp to same station, faster, and kill you next to it. Tether will not work and you cannot dock.
5. Never warp to 0 on a safe bookmark or system location
 6. Never stay at any location uncloaked; head to a station and dock immediately.
 7. Don't sit outside station when AFK or when hostiles are in system
 - a. Hostiles can D-scan you to know where you and your friends will mine later
 - b. Hostiles can bump you off tether if you are AFK, and kill you

Orcas

1. Fit a MWD, and turn it quickly on and off again (pulse) to help with your align time.
2. Always, always be aligned and moving, no matter how calm null seems to be.
3. Align to distant safe bookmarks, in the middle of space, where they cannot easily catch up to you. Ideally these are to the sides of the belts. Remember they can still combat scan you if uncloaked.
4. Fit a cloak, and cloak once you land so they can't catch you. MWD Cloak trick to safety!
5. Don't use the most valuable drones. There's a good chance of losing them!
6. Have your ships web each other to further reduce your speed, similar to higgs, so you can align and warp much more quickly. But beware the aggression timer!

Extra note: Jetcans & MTU usage

Jetcanning while mining is popular, especially with covetors. At higher skill levels, you gather ore faster than you can jetcan it out, so people eject and deposit directly.

1. Jetcans last for 2 hours. If you don't pick up your ore before 2 hours, it's gone.
2. Jetcans can be shot. If a hostile comes by, they may shoot your hard work into space dust.
3. Jetcans hold 27,000 m3, so a Porpoise or Miasmos can haul two at a time (roughly).
4. If you use an MTU to gather your cans, be aware it will take other peoples' cans as well.
5. MTUs take cans and wrecks based on distance, but can't take something already being tractored.
6. Label your cans with your local time (not Eve time) and your name
 - i. If you use Eve time, hunters can calculate when you'll bring your Miasmos
 - ii. This will also help reduce confusion if an MTU grabs your can, or you have multiple people mining next to each other

Congratulations! You've gotten through the most important part of the guide. How to stay safer in null. You'll never be completely safe, but the above advice will take you far.

The next section is more a "how and why" to understand a certain kind of hunter - the neut who's been in system cloaked up, waiting to cyno above your head.

Read if you wish, but feel no obligation to. They are a challenge and require incredible attention.

Cheers!

Countering Cloaky Campers

Bear in mind that no plan is foolproof, but you'll hopefully increase your chances with this!

First, I'll talk about why these campers are different than our usual opponents.

Roamers are people who make their way through systems, looking for an easy kill. They are looking for fun or to add value to their killboard so people think they are scary. Miners are easy targets for this. They also tend to come and leave quickly – they get bored.

Cloaky cyno campers are another challenge entirely. Unlike roamers, they don't get bored and leave after a few minutes of no fun. They will stalk and wait and hunt until they see the right opportunity to strike. Usually it's when we get too comfortable with them around, not realizing they're cloaked just above our heads, watching for when we land on the rocks and need to align, or seem to have gone AFK.

But you know what?

These cyno hunters are (mostly) not instant lockers and are not instant death, even if they feel like it. You can expect 3-5 seconds before you are no longer able to escape.

They have to plan and position carefully, and roam to gather intel for future operations. To get the best advantage, they must stay in the same location for hours or days at a time.

They can't use prop mods (if they are cloaked).

The more modules they have equipped to ruin your day, the easier it is for our defenses to ruin theirs. Tank comes at the expense of DPS and debuffs.

They have a targeting delay after decloaking, of 5 seconds (unless they are bombers or interditors using bubbles).

They may have to call for friends to secure the kill (but not always), which makes them vulnerable for around 30 seconds while they hold open their cyno.

They even may be AFK most of the time and not even posing a threat. While you are docked up scared, they may be away doing chores, eating lunch, watching a movie, or off at classes or at work. They may even be asleep for the night since hours ago and you'd never know it.

They might also be right there, 4km away from you, just waiting for you to get a little too comfortable.

So what do you do? Or not do?

#1 Do not fly what you cannot afford to lose.

This has always been true. But it is especially true, now. The most efficient mining setup you have invested in is now your Achilles heel. If you are not willing to mine with “less than the most efficient”, you will not get to mine. Period.

Almost every Orca that has undocked around cloaky cynos has died within hours. With their boosts, drone bonuses, or cargo hold, they are some of the most effective mining ships and boosters we have, short of Rorquals. But, they are not the best choice today.

The defensiveness that makes it safe in high sec makes almost no difference in null, without a fleet at the ready to defend you. Your high value, in exchange, makes you a delicious target. It'll be far easier for the hunters to gather friends because it will be a delightful killmail for them and a major loss for you. Hits like this are what they live for.

It takes you ten seconds to warp at a minimum, using MWD trick. It takes them six seconds to lock and scram. It doesn't matter how quickly you react; unless you are already aligned to reduce your warp time, you simply don't stand a chance. And every time you land to re-align, you're vulnerable for more than enough time for them to say “Welcome back!” with a scrambler and then a greeting party.

Consider the Porpoise instead.

Its buffs are only 3% less in strength. An Orca has 41% strength but a Porpoise can still get 38%, with mining director. It's still 30% even without the mindlink.

Its Mining drones are still 50% effective as an Orca's, at about 40% the rate of a barge.

Its ore hold and especially its fleet hangar are far smaller. This can be annoying, because it requires you to pay attention frequently. I argue that this is a good thing because,

- 1) Being forced to pay attention more can save your butt.
- 2) When you drop off ore more frequently, that means you have less value in the hold if you get ganked. Think of it as saving the game more often. Even if you lose your ship, you got to save more of your work.

Its greatest strength is that it is agile. With one inertial stabilizer I, you can achieve an align time of just 5 seconds from a dead stop. That's just enough time to outrun a cyno's tackle, if you're paying attention.

Its second greatest strength is that it is cheap. At around 1/10th the cost of an Orca, not as many people want to interrupt their fun to catch something worth 1/3 or less of each of their hunting ships, that they likely can't even catch due to its quick warp-off. And if they do, it's easy to replace or have extras on hand, and you likely still made money despite the loss. When you lose an Orca, you've lost perhaps a week or more's work. A Porpoise's value can be measured in mere hours.

Hulks, Skiffs, and Mackinaw are also great targets for gankers here. Hulks die in a blink. Skiffs cannot warp quickly enough. Their defense just means it takes more time to kill you, which is still likely to happen. Plus the value on the kill mail justifies the effort to the hunters. If you fly a Mackinaw, they know you are probably AFK and thus the easiest target. Why else would you fly a Mackinaw?

I vote for Tier 1 barges when in null, for most of the time. Even in the mining operations.

Use Covetors when the system is clear of threats. They're ¼ the cost of a Hulk with maybe 80% of the mining efficiency. Their speed also matches the Porpoise better when using a Higgs anchor and mining aligned. They are still made of tissue paper, but will make you nearly twice the income of a Procurer.

Use Procurers when there is a threat hanging over your head, aka a cloaky cyno hunter. You're still going to mine aligned with these (see below). But they're tanky, cheap as hell, and can counter-tackle for your defenses to grab someone you have enough strength to beat.

As frustrating as a Procurer's mining rate is, making half the profit is better than none at all.

Be aware of what you're carrying and using on your ships. Some drones give you massive value in exchange for, well, massive value. Expect these to be sniped. Or they will make you a shinier target, because hunters want to profit by selling your drones. Use cheaper drones!

Don't be a loot piñata.

Scout before you move your ships to a new mining location. Have that scout move with your ships. Have that scout escort your ore haulers, too, and dock up at the first sign of trouble ahead. Continue later, or another day if you can.

Don't haul your ore as soon as you're done mining. Wait for the campers to leave, or hire the hauling service. Better to pay a bit to maintain most of your profit, than to have it all lost on the way home.

And for Pete's sake, don't mine in your best training implants. I know the training time is precious, but you will lose massive investment when they decide to play with bubbles and explosions.

Understanding Your Defensive Tools – in more detail

You will be attacked at some point. You'll get distracted, be too sleepy, or just simply not notice that local changed despite your best efforts. It has happened to all of us, with many losses along the way. And sometimes, we still managed to get away. It's important to understand what works, what doesn't, and how and why. Also bear in mind that my own PvP experience is extremely limited, so my advice on PvP tactics is to ask someone who knows better than I do.

Also keep in mind: The more valuable your defenses, the more our enemies want them on their kill mails. They'll find friends. Lots of them. They'll all come by to say hello, with bubbles and explosions in tow! ... I promise, no more terrible rhymes.

#1 Do NOT assume the defensive fleet will save you

A cyno hunter can have friends within 10-15 seconds. They will have tackled you within 6. In other words, once you are tackled, you are doomed, unless everyone protecting you is in shooting range AND strong enough to kill the cyno. Even being in the same system may not be enough. More below.

#2 Be Aware

Hunters can tackle you within 6 seconds of entering system or uncloaking next to you. If your warp time is greater than 5 seconds, you are toast.

This also assumes you can react within 2 seconds of seeing them appear next to you or appear in system. If your reaction time is slower, your warp time must be faster.

So, Do NOT go AFK while mining.

Not even for 15 seconds. You need a drink? Dock up. You need the restroom? Dock up. Your kids or cats are hungry or fighting? Dock up.

You get the idea. How many times the above have gotten me killed? Every time, I tell ya!

Keep local visible at all times.

Make it a separate chat box, and make it small enough that all you can see is the list of names. Assume anyone not blue, green, or purple is out to get you. Assume anyone red or orange is a “dock up immediately” threat. Honestly, the same is true for a neutral with no rating. They have no business being here except their hunt.

This also makes it easier to ignore local chat when it is just a bunch of heads and no text.

Keep intel visible at all times.

Know the names of nearby systems. Assume anyone reported is hostile and hunting. That’s why we report them. Even asteros have been known to cloak up, find you, and serve as a warp point for their friends. I’ve died to this neat little trick twice now!

#3 Defensive deployables

A cyno field disruptor prevents a normal cyno field from opening up within 100km of its deployment.

It essentially costs 50mil per hour. It also does not block covert cynos. If everyone’s spread out across the moon belt, maybe half of the group won’t be protected. You’ll need multiple. And if your group is less than four people, you’re going to be losing money faster than you’re making it. Save these for the bigger groups, and coordinate where you mine to make the most counter-bang for your buck.

A warp disruptor, or deployable bubble, won’t help you when the cloaky cyno hunter is already next to you without you knowing it. It may end up getting you killed, even, if you get caught in it while warping away. It may help against roamers who warp straight from gate to the belt. But it won’t stop the cynos.

#4 Defensive modules

Tank and repair modules can buy you time. But that time may not make the difference between life and death. If they buy you time, you must be able to use that time to improve your odds of survival.

Without dedicated friends nearby to help (and enough of them), the cyno ship is safe and you are not. Tank modules, such as shield extenders and armor plates, can also speed up their targeting and slow down your ship, further reducing your chances of getting to safety.

Also, using defensive modules starts your aggression timer. You need to warp far away into space rather than to a nearby station after using them. They are a last resort, not a first choice.

Do NOT assume your warp stab will save you from tackle.

Mining with 3 warp stabs is essentially impossible, and if they use a faction scrambler, you're still going to get scrambled. A cyno hunter will uncloak next to you (less than 5km) in 6 seconds, and scram for 4 pts. Your best defense is the other kind of SCRAM (run away)!

A burst jammer only works within 15km and is not guaranteed to work, and does not block re-locking.

It may break the scrambler and point of someone next to you, if it works, so it's best used against a cloaky cyno. But it won't break a long point from over 20km away.

If you haven't leveled your ECM skill at all, this is essentially useless. At best, it is a 50% chance of getting to safety. 50% is better than none at all, of course. But with no skill, it's less than a 25% chance.

Make sure you are always aligned to something, so you can warp as soon as the scram is lifted.

A targeted ECM jammer will still allow your target to target you.

This was changed recently from how it used to work. ECM used to clear ALL of their targets. But now, whoever uses an ECM on someone, is still targetable by that person. So you will still be tackled and unable to escape.

ECM drones work, however, because the hunter will only be able to target the drone. But I believe their use will start the aggression timer, so you need to warp far away to run down the clock and dock up safely afterward. Also, they are an even smaller chance of jamming than the burst jammer.

#5 Drones

Stealth bombers have around 3k eHP and may be a viable target, though their friends will quickly also be there. I'm not sure that a Covetor's drones would get the kill in time.

Either way, if you actually kill the tackle, you need to warp warp warp as fast as you can!

But, Tier 3 Cruisers (Loki, Tengu, Legion, Proteus) can have around 40-70k eHP. Force recon ships (Arazu, Pilgrim, Rapier, Falcon) have between 40 and 80k eHP. Both of these ships often are equipped to repair 500 eHP/s. That would be like killing 3 battleship NPCs, and you'd need to in less than ten seconds.

Also, using drones causes aggression timer. If you warp to station, but still have time on this clock, they can warp with you and kill you there while you wait for the clock to count down, banging on the dock button.

My advice when there's hostile cloaky cynos would be to ditch mining drones altogether, and fit 5 ECM drones and 5 light drones. Save them for emergencies and NPCs.

Did I mention the NPCs hit hard in null? If you see a dreadnought, get out of dodge immediately. If you're mining solo, many of the NPC gangs will be too tough unless you're in a procurer. Stay safe. Mine aligned.

#6 Use our stations.

Stations have a bonus in range that protects you from being targeted, repairs you, and essentially makes you invulnerable. This is called tether. You can tell it's working because of the blue line going from the station to your ship. If the line is orange, you're near the edge of its range. But, it's not infallible.

Do NOT target while tethered. This will break your tether.

Do NOT AFK tethered at a station. Dock up.

Hunters can bounce you off tether, and then tackle and kill you.

Hunters can use D Scan to figure out where you're at if you're not docked up. If you're tethered at the moon you're mining, congratulations! Now they know where to set up camp for you AND your friends who are online later.

Do NOT warp to the nearest station with your boost ship (Porpoise, Orca), while its buff timer is more than 20 seconds from clearing.

The hunters were paying attention to your timing. They will follow you. You will die sitting outside the station, madly clicking the dock button. Tether will never arrive in time.

DO feel free to use the station "Take Control" to D-scan hostiles as they come into system (but don't stay in control unless you're able to manage its defenses to help your friends).

If you are within range of the gate and can see what they brought in before it cloaks, or see it as it passes across the system, you have knowledge that can help others (through the intel channel). Maybe the hunter will pass on you but hunt someone else. Or someone is familiar with this person and can give you advice on how to deal with them. There's many times this intel sharing has saved people. And many times, when we've failed to, people have lost their ships and hard work.

DO feel free to use the station to ECM jam, neut, and scram an enemy that has a hold on your friend or is trying to chase down one of your other escaping ships. You may be able to get that ship free in time for it to warp away. Be aligned to a warp point with that ship, watching and alert for the disrupt/scramble icon to go away. Warp away as fast as you can, as soon as you can. Don't expect the station's missiles to be able to destroy the hunter, though. Getting away is our primary goal.

#7 Know your enemy.

A ship generating a cynosural field is vulnerable for 30 seconds while opening that portal for their friends. They cannot move more than 500m/s or warp away.

If you have defenses available, know how much damage your friends can do, and how quickly, before you need them. Ships with high alpha, such as Tornadoes, may be able to take down a cyno ship with 8 cumulative shots if you are 50-70km away. Be aligned and ready to warp away quickly, because their friends will be coming after you. A solo tornado, at best can kill a bomber while it is warping in its friends. And then it needs to run away immediately to a far safe warp point.

I believe it otherwise requires at least 4,000 DPS and either a sniping fit of 150km+, or very fast warping ships, to kill a cyno ship before it is no longer pinned. And their friends will still arrive as you are shooting them, and start shooting back. Don't fly what you can't afford to lose. Especially on defense.

I am really not one to talk to about PvP and how to actually defend against them. My best and most-practiced defense is running away.

See below.

#8 Mine aligned.

Much maligned, this technique requires micromanagement but is truly key to your survival. Most deaths and opportunities can be prevented by mining aligned. Nothing matters more than how quickly you can react to someone showing up next to you. This is your #1 defensive tool, though it's last on the list, but requires understanding how warp works.

To warp to a location, the game requires your ship to face it, AND for you to be moving at $\frac{3}{4}$ your maximum speed. Many people believe it means to face a target while sitting still. This actually does nothing to help you. The key to warping faster is directional movement. As long as you are moving where you want to go, your time to start warp is reduced. At $\frac{3}{4}$ speed or higher, the time to start warp is nearly instant.

This means, while that cyno is locked in de-cloak, trying to target you, or the incoming hostile is landing from warp-in, you're already on your way out, safe and sound.

But it can be frustrating to mine aligned. See frustrations and solutions below.

Frustration:

You can't align to the mining station and warp there from the asteroids you're mining.

Solution:

Align to the dock bookmark, or a distant station or bookmark instead.

Watch the distance to your target bookmark to make sure it's still over 150km. If it gets to, say, 155km, warp to it, then warp back to a rock to begin the aligning and mining process again.

Frustration:

Your ship's so fast that it moves out of range before you are even halfway full.

Solution 1:

Adjust your speed to $\frac{3}{4}$ maximum speed, or even $\frac{2}{3}$. You'll still be able to warp fast enough to get away safely. But this requires you to have a faster reaction time and to be paying attention even closer.

Solution 2:

This is my go-to and most recommended solution.

Reduce your speed with the use of a Higgs anchor. This gives you multiple cycles of the mining lasers before you move out of range. Likely your cargo hold will be full, or your Porpoise will be over half full, by the time you run out of range.

Solution 3:

Use the mining range boost on your Porpoise when you near the edge of your range.

Solution 4:

Use a fast ship to set up bookmarks far to the sides of the asteroid belt or moon belt, so you can move and mine across the belt, choosing new rocks as they come into range.

Make sure these warp points are at least 300km away, so you can safely align to warp to a station. Some tackle ships are scary fast, especially when they overheat their MWD.

Note: Try not to warp to any bookmark, distant planet, or belt "on 0." Always warp at a distance. Keep them guessing. And don't warp to the sun.

Frustration:

You can't use jetcans effectively while moving.

Solution 1: Don't.

Seriously. Some of the cloaky campers shoot your jetcans after they scare you away. They want to deny you the results of your hard work. Don't let it sit out there for them to shoot.

Alternative Solution 1:

Tractor beam drag a jetcan behind your Porpoise, within distance of your mining ships. Drag ore into the can, then into your Porpoise. This works well with Covetors because they mine too quickly to jetcan every time they are full. Keep just 1 piece of ore in the can to keep it "active" and make sure the rest gets in your Porpoise as soon as it enters the can.

Put a time stamp on your jetcan. They decay after 2 hours, taking your ore with them. You need to pick them up before time's up!

Solution 2: Maneuver your Porpoise so you can drag ore into its fleet hangar from your ship.

This requires more micromanagement than the jetcan method, but frees up a high slot, maybe for a cloak, and keeps you paying attention. Put a microwarpdrive on the porpoise for this very... porpoise. You'll thank me later, when you stop groaning at my terrible puns.

Solution 3: Warp to station and drop off your ore whenever you fill up.

You don't have to dock to put your ore in station. Merely right click it and click "cargo deposit" near the bottom of the menu. Drag the ore into the box, and then click "confirm." It's now in your item hangar!

As an added bonus, this works like "saving your work" more often. Imagine you're working on a critical report due tomorrow morning, in the middle of a thunderstorm with lightning everywhere and massive gusts of wind. At some point, the power's going out. How often are you saving your work?

Also, when you warp back, try to choose a different rock every time. Keep them guessing. It's also a pain in the butt for hunters to slow-boat across the belt, or have to warp-reposition every time you do.

Conclusion:

As a final note, I advise you to have backup ships. You're eventually going to lose something, and the worst thing that can happen is that it's the last one you had, and now you have to quit. These ships are cheap. Don't be cheaper than they are. Get a couple, and when one goes boom, look at how much you made with it, laugh a little, and get back out there once you've calmed down. We're going to lose ships. But if we gain more than we lose, we actually won.

If you've got busy nights and can't pay attention while playing, make training Interceptors a priority. When you really need to just relax, head to high sec, join the gang there, and join voice chat if you want to. You're still going to want to dock up when someone orange or red comes in system, but your tanky builds will buy you peace of mind and the R&R that you need that night. Life and mental health come first. But it's nice to get space rich while doing it!

This advice has saved me plenty, but gauging by my killboard it's not infallible. These hunters want to stop us and demoralize us. We'll make them have to work for it. It's a game of cat and mouse right now, but the sneaky one gets away with the cheddar 😊