## Stormfront PvP Basic

Version 1.0

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## Introduction

In order to learn how to fight back, the student of PvP needs to realize that Eve Online combat is incredibly rich and diverse. It requires not only character skill points but also a good amount of player skills. The difference between a lost encounter and a won encounter is more often the player skills than the character skills. Even a three year old player can not use all 30 million of his skillpoints when in an interceptor; against a pilot that is similarly skilled in interceptor flight but only 6 months old, the result of the engagement will come down to skill augmented by a little luck.

The skills taught in PVP-BASIC are fundamental to Eve combat and make a starting platform for the study of tactics, strategy and dynamics of Eve PvP. These skills are applicable to all kinds of Eve combat and thus form a baseline that has to be known whether you are flying in alliance fleets or considering a career in piracy. These skills are augmented and expanded upon in later PvP University courses which is the reason this class is a requirement for those courses.

This course covers how to move in fleets, create and use safe spots, reconnaissance and much more. You will learn the basics of how to tackle, coordinate your attacks, jam your opponents and basic pvp fitting. In addition, you will learn how to set up your overview to make sure that you can fight effectively without stupid mistakes made be pilots new to PvP. Finally, You will learn how to prioritize your skill training to make you more capable in PvP. At the end of the course you will be able to effectively fight as a member of a tech 1 frigate fleet wolfpack, some of the most fun pvp in the game. During the course we will be flying in a PvP capacity in 0.0 space.

## Prerequisites

The instructor will assume that you have studied the articles relevant to the class prior to attending class. You can find those relevant articles listed below in the index for your convenience. Please pay special attention to the naming conventions for bookmarks as these seem to trip up a lot of students. There is nothing wrong with having the bookmarks article open during class and referring to it when needed. If you merely skim or read the articles and do not study them in advance you could end up lost very fast. Remember that in PvP University classes, it is your responsibility to do the learning. We can only provide the information, you have to decide to learn it.

## Skills

1. Propulsion Jamming $1+$
2. Afterburner 1+
3. Caldari, Amarr, Gallente or Minmatar Frigate 1+
4. Sensor Linking 1+
5. Warp Drive Operation 3+
6. Target Painting $1+$
7. Weapon Disruption 1+
8. Electronic Warfare $1+$

## Preparation

It will be assumed by the instructor that all of the following preparation has been done prior to the start of the course. The instructor will assume you have read all articles and won't rehash them completely. Furthermore, the instructor will not make the entire class wait if you are not present or don't have your headset working.

1. Understand the Rules of Engagement.

Within Empire (1.0 to 0.1 ) do not engage unless specifically told to target and shoot. When you here 'target' or 'primary' target and engage. DO NOT shoot at other members of the class.
2. Read all articles indexed below.
3. Buy and fit at least 2 ships and move them to the course location. (Note that we will swap out EWAR in class so one of each would be good to have).
4. Come on Ventrilo before the course to verify that your microphone and headset are working.
5. Arrive BEFORE the class and set your clone location and make sure your clone is up to date.

## Stormfront PvP Basic - Checklist

## 1) Register on the forums

2) Connect to Ventrilo
3) Check your skills:

The skills you need to have before the class starts are listed in the enrolment thread for that class. At the time of this document they are:
a. Propulsion Jamming 1+
b. Afterburner 1+
c. Caldari, Amarr, Gallente or Minmatar Frigate 1+
d. Sensor Linking 1+
e. Warp Drive Operation 3+ (yes, we really mean it, not having it can delay the movement of the fleet)
f. Target Painting 1+
g. Weapon Disruption $1+$
h. Electronic Warfare 1+

## 5. (Optional) Prepare your jump clone

You're going to want a jump clone at Nonni V - Lai Dai Corporation in time for the start of the class. The pod survival rate in our Basic classes is around $95 \%$ - most people don't lose any ships, and most people who lose their ship don't lose their pod. But losing all your implants is something we'd prefer you didn't risk. If you are unable to secure jumpclones without Agony's help, we will attempt to get you to a station in 0.0 where you can set up a jump clone. To do this, you will need Infomorph Psychology I and a shuttle, Please Keep in mind that we can't do this the Day of the Class, and you should try to do this well in advance. Due to the changes in the Region we can't always get you in but we will $==$ TRY $==$ to help you.

## 6. Read all the following articles:

The following is a list of material to be read and understood BEFORE attending the BASIC class. This class and much of the material is coming from the Agony Unleashed course of the same name. There are 8 items to read.

1. Hydra Fleet Principles
2. An Introduction to Bookmarks in EVE
3. Your Clone and Your Pod
4. Voice Communications in PvP Operations
5. Recommended Modules for BASIC
6. Getting Maximum PvP Value From Your Skill Training
7. PVP Comms 101
8. Configuring the EVE Client for PvP

NOTE: Items 1 thru 8 are at the end of this document

## 7) Buy your frigates

Choose one type of frigate that you think you'll enjoy for the duration of the class. Having your class frigates in different types seems like a really good idea in theory, but in practice it tends to be frustrating and annoying. Don't choose a frigate with a mining laser bonus. Don't choose a frigate with an astrometrics bonus. Don't choose an assault frigate, interceptor, or stealth frigate - they require different techniques to fly than a tech 1 frigate, and we won't be covering those techniques in this class. We usually don't use target painters in the BASIC class, so don't choose a Vigil.
Once you've chosen a type of frigate, buy at least two of them, three if you can afford it. Five if you're planning on making a regular habit of traveling into 0.0 or lowsec from Nonni.

## 8) Buy afterburners

Each of your frigates is going to need an afterburner. For certain frigates, this doesn't give optimal combat performance, but it's the right choice for most frigates. There are a number of training exercises where the instructor will say "turn on your afterburner" - not having one means you miss out on some of the educational value. Don't buy or fit microwarp drives, when we say 'afterburner' we mean 'afterburner'. If you feel like fitting named, t 2 or faction afterburners, then go for it. Just remember that in 0.0 , the real question is not 'if' you lose your ship, but 'when'.

## 9) Buy midslot and lowslot items

Have a look at the Recommended Modules for BASIC and try to collect the full set. If you've chosen a frigate that gets a bonus to ewar modules (Crucifier, Griffin, or Maulus) make sure you have all the modules from the collection that you get a bonus to using. (Tracking disruptors, ECM varieties, or sensor damps, respectively.) As with the afterburners, feel free to get expensive kit if you can afford to lose it.

## 10) Buy highslot items

The midslot items are vitally important to a hydra fleet, so you buy those and make sure you can fit them before you look at fitting weapons. Be aware that different midslot items require different amounts of CPU - don't be afraid to use lighter-caliber guns to make sure you can equip your ewar. (If you're loaded with cash, consider buying a mixture of gun calibers so that you can maximize your punch once the ewar is finalized during the class. Similarly, named modules can help, if you can afford to lose them.)

## 11) Buy ammunition

400 rounds per weapon should see you through nicely. If possible, bring an ammunition type that gives you an optimal range around 9 km , and as an ammunition type that gives an optimal range roughly equal to your frigate's fastest circular orbit.

## 12) Gather everything in Nonni V - Lai Dai Corporation

Careful here - there's more than one Lai Dai station in Nonni.

## 13) Fit out your frigates and insure them

Set up your frigates with identical fittings in every slot and get the platinum insurance on each. During the class, you're reasonably likely to be asked to change your fittings around, but you may as well make certain that there's at least one configuration that works. Note that a lot of our training materials were written before the Nano Nerf - if you're looking for something to squeeze into your low slots, an overdrive might be the best choice these days.

## 14) Set your medical clone to Nonni V - Lai Dai Corporation

In the unfortunate event that you do get podded, waking up 50 jumps away from the class would ruin your evening.

## 15) (Optional) Finalize your jumpclone arrangements

You're going to want the clone with all your implants to be in some other station than Nonni V - Lai Dai. You're going to want a clone without implants in Nonni V - Lai Dai.

## 16) Configure your overview and your graphics settings

Follow the configuration instructions that are a part of the BASIC course material (link ). Yes, you really do need to turn off your sound and effects, and you really do need to set up your overview so that you can't see anything beyond the essentials. If you don't do this and you're lucky, your overview will be cluttered and you might cause a friendly fire incident. If you're unlucky, your client will crash when you jump into a system full of hostiles.

## READING LIST

## Frigate Fleet Fitting Using the Hydra Principle

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## The Frigate Fleet

## Introduction

A frigate fleet is not simply a blob of people in frigates. Blobs are disorganized, often poorly fitted mess of ships that rely on sheer numbers to win. This article
will teach you how to take a blob of frigates and turn them into a lethal force that can absolutely crush even the largest ships in EVE.

However, keep in mind that a frigate fleet is not simply a blob of people in frigates; this is a mistake made by many and repeated incessantly by those who have never seen a proper fleet. Blobs are a disorganized, often poorly fitted mess of ships. The tech one frigate fleet properly configured would utterly destroy a frigate blob of the same size. Agony Unleashed has proved this to be the case, a number of times in our classes (by students such as yourself). The key to learning how to build a fleet and not a blob, is to study the configuration of a frigate fleet.
In the PVP-BASIC class, our focus will be on getting you into PvP in the easiest way possible. Since you will lose ships in PvP, the easiest way to get started is to work in a frigate. In fact, there are a number of advanced PvPers, including the instructor, that actually prefer to work in smaller ships. Even if you love that shiny battleship, when you first start out you will be losing ships quite quickly, and it's a lot easier on both your wallet and your ego if you lose $1 / 4$ million ISK ships instead of $1 / 4$ billion ones. Keep in mind that even if you an expert PvP pilot in a frigate, that does not guarantee you know about battleship PvP and vice versa; there are a lot of dramatic differences between flying the two ship classes. Just like in PvE, it's best to slowly work your way up the ladder, getting experience in one ship type before moving up a gear.
This article will get you started in selecting the right ship and fitting that ship up to requirements, that will allow you to assemble an optimal tech one frigate fighting force. Once you complete the article, you will not only know how to fit your own ship, but also to fit an entire fleet.

## Selecting a Ship

For the purposes of PvP , the tech one frigates are divided into a five distinct categories. The first are the combat ships, designed to inflict damage and put out as much firepower as possible. Tthese ships are the Punisher and Inquisitor for
the Amarr, the Merlin and Kestrel for the Caldari, Incursus and Tristan for the Gallente and the Rifter and Breacher for the Minmatar. These ships combine both firepower with mid slots, allowing them to mount Electronic Warfare devices. Identifying which ship is best is really hard to say because it is very situational. A Kestrel puts out an enormous amount of damage for a frigate with its four launcher slots and bonuses, but then a Rifter is much faster, and can be used to catch up to the opponent. The Amarr Inquisitor is another decent ship, but its two mid slots, a problem with Amarr ships, are somewhat limiting. This doesn't mean it isn't welcome in a fleet, but rather that its options are more limited. The best frigate fleet would probably have a mix of all of these kinds of ships, so that the bonuses could be used to the best advantage of the fleet.

The second PvP category of tech one frigate is the electronic warfare (EWAR) frigate for your race. these are the Crucifier, with a bonus to Tracking Disruptors, the Griffin, with bonuses to ECM (sometimes called jammers), the Maulus, best suited to use Sensor Dampeners, and the Vigil, which has a bonus with Target Painters.

Thirdly is the scan probe frigates; the Heron, the Imicus and the Probe. These are useful as cheap scan platforms, although are overshadowed by the more expensive Covert Ops ships. It should be noted that the Amarr do not have a scan probe frigate.
Next up is the recon frigates, the Executioner, the Condor, the Atron and the Slasher. Fast, even for frigates, these ships serve as excellent close recon ships, able to go through a gate ahead of the main fleet and provide intel.
Finally is the mining frigates, the Tormentor, the Bantam, the Navitas and the Burst. With mining and cargo bay bonuses, these 4 as a rule don't have a place in a frigate fleet.

You should pick the frigate that you are best with. If you have a lot of gun skills, don't go with a missile boat. If you have a lot of EWAR skills you might want to choose an EWAR frigate.

## The Basics of Fitting Your Ship

Once you get your ship, you want to set up your propulsion first. This seems counterintuitive to most pilots at first that normally set up their guns/missiles first. However, there are some really good reasons for fitting propulsion first. To understand why, we will talk a bit about orbiting. If there are some things in this section that you don't understand then don't panic because we will be going over this critical information in class and that will help to clarify everything for you. In order to maintain a full speed orbit around any entity, you need to consider the effect of inertia. As your ship accelerates in a straight line, it builds up inertia that resists the ship turning. The more inertia you build up, the longer it takes you to turn. Since inertia is a function of mass times velocity, you have to either reduce velocity or mass to turn your ship faster. The faster you can turn your ship, the closer it can orbit to a target. If you put a microwarp drive on a Thorax and tried to orbit an asteroid at 2000 m , you would go flying off into space because it couldn't turn fast enough. The Thorax would move in and out of the orbit in an elliptical, rather than circular, pattern that would consistently deteriorate. A frigate bearing a microwarp drive would have similar problems.
The main problem with an elliptical orbit is that it messes up the way you fight. Instead of maintaining the same orbital velocity, your radial velocity goes up and down constantly. The problem with that is that it gives the enemy guns a better chance to hit you when the radial velocity goes down. Furthermore, if you have set up your guns for an optimal of 7 km and then you move in and out of 7 km in an elliptical orbit, your guns are not hitting as well as they could be.

You should avoid an elliptical orbit and instead seek to maintain a stable, circular orbit around the target while flying at full speed. To do this you will have to either increase the agility of your ship or decrease the speed of your ship. You can improve the agility of your ship through the training of Evasive Maneuvering and Spaceship Command skills as well as putting a nanofiber or inertial stabilizer on your ship.

An afterburner fitted to your ship as an absolute must. This will help keep up the fastest orbit that you possibly can, ensuring much higher ship survivability. Some
of you might be wondering why I didn't have you choose a microwarp drive. The reason is that microwarp drives are great for covering long distances, but they make you light up like a Christmas tree and that makes you easier to hit. A frigate with the microwarp drive running will have the signal radius of a Battlecruiser, meaning that if the enemy guns hit you, you are already dead, and a dead ship is no good to the fleet! Keeping your signal radius small is critical in ensuring the survivability of your frigate. Unless you can get some enormously high speed like an interceptor, a microwarp is not worth the reduction in fighting power and increased chance to die.

After that you should take your ship out and try to test out its orbiting capability on an asteroid. Just orbit around the asteroid and watch your distance from the asteroid. You should choose an orbit that is at least 6 km from the asteroid but no more than 10 km from it. The reason for this will become clear in the in-flight part of this course; for now just trust me on this. The closer to 6km you can get, the better. However, you don't want to get closer than 6 km or you run the risk of being insta-podded by a battleship with smart bombs equipped. Its best to stay out of this range and let the battleship run out of cap and destroy him. I assure you that destroying a battleship with tech one frigs is not only possible, but is a fairly regular occurance with Agony classes.

Once you establish your orbit you should set up your guns. Frigates should be set up for damage rather than tanking. Typically in a frigate fleet you will either get blown up or get out without a scratch. If those huge guns actually get a shot off that hits you, you aren't going to be tanking the damage anyway; therefore a tank on these ships is largely a waste of time. Put on as many guns and rockets as you can fit and use at your optimal range. The only thing that should go in your mid slots at this point is your afterburner. In the next section we will talk about setting up your mid slots.
When it comes to lows, forget the tank. Tanking is the process of absorbing and repairing damage from an enemy. In a frigate fleet if you get locked up effectively you will probably be able to tank as long as you can sneeze. Relax, you are in a
disposable ship and clones are cheap. If your ship is just scratched, the remote repairers can easily repair the ship after the fight. Instead use those lows for any engineering or hull equipment you need to make the frig work, as well as damage mods to increase your damage output. The only possible exception to the rule is the fitting of a Damage Control to a low slot. You might consider this if you have an extra slot because it essentially turns all of your structure into armor and only for an extremely small amount of cap and fitting requirements; a damage control might give you a couple more seconds of survivability.

## Fitting Your Mid Slots

A frigate fleet should be treated like the many headed Hydra of Greek mythology whereby if you loose one of the heads, there is still quite enough to go around killing the targets. The player that gets killed merely picks up a new ship and joins the frigate pack as soon as he or she can. The goal is to set up this hydra, so that losses are minimized and effectiveness is maximized. A properly fitted hydra fleet can easily turn a battleship into a large paperweight and kill it without any ships getting destroyed; or kill a drone or FoF missile boat with minimal losses. The key to setting up the ships is to set up the fleet by considering our mid slots as a grand total.

In a frigate layout there will be some compulsory equipment. You need guns or rockets; after all, you can't take down anything in this game with harsh language (although many people try). In the mid slots you will need an afterburner to get to the target and orbit as fast as you can. You might also eventually need some engineering gear to make the whole setup work better. What remains of the the mid slots in your fleet are used to equip EWAR and tackling gear. To illustrate, lets think of a 20 pilot fleet.

If we require all of our pilots to equip a warp disruptor then we can get 20 points of warp disruption on the opponent and for sure he isn't going to warp away. However, we would be wasting mid slots because even a ship with a full load of warp core stabilizers (stabs) in the lows can have at max 8 points of stabilization.

Therefore, if you can muster 9 points then you can pin anyone in the game. In reality, encountering a combat ship with stabs is rare in PvP, and if they do, it will probably only be one. However, equipping your fleet with only 5 points is also a bad idea because if you lose one of the pilots that has a point, then you are down to 4. If you lose 2 you are in a situation where even more targets can get away from you. So what you want to do is hedge your bets. We say we need $150 \%$ of 5 points to scramble. This means that in a fleet of 20 you might want 8 or 9 people equipped with warp disruptors. This will allow you to lose pilots and still be able to warp disrupt. The pilots with the 8 stabs may still be able to get away but that is a such rare occurrence in PvP that it wont matter. If you know for sure a certain pilot has a whole rack, then you can change the fitting to catch him as well.

Another trick you can use to minimize the capacitor impact of the disruptors is to have 3 or 4 people that have 7.5 km warp scramblers as well. This allows the pilots with the more cap intensive warp jammers to turn off their disruptors once the scramblers take over.

Once you have determined how many warp disruptors you need, you will have some number of slots left over for various other modules. The most interesting modules to put in these slots are stasis webifiers (webs), tracking disruptors (TDs), remote sensor dampeners (damps), target painters (painters), and electronic counter measure modules (ECMs). We apply the many headed hydra principle to these modules and equip our fleet accordingly. In order to understand how many of each you need, you will have to understand a little about how EWAR works.

## A Brief overview of EWAR

EWAR modules are perhaps the best asset of a large fleet of small ships. They can turn that scary battleship into a paperweight and make the difference between winning the day and losing the whole fleet. The most important factor of a frigate fleet is the balancing of EWAR usage in the fleet. All EWAR modules
have stacking penalties which means that after a certain number of modules being placed on the target, the benefit of the modules becomes less and less. You may have also heard of or noticed scripts. Scripts are loaded into either a Tracking Computer, Tracking Disruptor, Sensor Booster or Sensor Dampener (they also go into the Warp Disruption Field Generator, but that is beyond the scope of PvP Basic), and they modify the bonuses/penalties the module gives. For instance, a basic Sensor Booster I gives a $25 \%$ bonus to both targetting range and scan resolution. Using scripts, you can make one of those bonuses $50 \%$ at the expense of the other becoming 0\% (so with the Sensor Booster I, you could increase your targetting range by $50 \%$, or the scan resolution by $50 \%$, or both by $25 \%$ ). In the frigate fleet, you should bring both scripts for your Electronic Warfare module (they are not expensive) and use them at all times (it is better to have two Tracking Disruptors with opposite scripts than two Tracking Disruptors without scripts).

Stasis Webifiers are essential to frigate fleets because they slow the opponent's sub-warp velocity. Without webifiers, it would be impossible to kill many large targets because they would merely power up to the gate and jump, before you could overwhelm them. Furthermore, interceptors and the Vagabond heavy assault ship move so fast that without webifiers on them, they can merely fly away from you and out of range in seconds.
Webifiers work by applying a velocity modifier to the targeted ship's maximum velocity. For example, the Stasis Webifier I module slows the target by $75 \%$ which means it applies the modifier 0.25 to the maximum sub-warp velocity of the ship. Applying two Stasis Webifier I modules would slow the ship to $6.25 \%$ of its original maximum velocity. You simply multiply all of the velocity modifiers together to get the final velocity modifier to apply to the target. With 4 Stasis Webifier I modules on an interceptor with a max velocity of $4000 \mathrm{~m} / \mathrm{s}$, the interceptor would be able to do $15.6 \mathrm{~m} / \mathrm{s}(4000$ * 0.0039$)$. Putting on an fifth Stasis Webifier I module would slow the interceptor to $3.9 \mathrm{~m} / \mathrm{s}$ and a sixth would slow it to less than $1 \mathrm{~m} / \mathrm{s}$. From this math it is clear that there is really no need for
more than 6 webifiers to hold an interceptor foolish enough to get caught. In fact, 5 webifiers should be more than enough. Slower ships would require even fewer webifiers; a $260 \mathrm{~m} / \mathrm{s}$ ship would be slowed to $1 \mathrm{~m} / \mathrm{s}$ by 4 webifiers. Applying our hydra principle, 7 or 8 webifiers should be sufficient in an optimal fleet.
Tracking Disruptors apply their modifiers to the tracking speed and/or optimal range of the opponent's guns. This makes it mush more difficult for the guns to hit you. However, tracking disruptors only work against turrets and do not effect missiles or drone ships in the slightest. The mathematics of tracking disruptors is identical to that of webifiers with the exception that there is a stacking penalty that is imposed on tracking disruptors. The more tracking disruptors you put on a ship, the less the effect of an additional tracking disruptor will have on the ship. Having 5 tracking disruptors on a ship will mean that it probably can't hit a planet at point blank range. Applying the hydra principle we want 7 or 8 tracking disruptors in our fleet.
Remote Sensor Dampeners make it difficult for enemies to target you by making one or two modifications to the targeted ship. First, they apply their modifiers to the scan resolution of the ship; the lower the scan resolution, the longer it takes the ship to target your ship. Secondly, dampers apply their modifiers to the maximum targeting range of the opponent. Since remote sensor dampeners use the same mathematics as tracking disruptors and webifiers, calculating their effect is easy. A battleship that can target to 200 km with 5 Remote Sensor Dampener I modules on it would cause the battleship to only be able to target ships at just over 23 km away; by this time the stacking penalty will be very high and putting additional dampeners on the target will accomplish very little. This essentially means that you can reduce a sniping battleship to not be able to target the frigates orbiting it if you have enough dampeners. With ships that don't have such extreme range capability, less dampeners would be sufficient. In a frigate fleet it is recommended that you have as many dampeners as you can to cripple the targeting range of your opponents. It is also recommended that you
train up the skill Signal Suppression in order to improve the effectiveness of your dampeners. If you have 10 or 12 in a fleet, you are probably doing pretty good. Target Painters increase the signal radius of the target by applying a tag to the target that makes the target easier to track; this is most important when engaging small ships with larger ships. You can think of a target painter as making it easier to follow someone in the woods because they have been hit with a yellow ball from a paint ball gun. The increased signal radius means that guns targeted at the painted ship hit more often and better; instead of glancing blows and misses, they score perfect and excellent shots more often. This increases the damage per second (DPS) of the ships firing on the painted target. Also keep in mind that everyone firing on the target benefits from the effects of the target painter, not just you. When calculating the number of optimal painters in your fleet, there is no mathematical formula that I know of that works. The basic idea is that you have enough target painters when your guns are hitting excellently or perfectly on every shot. Beyond that the increase in signal radius doesn't add significantly to the damage; after all, once you are hitting $100 \%$ of the time and for $100 \%$ of the damage you can, you can't do better. Experiments have shown that 5 target painters are usually sufficient so we would want about 8 in the optimal fleet. Electronic Countermeasure Modules prevent your opponent from locking you at all and cause them to break any locks they have established. These modules can literally turn a dangerous pilot into a spectator. However, ECM jammers are virtually worthless without (a) a ship with ECM strength bonuses, (b) high ECM skills, and (c) Signal Distortion Amplifier modules or Particle Dispersion Augmentor Rigs. Since only one Tech 1 frigate has an ECM bonus, the Caldari Griffin, ECM within a frigate fleet is somewhat limited. However, it should not be underestimated, especially when combined with Sensor Dampeners. There are basically two types of electronic counter measure (ECM) modules; the multispectral jammer and specific modules that target specific sensors, also called "racial jammers". In EVE, there are 4 different kinds of sensor, with each of the 4 races using one type of sensor on all of their ships. This is where multi-spectral
jammers and racial jammers differ. Racial jammers hit one kind of sensor more than the others, while multi-spectral jammers hit all 4 sensor types equally. Following is a list of each race's sensor types and the corresponding ECM jammer type.

- Amarr - Radar - White Noise ECM
- Caldari - Gravimetric - Spatial Destabilizer ECM
- Gallente - Magnetometric - Ion Field ECM
- Minmatar - Ladar - Phase Inverter ECM

A ship is actually jammed when all of the sensors on the ship are overcome by jammers. However, since a ship can only have one sensor type (the one listed above), it is easy to work out if a ship will be jammed (note, it used to be possible to have more than one sensor through crafty use of ECCM, but this is no longer the case). The calculation to jam a sensor is fairly simple: the strength of the jammer for a particular sensor is divided by the sensor strength of the ship's sensor to get a probability to hit. For example, a jammer that has a strength of 6 would have a $6 / 10$ chance to jam a ship with a sensor strength of 10 . Therefore, the stronger the jammer, the better chance to jam the ship. The addition of more jammers doesn't change the chance for one jammer to jam the ship but it makes it more likely that the ship will end up jammed. Think of this like rolling a die; you have a 1 in 6 chance to roll a 6; each successive die that you roll still has a 1 in 6 chance of rolling a 6 . However, the more dice that you roll, the greater the chance of getting at least one 6 . If you have a fleet with 5 multi-spectral jammers with a strength of 4 going against a ship with a sensor strength of 10 , the chance of each jammer hitting individually is 4 in 10 or 0.4 . The chance of the jammer missing is 0.6 ( 1 - chance of hitting). Therefore, the chance that the target is not jammed is equivalent to the chance that all of you miss; this value is 0.65 or 0.0776. Since Jammers use a large amount of CPU and capacitor, only the Griffin is suited to carrying them in a frigate fleet. In addition, Jammers are random (as explained above), which makes the Griffin somewhat of a wildcard in fleet combat. It can theoretically jam 4 ships from now until doomsday, or it could not jam a thing. As a result, you should not be over reliant on ECM, although you
should definately consider it as that 'special surprise' (nothing sucks more than being on the receiving end of jamming).
Another benefit to racial jammers is that they use $2 / 3$ of the capacitor energy of multi-spectral jammers. This is important when you consider the limited capacitor capability of your average frigate. Ships like the Griffin can easily run several jammers at once if the pilot has good skills. Racial jammers also have a longer range and are easier to fit than multi-spectral jammers.

## Accounting for Losses

Inevitably you will suffer losses when you are in a frigate fleet. At some point it could be that your losses become a detriment to the configuration of your fleet. For example, if you lose $2 / 3$ of your ships with warp disruptors then you may not be able to prevent the targets from warping off. In order to combat this problem, you will want to make sure that all of your pilots have the skills to use all of the modules that you can put in the mid slots. This is not that many skills to train up so it shouldn't be a problem for any pilot 2 weeks or older. In addition, you will want to make sure that you can hot swap the fleet at a moment's notice. To prepare for the hot swapping there are basically two ways to accomplish this. You can either have each of your pilots carry each of the modules that could possibly go in the mid slots or you could have a weapon and module cache somewhere in the area of combat that is accessible to all pilots in your fleet. The advantage of having the modules in cargo is that each pilot can switch out quickly. The disadvantage is that you will lose more modules when a ship is blown up. The advantage to having a weapons cache is fewer modules destroyed but this is balanced against the necessity of having to fly to that station. It could be said that you could use a Carrier to combine the best of both worlds, however, jumping a carrier is far to expensive to support a frigate fleet. Sometimes you will not be able to even dock at all such as when deep in enemy space with no NPC stations at hand. In this case you might want to bump up your ratio to have $200 \%$ of the modules that you really need in your fleet.

## The Optimal Fleet and Smaller Fleets

Now that we have gone over all of the principles, lets put it together to figure out what the optimal size of our fleet would be. We need the following modules in the fleet:

8 Warp Disruptors
4 Warp Scramblers
8 Stasis Webifiers
8 Tracking Disruptors
10 Dampeners
8 Painters
8 Racial Jammers (varying types)
This sums up to be 54 mid slots. Assuming 2 to 3 slots per ship, we need 18 to 27 pilots to form an optimal fleet. In fact a frigate fleet of this size would pretty much blow anything out of space.

However, you don't always have 18 pilots available to fly with you, so sometimes you have to make do with less. Also, you may not have ECM specced characters in your fleet to run the racial jammers. The second most optimal fleet would be one that didn't have reserve modules and lacked jamming but covered all of the bases appropriately and made up for lack of ECM with sensor dampeners.
5 Warp Disruptors
2 Warp Scramblers
5 Stasis Webifiers
4 Tracking Disruptors
10 Dampeners
4 Painters
This is a grand total of 30 modules which means 10 to 14 pilots. This is a much easier number to manage and is quite workable in situations where you are fighting close to home and the popped pilots are able to refit and be back in the action quickly. This number of pilots could still destroy battleship though it would take them longer.

If you go for smaller fleets, you should try to keep a balance of the modules and tailor it towards what you will fight. If you have only five pilots you don't have the capability to overwhelm the tank of a battleship so don't bother fitting to scramble one. In this case 3 warp disruptors will probably be enough to catch most cruisers. If you intend to hunt interceptors then make sure you don't skimp on webifiers.

If you are the gang leader remember to be flexible and keep the principles of fitting that you have learned here in mind when fitting your fleet. Have your fleet members list out their mid slots (the offensive modules only) into gang chat and reconfigure them before you go out fighting. Also keep an eye on what you are losing either from attrition or from people coming and going. You should generally be able to tell a pilot that just logged on what he should fit before he gets to your gang.
If you follow these principles, ships will die fast at the hands of your frigate fleets and blobs of ships will die even faster in the disorganized mess that they are in. In the process you will have loads of fun, as well as inflicting a lot of damage on the enemy.

## A Note on Nosferatu and Neutralizers

There is much discussion as to whether Nosferatu (a high slot device which drains enemy capacitor into your capacitor) and Energy Neutralizers (a high slot device which burns enemy capacitor at the cost of friendly capacitor) is Electronic Warfare. However, this discussion is beyond the scope of PVP BASIC. A single small Nos(feratu) or Neut(ralizer) is unlikely to do any damage to the capacitor of a cruiser or above, and it puts you in smartbomb range to use it. Nosferatu/Neutralizers are covered in to a greater extent but for the purposes of PVP BASIC, Nosferatu and Neutralizers are considered weapons, not electronic warfare.

# An Introduction to Bookmarks in Eve 

From Agony Empire

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## Introduction

Bookmarks are one of the most useful things in Eve combat. The expert PvP pilot will have mastered the creation and use of bookmarks down to a fine art. This article will get you started in the study and understanding of bookmarks Since the advent of the Revelations (Kali) update, Instajump Bookmarks have disappeared from the Eve universe. However, other types of bookmarks are still vital to survival in 0.0. This article covers bookmarks in depth. It is required reading for PvP-BASIC course students and is a skill that you should all learn as well.

## Bookmarking Cans and other

The simplest kind of bookmark is to an object in space. If you have favorite mining spots, anchored containers for dropping off loot, or a corporate hangar array at a POS, you can simply create a bookmark at the object in space. For examples, bookmarks to jet cans will speed up mining operations enormously. You can create a group of BMs ahead of time in an asteroid field and use them to set up quick mining ops. Mining barges warp to a pre-selected bookmark (close to several asteroids) and then drop a can immediately and mine into that can. In this manner they can let the haulers know which bookmark to use and they don't risk being several KM away from the new can which slows things down.

## Midsafes

One of the simplest and most useful kinds of bookmarks is called a midsafe. It is very easy to make. This is a semi-safe spot that is along the route between two gates. Safe spots allow you to sit in space at a place that is more difficult to find, however, spots that are within 5au of a planet, gate, or belt are easy to scan out quickly so beware. The best way to make midsafes is to target the far gate that you will be traveling to and observe how far away it is. Then warp to that gate. As soon as you start to warp, click "add bookmark" and then wait. When you are halfway between the two gates click "ok." Remember that bookmarks are made when you click "ok" and not when you first click to add one. One thing to remember about midsafes is that they aren't very good safe spots, so you shouldnt linger there. It's quite easy for someone to hunt you down at a midsafe. Due to the quirks in the Eve program, somebody "warping over" you can drop a bookmark and, if they time it right, come back and land right on top of and kill you. (On a few occasions I have "dropped in" on somebody sitting at a midsafe completely by accident -- on one occasion I found a group of anchored cans had appeared at a midsafe I had set up months before!) For this reason, you should make unaligned safe spots (see below).

## Unaligned Safe Spots

These are safe spots that are far away from any celestial object in deep space where you can hide for a time from the enemy. Keep in mind that an enemy can use probes to scan the system to find your ship, but this is a relatively slow process (a couple minutes) and you should have a short period of relative safety there. It is best to have three or more safes and warp around the system if somebody is trying to probe you out. The easiest way to make a safe spot is to use two midsafes that are very far apart. The further away you get from a celestial body and the less aligned you are with two celestial bodies, the safer the safe spot. You can press F11 to bring up a mini-map of the system so you can see your position relative to any celestial bodies.

## Insta-Undocks

These are great bookmarks to have to leave a camped station. The way to make them is to undock in a speedy ship with a microwarp drive, click your speed bar to get to max speed, and then click in your MWD without changing your heading. Continue flying out 2000 km or so from the station and then mark the BM. Now when you undock you will be automatically aligned with the BM and able to instantly warp off. When using an insta-undock, beware if there is a bubble or interdictor. Also do not linger at insta-undocks; they are not safespots instead warp away from them quickly if there are hostile forces in the area.

## Tactical Bookmarks

A tactical bookmark is a bookmark placed close to the gate, station, or other object for various purposes. For example, you might place a bookmark 2000km off a gate so that you can scan the gate to make sure the opponent doesn't have an interdictor or bubble. We talk about other, more advanced uses of "tactical bookmarks" (and how to make them "on the fly") in the PVP-WOLFPACKS class.

## Labeling Bookmarks

There are almost as many labelling schemes for bookmarks as there are 0.0 pilots. The key is to make sure that the BMs are understandable at a glance. I have developed a mark-up derived from the early days of bookmarks themselves. It is largely symbolic which makes the bookmarks easy to read and to share when you get used to the system. One useful hint when naming bookmarks is to edit the name of the bookmark in Notepad or a chat window and merely copy paste to the bookmark name dialog. This will make you marking and naming process significantly quicker.
If you have a lot of bookmarks already you should rename them as you use them. When you go through a system at your leisure, take a moment to rename the BMs in that system to the scheme here. You might find that you have duplicates or BMs that are just bad. As you go through them, they will slowly be reorganized without having to spend hours renaming. Once you get your BMs renamed and especially if you spend time doing them all, you should put them in your corporate hangar for people to update theirs.
Insta-undock bookmarks should have the station name (abbreviated) in brackets with the UNDOCK and the distance indicated in the bookmark. Often I will have station bookmarks as well for stations that I use a lot: this is so I dont have to hunt through the right click menu every time I want to go to the station. In systems with dozens of stations this will save you some headches. The following is an example of a typical pair of station bookmarks in my People and Places. |> [V-M2-CFO] \% UNDOCK @2500 <
[V-M2-CFO]
The @ sign is used to indicate the distance from the referenced object. The units of distance are assumed to be kilometers unless otherwise indicated; in the case where the distance is in Astronomical Units, the suffix au is added to the number. In the previous example, the undock bookmark is 2500 km off the station aligned directly straight out from the undock point of the station. If the bookmarks are to a
station such as an Agony Unleashed office, I will often prefix them like the following.
|> [AGONY: V-M2-CFO] \% UNDOCK @2500] <
[AGONY: V-M2-CFO]
Bookmarks to cans in asteroid belts are written with angle brackets wit the name of the belt. The following is for the third bookmark in belt 2 of planet 7 .
<VII-AB2 3>
Planetary bookmarks are written with parentheses and usually an extra space inside the parentheses for readability.

Often you will want to label the positions where you like to place mobile warp disruptors to make them easy to position perfectly the next time. Bubble location bookmarks are written with a custom brace composed of 3 minus signs and a round brace and the name of the gate or location on which the bubble is placed. The bookmark should indicate the alignment that the bubble is set up to stop. ---(Planets -> Taisy)---
Star bookmarks are written with an * on each side of the system name:
Player owned structures (POSs) are written with curly braces with the corporate owner ticker

Sniper spots, observation points and any other points close to gates, stations or other objects are known as collectively as tactical bookmarks. Tactical bookmarks are written with an invented brace on both sides and include the distance the sniper spot is set up for and the gate it is set up on. The @ symbol serves to dictate the distance from the referenced object. In the case of a gate in 0.0 , the name of the gate is entirely in lowercase to make sure that it is easy to distinguish beween letters and numbers in the gate name.
You should also indicate the alignment of a gate by using the percent sign followed by the name of the gate or object with which the bookmark is aligned. The following examples are a tactical bookmark 1500 km off the 93pi-m gate and aligned with the $g-m 4 i 8$ gate. The second example is aligned with planet three. The final bookmark is merely above the gate aligned with nothing. Putting the alignment right after the name of the reference for the tactical makes the
bookmarks sort properly without resorting to invented identifiers. We can use the same alignment string to indicate that all bookmarks are aligned to the same spot.
|> 93pi-m \% g-m4i8 @1500 <
|> 93pi-m \% (III) @800<1
|> 93pi-m \% ABOVE @100 <
|> 93pi-m \% ABOVE @300<1

In the case where you have more than one alignment for ABOVE, you can label them with numbers like ABOVE-1 or with other references like ABOVE-LEFT. This will help you distinguish your alignments from each other.
Safe spots are numbered and marked with a composite brace on both sides that will make them obvious in the GUI. Deep safe spots are very far away, more than 20AU from any other astronomical object and are labeled as a deep safe. All safe spots are labeled with the distance to the closest astronomical object.
|--01: @3au --।
|--02: @25au --|
Midsafes are marked like safe spots but with the objects that that the midsafe is between. This tells you what objects the midsafe are between. You can also add the distance syntax to indicate the location of the midsafe. Some examples are below:
|-- Babirmoult - Anckee --|
|-- (VII) - Anckee @3au --|
|-- Babirmoult @3au - Anckee --|

## Sharing BMs

By all means share your BMs with other corp mates. However, be wary of giving out safe spots, sniper, observation, and instant undock BMs. There are always spies and you could end up warping in on a huge fleet. Even without spies, someone else could get your safe spot busted with probes and you may not even
know it is broken. For that reason you should never ever give out safe spot BMs or put them in a corporate hangar. If you would like to share a safe or sniper spot then give it to the pilot personally or through the contract system.

To copy a bookmark, open your people and places window and go to the window with all of your bookmarks. Then click on a bookmark, hold down SHIFT, and drag it to your hangar or cargo hold. You can copy up to five BMs at a time, and you can no longer queue up the bookmarks. After you have copied them, you should put them in a can labeled with the region; this is called packaging of BMs. Packaging is a good trick, because it would seize both your client and the other person's client if you tried to trade them unpackaged.

To import a copied bookmark drag it from your hangar or cargo hold and put drop it in your people and places window. You can drag as many bookmarks as you want into your people and places, but process takes quite a long time, so beware. You can drop the BM right on a folder to sort them instantly into that folder. When you get BMs out of a corporate hangar don't forget to replace the ones you take!! Agony pilots, for example, are required to make two copies for other AGONY members when they get a new set of tactical bookmarks for an area.

## Organizing and Managing Your BMs

Some people prefer to have all of their BMs in one folder. That is fine but it can get problematic if you have a large collection of them and have to scroll down to one in particular; perhaps to share it with a corp mate. To make this easier you can create folders and sort your BMs into these folders. Keep in mind, however, that these folders are client side only whereas the BMs are stored server side. Therefore, if you reinstall your client or delete your cache you will have to resort them.

You can sort your BMs however you want but there are a few common ways that are easy to use and very efficient when you need to recreate folders. First of all, sort all tactical, sniper, and safe spot BMs into folders by region with the folder
title like "Region: Aridia Safes and Tacticals". Next take all of your asteroid belt mining op bookmarks and sort them into folders depending on the system name such as "System: Babirmoult". Now when you use these bookmarks, you only have to know what region you are in to find the traveling BMs. To do the actual sorting click, make people and places sort by region, select the BMs for a region and then drag them to the appropriate folder.

Managing your BMs is even more important than organizing. Whenever you jump into a system your client has to sort the bookmarks and figure out which ones are relevant for that system. If you have tens of thousands of BMs this can get costly to say the least. This is the reason that getting them from a whole region from a hangar can be a pain. You may only use $30 \%$ of the BMs in a particular region and if you move to another region, you may never use the old region BMs anymore.

Make sure you don't take more BMs than you need. Corporate BMs in cans should be labeled appropriately such as "Tribute Main Corridor" or "Venal mining ops". Take only what you need for your own sake. Also make sure you delete old bookmarks that you don't need. The best ways to do this is to drop them in the corporate hangar, labeled appropriately, and then delete them from your people and places. This means that other people will be able to have them if they need them and you will be able to re-acquire them if you need them again.

## Conclusion

If you follow these guidelines you will start to accumulate a list of really great BMs that will allow you to fly much safer all over the place. However remember that BMs don't make you invincible. Bubbles and interdictors can ruin your day. If everyone marks their BMs the same then there will not be any confusion over their purpose. Advanced PvP pilots make extensive use of bookmarks using a number of techniques that are taught in advanced PvP University classes as well as many that we dont currently teach others. Once you realize the potential of bookmarks, the imagination can divise hundreds of tactics that will help you take the fight to your opponents.

## Your Clone and Your Pod



If you play Eve any significant amount of time, you will eventually end up in your pod, either from a PvP encounter or a PvE encounter. Once you are in your pod you will need to know how to pilot it properly in order to avoid being "podded." Being podded is when someone blows up your pod and then you end up in your clone bay. Since the loss of your pod can potentially result in skill point and implant loss, it is very important that you learn how to avoid this as much as possible.

## Before You Get Put in a Pod

Before you end up in a pod, you need to make sure that you are prepared. First thing you need to do is to learn how to protect your skill points. If you get podded, you will end up back in your clone bay in your clone. This is the wrong time to find out that you forgot to upgrade your clone. For this reason you should check regularly to make sure that your clone is up to date. I check every time I finish a skill. If I need a new clone I make sure to buy it right then. If I am out in an area where I can't buy an upgrade, I make sure that I go buy a new one as soon as possible, always keeping ahead of my skill points and never going over what my clone covers.

If you get podded and don't have a clone to cover your skill points, you will lose skill points from your highest level skill. This could be very expensive in terms of time lost training your character. In general you always want to have an up to date clone because "things" happen and petition queues are long for bug related death reimbursement.

To upgrade your clone you have to go to a station with a medical facility. In order to find this, you can use your map and set the map to show you "station services"
on the map. Then all you have to do is hover over a system with a lit up dot and it will tell you the name and location of the station. Once you find the station, go to that station and dock in the station. Next open the medical bay in the station; in this screen you will find a button to change the station of your clone and another button to upgrade your clone.

Only buy the upgrade that covers your current points or the next highest if you anticipate exceeding that clone's capacity soon. Through the change station button, you can set where your clone will appear when you die. This station must either be a station that you have visited or a station in which your player corporation has an office. You can change the station to any of the possible stations on the pop-up menu from the current station that you are at.

## Using Implants

Since implants are destroyed when you get podded, it is important to know how to use them in a way that wont see you in the ISK poorhouse. Implants are mechanisms that you plug into the head of your character that gives them higher attributes while the implant is in. These higher attributes allow your character to learn skills at a rate faster than they could learn the skills without the implants. Advanced implants are often worth tens or hundreds of millions of ISK and accelerate your learning greatly. To use them, you train up the right skills (Cybernetics skill is a must) and you plug them into your character. To plug them in, all you have to do is stop training whatever skill you are training, right click on the implant and select plug-in. Keep in mind that once implants are plugged in, you can not remove them without destroying them. Installing the implant takes only a couple of seconds.
Once you have the implant in your head, you can start your skills training again. You will notice that the training is accelerated if you used the correct kind of implants. Each skill has a primary and secondary attribute when you get information on that skill. When you increase these attributes through the use of
implants, the time to finish training the skill goes down. Keep in mind that since your skills train while you are off line as well, this can be of great advantage. If you get podded, any implants in your head will be destroyed. However, it is worth noting that even though your implants are destroyed your skill training time is not recalculated. This means that as long as you don't change skill training you will continue to train at the accelerated rate until you are finished with that skill level. This has great implications if you are training long skills. For example, my character is training a lot of skills these days from 4 to 5 and those skills tend to take a good amount of time ( 10 to 25 days depending on the skill) even with my high learning skills. For this reason, I will often shove in two implants that are specific to the skill that I am training and merely let my clone go. If I get podded, the skill will finish at the implant rate. If I don't get podded, I choose another skill that uses these same two attributes. Since +2 implants are relatively cheap, this accelerates my training greatly.

Those that tend to put in a full set of implants need to be much more careful, especially if they are a really high value set of implants such as pirate Snake or Halo implants. These people are well advised to use jump clones before going into PvP combat. However, it is rare that you will need more than two implants at a time and I would suggest that the avid PvPer use +2 s only and only with the attributes they need at the time.

## Flying a Pod

Although a pod has no defense or offense capabilities, it does have benefits. A pod can warp any distance in Eve in one warp, even the 300au warp in OJOS-T in the Great Wildlands. The pod also warps instantly, not requiring any time to align. For this reason, it is often possible to get your pod away if your ship gets blown up. The one problem with the pod is that its subwarp speed is extremely slow. This has implications if you are trying to get your pod out of a PvP situation. If you get blown up, don't try to fly 15 km to try and get back to the gate.

## Getting Out With Your Pod

If you end up in a pod after a PvP encounter, the odds are that the enemy will try and destroy your pod as well to get the final kill on your character. For this reason you want to be prepared to get your pod out as soon as possible. When getting down into low armor or structure, if you are going to go down, it's time to start looking for something to warp to. Any large celestial body will do other than a gate. In fact warping to a moon is probably the safest option in 0.0 . If you were in a ship, you would never want to warp to a moon, because the POS would destroy your ship long before you could regain control of your ship after warping. However, POS guns, in fact any computer controlled gun, will not shoot at a pod. Therefore you are essentially covered by the station. To find a moon easily, hold down the alt key and pan around looking for a circle broken by a solid dot on the right side.
Once you are getting to the point where it looks like you will be going down, click on the chosen object so that you see the box around the object. Just before you blow up, start to spam the "warp to" button and keep hitting it as fast as you can. The reason for this is that there is a lot of lag when you "change session" while your pod is ejecting. You need to get that pod into warp as fast as you can because the opponent wont have that kind of lag and will be able to lock your pod fast.

Once you warp out, immediately start selecting another object in a different location. Another moon would be a good choice. Be ready to warp to the other object as soon as you have control of your pod again. Since even an interceptor would take time to get into warp, it is unlikely that they could beat you to the celestial object before you get out.

## Choosing to Hang Around

Sometimes when I get put in a pod, I choose to hang around and watch the fight. In a large, multi-ship engagement, the enemy would be foolish to worry about
popping pods before ships that are still a threat to them. This allows me to watch the fight. Of course if you are in a warp bubble, getting out of the fight in your pod can be a problem. Whether to hang around and watch a fight or not is a personal decision. If you have 100 million ISK of implants in your head, that will affect the decision quite a bit of course.

## Undocking in Your Pod

Sometimes you want to be able to move several ships without having to buy and trash shuttles. The solution to that is to undock in your pod. Dock in a station and wait about 30 seconds then right click on your active ship and select "Leave Ship". You will now be in your pod and can undock. Note that if you clone jump or get podded you cant undock in your pod until you first enter a ship. Simply enter your rookie ship, leave the ship and off you go.

## Pod Jumping

If you ever want to traverse a big distance in Eve in a short amount of time without needing to bring equipment with you, there are basically two means of doing so. The first method is to "clone jump" which we will go over a little later. The second method is to pod jump.

To pod jump, you set the station where your medical clone is and then you essentially commit suicide. Either you can arrange to get "help" getting podded or you can self-destruct your capsule by right clicking on your cap display and selecting "self-destruct" from the menu. The result of this will be that you will end up in your medical clone where you set your clone to. This station very well might be all of the way across the Eve universe. Keep in mind that this is the same as getting podded by another player so you will lose your implants if you have any installed and you will have to upgrade your clone again; make sure that you always update your clone before you do anything at all.

You can pod jump as frequently as you want assuming you have the cash to support the purchase of the new clones.

## Jump Clones

Another game feature that relates closely to pods is the jump clone. A jump clone is often confused with your medical clone. A medical clone is what you come back in when you die, but a jump clone is just another image of yourself. Please be aware however that if you jump into a jumpclone in the same station that you are in, you will lose a jumpclone and any implants they have plugged in. It is therefore always a good idea to make sure that you never have a jumpclone located in the same station as your medical clone. A jump clone allows you to do two things, first of all it allows you to jump large distances in a few seconds and secondly it allows you to save your implants when going into a potentially hostile situation.

In order to install a jump clone, you need to have corporation or personal standing of 8.0 or better with an NPC corporation. To get this standings you will have to do an obscene amount of missions for a particular corporation. If you are in the target NPC corporation, you will only need to get your personal standing with the corp above 8.0. If you are in a player corp, you or your corporation can get the standing over 8.0. High corp standings are achievable in one of two ways. If a large number of members have some standings with the targeted NPC Corporation, you would need have all of those members run obscene amounts of missions for the targeted corporation. Corp standing is determined by the combined average standing of your members who have any standing with the corp in question. This is obviously very difficult to manage when integrating new members of the corp as they can pull the corp standing down significantly. The second significantly easier way, is to select an NPC corp which very few corp members or no members at all, have any standings with. It would be a really good idea to select a really obscure corp if possible, as any new corp additions will potentially drop the corp standings with that NPC Corp. Please note this applies to positive and/or negative standings. You would then get those few members or one or two select members to run the missions back to back to get standings to over +8.0 with the corp. One or two dedicated people could get the
standings up to the required level in a really short space of time. If a member of your corp has never run missions for an npc corp, then they will not contribute to the standings with that corp, but they will still be able to obtain jumpclones if your corp has the required standing with the NPC Corp.
A more manageable approach to getting jump clone standings for an entire corporation is to contract with a third party player organization. There are several player alliances in Eve that own stations in 0.0 which can grant you jump clone install rights. Often these corporations or alliances charge some fee for the privileges. Once you have the standings set from the player corporation, you can proceed to install a jump clone by going to that station, using the medical bay and selecting the jump clones tab.
Installing a jump clone creates the clone at a particular location that you can "jump" into. The actual act of jumping into a clone moves the jump clone to the location from which you jumped. As an example, if you went and installed a jump clone in EC-P8R, went back to Stacmon and then jumped into your clone in ECP8R and then checked your jump clones list, you would find that you have a jump clone in Stacmon and no longer one in EC-P8R. This is because you are in the one from EC-P8R. You can think of it as switching clothes remotely. You have one set in Stacmon and another in EC-P8R and then teleport into the ones in EC-P8R then you would have an unoccupied set of clothes in Stacmon. The actual process of jumping to a jump clone is executed from your character sheet. First, however, you must be docked in any station, not necessarily a station with a medical bay. Open your character sheet and then stop whatever training you were doing by going to the Skills section and selecting "Abort Training"; note that you will not loose any training points, it just stops training and is unfortunately named. Now that you have stopped your skill training open the Jump Clones section of your character sheet and select a jump clone and then right click and select the jump option. You will magically teleport to the remote location without any of your equipment or implants. The first thing that you must remember to do after jumping into a clone, is to restart your skill training
immediately. When you clone jump, the implants you had are left behind in the old clone. If you jump back into that clone you will get your implants back; this means that you can clone jump just before going out to 0.0 to fight and then back the next day. Keep in mind that you can only clone jump once every 24 hours.

## Conclusion

Many pilots out there are afraid to be out there in their pod. However, your pod has advantages that you may not have considered in the past. Pods can warp to POSes without getting shot at, pirate pods can warp past concord and sentry guns without incident. Pods can make long jumps and warp instantly. Being podded is something you have to think of as just another isk cost, one that gets gradually bigger as you gain more skill points in the game. Killing a pod of a 3 year player is likely to cost him quite a bit of cash but killing one of a newbie wont cost him much. If you learn how to use and fly your pod and use your clones you will have a much more relaxing time in Eve.

## Voice Communications in PvP Operations

## Text by Rells

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Ventrilo and Teamspeak are the primary voice communication software used by corporations in Eve Online as well as other games. Without these communication tools, PvP and other operations would be just too hard to conduct effectively, as typing in these operations is just too slow. Agony Unleashed prefers to use Ventrilo because of the options for codecs which produce a higher sound quality as well as a number of other reasons.

## Setting Up Ventrilo

The Agony Unleashed Ventrilo Server connection information is below. You will be required to be on Ventrilo and at least be able to hear the instructor during your PvP university course; all instruction on the course will be conducted on the Ventrilo server. If you have no microphone, that is acceptable but it would be better if you had one; I recommend the Plantronics DSP 500 headset with a USB interface. You can download the Ventrilo client here. Make sure you acquaint yourself with the manual before asking questions of Agony pilots or instructors. The server connection information is below:

Ventrilo Hostname: 74.54.222.47

Port Number: 4309

## Server Password: stormsurge

Make sure your client is set up as Push to Talk (This means that your mic is only active while the designated key is pressed) ; this configuration can be found in the settings. Also make sure that when you are using Ventrilo, you don't have a lot of background noise and so on. Before your class you should come on Ventrilo and verify that your headset works and adjust your microphone volume. Voice Communications during Operations:

First of all, you must always identify yourself on voice communications. Typically the gang commander or other members of your corp will have the software window buried under Eve and wont be able or have the time to look and see who has the little icon indicating that they are speaking. For this reason, it is essential to refer to yourself in the third person when talking on voice communications. For example, do not say "I am lagged and didn't activate the gate" but rather "Rells is lagged and couldn't activate the gate." In this manner the gang commander
knows who you are, it is critical to get into this habit when speaking on Ventrilo or Teamspeak.

At times, the commander of a gang will say "battle communications" or "battlecomms". This means that you should cease all conversation, unless it is relevant to the tactical situation at hand. Don't talk about basketball or your girlfriend at this point or even ship setups or the loot that you got off of the last kill but rather focus on the situation. A commander does this to clear the communications of unnecessary traffic so he can issue rapid fire orders and receive intelligence in the gang. If you dont obey this rule, the fleet commander can not hear all of the intel that is comming in and is not able to effectively issue orders. Fleet commanders are constantly issuing orders and evaluating the situation; it is an extremely intense job. By talking about other things, you will interfere with this ability. People that do this routinely will get muted by the fleet commander until he or she believes you have learnt what battlecomms means.

Another important aspect of communicating on voice comms is to keep your intelligence reports succinct. There is little more aggrivating when a recon pilot says "Uh, ... there are two ... no ... uh .. three battleships on the gate from ... seems like DOOM and ... no wait that is uh one battleship and two ... uh ... battlecruisers and they are ... well ... let me see ... uh about 3 ... maybe uh 4 km off the gate, though I cant see too well ..." Do this in a gang and you risk your own fleet commander podding you, and not in the affectionate way. Think first, count second, evaluate third and report last. Be succinct and fast, "Recon, the gate has one bs and two battlecruisers from doom sitting slightly off the gate." The second report will give me and others a chance to talk whereas I have seen the pilots sputter in the first kind of report for 5 minutes before I could get in a word. While we don't expect recon reports to the caliber of a Covert Ops pilot (who has the luxury of time), something which is concise is. Similarly you will learn about calling out points of warp disruption in combat; dont say "This is Rells
and I have been able to lock down Jones Tyler with one point from my warp disruptor." The phrase "Point on Jones Tyler" will suffice.

Some times when you are talking on communications you will hear the phrase "break, break!" This is a code word that tells everyone on the communications that you have something to say of an emergency nature. Something like "There are 6 battleships warping in." or "local just jumped by 50 !" If you hear this code phrase phrase stop talking even in the middle of a sentence and listen for the intelligence. If you have something to report of a similar nature, use the code phrase yourself but don't abuse it. It is not a way to interrupt people. Constant abuse will likely get you thrown out of gangs or muted.

Finally, make sure you don't give orders on communications or even anything that remotely sounds like an order. For example, in a previous class we were orbiting a gate at 1000 m and there was a gate activation; at this time one student said "Jump" meaning that he saw that someone jumped in on the gate.
Unfortunately 2 students actually thought that was an order and jumped through the gate. Instead of using these terms use phrases like "gate activation" or "incoming". If on the gate and you don't know whether you are supposed to jump or not, ask "What are orders on gate?". We also use the phrase "target, target, target Smith" said rapidly to indicate that the players should lock and destroy the target with the name Smith. Only the gang commander will be calling targets. All of this is designed to prevent misunderstandings that get people killed.

Following these rules will make your gang communication more effective and increase your survivability in gangs.

## Recommended Modules for BASIC

Due to the large number of questions about fittings, this post details what modules you should have on hand for a PVP-Basic class. We realize that not everyone can afford modules, but T1 is pretty cheap. Agony does carry replacement modules if you need them, but it's nice when students are selfsufficient.

Recommended modules for Basic:
Four each of:
Remote Sensor Dampener I (with scripts - Targeting Range Dampening, Scan Resolution Dampening)
Tracking Disruptor I (with scripts - Optimal Range Disruption, Tracking Speed Disruption)

Overdrive Injector System I
Inertia Stabilizer I
Nanofiber Internal Structure I
Stasis Webifier I
Warp Disruptor I
Warp Scrambler I

Two each of:
ECM - Spatial Destabilizer I (Caldari)
ECM - Phase Inverter I (Minmatar)
ECM - Ion Field Projector I (Gallente)
ECM - White Noise Generator I (Amarr)
ECM - Multispectral Jammer I
Target Painter I
Sensor Booster I
Ship Scanner I

Four hundred rounds of ammo per weapon on each ship.

Small Nosferatus are great on short range ships (Rocket, Blaster or Autocannon ships).

Small Remote Armor Repairer are good for healing fleetmates after the battle.

Fitting dependant (nice to have, depends on your ships):
Small Capacitor Battery
Micro Auxiliary Power Core
Capacitor Power Relay
Salvager
Small Armor Maintenance Drone I
Signal Distortion Amp

Feel free to message your instructor if you have any questions.

## Getting Maximum PvP Value From Your Skill Training

Text by Rells
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Whether you are devoting yourself to fulltime PvP or training up an alt to participate in PvP, it is essential to know how to train up your PvP character to get the most out of your pilot. A pilot with low skills is much more limited in what they can fit, the damage they can do with their guns and the ability to use their mid slots. However, the proper training can solve all of that.

Learning skills are the cornerstone of any Eve pilot, pvp or otherwise. They accelerate the rate at which you gain skills and skill points. With high learning skills, training can be cut in half. To decide just how much learning you need, the first thing you want to consider is how long you think you will be playing Eve. If you love the game like me and will have 3 accounts until they close the servers, then you really want to get the best value you can for your training time. Training
those advanced learning skills, logic, eidetic memory and so on, to 4 is a great thing to do. However, you will need to spend about 1.5 months doing this, even if you skip the charisma skills. Some people just cant wait that long. However, you really want to get all the base learning skills to 4 at least, because otherwise you will be wasting lots of time. Getting those skills to 4 is a matter of a few days. As a combat pilot you can effectively skip the charisma skills initially, however at a later stage you may want them for training the leadership related skills. You will also need those skills for mission and/or trade related skills.

Once learning is out of the way, we race right to Interceptors right? Wrong! This is one of the biggest mistakes that players new to the game make. They want to drive that newer or bigger ship and they race right through the skills to get there. However, once they get that bigger ship they find that they can't fit it well, can't shoot very well and they are essentially useless. Often this is euphemised as "growing into a ship," which translates to "I'm flying this too soon and hoping I get the skills before someone crushes me." Instead your best bet is to concentrate on your core skills.

By core skills, I mean the base gunnery, navigation, missile, drone, electronics, engineering and mechanic skills. These core skills allow you to fly your ship better, equip more guns, run more drones and hit better with missiles and turrets. Keep in mind that you don't have to study drones if you don't intend to use them; same goes for missiles, while turrets are a requirement in most tech 1 frigates. The skills that you should focus on are the following.

## Drones:

- Combat Drone Operation
- Drone Durability
- Drone Interfacing
- Drone Navigation
- Drone Sharpshooting
- Drones
- Scout Drone Operation


## Electronics:

- Electronic Warfare
- Electronics
- Electronic Upgrades
- Propulsion Jamming
- Sensor Linking
- Signature Analysis
- Target Painting
- Targeting


## Engineering:

- Energy Grid Upgrades
- Energy Management
- Energy Systems Operation
- Engineering
- Shield Management
- Shield Upgrades
- Tactical Shield Manipulation


## Gunnery:

- Controlled Bursts
- Gunnery
- Motion Prediction
- Rapid Firing
- Sharpshooter
- Small Turret
- Surgical Strike
- Weapon Upgrades


## Mechanic:

- Mechanic
- Hull Upgrades
- Remote Armor Repair System
- Repair Systems


## Missiles:

- Missile Bombardment
- Missile Launcher Operation
- Missile Projection
- Rapid Launch
- Rockets
- Standard Missiles
- Target Navigation Prediction
- Warhead Upgrades


## Navigation:

- Acceleration Control
- Afterburner
- Evasive Maneuvering
- Fuel Conservation
- Navigation
- Warp Drive Operation


## Spaceship Command:

- (Racial) Frigate
- Spaceship Command

Now that you know what skills you should concentrate on you should go shopping for as many of them as you can afford and train at the current time. Once you buy a skill you can train it just for a few seconds that way you aren't carrying the skill book about but can still finish the training at your leisure. Don't buy skill books unless you can train them right at that moment, especially when there is a chance you could get popped (nothing like loosing an untrained skillbook)

When training the skills, you want to get the most out of the time you spend training; this means that the benefit you get from the skill should be significant for the time invested. For example, Controlled Bursts skill gives me a $5 \%$ reduction in capacitor needs for my guns. The first level takes maybe 20 minutes, the second perhaps an hour and a half. Training this skill to 2 , I can get a $10 \%$ reduction in capacitor needs in 2 hours. However, to go from my current level of 4 to 5 would take me 10d 59 m 14 s just to gain only $5 \%$ more capacitor reduction. In that same time I could have trained 3 or 4 more skills from level 3 to 4 (including skills which make my capacitor recharge rate better).

It is advisable to train up these base skills in waves. Get all of them to 2 as fast as you can. Then you will have achieved $10 \%$ reduction is capacitor needs, $10 \%$
better tracking, $10 \%$ more missile damage and so on. Your pilot will now be vastly improved. Once you are done with the 2s, start moving the skills to 3 s and then finally to 4 s . For now, ignore those 5 s until you have all your 4 s done at the very least. As a general rule, train a skill to 2 if you are going to occasionally use it, to level 4 if you will often use it and to level 5 if it is required for another skill, or if you are going away for a while (like a holiday).
As you work through your training you will pick up skills here and there that required another skill to 2 or 3 . When you pick those skills up, catch them up to the rest of your skills quickly and then resume your training process.

If you follow these simple guidelines, you will be able to vastly improve your character. Just remember not to use your best implants unless you can set a jump clone because in PvP it's only a matter of time before you will get podded.

## PVP Comms 101

## Communications in PvP

## General

Voice communications (in this case vent) is an invaluable resource for a fleet. It allows you to act and react faster than the enemy. Good disciplined comms lets the Hydra Fleet to maximize its effectiveness because the FC (Fleet Commander) can coordinate the weight of weapons and EWAR on the enemy's vulnerabilities. The Fleet depends on mobility and surprise; both of these are hard to maintain without voice comms.

## Voice Comms vs Text Chat

There tends to be some confusion about when you should use voice comms and when you should use text chat. In general, voice is used in the theory section for answering questions and having a proper discussion with the instructor. Text chat can be used for administrative things such as late arrivals (try to avoid this), ventrillo problems (always seem to be a few), etc.

While training in low sec, you should still ask questions and carry on a discussion with the instructor. However, if the fleet is approaching a gate, don't use voice for questions so that the FC can listen for recon and intelligence reports. You always want to know what's on the other side of the gate and sometime reports come in at the last second. Keep using text chat for admin and it is great for easy to answer shorter questions. If you raise an important point in text, the instructor or one of the agony members will bring it up on vent so that everyone can benefit. In 0.0, you have to be even more selective about when to talk on vent. However, it is your class so don't be afraid to use vent to ask questions. Just listen before you key your microphone so that you don't "step on" someone else's question. If you hear "break break", "recon" or "battlecomms", stay quiet until the urgency passes. The word "urgency" is really the key to using vent. Voice comms are used when things are urgent because seconds count and typing is too slow. If there's nothing "urgent" going on, get your questions going. These instructors have tons of information for you so dig it out of them.
Battle comms: When the FC (or for the purposes of a class, anyone) calls Battle comms, all students should be quiet and listen for orders. During this time, the FC will be hearing reports, issuing orders or just taking a moment to think. It's our time, as students, to hold questions on vent. If its something urgent, you can still use gang or squad chat to type your question.

Break Break: Someone has urgent information on the fleet's tactical situation for the FC. Everyone listen up; hopefully, it's your next victim.

Recon: The ships out ahead or behind the gang with key information will start their report by saying "recon". The gang leader needs this info so save your questions for later or put them in gang chat.

## You, Me and I

Don't use these pronouns. Instead always identify yourself with your name. Refer to yourself in the third person (like that Seinfeld episode) "George is getting angry" and "Jimmie needs a new pair of shoes". It definately feels weird at first but start doing it every time you talk...even in the theory section. Just say "This is George. Why should jammers be on manual?" It makes it easier for the instructors to keep track of who's asking (they do watch the vent as well) but I also think it helps people get in the mindset for when they get into space. Now in 0.0 , it becomes much more important. The FC needs to know who is talking or you are wasting valuable seconds by forcing him to ask "who said that". Once you have some more PvP experience, you should be able to get around 0.0 by yourself, and may not need help from the FC. If that is the case and vent is busy, just type your report/info into gang chat and say something along the lines of "no assistance needed". The FC may come pick you up anyway because he wants to look after all his students but he may not because there are 29 other students to look after as well.

## Here's a couple examples of brevity or the lack thereof:

Wrong: Did you jump? I think I missed the jump. The lag is killing me. Is everyone lagged? Better: (if you need help): George is still in E-3 at the D-0 gate. Lagged. Request orders. Best: (you don't need any help): George is lagged OR George is behind.

Now that's not the only right way but I hope it's a good example of brevity, precision and using the third person. It also leads me right to my next few points.

## Brevity and Precision

Be precise when you make a report. Tell him who, where and what but keep it as short as possible. Eventually, you'll be a good PVP'r with a gang that knows you
and you can cut it down even farther but in the class, no one knows your voice and the instructor is trying to keep 30 students on the move (read herding cats). Be very careful confusing warp and jump, especially if you are providing intel. Providing bad intel gets FCs ticked of very quickly.

## Don't be a "narrator".

In these examples, Jimmie is the tackler and George is in our fleet; Easy Meat is the target ship.
Jimmie: "one point Easy Meat" FC: "everyone warp to Jimmie" George: "ok, I'm warping to the gate..... got him locked and webbed... ok missiles away... he's targetting me now.... he's shooting...l'm tanking pretty well, at $80 \%$ shields...into armor now....he's into structure...muhahaha I do crazy dps....he's dead" All the details are interesting to you, but there's zero reason to be broadcasting it on vent. Comms should be limited only significant details to the FC (namely ewar calls and immediately significant intel).

## A better example might be:

Jimmie: "one point Easy Meat" FC: "everyone warp to Jimmie" George:
"web"...."Easy Meat is aggressed" FC: "get the pod"
This way, the FC knows that the target has a web on it and, since he has aggressed, cannot go through the gate. You haven't used up much time on vent so the FC is free to be thinking and listening for intel to plan our next kill.

## Saying the J word

## Jump is an order to be given by the Fleet Commander only.

As a student, I pretty clearly understood that there's no need for a student to ever say the J word. Try not to say it five times while talking back to the instructor about how "warping off instead of going through the gate wasn't your fault"...yeesh...it was not pretty. If there's time, the instructor will usually play it
out to see how many times you'll say the J word before you realize it. I'm not sure but they may have a bet going every class!

There is a good reason for avoiding the J word. Imagine you are on a gate waiting for your scout to tackle someone on the other side. You are keyed up with the excitiment of the upcoming kill (the adrenalin really starts flowing on those first few kills) and someone says "So when do we jump?". What your mouse finger heard was JUMP and you are gone, gone, gone. No calling it back; your brain is still translating the "blah blah blah JUMP" but not fast enough to stop that damn finger.

There are some euphemisms you can use instead of the J word: "We are 7 systems from our destination", "The target went out the gate", "go through the gate", "four gates to go" etc.

Someone does this every class so try not to let it be you by starting the habit now! (It does become a habit...I'm even hesitating before I type the J word in these notes)

## The J word vs Warp

Warping is done within a system while you have to use a gate to Jump. Don't get them mixed up when talking to the FC. It can be a completely different tactical situation when you report that the ship you are targetting "warped off" or "went through the gate".

## Chatting and Talking Back

There's probably going to be a good Vent chit chat going on between the instructor, the Agony pilots and some course alumni. They know when to chat and when to keep their mouths shut. I didn't so I kept mine shut unless I had a question. If you have a question, ask it; if you have it, l'll bet at least one or two other people have the same one but are afraid to ask.

This is the "talking back" portion. The instructors expect mistakes to happen. Why else would we be in the class? More important than any mistake is how you handle yourself afterwards. So if you do make a mistake, identify yourself and get to where you are supposed to be. It had to happen to someone and this time it's you. No big deal, next time it'll be someone else. If you need help, you'll get it (the other Agony pilots were a great help) but don't talk back or try to launch into a long explanation of what happened and how it isn't your fault. They've been teaching a long time an know that 'stuff' happens so just say "on my way" and get on with the grunt. That next kill might be just through the gate and we all want a piece of it.

Students Chatting and Vent -> By chatting, I mean shooting the sh... er... breeze (idle chit chat about pizza or wow or whatever). You can do it at the right times but if you can keep it in the text chat, you will keep your FC happy. The FC will call battlecomms if s/he needs vent clear.

## Going through a gate

When you approach a gate, the Gang Leader will give you your orders. If he's busy and doesn't give orders, the default instruction is to orbit at $500 \mathrm{~m}(1000 \mathrm{~m}$ if previously directed). If you don't hear any orders, go with the default. If you think you missed or aren't sure you heard the order, ask "orders on the gate?" There were a few standard orders used in the class but they can also be mix and match depending on the Gang Leader.

Jump on contact - go through the gate as soon as you are out of warp Jump and hold cloak - go through the gate immediately but do nothing to break your cloak on the other side. That means don't move or cycle weapons/ewar. The priority is keeping your cloak up so that you don't betray the fleet's position. Align - bring your ship around to point at the next stargate (normally double click beside the gate. If everyone is heading the right direction, the warp looks fast and tight) Jump and Align - go through the gate and quickly align to the next stargate Jump
and Re-approach - go through, break cloak and use afterburner to get to the gate. Orbit at 500/1000m Jump, Jump - go through the gate immediately The default for arriving on the other side without orders is to "Orbit 1000 and cycle weapons and ewar", so you are as ready as possible. Just make sure you didn't miss the "stay cloaked command or you could ruin your ambush.

Personally, if I'm not $100 \%$ sure, I stay cloaked and ask. That said, usually the FC will say "reapproach" or "power reapproach" at least three or four times so you aren't likely to miss it.
Do not shoot the gate. When cycling weapons and ewar, it is vital that you don't shoot the gate. If you do, you can end up aggressed and prevented from going through on the FC's orders. This holds up the class or ruins an ambush or gets you podded and you have to make a long run to catch up. If this happens, stay calm and make a report. You'll be given instructions. If the FC is busy in an attack and you're in immediate danger, warp away to stay safe and then catch up when you can. The instructors will help you as soon as they can. They really do want you to live, learn and kick butt during this class.
If you do end up aggressed and alone on a gate with enemies inbound, the best place you can warp to is an asteroid belt, planet or the star. On the way, create a midsafe bookmark, and immediately warp to it. Then you can proceed to make a safespot that is greater than 15 AU from any celestial object, and you should be relatively safe.
If you end up going through a gate alone and there's nothing but the enemy on the other side and have no idea what to do next, here's your plan. Don't break cloak. Do a scan. Warp out fast. (If you can warp out to a place that you are already aligned to, you're ahead of the game.) As soon as you arrive, warp out again to confound pursuit. While you're warping, read your scan and make a good report to the Gang Leader. For example, "Recon, two Raven and two frigates in K-T 100km off gate 7-U". After your second warp (third if you're worried), put your speed on so no one drops on top of you and figure out your next move.

If you are late going through a gate or joining the gang say "Friendly incoming" just to avoid an uncool panic or friendly fire accident. Actually, if vent is clear, you can start saying "Friendly incoming to X-70" as soon as you start getting close to catching up so the FC can keep track of where you are. He may have orders for you or ask for information.

## Electronic Warfare Orders and Reporting

You will be broken up into squads, Track Groups (Tracking Disruptors) and Damp Groups (Sensor Dampeners). When you go into battle, your group will be given targets for weapons and EWAR modules. Here's a quick list of the voice call that you use when a module is active on your assigned target. Don't make the call until your module is active but if you can't hold the module on target (ie running out of cap) let the EWAR leader know before it drops.
Active Module - what you say Warp Disruptor - Point Warp Scrambler - Scram Sensor Dampener - Damp Stasis Webifier - Web Track Disruptor - Track Target Painter - Paint Jammer - Jam

You might also hear such things as "Easy Meat is primary" or "get a point on him" or "web him". Most of the communications was pretty self explanatory but that list above was just the one word. When you're in Track Group One and you hear "Track Group One on Easy Meat", you get that TD on target and, once you see the icon on the target, you say "Track". The exception is for Jammers. You are not actually jamming until you see the grey countdown bar underneath the locked target. That's when you call "Jam". There's a lot more to jamming that most of the other ewar modules but you'll have to read about that elsewhere.

If things are going well or, alternatively, things go badly, you may end up engaged with more than one target. The procedures are the same but now the FC has to order and hear reports on two or more targets. For two targets, the orders might be "Easy Meat is primary. Damp Group Two on Easy Money." Everyone will be engaging Easy Meat except that Damp Group Two will be
attacking Easy Meat while locking Remote Damps on Easy Money. This means that EWAR reports need to include the name of the target pilot. For example, you might hear the following reports: "Point on Easy Meat; Web on Easy Meat, Damp on Easy Money" and so on.... I think this is beyond the Basic class but you can see that it would be impossible for the FC to keep track of the situation without including the target's name in EWAR reports.

Now if you lose track, run out of cap, have to warp away or get podded, you have to inform the Gang that the EWAR module is down. That's when you would say "Minus one point" or "Lost damp". You'll also need to tell the leader if you are out of the fight or coming back. If possible, try to make the report before you actually lose track or run out of cap. Once again, jamming is a little different. Remember to call "lost jam" before the countdown timer runs out. That way another pilot can try to replace you before the point or web or damp is actually lost.

For example, Jimmie has been targetted by the Vagabond your fleet is killing: Jimmie: "Warping out, minus one point, will return"
Remember there are no reports for locking target, firing, losing shield or getting into armour. It seems to happen all the time and you can't take up time on Vent that's needed to coordinate the battle.

## Broadcast - the red-headed step child of Eve Communications

People don't talk much about broadcast but it's used every gang. The broadcast window appears on the lower right hand portion of the overview underneath the Fleet Window. In PvP Basic, it is used primarily to send navigation orders. The FC will say "destination broadcast" (or something like that) so you find it, right click and select set destination. Alternatively, the FC may say "waypoint broadcast". Now a waypoint and a destination look the same in the broadcast window so you have to listen. If the FC says "waypoint" you, find it, right click and select set waypoint.

There can be problems sometimes so here's a few tips. If you try to set destination and you get the error message "cannot set the same destination", don't stop there. Go back to the broadcast, right click the destination, select remove waypoint. Then try setting the destination again.
The other problem l've seen is when a destination and a couple waypoints are broadcast at the same time. Sometimes people set them in the wrong order and confusion sets in. Normally, the first one is the destination and the rest are waypoints. So set the first as destination, then set the next one above as a waypoint, then the one above that and so on. If you have any doubts, use gang text chat to confirm that the the destination is (for example) $x-70$ and there are 9 systems to go. If you're wrong it, you can sort it out before you align to the wrong gate and are tackled because incorrect alignment slowed down your warp.

## Duties - just the basics

There are a few of the duties that you'll hear talked about. It's unlikely you'll get one but it's nice to know what they are all about.

XO - Executive Officer. A second in command who deals with administration, squads, damp/track groups etc. This frees up the FC to think about tactics. In Basic, this is an assistant instructor and the XO term may not even be used. EWO or EWARO - Electronic Warfare Officer. If the Fleet is big enough you might have one of these who coordinates the ewar groups for the FC. I haven't seen on in a basic class yet.

Scout, Recon, Skirmisher - these guys all do different things depending on their ships and skills but, for our purposes, they are all eyes in other systems finding us targets. Listening to how they report and the questions the FC asks them has really helped me.
360 Scan - An agony pilot or alumni or two will be assigned the duty of constantly scanning for threats. Everyone should be doing this on a regular basis but by
assigning the duty, the FC is just making sure he's always got someone scanning for targets/threats.

Local - An agony pilot or alumni will be watching local to see if the number goes up or down in your system. He or she will also try to find the incoming pilot's information for the FC. Ideally, the local pilot reports one new pilot in system, their name and alliance to the FC at the same time that the 360 scan pilot reports a new Iteron in system.
Probe Scan - Normally agony or alumni assigned to scan for probes that may be used to track down your fleet when in a safe. Alternatively, detecting these probes gives us the info that a cloaked covops is in system.
Rear Guard - Normally an agony pilot assigned to follow the gang last through a gate. He's kind of the herder to bug you if you're slow to go through and to tell the FC when everyone is in the next system.

That's all folks. Hope it was of some value.
Cheers. I hope to see you in my sights soon as you try to warp your pod away from my Rifter of Doom! Enjoy PvP; I am.

## Configuring the EVE client for PVP

## Text by Rells

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For 0.0 life and PvP combat the first thing you should know is that lag kills; any graphics settings you might have, might look cool, but the lag will murder you if 10 hostile ships jump in on you and a real battle starts. For this reason 0.0 and other PvP pilots turn off several game effects.
Firstly, the premium graphics may look really, really cool, but they, like everything else, will slow you down. So that goes out the window. to go back to classic
graphics, hit escape, go to the Display \& Graphics tab and uncheck the box labelled 'Premium Graphics Content Enabled'. Don't restart EVE just yet, we are not finished here.

If you look to the left of where you just were, you should see some check boxes. Untick the top three ('Turret Effects', 'Effects' and 'Trails On/Off'). Now, go to the Audio tab and uncheck 'Audio enabled'. Unfortunately the sound in EVE really is more trouble than it is worth (plus you don't want to be distracted while the instructor is talking).

One other Eve setting that you will want to turn off is auto-relocking of targets. This is a utility that makes you automatically relock anything that locks you and its deadly. The main reason to turn this off is that there are a number of cheesy tricks that can be used to get you CONCORDed in a war situation. For example, a war target might undock from a station, you start all your weapons and send off the drones to kill him; however he docks back into the station. Your ship will automatically switch to the non-war target that tried to lock you as his buddy came out of the station. Your drones and turrets go for the wrong guy and CONCORD does the rest. In addition, in 0.0 or any other kind of PvP you will be choosing targets much more intelligently, not letting them choose you. Go to the Generic tab and look for Auto Target Back 1 Targets. This setting is on the bottom left and may contain a number other than 1 . Make sure that number reads 0 .

Your overview will need to be tweaked as well. If twelve enemy ships warp in you will want to make sure you are locking the enemy and not the friendlies. This can be problematic in a hectic situation with your heart racing (yes it happens to us all) and your adrenaline flowing. Therefore, it's best that friendlies not show up on overview at all.

Go into your overview settings by right clicking on the arrow right beside where it says Overview and selecting the Settings menu option. Once there you will start by modifying the filters tab. Make sure that anyone who is in your corporation, alliance, gang, has good or excellent standings do NOT appear. Also make sure
you filter out all concord and NPC fleet ships (leave rats filtered on but turn off things like customs officers and so on). In addition make sure that you filter off all cargo containers, drones, sentry guns, secure containers, and so on. The only things that should be on are rats, player ships and gates. The reason that we leave gates filtered on will become apparent later in the course. There is a setting to filter out neutrals, however there is a problem with it: if you check it off, everyone except those with standings will be filtered out. That includes war targets! Unless your corp has set them to negative standings, they will not appear on your overview. Unfortunately, by leaving neutrals checked, you may get a lot of people on your overview that you don't want, however, we can make it as good as possible.

Now we need to adjust the colors and order. Look at your background colors tabs and make sure you have the colors set so that all people in your alliance, corporation, gang, and with good standings are various shades of blue. Next make sure that the icon colors match the colors of the background. Finally you need to set the valid empire targets to blink. This means that you set pilots at war with you and pilots with sec status below -5 to blink. That way you won't ever have to check anything to make sure the guy can be popped in empire or that he will pop you.

The next step to adjust the order of the icons and background colors. To understand how this work know that Eve evaluates from the top, down. The top color and icon is more important than the bottom one and will override the bottom one. So if you have security status coloring on top and alliance member on bottom, Eve will color the pilot according to their security status and not according to their alliance or standings. This is bad because you could end up shooting friendlies. In 0.0 the standings of the pilot are more important than the security status of the pilot. If friendly pilots pirate you, you should take that up with your CEO or officer and he will handle it for you. You should not shoot at alliance, corporation, gang or high standings pilots, no matter what their security status; nor should you return fire if an alliance, corporation or gang member fires
on you (unless you are both just playing around of course). A fair few wars in 0.0 space have started because of pilots who didn't set up the overview correctly.

Your final order for your color tags and icons should be the following:

- Pilot is in your gang
- Pilot is at war with you
- Pilot is in your corporation
- Pilot is in your alliance
- Pilot has high standing
- Pilot has good standing
- Pilot has horrible standing
- Pilot has bad standing
- Pilot has bounty on him
- Pilot (agent) is interactable
- Pilot has security status below -5
- Pilot has security status below 0
- Pilot has a neutral standing

I would advise you to turn on all of the color-coding and most of the icons because the more information you have on the overview, the faster you can react to changing conditions in the game. The only icons that I don't use are the skulls for low security status pilots, reserving that for bounties, and interactable agents. You will also want to reconfigure your colors according to your taste. I imagine mine would be far different than yours because I am slightly red-green colorblind, but the magic of Eve accommodates us both. However, you want to make sure that valid empire targets (those below -5.0 security status and those at war with you) are blinking and no others are blinking. This means that you will know at a glance if the target is a legal empire target or not.

Finally you will want to set up your columns in the overview. The columns that you should have visible are the following columns in this order: "ICON", "ALLY", "CORP", "DISTANCE", "NAME", "SIZE", "VELOCITY", "RADIAL". The tag column is no longer necessary since in the invention of the fleets and broadcasting targets. The "CORP" and "ALLY" columns should be resized so that they can display 6 character sized corporation and alliance tickers. The "NAME" column should be set up so that you can read longer names and the size column also appropriately resized. The size column gives you an idea of what kind of
ship you are facing; you will quickly get to learn the sizes of various ships, while the velocity and radial columns give you an idea of how the target is moving in relation to you (important for tracking, which is covered in the course). Once you have your settings modified you should have your overview set up to PvP. You will probably want to keep any number of overview settings. You might have a setting for empire that only shows valid high-sec space targets (and unfortunately neutrals). You could have another setting that you use for ratting, another for 0.0 space and yet another for mining. You can click on the arrow beside "Overview" and save your settings or load them again. Once you have this set up you will be ready to get into action while minimizing your chances of firing on something you aren't supposed to.

You can save your overview settings in the overview settings panel. This gives you a chance to create presets that will have various things on them. You can have a setting for ratting, another for pvp and still more for other specialized tasks. The settings can be changed out at a flash by using the menu available by clicking on the icon to the left of the overview. This enables you to have configurable overview settings at a moment's notice (which, once you get into PvP , is more useful than you could imagine).
Other things you can do to assist in reducing the lag incurred in PVP situations are: Turn off logging - To do this you will need to open logs (it might be under accessories on the side bar) - settings tab and then uncheck the various options. Turn damage messages off - To do this you will need to press ESC and under the General Settings tab and uncheck "DAMAGE MESSAGES ON/OFF'". Keep bookmarks within folders - Only have the folder you are currently using open. The client will re-sort any open folders everytime you enter a new area, go through a gate or undock. Set Chat windows to text only - Make sure that you set any chat windows to the option that does not show avatar images. These avatars take time and resources to load and can potentially increase the lag in systems where large numbers of pilots are present. This option is in the chat window,
above the channel member list, and looks like several lines stacked on top of each other.

