EVE-ONLINE TRAINING ACADEMY’s

Basic Guide To Fighting

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Published in PDF format by [aaeo].net
www.allabouteveonline.net
Fighting Guide

This is the Eve-Online Academy's rookie's guide to fighting in Eve. In it we will cover PvP vs PvE, EW/ECM/ECCM/Nos, Target Painting, basic tactics, cloaking, drones, how to take the four races of Eve into account, tanking and types of tanks, damage modifiers (both module and mathematic), different ship classes, support of allied ships, and more. If you haven't already read our General Guide or our list of terms, it's strongly suggested that you read the first and at least have the second open in another window for reference.

To start: as long as you stay in high-security space (rated .5 or above) you'll never have to fight. You can run away from npc pirates, and ignore anyone who steals from you. You can only be forced into battle in low-security systems (.4 or below). So for this guide, we shall assume that you are fighting by choice, and not delve into the ways you might be attacked; for more on that see our Security Guide, which is in three parts and can be found here.

Next, we'll assume that you're only looking for the basics here. Fighting in Eve is an extremely complex endeavor, and we're here to give newcomers to the game a good basic grasp. For advanced tactics, you'd want to search out a detailed guide on the subject; there are plenty of them out there that will be of help to more experienced Eve pilots.

**PvP versus PvE**
PvP means Player versus Player fighting. PvE means Player versus Eve. PvP will generally need much different tactics than PvE, although the npc fighters at very high levels (the ones found in level four missions, for example) use some of the same tactics as real fighters. In general, at lower levels npc pirates (such as those found roaming a high-security system's asteroid belts) do not use electronic warfare tactics and do not really tank their ships. Real players tank their ships to have high resistances and to repair damage, and use electronic warfare to keep their enemies from harming them--or to keep their enemy from using those tactics on them! PvE does not use warp scramblers and webifiers at lower levels, but PvP nearly always does. At lower levels of PvE you'll only need to worry about tanking your ship and doing damage; with PvP tactics are the cornerstone of the battle.

Obviously we're leaving out what's called "blob warfare" here--huge fleet battles. In huge fleet battles, your skills cannot help you if the enemy calls you as "primary"--the main target to take down. We'll keep away from that subject for now, as a new player is unlikely to end up in a fleet battle right away--and if they do, their commander will tell them what to do.
Tanking

Tanking a ship means to add modules that prevent or heal damage to the ship. In Minmatar ship setups the "tank" occasionally consists only of a ship made too fast to hit. Electronic warfare such as targeting disruptors or ECM Bursts are sometimes considered part of a ship's tank, as they prevent damage. Usually, though, a ship's "tank" is considered the resistance-enhancing modules and the damage-repairing ones, as well as modules that add to a ship's hitpoints, thus extending its life. There are Active tanks, which use modules that take energy to activate and run, and Passive tanks, which raise a ship's resistance quite a bit less but do not take capacitor power to keep running (very important if one has an energy vampire used against them). Energy Vampires themselves can be part of a tank if a ship is close-range enough; this would suck energy from the enemy ship and use it to keep one's own Active tank running. In addition, a tank is usually only either a Shield or an Armor tank--it's generally considered a bad idea to split resources and fitting slots on running half-effective tanks on both. A ship is usually meant for one type of tank or the other; it can be told by taking a look at the fittings and CPU/Power available for the specific ship. An example of a ship's shield tank might be:

* A Shield Booster
* An Invulnerability Field
* A Shield Extender and
* A Ballistic Deflection Shield.

An Armor Tank, on the other hand, might look something like:

* An Armor Repairer
* An Energized Adaptive Nano Membrane, and
* An N-Type EM Hardener.

Basically, you'll want to place modules on your ship to help keep yourself alive. Then, once you know you can stay in the battle for a bit (although some ships, such as Stealth Bombers, don't use a tank--but this is advanced, not particularly important to new players), you'll want to focus on dealing damage.

Dealing Damage

First off, know that each ship type comes with Bonuses. Look at a ship's Info page to see what bonuses it gets, and use them! Raising skills in a particular area (for example a Minmatar-ship pilot would train up Projectile Turret skills) will help increase damage done, as will knowing what type of ammunition to use (different types of ammunition do different damage) if you're using Projectiles and Hybrid Weapons or Missiles/Rockets. Certain modules, such as Gyrostabilizers, are very helpful for increasing the amount of damage being done. Ballistic Control Units increase the rate of fire of launchers, meaning more total damage done faster. Once you've selected the proper weaponry for your ship, and
added any damage-increasing modules you think might help, take a look at your weapon's Information tab (after they are fitted on your ship, as your skills and any other fitted modules can change the statistics) by right-clicking it while it's fitted, and picking Show Info. Projectile turrets will show an Optimal Range; this is the distance from the target where the most damage will be done (try to stay in this range, and keep the range in mind when taking other tactics into account; for example if your guns are within an enemy's Webbing range, know you might be slowed down dramatically). There is also a falloff; basically you add the Falloff to your Optimal for an idea of when you're going to lose accuracy: see This Guide for details, and pick Start Guide once the page loads. For Missiles, you'll want to take into account both the Velocity and Flight Time of the missiles--use math to calculate their maximum range.

About avoiding damage, and about your enemies avoiding YOUR damage: The faster a ship is moving and the smaller its signature radius, the less damage will be dealt to it by a missile. The larger a missile, the less damage will be done to a small, fast-moving target. Often, small missiles will do far more damage than larger missiles (say, cruise missiles or torpedoes) to a fast-moving frigate. The faster a ship is moving and the smaller its signature radius, the harder it is to track using turrets. A large turret may not be able to track a fast-moving frigate at all, whereas a smaller turret might not have a problem with it. Therefore: If you intend to fight small, fast-moving targets, fit smaller weapons or use a Stasis Webifier. If you intend to fight large, slower enemies, use the largest weapons you can fit. Either way, work with the ship's bonuses.

**Electronic Warfare**

Of course, if a ship cannot lock its opponent, all of the previous is rather out of the situation to begin with. Different ships use different targeting systems: Ladar and Radar are but two. Various ECM (Electronic Counter-Measures) defenses have been designed for this; some are Bursts that will disrupt the targeting of all nearby vessels (so don't use this near innocent players/structures or Concord, as it's considered a hostile action!), whereas others work against locked targets only. There are ECM modules that work medium-well against all types of targeting systems, and others (for when you know who you'll be fighting) that work specifically against one type, and very well, but not very well against the other types (for example, a Ladar-specific ECM will tend to disrupt Ladar systems, but might not work at all against a Radar system). Finally, different ECM systems have varying Strength, and each ship in Eve has a different strength Targeting system. If the ECM strength is better than the targeting strength,
the ship being ECM'd better run away! On the other hand a frigate's ECM system might not even bother a Battleship, although a few ships combining forces might.

Another form of EW is ECCM. Electronic Counter-CounterMeasures are modules that strengthen a ship's targeting system, making it much less susceptible to ECM in the first place. Target Painting sometimes counts as EW, but is really a way of increasing your damage dealt, and of making targets easier to hit. A Target Painter increases the target's Signature Radius. This makes the target easier for others to lock faster, and makes missiles do far more damage (assuming the missile was even slightly oversized for the target in the first place, or that the target is fast-moving).

Cloaking is not strictly EW but deserves mention; CovertOps cloaks were specifically designed for CovertOps ships, and CovertOps ships can warp while cloaked. Standard Cloaks (the Prototype and Improved Cloaking Devices) can be used on any ship that can fit them, but the ship cannot use these while warping. Cloaking is useful for ambushing enemies, such as sitting above a dock and waiting for them to return before unleashing heavy fire. However, there are many restrictions to cloaking, as follows:
- A ship cannot target anything, nor activate any modules while cloaked
- A ship cannot get within 2500 meters of any object without automatically uncloaking
- Once locked, a ship cannot recloak
- There is a delay between cloak and targeting time, and between cloak and recloaking time, though these can be lowered with the proper skill-training

**Energy Vampires and Neutralizers**
Nosferatus of various types, as well as Energy Neutralizers, play an important role in PvP. Not only do they give your ship more capacitor power to keep your modules running, they also sap the enemy of their own power, weakening them (note: neutralizers do not transfer the energy to you, but rather sap it from the other ship in larger quantities). Remember that Nos usually has a very limited range, so do not kill your long-range non-tanking setup by putting on a nos and going up close to your opponent. If the Nos fits with your ship setup and will help you, then use it. Note: Nos and energy neutralizers are especially useful when battling Amarrians, who use more cap while running their lasers. An Amarrian with no cap is generally an Amarrian doing no damage. And any enemy with no cap is an enemy with a poor (or only passive) tank.

**Support Roles**
Usually an advanced role, the Support role places a player in the position of helping their ally rather than fighting, themselves. The best players at Support are those who have Leadership skills to give their gangmates
boosts in various areas, but this is unnecessary, really. If you don't have Leadership skills, you can be Support one day and the Tackler the next. A Support ship will do one or both of two main things: it will help its ally stay alive, and help its ally do more damage. This can be through the use of modules: Sensor boost linking to make locks faster and stronger, modules to transfer capacitor energy or shields to the ally, etcetera; or this can be done through drones. Support drones are called Logistics drones. Maintenance drones repair shields or armor, for example. Having a Support ship behind you can mean the difference between a quick death and a glorious victory!

Drones
This brings us to Drones. Many ships have a drone bay. The size of the dronebay dictates the amount of drone that can fit into a ship; the smallest drones use up 5m³, and larger can be 25m³ (but don't worry about the big ones just yet). Mediums use 10m³, and mediums and lights are the ones that new players should learn about. A ship with, for example, a 25m³ drone bay could fit five light drones, or one heavy, or one medium and three lights, or two mediums and one light, etcetera. Larger drones have a harder time hitting smaller targets; drones are basically flying gun turrets when it comes to tracking. Light drones will easily hit frigates but don't deal as much damage to larger targets, while heavy drones may not be able to hit a frigate, but will deal much better damage to a battleship. In addition, the larger the drone the slower it is; having small drones is like having a small army of unswattable wasps at your command, while having a few heavies is like having a squadron of weak frigates beside you. A player can control up to 5 drones (depending on drone skills)--unless of course they have a Capital Ship and the corresponding Drone Control module, but this is, again, not something a new player should concern themselves with! Drones do different types of damage depending on the drone. Select the right damage type for the mission, npc's or enemy, as different damage types will be more effective against different enemies (for more see the Hints section).

Effect of Race
The different races of Eve tend to have much different fighting styles. As a brief overview: expect the Caldari to bring in long-range missile ships, or the occasional close-range blaster boat. If encountering a Gallente ship, expect strong drones, electronic warfare and nos, as well as powerful blasters. The Amarrians tend to use strong lasers and nicely-tanked ships. The Minmatar use a mixture of things, from artillery and missiles (long range) to autocannons, drones and rockets (close-range). For more information on the differences between the races, take a look here. Different damage types will affect different races' ships
differently, once one gets into tech2 ships--but again, that's another story for another site!

Ship Classes
In Eve, you start off piloting a very basic frigate. Frigates are small and light, hard for larger ships to target if they aren't slowed down first by webifiers or painted with a Target Painter. Some corps will insist that new players graduate to Destroyers and Cruisers immediately--but an experienced corp will recognize the enormous value of frigates as tacklers to stop larger ships from fleeing battle, and allow new players to train their frigate skills to high levels if that's what they enjoy flying. Frigates make the best tacklers: that is, ships that warp in and scramble or webify (more on that later) the enemy, then keep them there as their larger allies warp in and take the enemy down. In PVE combat, frigates are useful in groups because they can concentrate on taking out small, fast NPC targets, leaving their larger comrades to deal with the larger threats. Frigates are also usually very cheap, and therefore not a great liability to fly.

Destroyers are the next class of ship up. They are weaker than cruisers and slightly stronger than frigates, with better fittings. They are generally considered, however, too slow to make up for their weaknesses, and aren't much used in combat of any kind.

Cruisers strike a nice balance between strength and speed. They often have decently-sized drone bays, good weapons systems and the fittings for a fairly tough tank. They are less agile than frigates but far more so than Battlecruisers. Cruisers can become too fast for battleships to hit, and yet can deal enough damage to take down battleships when in small cruiser groups. Cruisers are used en masse in large fleet battles, and are used to deal with level 2 missions.

Battlecruisers are larger and much tougher than cruisers, with even more advanced weapons systems and fittings. They can tank a lot more damage, and a couple of battlecruisers can easily dispatch NPC battleships. Bc's are, however, very slow and ungainly, and it's hard to escape a dangerous situation if one cannot move.

Battleships are the largest commonly-used ship class in Eve. Capital ships are larger, but as a new player there's only one thing you need to know about anything larger than battleships: run. Battleships are extremely slow, but their raw power and huge tanking abilities mean that they form the main backbone of any large fleet. The damage inflicted by one battleship onto another, or from a battleship to a battlecruiser or slow cruiser, is immense. However, battleships often use weapons that are too slow to track small, fast targets such as frigates.
T2 ships:
Tech2 ships are ships of various classes that fill very specialized roles. Assault frigates, for example, are specialized tech2 frigates that are like normal frigates but greatly toughened up to be able to take a lot more punishment in battle. Covert Ops ships and Stealth Bombers are tech2 frigates that take advantage of cloaking devices for maximum stealth. HACs, or Heavy Assault Cruisers, are like standard Cruisers but (like Assault Frigates) much stronger, with much higher resistances to damage. In general, tech2 ships take high-level skills and special advanced skills to use, cost a great deal more than their t2 counterparts and are insurable for only a fraction of their price, making them a difficult to get and costly to lose, but very powerful, asset to any fighting force.

Tactics and The Basics of Battle
A ship flies through an asteroid belt in a .4 system, searching for npc pirates to fight and kill for a good bounty. Suddenly another ship (whose pilot has been watching his scanner carefully, awaiting just such an opportunity) warps in and locks him, and before the first player can react, begins to fire upon him. The battle has begun!
First, know that PvP often happens with one participant an unwilling one. Most one-on-one PvP is instigated by one person (often a pirate or pirate-hunter) who has carefully weighed their likelihood of winning, and who engages only those who they're pretty sure to win against. Why? Because most PvPers are full-time PvPers--and thus make their money from PvP. If they attacked everyone who came along, they'd lose a lot of fights--and a lot of Isk. Therefore, more often then not one fighter is a victim fighting back against an aggressor, although this is certainly not always the case. Normally the aggressor will lock the target, then quickly use a warp scrambler to prevent the target warping out. If you're warp scrambled, you will be unable to initiate warp; ECMing the enemy to break their lock will also break the scramble, as will Nos'ing them until they're out of capacitor energy to run the scrambler (if you can hold on that long, and if they do run out of cap). Otherwise, having warp core stabilizers (WCS) fitted will stabilize your warp system, rendering the scrambler useless (if the enemy happens to have two scramblers fitted, you'd need two WCS fitted, etc.). Next, if you are a fast-moving target, you may be Webified. If you are Webified, your speed will be greatly reduced, making you easier to hit. Next, if there are drones to be released they probably will be. Target painters, ECM, and target dampeners come next, and then the guns will begin to fire. Assuming both enemies are fairly evenly matched, this may be a large fight: ten drones, say, and two ships nos'ing, webbing and scrambling one another, ripping into each others'
ships with lasers or missiles or autocannons or whatever. A major component of the battle is range. If an enemy is longrange, and fast enough, he can stay far outside a shortrange opponent's weapons range (even though he may be able to warp scramble that opponent!). He may be able to get out of range of drones and continue doing damage to his enemy, or get out of range of warp scramblers and webifiers and still deal damage. Meanwhile, close-range ships can actually get "under the guns" of the enemy, getting too close and fast to hit! On the other hand these ships are very vulnerable to the enemy's warp scramblers, webifiers, and drones, as well as energy vampires.

A second major component is capacitor power. If a ship is Nos'd down to the dreaded "Your Capacitor is Empty" message, and is depending on an active tank to stay alive, they will quickly succumb to enemy fire. They may not even need to be Nos'd; they may simply run out of cap if the enemy tanks them long enough!

A third major component, a very major one, is: skills. Not 1337 h4x0r skills, but rather the trainable Eve skills. Two otherwise evenly-matched ships--say two frigates with basic guns and the same modules fitted--will quickly show which fighter has better-trained skills; an experienced player will show more damage, a higher rate of more accurate fire, more hitpoints on shields, hull and armor, faster shield recharge rate and less cap usage of modules, and more. Choosing a ship type to specialize in, or a weapons system, etc, is generally better than training straight for Battleship and ignoring all other pertinent skills. A poorly-piloted Battleship with Medium weapons could easily lose to an experienced player in a smaller ship class.

There are two major exceptions for the aggressor/victim scenario. One is that two corps are at war in Empire (.1 and above) space, and engage one another alone or in groups to harrass and try to force into submission the enemy. The other scenario is that two corps (or more often large alliances) are at unofficial war in 0.0 space, constantly battling it out over territory. In the second scenario, one may see enormous fleets of ships in battle against one another. In this case, webifiers but usually not scramblers are used, whereas with the victim/aggressor scenario, there will almost always be a scrambler.

Let's now pretend we have two medium-sized fleets in battle in 0.0 space, with a few ships of each type; this will give you an idea of the roles of each. In group battle, a covert ops ship may warp to the enemy, cloaked. He can get right up to the enemy without being seen. Then the rest of his gang warps directly to him, landing right atop their opponents. Now the frigates (and any Interceptors) go into action, circling the larger opponents closely and quickly and warp-scrambling them. The assault frigates attack the small ships of the enemy,
trying to take out the tackler frigates, as do the cruisers. The larger ships engage one another; once one side or another loses too many large ships, the battle is effectively over (large in this instance includes Battlecruisers, Battleships, and HACs; HACs and Battlecruisers may engage one another or ships a class higher or lower than themselves depending on the situation, enemy numbers and ship types, etcetera).

There we are; a very basic guide to fighting. Get into a ship, fit it according to its bonuses with a tank and weapons, and give it a spin! More ship setups can be found on Eve-Online's forums under Ship Setups, so if you find that your selected modules aren't keeping you alive or doing enough damage, check there for clues on how to improve the setup. Alternatively you can use trial and error; this may lose you a lot of ships, but it may also come up with previously unheard-of working setups!