EVE Online Player Owned Station (POS) Guide

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I. Introduction

1. What is a POS?

A POS is a Player Owned Station in the EVE-Online universe. It is a control tower surrounded by some industrial pieces, floating in space, near a moon. It is NOT similar to a Station (that is an Outpost), and cannot be entered.

POS's have a variety of uses, from defense to mining, storing items to refining ore, you can pretty much do anything here that you can do at a station… for a price. This guide will take you through steps of choosing the right POS, finding a place to put it, getting the right equipment for the job, deployment of the POS, and how to actually use it, once it is up.

2. POS Uses

There are a HUGE variety of uses for a POS, from acting as a non-station spot to swap ships / equipment during war, a place to mine minerals, a place to construct ships / equipment, to act as a research lab, or to claim a an area of space. In this guide, I'm going to concentrate on Basic POS usage and "For Profit" POS's.

3. Version history

09Feb06 – 0.9 Released (Initial Public Release)

4. Terminology

POS – Player Owned Station
IPU – Isk Per Unit
T2 – Tech Level 2

II. Finding the Right Spot

Finding just the right spot is an adventure in and of itself. What you have decided to use your POS for determines, in large part, where you place it (see sec I-2 for POS Uses). You don't need a moon with great minerals for a POS that is up to claim sovereignty, you don't want to put a moon for mining on any old moon, and you certainly don't want to accidentally deploy in a restricted area* (0.4 and higher).

* Most POS modules, including Moon Mining Arrays, cannot be used in a restricted area. Also, in a restricted area, you have additional fuels that need to be supplied (see sec. V-4).

1. Sovereignty of Deployment

This is a crucial thing to consider. Unlike most games, in EVE, the 0.0 systems are not controlled by NPC's, and are up for grabs for player alliances (individual corps cannot hold sovereignty of a region). This is accomplished through the POS system. Each POS size (small, medium and large) confers a certain amount of sovereignty points for its alliance and the alliance with the most points wins. Sovereignty confers many bonuses (check the EVE-O site for more information on what it confers), and usually requires that you have combative tower set up. FYI: a tower must be online for 5 days before you can claim sovereignty.

In 0.1 – 0.3 space, you cannot claim sovereignty, but you can put any other piece of equipment (within the power/cpu limits) on your POS. There are no sovereignty restrictions in these systems, and as such, are the most "neutral" places to put a tower.

In 0.4 – 0.7 space, you are actually deploying on Empire moons, so you have a few extra obstacles to overcome. First, you must have a certain minimum standing with the sovereign nation & you must aquire a lease (which is represented as a fuel). Also, you cannot use certain items here (like moon miners and reactors), but can be used as a factory or lab. Also, a tower can only pre-emptive strike war targets.

Sovereignty also affects the type of ice available in a certain region. Since each races tower requires different minerals to run it, putting a Caldari Tower in Minmatar space is going to be much more difficult to fuel than a Minmatar tower in Minmatar space (see sec. V-4).

2. Moon Scans

If you decide to put up a moon for mining (i.e. for profit), then you're gonna want to know what is in that moon before you start putting stuff up. To do this, you'll need to buy yourself a Scan Probe Launcher and some moon scanning modules (I use the cheap ones, Discovery Probes). Be aware that you can load 1 probe at one time, and each probe is 10.0 cubic, so get yourself a ship with a nice cargo hold. I use a modified Hoarder for this. Beside the launcher and probes, the only other equipment you need is a basic scanner*.

Next, find yourself a system between 0.0 and 0.3, and start cruising moons. I use the right click menu, scroll to planets, choose a planet (numerical order), then moons (also in numerical order). Since each Discovery probe takes 10 minutes to scan, and you need 3 probes per moon, you're going to want to fire and go on to the next moon while you wait for your results. I have not, as yet, found a limit on the amount of probes you can have launched at once, so fire and move, to save time. You DO NOT, however, want to leave system, crash, or dock before you receive your results, or they will be lost, even if you come back / undock before the results would have returned.

* In case you were unaware, every ship is equipped with a scanner. It can be accessed by hitting the button under the cargo button on your HUD, or by hitting CTRL-F11 (default keyboard layout).

Once you have arrived at your moon, you need to turn and face it. Now, you won't be able to select the moon like you can a planet, so you'll need to manually turn. Also, probes don't automatically go at the moon, but instead, shoot out of you at about a 15 degree angle up from your ship. If you don't hit the moon, the probe is lost. I have found the best way to hit the moon is to start by getting my ship aligned toward the center of the moon, and coming to a complete stop. I then put my cursor at the bottom most point of the moon and double click, to start me moving towards there, while keeping me centered hortizontally. As soon as my ship starts moving, I click the stop moving button, and so my ship starts to angle back towards the vertical center of the moon. About halfway up, I fire my probe. This should allow you to hit every time, and the best part, is that the distance you're moving down to the amount of time it takes to get to vertical center are directly related, once you know when to fire to hit the center (say 5 seconds after hitting stop), then no matter how large the moon, it will always be a 5 second count, if you proceed the exact same way. After you have launched your 3 probes, you have a wait time (for Discovery probes, it's 10 minutes). During this time I start scanning other moons.

When the wait time is up, one of two things happens: either your scanner is updated with the materials the moon has in it, or you get a popup message for each probe saying the moon has no harvestable materials. If you do have minerals, they are listed in the scanner screen, moon analysis tab. Each moon is listed in its own folder, and looks almost identical to the People and Places screen. Just open the folder to see what the moon possesses. If there were no minerals found, it does not create an entry for the results, and nothing changes. I don't know how long results stay in the scanner (I have tested it over a 1 week period, and they are still there), but I take mine and make a nice spreadsheet. Also, the moon materials list only shows you the moons you have scanned in the system you are currently in, so to see what you've scanned in other areas, you need to travel to those areas.

One more thing: some people like to *save* moons by anchoring a can right at the warp point. Since a can and a POS cannot be anchored within 100km of each other, and 100km is about the range you need to be in regards to the system warp point, it keeps you from deploying a POS at that moon. This is, and has been confirmed by CCP to be against the rules, and filing an in-game petition will get a GM to come and destroy the can. I know it works, I've done it many times.

a. Moon Materials:

There are currently 16 moon minerals, with 4 different groups of rarity. Generally, the rarer the material, the more it's worth.

Common – Atmospheric Gases, Evaporate Deposits, Hydrocarbons and Silicates
Rarity 8 – Cobalt, Scandium, Titanium and Tungsten
Rarity 16 – Cadmium, Chromium, Platinum and Vanadium
Rarity 32 – Caesium, Hafnium, Mercury and Technetium

III. Choosing Your Equipment

Depending on what you're doing with your POS, you're going to want to get the different items. For now, I've only included my old (and tested) loadout for mining POS's. In future versions, I will include an item list and stat descriptions of all POS items. Just keep in mind, the tower is like a ship: it has CPU, Powergrid, shields, resistances, armor, etc. However, it doesn't have "slots", and has to be fueled.

Small Mining POS:
Small Amarr Control Tower
Moon Harvesting Array
Silo
Coupling Array
2 Small Pulse Lasers
2 Small Beam Lasers
1 Warp Interdictor

IV. Deploying Your Equipment

First off, let me just add this in right now: *YAWN*. It's a long, boring process of timers and waiting, and it has a very anti-climatic ending. Keep in mind that you can only have 1 item anchoring or onlining at one time. That being said, let's get down to the brass tax.

NOTE: You have to have the "Config Starbase Equip" role from the CEO of your corp before you can deploy or access any POS!!!

The act of deploying is comprised of two stages: Anchoring and Onlining. During the anchoring phase, the part is being anchored to a certain location in regards to the moon. During onlining, the item is anchored (while anchored only, all storage modules can be accessed. Some modules cannot have their storage accessed while online!) while the piece gets itself powered up. A piece does not use up power when it is anchored, only when it is online.

The first thing you'll want to deploy is the tower. To anchor a structure, right click on the tower in your cargo hold. Select the "Launch for Corp" button. At this time, it drops into space near you, and is "unanchored". To anchor the structure, right click the structure in space, and click the "Anchor Structure" button. At this time, a translucent, lime green cube pops up, with 6 arrows in it, all pointing out in different directions from the center of the cube. Use these arrows to drag the structure to where you want it, then right click and arrow and select "Anchor Here" to start the anchoring process.

At this point in time, grab yourself a smoke, a beer, or use the bathroom, because you have a nice, long wait.

Once the tower is anchored, right click the tower, and select "Access Recources". At this point, you'll need to deposit at least 1 hour of each fuel (fuel requirements discussed in sec. V-4). Once the fuel is in, right click the tower and click "Online Tower".

Congrats! Another wait!!

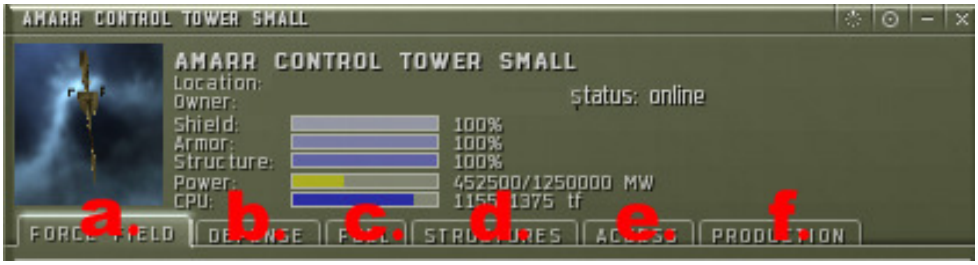
Next, the paranoid guy in me always anchors and onlines a weapon or two. Then I drop the mining arrays*, silos, corp hangars, etc. Finally I add the rest of my defense, and get it all running.

*Please note, you must online the linked structure before the mining array. For more on linking structures, see sec. V-2.

V. Using Your POS

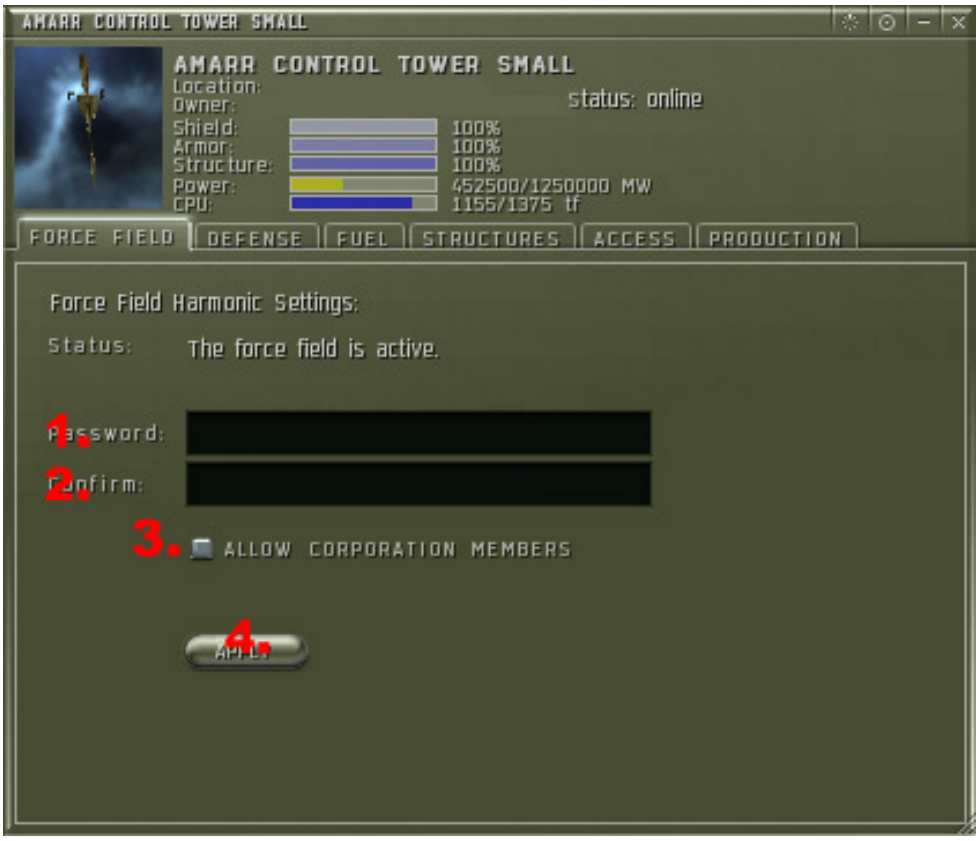
1. The Management Screen In-Depth

Finally, the moment we've been waiting hours and hours for! Once your tower is anchored, you can access the Management screen by right click on the tower and selecting "Manage". Here is what that screen looks like:



The tabs open into the same window, right beneath those big, ugly red letters (which don't appear in game). I will now do them in order, explaining what each feature is. Please note, at the top of the window, it always displays your Location, Owner (owner is always a corporation, not an individual), Current Shield, Current Armor, Current structure, current CPU usage, and current powergrid usage. It also displays the tower status (online, reinforced and offline).

a. Force Field



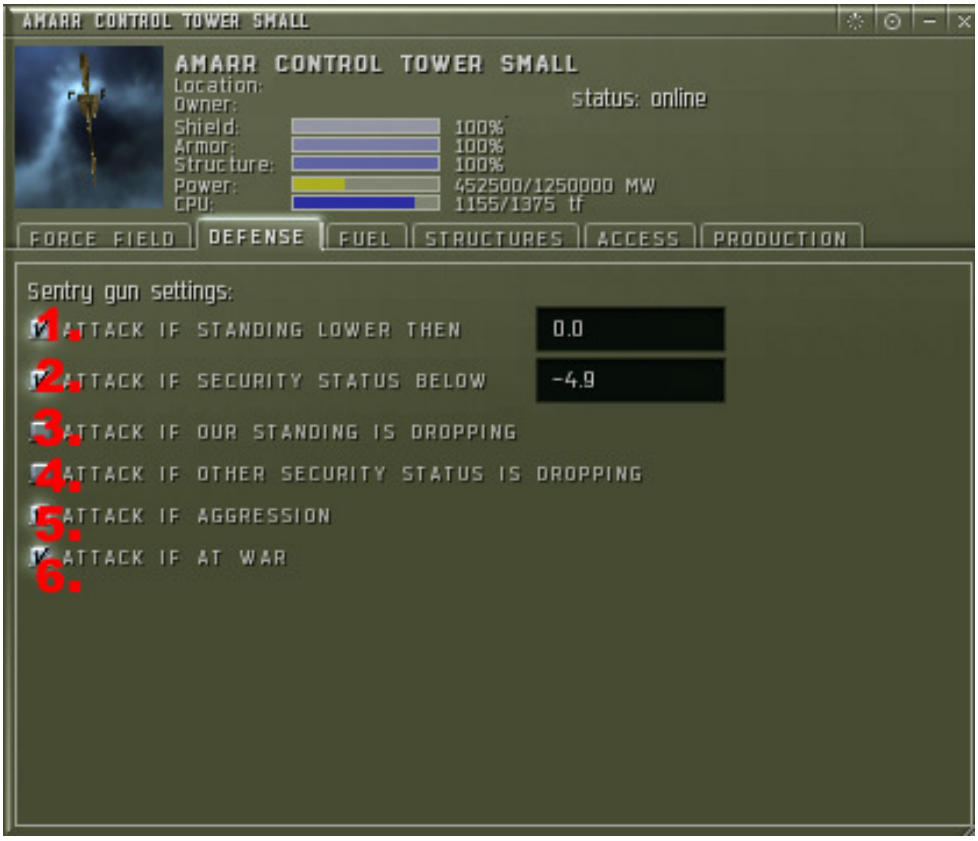
1. Password to enter force field: Anyone with the incorrect password cannot get past the shields. The password must be set each time you enter the system or undock from station.

2. Confirm Password

3. By checking this box, all corp members are allowed inside the shield, with or without the password

4. Apply button. You have to click this before you tab out of this screen, or the pass is reset. Also, when tabbing back into this screen, all fields will show as empty, but the password is still what you "apply"ed it at.

b. Defense (Note: defense settings save themselves)



1. Attack if Standing Lower Than: Select the check box and choose a number to have the tower attack anyone with whom you have a lower standing than what you specified. **Just a small note… "THEN" is a typo, it should be "THAN" =)**

2. Attack if Security Status Below: Select the box and choose a number to have tower attack anyone who has a security status lower than what you specified.

3. Attack if Our Standing is Dropping: Select box to have tower attack anyone who is in a corp that has lowered their rating towards your corp.

4. Attack if Other Security Status is Dropping: Select box to have tower attack anyone who's security status has been dropping recently.

5. Attack if Aggression: Select box to have tower attack anyone who has "aggression" towards your corp (ie., anyone who has stolen from your can or attacked you within the past 15 minutes).

6. Attack if at War: Select box to have tower attack anyone your corp is at war with.

c. Fuel

**NOTE: Format is Name / Amount per hour / Currently Installed / % of Fuel Storage Used / Days of Fuel Installed

1. Online Window: This is what is needed to keep the tower online and the shields up. Please be aware, that while in 0.3 and lower, you do NOT need a Starbase Charter. This fuel is calculated at face value (what is listed per hour is the amount needed per hour)

2. Power: This is the amount of fuel needed to support the powergrid, per hour. This fuel is not calculated at face value, but instead is actually based on the percentage of the grid being used against the total amount. At max powergrid, it costs 38 per hour. At my current powergrid (452,500/1,250,000), I only use 13.756 Liquid Ozone per hour. Running out of this will NOT offline the tower, but will offline anything using the powergrid.

3. CPU: This is the amount of fuel needed to support the CPU, per hour. This fuel is not calculated at face value, but instead is actually based on the percentage of the CPU being used against the total amount. At max CPU, it costs 38 per hour. At my current CPU (1155/1375), I only use 31.92 Heavy Water per hour. Running out of this will NOT offline the tower, but will offline anything using CPU.

4. Reinforced: This is the amount of fuel needed to support Reinforced mode. This fuel is not calculated at face value, but instead is only used while in reinforced mode (attacking or being attacked). A tower will automatically enter and

exit reinforced mode, based on your preferences in the Defense tab. Running out of this will NOT offline the tower, but will prevent the tower from entering reinforced mode.

d. Structures

Remember, you can only be doing any one of the following actions in this screen at one time!!

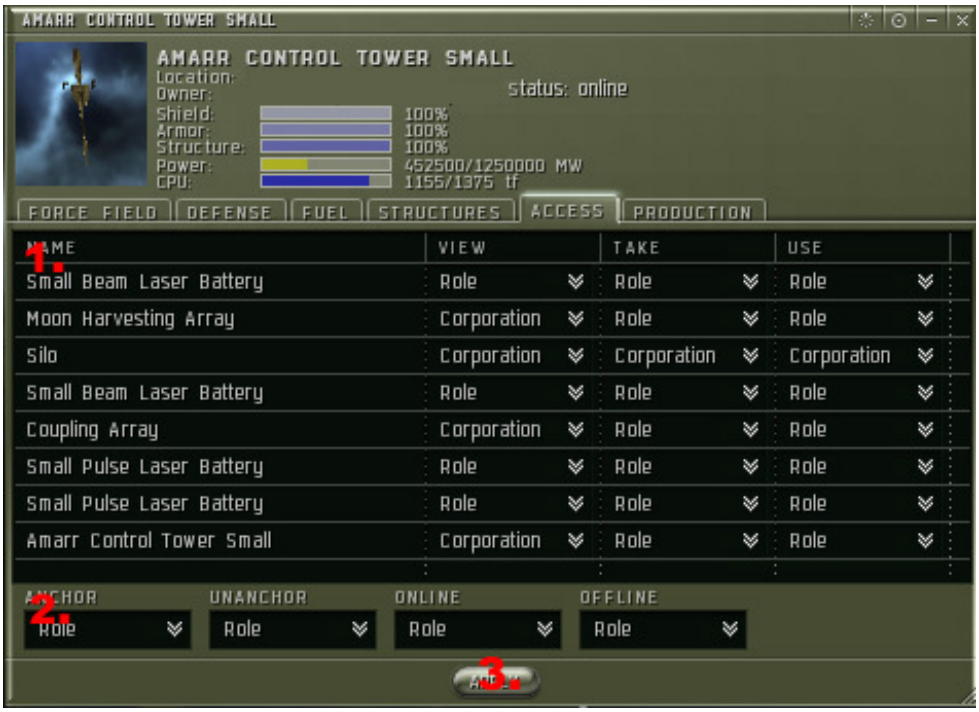
1. Anchor: Select any object in the list and click this button to anchor it in its current location.

2. Unanchor: Select any object in the list and click this button to unanchor it from it's current location. Object must be offline to unanchor. Tower must be online to unanchor any other structure. With no other item in list, this button will unanchor the tower.

3. Put Online: Select any item in the list and click this button to bring it online. Object must be anchored to be brought online. Tower must be online for any object to come online. If nothing is selected, this button will online the tower.

4. Put Offline: Select any item in the list and click this button to take it offline. Object must be anchored to be taken offline. Tower must be online for any object to be taken offline. With no other item in list, this button will take the tower offline.

e. Access



1. This area allows you to set structure rights for the POS: You can change three different options and select 3 levels of access.

Options:
View – Allows access group to view contents of structure.
Take – Allows access group to take contents of structure.
Use – Allows access group to use the structure for a task.

Access Levels:
Role – Allows people with the Starbase Config role perform selected option.
Corporation – Allows your entire corp to perform selected option.
Alliance – Allows your entire alliance to perform selected option.

2. This area allows you to set anchoring/unanchoring/online/offline rights. Same Access levels as above.

3. Apply Button – You must click this button for settings to be saved.

f. Production

**NOTE: By far, this is the most confusing screen of the entire POS experience… **

1. Moon Produces – This should tell you everything your moon scans told you. If a scan had 2 batches, you mine twice as much per hour.

2. Process Control – This shows you the current modules that you can use and what their current status is. Notice the boxes to the left and right of the modules. These boxes show what the module is currently accepting (mineral, reaction, component, etc). To select what it is accepting, right click on the name of the module and select the appropriate material. On the silo, the numbers are current capacity / maximum capacity.

3. Apply Button – If you do not select this button after assigning order (see below), your options won't work and the module will not do its assigned task.

4. Reload Button – This allows you to reload a module for use.

5. Clear Links – This erases all assigned order links (see below).

Assigning Order:

This is the step that no one finds out about, except the hard way. If you do not tell your modules where to put things, the modules won't work. You can put things from storage into a reaction chamber or building array, you can have minerals go from a moon miner to a silo, etc. Here's how to do it…

Not working…

After you have properly selected the materials for use, you will notice that the boxes on the right side have color, while those on the left side do not. To correctly link a module to another module, you must drag & drop the right side icon (output) to the left side icon (input). When done correctly, the input hopper background will assume the color of the output hopper it is linked to. When you hover your mouse over either pair of a correct link, they both look as if selected. Also, when you hover your cursor over the Moon Harvesting array, it pops up that message.

\o/

This is how it looks when correctly linked. In this case, the Moon Harvester is linked to the Coupler, which in turn is linked to the Silo. Since you cannot empty a silo or coupler while it is online, you can offline the silo and empty the contents… if the harvester ends a cycle during that time, it will get stored in the coupling unit. Once the silo is back online, the coupler will transfer the stored minerals to the silo.

2. Fueling Your New Toy – Mining vs. Purchasing

Okay, so you know how much it takes to fuel a POS per hour, but how much does it cost? Well, here's our list for the Small Amarr Tower:

Enriched Uranium - 1 @ 4310.00
Oxygen - 7 @ 240.00
Mechanical Parts - 2 @ 500.00
Coolant - 2 @ 500.00
Robotics - 1 @ 6000.00
Helium - 113 @ 300.00
Liquid Ozone - 38 @ 400.00 *
Heavy Water - 38 @ 168.84 *
Strontium Calthrates - 50 @ 1000.00 **
* Normally, you would calculate the exact power needed per hour, but for this exercise, we're using max values.
** Strontium is not used as much, and so is left out of the hour equation.

At those prices, 1 hour of fuel costs 69,505.92 isk, and that doesn't count time needed to haul it in from all over the region. On the other hand, if you mine the fuel, your cost comes to 13,990.00 isk per hour, with less hauling.

The choice is up to you. I like to mine, myself. If you have perfect ice refining skills, and good ice mining skills, then you should be able to mine it a touch faster than you could buy it. That's the theory, anyhow. =)

VI. Is it Worth It?

Depending on your use, a POS may or may not be useful. In any case, if used right, it is ALWAYS worth it. Let's take a look at some profitability for mining.

Using the numbers from before, a Small Amarr costs 69505.92 per hour in fuel. It mines 100 units an hour. Therefore, each unit needs to be sold for 695.06 isk to break even on just fuel costs. By mining all the fuel you can, the cost lowers to 139.9 isk per unit, to break even on fuel costs. In this example, the Hafnium would generate about 1,400 to 1,900 isk per unit. Assuming optimal conditions (POS stays fueled, you have a buyer, silo doesn't get full, etc.), total profit on an hour is 70,494 to 120,440 isk if you don't mine vs. 126,010 to 176,010 isk if you mine. In this excersise, using the fact that we mine ice, and selling at 1,900, we would make 29,569,680 isk profit, per week. If you purchase fuel, and sell at 1,400 IPU, your total profits on a week total 11,842,992 isk. With 3 Covetors, you can mine a weeks worth of fuel in about an hour or two.

1. Reacting vs. Raw Materials

Reactions are the combinations of two or more raw moon materials or simple reactions. Raw materials combine to form Simple Reactions, Simple reactions combine to make Complex Reactions, and Complex reactions combine to make Components, which are in turn used to make T2 products. You must have a medium tower to perform simple reactions, and a large for any other reaction.

When checking to see if it is more profitable to make reactions vs. whether you should sell the material, remember that you need to factor in fuel while reacting, hauling time, etc, and that larger POS's take more fuel per hour. Depending on the final sale price, it may or may not be worth it.

VII. Conclusion

Well, that sums up the POS system, in a nutshell. It's a great system, and when researched and applied correctly, can be extremely profitable to individuals, corporations, and alliances. They have a variety of uses, from mining to a place to store ships/items in a station-less system. Good luck with your combinations, and if you have any questions, feel free to contact me in-game. Fly Safe

-Aurora Mahair

VIII. FAQ

Q: Can you put two moon harvesters on a tower, and have them work at the same time?

A: Yes. However, you must have 2 mining units and 2 silos online at the same time. Each one links to its silo. Adding couplers is trickier. Also, you cannot have both lasers mine the same material. They must mine separate materials.