

The FINFLEET guide to scan probing for Ships.

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Introduction

This guide is the first in a series and covers ship scan probing only. General covert-ops techniques and scouting will be covered in another guide.

There are 3 main components to successfully scanning for ships in Eve; they are listed in order of importance below:

1. Your brain – how quickly you fuse the data you have collected, assessed the on-going and likely changing tactical picture and communicated with your fleet depends entirely on you.
2. TeamSpeak (TS) - talking to and sharing timely, concise and accurate information with your corp/gang/alliance mates.
3. Tools provided in-game - Solar system map, ships and probes, the directional scanner and of course, local.

This guide will focus on how to use the last two of these components effectively. Details of FINFLEET TS are available elsewhere, just ask on corp chat or check corp mail.

The in-game tools

The launchers

Currently there are two types of launcher in-game capable of launching scan probes: the scan probe launcher and the recon probe launcher.

The scan probe launcher can use any type of probe: anti-ship, moon survey and the exploratory probes (comb, pursuit, quest and sift). It is however slow to yield a scan result.

In comparison, the recon launcher is significantly faster but can only use the anti-ship probes.

Tip- make sure you have the right launcher fitted before you go on the operation as the Fleet Commander (FC) will not be impressed at a ten minute scan time.

The activation time/duration can be reduced/modified by various skills including the covert-operations skill (10% reduction per level) and signal acquisition (10% faster scanning per level). This attribute can also be reduced by rigs: the Gravity Capacitor Upgrade 1 rig gives a 10% reduction in scan time and its T2 version a 15% reduction.

To give an example, with cov-ops 5, signal acquisition 4 and with 2 Gravity Capacitor Upgrade 1 rigs fitted to my recon launcher equipped Buzzard, I can complete a scan in 29.16 seconds.

Tip- it is worth it grinding those skills.

Launcher	Rate of Fire (s)	Base Activation Time/ Duration (s)	Required Skills and level
Scan Probe	15	600	Astrometrics 1 Science 3
Recon	2.5	120	Astrometrics 2 Science

The Scan Probes

Only the anti-ship probes and their associated attributes are listed below. I have included the directional scan (the basic ship scanner accessible via Ctrl+F11) for completeness.

Name	Sensor Strength ¹	Max Scan Deviation (km)	Max Flight Time (s)	Scan Range (AU ²)	Required Skills and level
Observer Deepspace	1	20,000	4,800	1,000	Astrometrics 5 Science 3
Ferret	2	10,000	2,400	40	Astrometrics 5 Science 3
Spook	5	5,000	1,200	20	Astrometrics 4 Science 3
Directional Scanner	none	none	none	14.35 ³	none
Fathom	10	2,500	600	10	Astrometrics 3 Science 3
Snoop	20	200	300	5	Astrometrics 1 Science 3

Sensor strength: The higher the value the more chance you have of the scan picking up a 'target and the more accurate the scan results will be. Don't forget that scan probing is chance based so you can end up repeating scans and still show nothing whilst someone else may get a 'hit' first time. The targets signature radius also plays a key role here. Drones have a significant signature radius which makes you easier to find when you have let them loose.

¹ This value is applicable to all sensor types: Gravimetric, LADAR, Radar and Magnetometric.

² 1 Astronomical Unit or AU is equal to 149,597,870 kilometres.

³ Regardless of what you type in the range box, the directional scanner will only detect out to a maximum of 2,147,483,647 km or 14.35 AU.

Tip – if you want to avoid being an easy scan target, manage your signature radius by limiting modules like shield extenders and fit modules that reduce your signature radius such as ECM. Drones and wrecks also make it much easier to probe you out when you are running missions or ratting in 0.0.

Scan Deviation: The margin for error, really how close to the ‘target’ you are likely to get after a scan if you were to warp to it.

Flight time simply indicates how long the probe will last for until it self-destructs unless you destroy it yourself (see later).

Astrometrics level also controls how many categories you can scan for in any single scan (see later).

The Ships

In theory, any ship can be used to launch probes if it can be fitted with either of the two probe launchers. Some ships however, are designed to be used as prober platforms and have probe focussed bonuses as a result. The key information is tabulated below. This table does not include the T2 Recon cruisers because although they can be fitted with cloaks they do not have any scan probe bonuses.

Ship name	Ship Type	Bonus
Anathema ⁴	Ammar T2 Frigate	-98% to -100% reduction in Cloaking Device CPU use per level and 10% reduction to duration/activation time of modules requiring Astrometrics per level
Heron	Caldari T1 Frigate	5% reduction to duration/activation time of modules requiring Astrometrics per level
Buzzard	Caldari T2 Frigate	Same as Anathema above
Imicus	Gallente T1 Frigate	Same as Heron above
Helios	Gallente T2 Frigate	Same as Anathema above
Probe	Minmatar T1 Frigate	Same as Heron above
Cheetah	Minmatar T2 Frigate	Same as Anathema above

⁴ Ammar do not have a T1 specialist scanning platform similar to those of the other races.

Scanning

Background

The following section will give you the basics you need to know so that you can understand the walkthrough (see later) for a simple scenario of finding a standard Apocalypse (Apoc) battleship. Just for interest, although I set up this training scenario I did the probing properly without using bookmarks etc.

Lapsed time for the point at which I jumped into the target system to begin probing to the time I warped to within 15km of the probed out Apoc was **79** seconds using just two probes.

Tip – probing is now chanced based so remember that it might take longer than expected so stay patient and calm ☺.

Tip – you can see scan probes on the directional scanner if they are within 14.35 AU, so keep your wits about you and check your scanner if you think you are being ‘probed out’. If you see a deepspace observer (range 1000 AU) then don’t panic, however if you see a Snoop (range 5 AU) then it’s really time to warp somewhere else.

Tip – cut and paste the following table into your eve notes if you can’t remember the probe types and ranges.

Name	Scan Range (AU)
Observer Deepspace	1,000
Ferret	40
Spook	20
Directional Scanner	14.35
Fathom	10
Snoop	5

The tool set

The screenshot shows the tools that CCP have kindly provided in order that we can make life as miserable as possible for those that so richly deserve it. Hopefully, none of these windows are entirely new to you, if they are then back to FINFLEET Academy you go.



The Overview

I have a 'probing' setting that I load for scan probes when using the solarsystem map that is set to show all types of ship, drones and pilots: corp mates, gang mates, pilot standings etc as well as enemies so that I can easily identify what's going on around me. The temptation is to concentrate solely on just the map and scanner and lose situational awareness of what's going on and may get you uncloaked and/or killed. Don't forget that the data displayed on the overview is 100% accurate all the time, your scan probe 'snapshot map' overlaid on the solar system map (see below) is not.

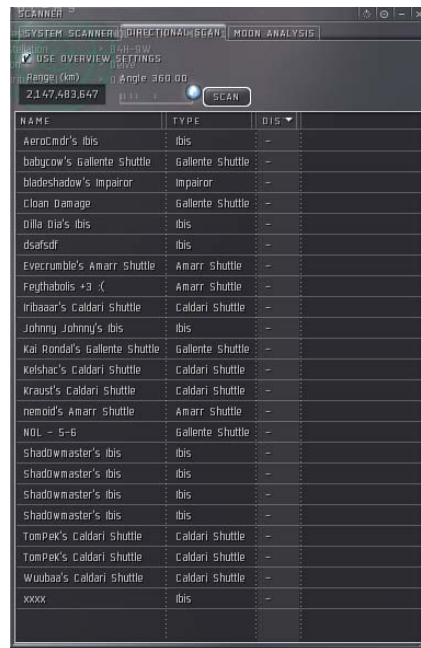


IC	DISTANCE	NAME
17.9AU		Stargate (D-10A1)
21.8AU		Stargate (HM-XR2)
27.1AU		Crimson Hand Supply
36.7AU		Stargate (PR-8CA)

Tip – remember, if your overview above shows a blinky-red Apoc sitting at 30km from you it's really happening, honest, regardless if your scan probe map reports that particular Apoc at a nice safe 30AU from you.

Tip – there is an excellent guide to setting up your overview on the corp forums.

The example below shows the same information, generated at the same spot as in the previous example but with overview settings applied so that planets, belts etc are not shown.



It's worth noting that neither scan confirms the presence of the Apocalypse we are trying to find.

The System Scanner

This is the tool that you will spend most of your time with as a prober. CCP have greatly improved the functionality and simplicity of this scanner compared to previous versions.



This scanner can be split into two parts: the target category and the scan probes area.

There are currently five target categories: Drone & Probe, Scrap (Wrecks), Ship, Cosmic Signatures (Exploration and COSMOS sites) and Structures (Stations, POS Towers and associated structures).

Each level of the Astronometrics skill allows you select and add one more category to each scan. For example, with Astronometrics lvl 1 you could select 'Ship', wait for the scan to complete and then you would have to set up a fresh scan to search for Structures. With Astronometrics lvl 5 you could select and scan for all 5 categories with one scan.

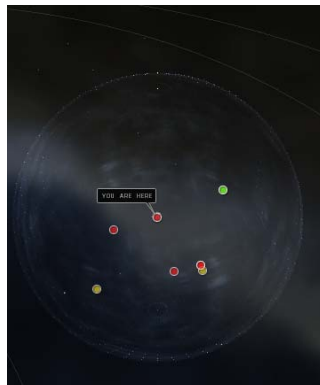
If I am just interested in ships then all I would do would be to search against the Ship category so that my scan probe map doesn't become cluttered with junk I am not really interested in.

If however I was trying to probe out a mission runner then I would select 'Drone&Probe' and 'Scrap' and 'Ship' in one scan. These 3 categories together would produce a large number of scan hits but the ones I would be interested in are those where a ship, drones and wrecks all cluster together, indicating the general location of a mission runner in mid-mission. I would tend to ignore ship hits that weren't associated with both wrecks and drones.

Similarly, if I was probing for ships in an enemy-controlled system I would scan for both 'Ship' and 'Structures'. If I saw a ship 'hit' associated with a POS 'hit' I would be very careful about warping to that ship until I had a very detailed scan map. The last thing you want to do is warp yourself or worse, the entire fleet, to a death star POS because you found a ship parked in space there.

Tip – remember what I said earlier about your brain? Engage it and think about the data presented to you. EvE collects and collates the data, it doesn't do the thinking for you.

The scan probe area will list all of the probes you have launched and detail their range (remember, the range refers to the radius of a sphere so you are looking at a volume of space, not just a flat surface, see diagram below) and how much time is left before the probe expires. The colours etc are explained below.



To start a scan you must first launch a probe then select one or more scan categories (use Ctrl for multiple selections) then select the probe or probes you want to use then hit the 'analyse' button, see below.



Tip – you can't cloak within 2,500 m of an object so make sure you move away from the probe once you have launched it.

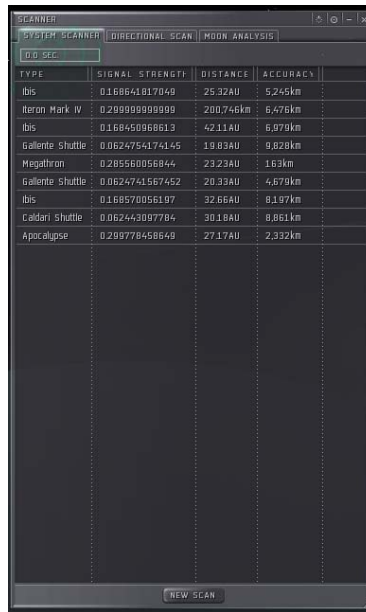
Tip – you have to be uncloaked to start a scan

Tip – you can't start a scan mid-warp and you will lose the scan if you start one then warp away.

Once you hit the analyze button, the scan counter starts and the scanner looks like the diagram below. The duration of the scan is dependent on the type of launcher and your skills.



The scan has completed so the scan to complete timer shows '0.0 sec'. The scan report gives four types of data: type, signal strength, distance and accuracy.

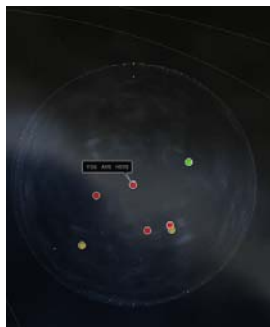


TYPE	SIGNAL STRENGTH	DISTANCE	ACCURACY
Ibis	0.168641817048	25.32AU	5.245km
Iteron Mark IV	0.289999999999	200.746km	6.478km
Ibis	0.168450988613	42.11AU	6.079km
Gallente Shuttle	0.0624754174145	19.83AU	9.828km
Megathron	0.285560056844	23.23AU	1.63km
Gallente Shuttle	0.0624741567452	20.33AU	4.679km
Ibis	0.168570056187	32.66AU	8.197km
Caldari Shuttle	0.062443097784	30.16AU	8.861km
Apocalypse	0.289778458848	27.17AU	2.332km

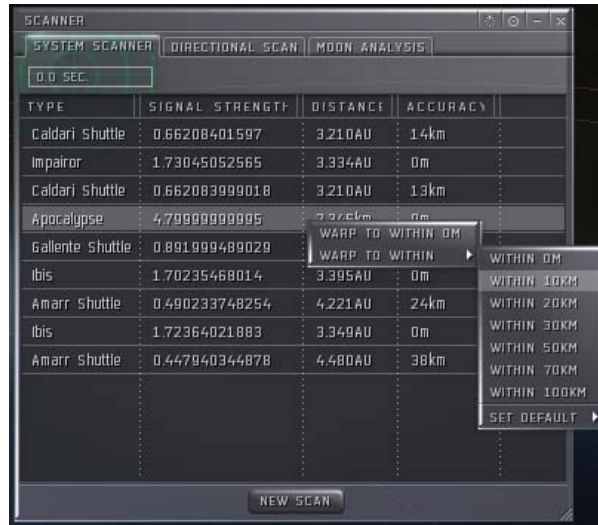
As the example probe is a deep space probe the results above show some of the ships currently in space within that system. However, if you compare this set of results with that obtained by the directional scanner you will see fewer ships in the scan results. Why? Remember that not only is scanning chance based but the observer probe has the weakest sensor strength but biggest range.

Signal strength is a function of the probe sensor strength, chance, skills and target signature radius. As a result we have now picked up the Apocalypse that didn't show on the directional scan results.

CCP have colour coded signal strengths for each target and which are displayed on the solar system scan map as green, amber or red. A green signal is the weakest whilst red is the strongest signal. Basically, a signal strength above 1 gives red, between 1 and 0.1 yellow and below 0.1 green.



You can now select anyone of the scan hits (right mouse click) and select the distance you wish to warp to. Once warp is complete you will have either found your target or you will be in a much better position to now release a more accurate probe and start again.



Its worth noting that the scan report and the scan map produced in the solar system map are persistent. Even after you have selected one target to warp to, you can then select another one once warp is complete and repeat until you press the ‘New Scan button’ which then clears the scanner report.

Tip – never select ‘warp to 0’ as you run the risk of landing on top of your target and getting decloaked and killed. An embarrassing and expensive outcome so not recommended.

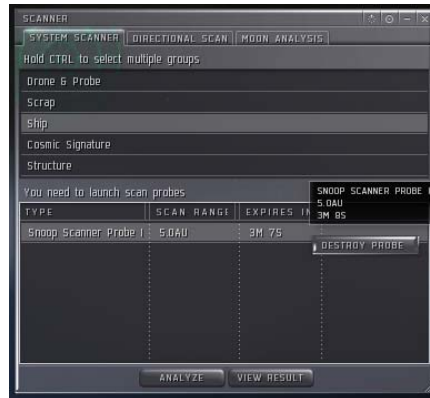
Destroying Probes

You can’t release any scan probe within the scan volume or ‘bubble’ of another scan probe. Any attempt to do so will generate the following message:

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You cannot deploy that probe because it would either be within the scan range of another probe you already have in space, or would result in another of your probes being within its scan range.
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The volumes can interact but not the probes. Therefore you have to either destroy the probe or let it expire.

To destroy a probe, simply right mouse click then select ‘Destroy Probe’.



It is worth noting that you that you should destroy probes for tactical reasons. For example a Snoop probe (range 5 AU) released within 14.35 AU of a target ship will appear on that target’s directional scanner.

Tip – after getting the scan report, destroy your probes, no point in letting the enemy know how close you are getting or even that you are hunting them.

The Map and the World Map Control Panel

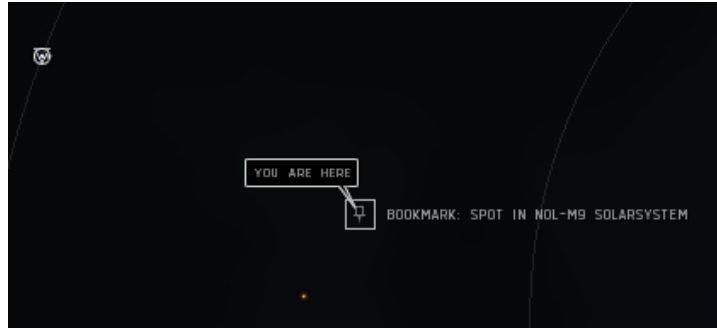
Both the solar system map and the associated solar system map tab on the world map control panel are at the centre of the revamped scanning system implemented by CCP. This is where you can ‘see’ the information produced by the scanner and put it all into context and build the picture of the battlespace.



For obvious reasons, if you are going to scan probe then please make sure you have scanner probe and scanresult unchecked and available.

Tip – I leave gangmate unchecked so that I can correlate gangmate’s positions with potential ship target positions so I can concentrate on any ship result that doesn’t appear to be in the same position as a gang mate.

Tip – I leave bookmarks unchecked as I bookmark my initial scan location then subsequent scan locations just in case something goes wrong with the scan. With this display on I can see where I have been and also provide fresh, previously unused ‘safe spots’ for the fleet.



The scan probe map I touched on above is constructed from the scanner results and the 3D result superimposed onto the solar system map for you by EvE.

Current location:
 ▶ NOL - M9

Nearest > NOL-M9 IX - Moon 1
 Constellation > B4H-9W
 Region > Delve
 Security Level > 0.0

TYPE	SIGNAL STRENGTH	DISTANCE	ACCURACY
Caldari Shuttle	0.66208401597	3.210AU	14km
Impairor	1.73045052565	3.334AU	0m
Caldari Shuttle	0.662083999018	3.210AU	13km
Apocalypse	4.79999999995	2.334km	0m
Gallente Shuttle	0.891999489029	1.690AU	2.859m
Ibis	1.70235468014	3.395AU	0m
Amarr Shuttle	0.490233748254	4.221AU	24km
Ibis	1.72364021883	3.349AU	0m
Amarr Shuttle	0.447940344878	4.480AU	38km

NEW SCAN

This is an unbelievably useful tool as it transforms the scanner data from a simple table to a 3D picture of the battle space so you can orientate yourself and provide accurate information to the fleet.

You can right click on any of the green, yellow and red scan results to get a ship type and can warp to those targets as if you had selected them from the scanner report.

Final Points

The only way to get good at probing, to get a feel for which probe to use when is a matter of experience. The only way to get experience is to do it.

As a cov-ops prober you will never appear on a kill mail or rack a number of kills and build a reputation. However, one of the most exciting parts of Eve for me is the final probe and warp onto an unsuspecting enemy then calling the fleet in. If you are successful then you will build a reputation within the fleet, LV and the wider alliance. I can guarantee you will get a warm fuzzy feeling when fleet and alliance FC's ask for you by name.

Good luck, see you in space.

The Walkthrough

The Scenario

The sections above have detailed the tools, now to put it all together, including the sort of TS reports that you as the prober should be giving to the fleet.

You have been called into NOL-M9 to assist the fleet in finding and destroying a single enemy battleship. The ship has been identified as an Apocalypse, current location unknown.

Step 1: Entry into target system, cloak.

TS Report: “Prober to Fleet Command (FC), any intelligence (intel) on enemy ship type and last location?”

FC Response: “It’s an Apoc and ffs if we knew where it was we’d have killed him by now.”



Step 2: Based on the intel, select the most appropriate probe, uncloak, launch probe, start scan and recloak.

TS Report: "Prober to Fleet Command, in position, scan up, 30 secs"

FC Response: "GOOD, get a move on"



Note: Given the situation, I used a deep space observer as it covers the whole system. If I had any location intel then I would use a more accurate probe instead depending on how good the location intel was. Remember, in this case I will have to destroy the probe before I can launch a new one.

Step 3: report any initial findings, let your FC know what you know.

TS Report: "Prober to Fleet Command, yellow contact on the Apoc, moving to target location"

FC Response: "Fine, get a move on"



Note: Scanner result indicates I am approximately 27 AU from the target Apoc.

Step 4: Warp to the spot indicated on the scan result.



Note: the scan result shows I am 30km from the target Apoc, but nothing in the overview.

Step 5: Change probes (in this a Snoop), start scan, recloak,

TS Report: “Prober to Fleet Command, in position, scan up, 30 secs”

FC Response: “GOOD, get a move on”

TS Report: “Prober to Fleet Command, red contact on the Apoc, moving to target location”

FC Response: “Fine, get a move on”



Note: all the targets in red are effectively dead as the Snoop has them accurately located. In the above example, the scan result indicates I am 2,337 km from the target Apoc. I now destroy the Snoop as it will appear on the Apoc’s directional scanner if he is watching, as will I if I don’t recloak quickly.

Step 6: the kill.

TS Report: "Prober to Fleet Command, contact, 11km from Apoc, warp to me at your optimal"

FC Response: "Tacklers warp to prober now"

TS Report: "Fleet warp to prober now"

