



DCS F/A-18C Hornet/CJS Super Hornet Ironhand

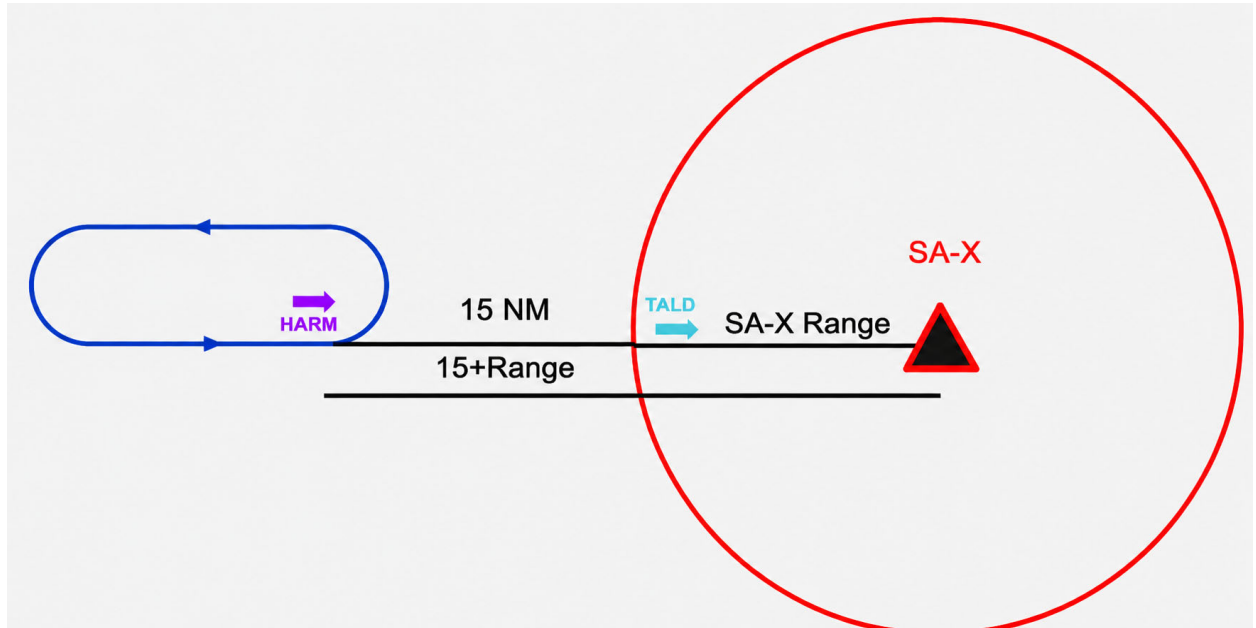
It should be noted that SIM performance varies across certain systems. I will try to keep it up to date, but overall, it is a rough guide for various SAM systems that exist. It should be noted that I will only focus on the Hornet and Super Hornets, and Growler-specific entries per the SAM system that I bring up. It should be noted that this is geared towards the solo-learning player or someone in a virtual squadron looking for additional knowledge. The main focus of this document is solely on stock SAMs; no mods will be included at the time of writing.

Basic Ironhand Technique

Gemini AI (Google) recommends an engagement altitude of 20,000-30,000ft. This, coupled with the afterburner, will ensure that your HARM reaches the target. More or less, this engages most SAMs; it is a good rule of thumb. As long as the air is uncontested, you can do this to engage most of the double-digit SAMs with the Hornet/Super Hornet/Growler. Depending on the mode, you can use TOO (Target Of Opportunity), SP (Self-Protect), or PB (Pre-Briefed) modes with the HARM on the F/A-18C/E/F and Growler. The first mode, TOO, is a simple point-and-shoot. It should be remembered that altitude and speed are important. If you're slow, the HARM will likely not have enough energy or speed to reach the target. Going to full afterburner at height will ensure that, depending on the threat, you'll give the missile enough speed and energy to allow it to hit the target. In some cases, it also puts you within the MEZ of the threat system, depending on your situation. For SP mode, make sure that the HRMOVRD is

unboxed, and the system will automatically target the threat radar that's illuminating you (such as the tracking radar of the system if present)

For PB mode, use this as a rule of thumb:



Per Smelly from Discord:

“Usually for a prebriefed engagement, unless with SAM that has a MEZ of greater than 40 or 45nm, setup a racetrack 15nm outside of the SAM's MEZ rounded down to the nearest 5nm (ex for a 22nm MEZ, establish 35nm outside of the centroid, 22nm rounded down to 20+15nm) and release ordinance on a timeline depending on the saturation you need, usually every 1-2 minutes.”

PB Mode gives you more standoff (up to 65 nm) range from enemy threats, and should keep you out of harm's way. If you need to know more about the PB Mode and how to use it, look at the F/A-18C User Manual to learn how to use this mode. Note that the higher the altitude, the longer the shot, but the timetable on when it hits may also vary. Note that damage to the radar is also factored in, depending on how many missiles actually hit the target. Note that, due to the aspect, support vehicles may also be hit, reducing the effectiveness of your shots.

The other asset to use (and which is used heavily) is the ADM-141 TALD (Tactical Air-Launched Decoy) system. Mounted on up to three pylons, the system is a basic point-and-shoot decoy designed to get SAM systems to fire at it. Some may shoot it down, some may try to shoot it down. For the solo player, you can try to use it as best as possible, but it is recommended that, for maximum SAM suppression and engagement, you look into a virtual squadron for more training and knowledge in using this system in a scenario that you need to support with your TALD and HARMs. I'd suggest orienting yourself with your HARM before firing off a TALD, though, to make sure that they're not a wasted effort. When used properly, the system will cause the SAM system to fire a missile at it.

SA-3 Goa.S-125 Neva/Pechora



There's not much to say about the SA-3, which is used in the configuration above, ground-mounted on a rotating base for 360-degree engagement. Use the PB diagram for the SA-6, which shows the same system range. The SA-3 template in the sim has the tracking radar, and the search radar, and four launchers with four missiles each. They're arranged in the launchers on the south direction, but any enterprising mission designer can move the launchers around to make it work for the scenario. The missile has a max range of 13.5 miles, which is the same general range of the SA-6 below. There's not much to go with other than if you regularly deal with the SA-6, then it shouldn't be any different from that system.

SA-5 Gammon/S-200 Angara

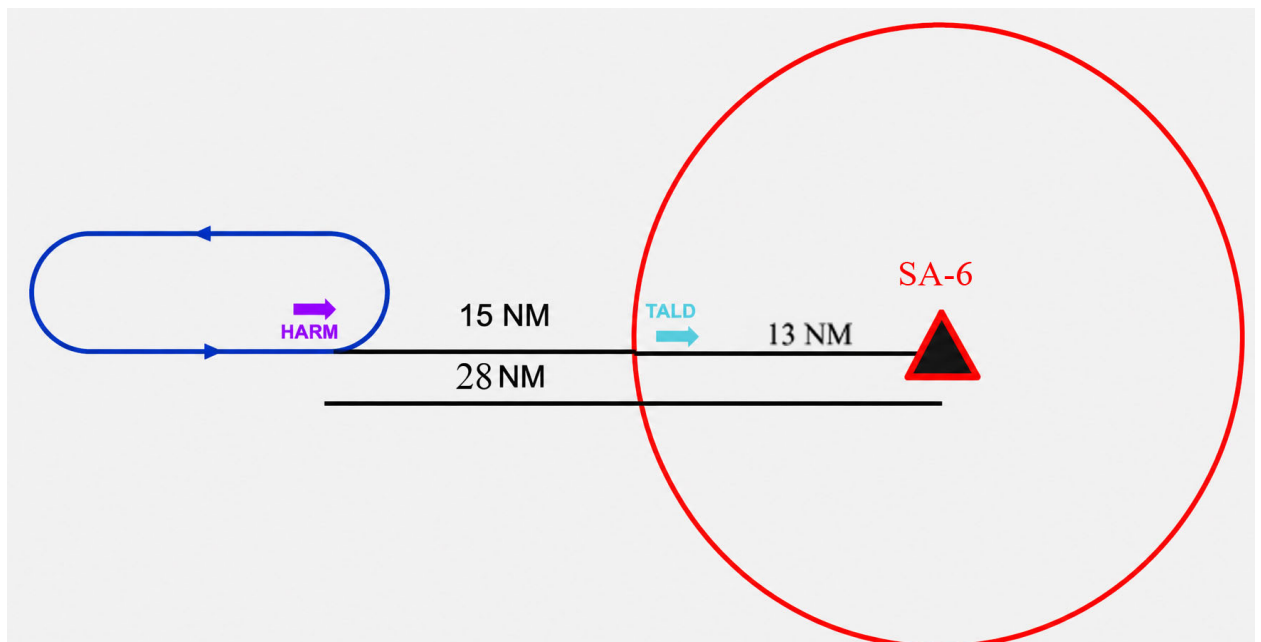


The SA-5 is one of the older SAMs provided in the simulation. A typical battery consists of six launchers with one missile apiece, and two search radars and one tracking radar. Of note, the site (when using the template) spawns a Tunguska (SA-19 Grison) for close-in defense. The range is listed at 190 miles. It's old, and with some good flying, you can render it dead by either evading all six of its missiles or getting in close enough for a HARM shot. It should be noted that the same technique for the SA-10 (see below) is also viable. If you can either prevent it from launching or hitting you, of course, then you'll survive. Note that due to the extremely long range, the F/A-18C/E/F internal jammer should have no effect on the system. As for the PB diagram, one is not needed due to the fact that you can't effectively do a PB shot unless you find a way to get close enough to do it (so far, one Discord user said that she made it up to 60 miles, and I'm sure other virtual squadrons can confirm the rough max distance of the HARM in this mode. Note that you can make it up to 65 miles, depending on the situation.

SA-6 Gainful (2K12 Kub)



The SA-6 Gainful is one of the oldest SAMs in the sim to date. But as such it is still used by many nations, but is defeated with the HARM given it's shorter range compared to the SA-11 below. Engaging the SA-6 is pretty easy, and you're likely to do more damage in TOO mode than in PB, but here's the graphic for the SA-6 if you want to do it in PB:



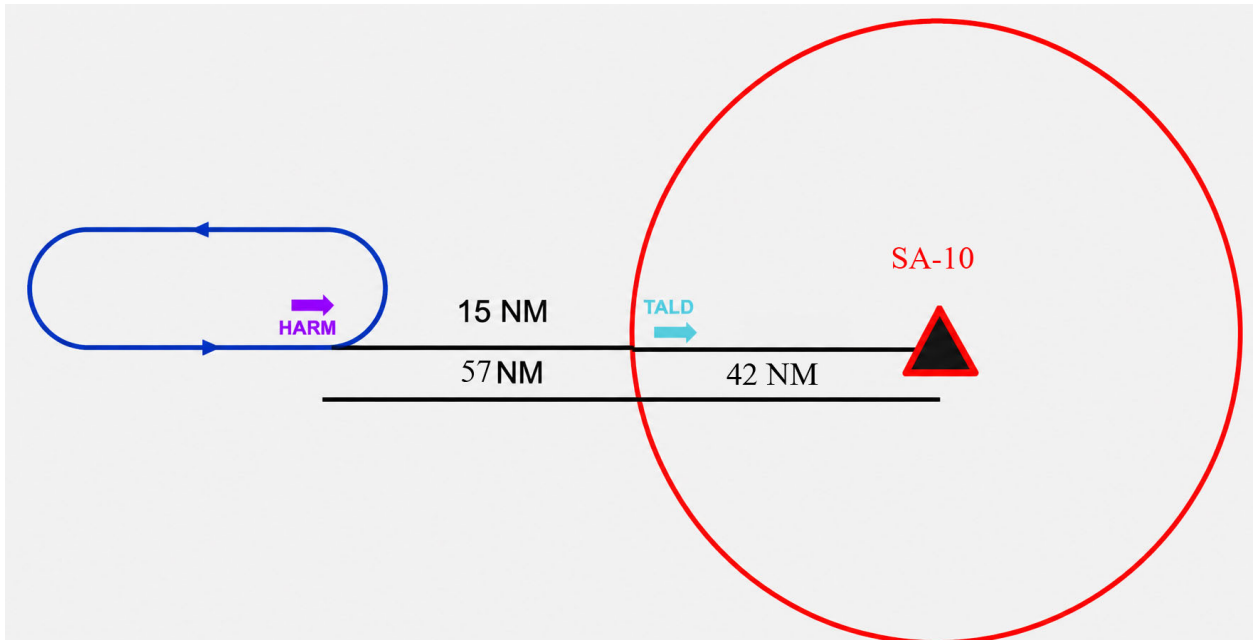
It should be noted that you don't necessarily need to shoot at an SA-6 site with PB mode. TOO mode works just as effectively, with you shooting way outside of its engagement zone. I figure around 24 miles or so, you can get a kill without ever getting inside its threat radius. For F/A-18C/E/F drivers, the inbuilt ECM doesn't do anything; it will fire at you within its engagement zone.

SA-10 Grumble (S-300)



The SA-10 is the king of the SAM battlefield. In various guises and with the Eagle Dynamics simulations, it has always been a part of the SAM landscape as far as I can remember, from Su-27 Flanker 1.0. PB mode is perhaps the best option for engaging this SAM. But be careful, the system will attempt to shoot your HARM down. You can get it to fire with some TALD munitions, but overall, the system is lethal, though not so lethal when operated by Iran, which didn't seem to fire during the conflict. It has been around since the 80s, with current version being the S-300PM-2, which is classified as the "SA-20 Gargoyle". We'll be discussing the base S-300 in this document since it exists within the sim. A typical SA-10 battery will consist of two search radars, one tracking radar, and six TEL Ds with four missiles each, for a total of 24 missiles. As far as internal ECM, it's not really able to burn through due to the missile system's extreme range. It has a range of 29 to 42 miles, depending on altitude. Most techniques would be the PB mode, though if you manage to get close enough, you can switch to SP or TOO modes for your HARMs. Remember that it will try to shoot them down, so keep that in mind when engaging the system. The 64H6E Big Bird radar, the main search radar, detects targets up to ~170 km in-game. The 5N66M detects low-flying targets, with a range of 60-90km.

As far as internal ECM capabilities with the F/A-18C/E/F, I would not try to get close if the system is not your primary threat. It simply detects and has enough power and range capability to make the internal ECM suite meaningless, to be blunt about it. You may very well not get within range to make an effort. One technique in killing it, though (remember the radars are key), is to fly very low (if simulated in the sim, it has a minimum height of 25m). Fly fast and low, launch your HARMs some distance out, and pray they hit. Then clean up the site with other air assets, such as strike aircraft and support aircraft. PB diagram:

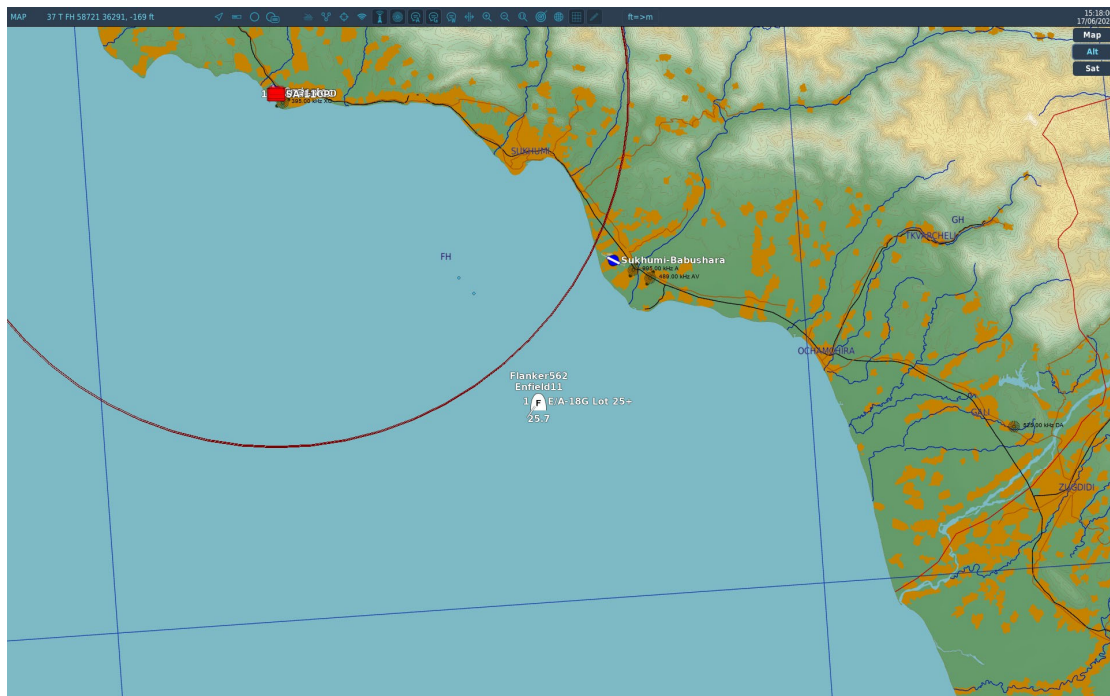


SA-11 Gadfy (9K37 Buk-M1)



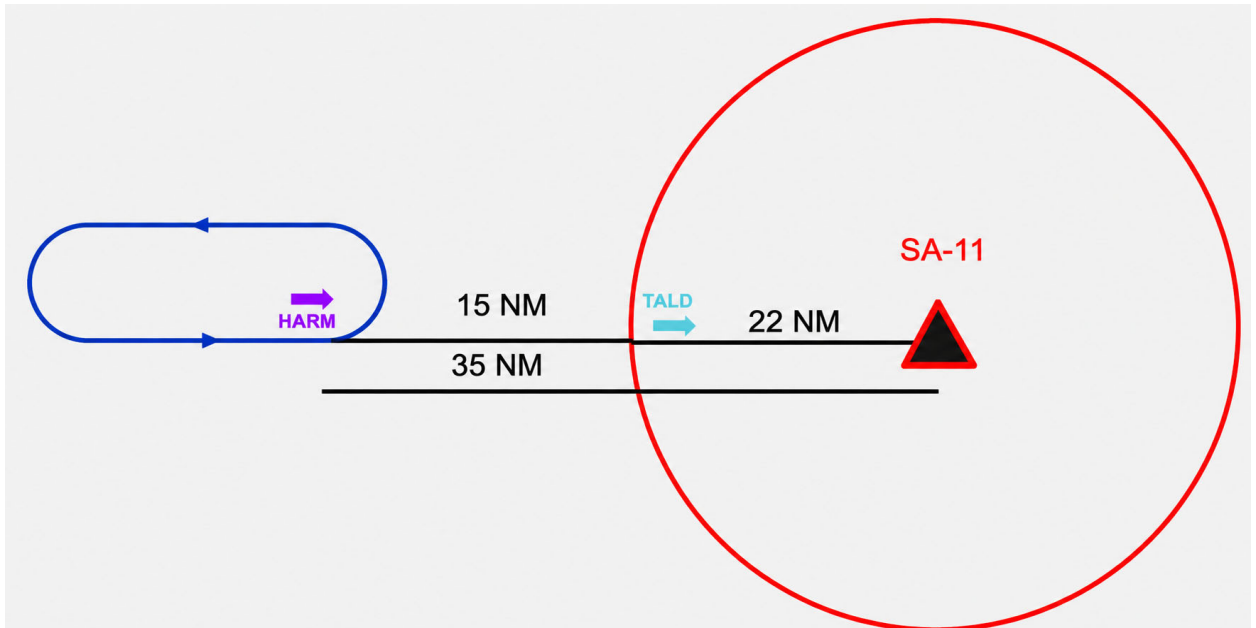
The SA-11 is a well-known SAM and is featured in the sim. For the most part, mission designers should put the complete Battery on the map for maximum lethality. Typical template composition consists of four TELARs with four missiles, for a total of 16 missiles, arranged generally to cover a full 360-degree area, and one Snow Drift radar, and support vehicles. It's a very accurate system, and while it's championed for shooting down missiles like the HARM, that

feature doesn't exist in DCS. For the most part, it's a medium-range SAM system that, if done right, is easy to kill. One technique is to fly near the missile's engagement range and launch a HARM, or two. This will ensure a kill when going after the search radar. It should be noted that PB mode allows you to engage the SAM further than it can actually shoot down. The preferred method for me is the TOO mode, near the engagement envelope of the system, to ensure a radar kill. Remember, the system relies on the search radar to identify and engage the targets, so neutralizing the Snow Drift radar neuters the system cold, and allows you to fly unopposed:



The only thing with SP mode is that, when triggered, the missile will engage a TELAR tracking radar as the threat source. If you have four HARMs, it's wise to engage them outside their threat range, so you can neuter a site with one or two HARMs. For soft-kill attacks, switch to the TALD and watch it engage it. Other than that, the system, if you stay out of its range, is easy to kill. For F/A-18C/E/F drivers, you can get within 24 miles of the battery before the radar burns through your internal ECM.

Shooting PB Mode with the HARM (Image courtesy of Smelly):



Smelly's Jamming Script.

This is done by Smelly, who used to be from VCW-11, and came up with a simple script to add to your mission. I do have this, but also a modified script that allows only the Growler to jam radars. Here is the link to the base script, and you'll have to contact me (Flanker562) on the ED Forums or Discord:

<https://forum.dcs.world/topic/385186-ea-18g-style-electronic-warfare-script-v2>

CJS Super Hornet Mod

If you wish to get the mod, it can be found here:

<https://discord.gg/vZrJCA2euy>

Thanks to:

“Smelly” (_Timberwolf_ on the ED Forums) for his images and advice.

Eagle Dynamics for a wonderful simulator

The ED Forums community for any input that they had for this document

If you like my work, please donate (PayPal): flanker56@hotmail.com

Flanker562 (Steam ID)

<https://www.ejwriting.info/>

flanker56@hotmail.com

I also write Military Science Fiction books, if interested you can check them out here:

Amazon Affiliate Link: <https://amzn.to/2Q4Kuua>

Draft2Digital: <https://bit.ly/3q3zSKy>

Kim Johnson, 2026

