

Anti-Xeno Flight Manual

A research report from Xeno Control Corps

Disclaimer:

Fighting Thargoids is hard until it is easy. Prepare to die and face the rebuy screen. Medium ships are faster, cheaper to (re)buy, require less engineering, and pack roughly the same firepower as large ships due to the weapons cap on experimentals (4). Flying without using a recommended build puts you and your wingmates at risk. Be courteous to your fellow pilots! Engineering is not optional, and flying without guardian gauss is not recommended. This guide is merely a compilation of many commanders' experiences. As always, never fly without a rebuy.

Abbreviations:

AX	Anti-Xeno
AXI	Anti-Xeno Initiative
FA	Flight Assist
FDL	Fer-de-lance
FAS	Federal Assault Ship
XCC	Xeno Control Corps

Resources:

Tutorials

- Commander Gluttony Fang's "[How to solo a Thargoid Interceptor](#)" post on frontier forums
- Commander Shwinky's "[Advanced Tutorial - Interceptors](#)" using FA-off, no shutdown field neutralizer, and no scanner
- L'Intouchable's "[Learning FA-OFF](#)"

Solos

- Commander Gluttony Fang's "[FDL Basilisk Solo](#)"
- Commander Maligno's "[Krait Medusa Solo](#)"

Information

- Cannon: Lab 69 Xeno Intelligence Agency: <https://canonn.science/lab69xia/>

Community Help

- AXI discord link: <https://discord.gg/gZbAWCF>
- XCC discord link: <https://discord.gg/5K7g35f>

Pip Management:

Note: Pips are often abbreviated as 2-2-2, meaning two pips in systems, two pips in engines, and two pips to shields. There is a maximum total of 6 pips. The remainder of this guide will use the aforementioned shorthand.

Pip management can be performed manually, but it is significantly more effective to utilize a macro program such as AutoHotKey (<https://autohotkey.com/>). AHK can almost instantaneously rebalance your pips more accurately than even the most trained pilot. Voice attack can also be used for pip management, however, it is significantly slower, even when using mouse keybinds.

The following script binds the most common pip distributions to function keys F1-F8.

https://drive.google.com/open?id=1SfIBjlyoGTk5E5FvbqOk_8OlunBgdGg2

Pip management is essential to effectively utilizing your gauss while maximizing mobility during the Thargoid assault. When kiting the Thargoid and tackling the swarm, pip management minimizes the time necessary for restoration of your shields. Any time spent with no pips in systems with shields at less than 100% is less shield strength available when returning to fight the Thargoid.

Another example of the benefits: Transferring 4 pips to sys right before impact of the interceptor cannon leads to a 60% increase to shield damage resistance, which translates to an ~2.4x increase in shield strength. Using macros can allow you to quickly switch from 4-0-2 to 0-2-4, to maintain maximum recharge rate on your gauss, keep your engine constantly boosting, and ensure your shields are always at peak resistance. Always avoid running out of systems energy as this will prevent you from firing a heatsink.

Recommended AX builds:

The three most commonly used ships that scale well to medusa are the Federal Assault Ship, Krait, and Fer-de-lance. These ships each differ slightly in play style, but share the ability to mount at least three Guardian Gauss cannons and one AX Flak Launcher. Furthermore, all are capable of boosting greater than 450 m/s which allows the ships to kite the interceptor while dealing with the thargon swarm. Large ships other than the cutter are not recommended due to the inability to outrun the interceptor or swarm without SLFs. Small ships generally lack the firepower to engage the medusa (Commander Painbeaver has successfully solo'd a medusa in an Imperial Courier with 30% premium ammo). Large and small ship combat is not recommended for the inexperienced and is thus outside the scope of this guide. The following are recommended AX builds:

FDL Shield Tank

<https://s.orbis.zone/v7JB6QpA>

Notes: The FDL runs **hot** without heatsinks you will cook your modules. 8 heatsinks is enough for an attack run, but this build sacrifices stealth/redundancy for an approximately 400 MJ boost to shields.

FDL Heat Sink Stealth Build

<https://s.orbis.zone/x9d4ZHXX>

Notes: This FDL packs 12 heat sinks which should be more than enough to remain in stealth and cool the gauss. Note the powerplant is G5 armored with monstered. This let's the ship run cooler, as it does not have the power the fourth shield cell booster.

FAS

<https://s.orbis.zone/4TaGR8vz>

Notes: The FAS lacks the shield capacity, firepower, and non-boost speed of the FDL; however, the FAS has amazing yaw speed and can hull tank the Thargoid. Beware the fragile cockpit and exposed power distributor (hence the AFMU)

Krait

<https://s.orbis.zone/DQ-Kh8cY>

Notes: Most balanced AX ship. Shields and armor strike a balance between the FDL and FAS. It has a massive distributor and excellent heat management, however, the canopy is very exposed and weak.

Less maneuverable and lower top/boost speed than FDL or FAS. Lower hull hardness than FDL or FAS, but faster shield recharge rate due to its class 6 generator.

Resource farming for AX ships:

When in doubt use Inara (<https://inara.cz/galaxy-components/>). It is often more effective to use effective strategies to farm G5 mats and trade down at material traders (<https://inara.cz/galaxy-nearest/25/>) to less common components. The following are some effective shortcuts:

Manufactured materials:

1. Killing the T9 at the unauthorized installation in Vesper-M4 drops multiple high-grade mats like EFC/CDC/etc. (<https://canonn.science/codex/slough-unauthorised-installation/>)
2. Dav's hope
([https://forums.frontier.co.uk/showthread.php/368279-UPDATED-List-of-Materials-at-DAV-S-Hope\(Pictorial\)](https://forums.frontier.co.uk/showthread.php/368279-UPDATED-List-of-Materials-at-DAV-S-Hope(Pictorial)))
(https://www.reddit.com/r/EliteDangerous/comments/80rgfy/davs_hope_new_map_for_30/)
3. Dav's hope of the Pleiades HR 1172, Body A 5 B coordinates: -0.25, -67.67, Comms Facility 89563

Raw mats:

Farm the **crashed anaconda at Koli Discii planet: C6A coords: 28.577, 7.219**. Relog after collecting from the three cargo containers and scanning the data beacons. WARNING: Prepare to supercruise 90,000 ls. If you don't want to spend time in supercruise, **farm the crashed "bug killer" anaconda at HIP 1661, planet 1A, coordinates: -11.0093 -95.6755**. The Thargoid will not attack you in your SRV.

<https://forums.frontier.co.uk/showthread.php/430906-The-Other-Crashed-Anacondas?p=6762155#post6762155>

Data: Lowell Class Science Vessel CMB-511, cycles through several systems but you can check Cannon (<https://canonn.science/codex/lowell-class-science-vessel-cmb-511/>) for its current location.

- Strategy:
- Scan the ship with the uplink scanner
- Scan the comms array with the uplink scanner
- Target the comms array, subtarget the limpet docking bay
- Fire a recon limpet at it
- Engage silent running before it attaches
- Turn off silent running after it begins scanning
- Turn silent running back on before it finishes (or just keep silent on the whole time if your ship runs cold)
- After it finishes, you will get 4-7 data
- Relog and repeat.

Differences between Thargoid interceptor variants

	Cyclops	Basilisk	Medusa
Number of Hearts	4	5	6
Direct gauss shots required to exert heart at 1.5 km	6	12	24
Gauss shots required after last heart	6	12	24
Direct gauss shots required per heart at 1.5 km(non-premium)	3	4	5
Time for shield degradation	1:45	3:00	4:00
Size of swarm	32	64	96
Number of swarm	5	6	7
Top Speed	400 m/s	530 m/s	450 m/s
Location found	Non Human Signal Source (Threat 5)	Non Human Signal Source (Threat 6)	Non Human Signal Source (Threat 7/8)
Distinctive markings	Green coloring	Red coloring	Red coloring with spikes on outer edge of petals

After the destruction of the first heart, the interceptor will begin to use its scramble lasers when approaching within 800 m. After the second heart, the interceptor will use caustic missiles, which are slow-moving (~350 m/s) missiles that applies a permanent DoT (damage over time) on your hull integrity unless you dock at a station or overheat your ship to ~250% heat until it burns off. On the second-to-last heart, the interceptor will use EMP (shut-down field), which will render your ship inoperable for 30 seconds or so (your wing beacon will also turn off because of this). With the exception of the scramble lasers, once the thargoid has deployed the swarm you are not in danger of being hit with the special attack. You can avoid the triggering the EMP field by being outside of 3 km **before it attempts to initiate the attack**. You cannot avoid the EMP once the attack has been queued, stay in FA-off and boost away from the swarm/interceptor before the attack hits if you are not carrying a shutdown field neutralizer.

Strategy

Background (see chart above)

To destroy a Thargoid, it is first important to understand its shield and regeneration capabilities. There are three variants of Thargoid Interceptors, Cyclops (found in threat 5), Basilisk (found in threat 6), and Medusa (found in threat 7 and with escort in threat 8). Thargoid interceptors are protected by a shield which deteriorates over time, this deterioration can be accelerated via damage. The rule of thumb is 2, 3, 4. It takes 1 minute 45 seconds for a cyclops shield to fall, 3 minutes for a basilisk, and 4 minutes for a medusa. With the exception of the first heart, do not waste ammunition on the shields. Use the flight timer in the top right of your HUD to time the shield.

Once the shield is down, you must damage the Thargoids hull to “exert” the heart. At this point one of the “petals” will glow red. You must hit the glowing part of the petal to damage the heart. You will know when you have destroyed it.

Your shields will protect you from the interceptors regular fire and the swarm’s missiles, but not the regular fire of the swarm. The swarm only spawns when you first engage the interceptor, after each destruction of the heart, and after failing to destroy the heart within 7 minutes. Only one swarm will be out at a time. Swarms are banked, so if you fail to destroy a swarm before you destroy a heart, the second swarm will be deployed upon destruction of the first swarm.

The opening

Once you drop into the Non-Human Signal source, the Thargoid will approach and scan you. Let it scan you and turn away, only the Medusa variant may attack you outright. Stay within 1.5 km to avoid the damage dropoff at range from gauss and begin firing your gauss cannons, using the reload indicator on your hud to ensure you are not wasting time to fire (roughly 1.5 seconds between shots). Fire a heatsink before or after your first shot. After you hear the sound of the heatsink eject, fire another. **Always ensure you are protected by a heatsink.**

The Thargoid will begin firing on you. Continue firing at the Thargoid until the heart is exerted. Depending on how much shields you have (and your pip management skills) boost and begin an FA-off orbit to avoid some damage after the Thargoid begins firing. At this point aim at the heart. It should only take 3 gauss impacts for a Cyclops, approximately 6 for a Basilisk, and approximately 9 for a Medusa with regular ammunition. Once the heart has been exerted, transfer pips 2-4-0. Boost past the Thargoid if within 1 km, and away from the Thargoid if outside of 1 km. The thargoid will charge yellow and begin chasing you, if it gets within range you will be hit by the scramble lasers which will disrupt your systems, kill your momentum, and drain your shields.

The remainder of the fight

From this point on, fights are divided into two phases. Swarm destruction and heart destruction. Each Thargoid has a set number of “hearts” (4 on a Cyclops, 5 on a Basilisk, 6 on a Medusa). After the opening, you have destroyed one heart and have 7 minutes until the Thargoid becomes “enraged”. In a Basilisk or Medusa fight, an “enraged” Thargoid means you have likely lost the fight. Prior to attacking the next heart, you have a set time period during which the Thargoid is protected by a shield (2, 3, 4 minutes for the respective Thargoid subtype). In this time period you have three objectives, destroy the swarm, re-arm, and recharge your shields. After this time period and until the 7 minute mark, you must exert and destroy the next heart.

Kiting the swarm

After you have cleared ~ 4km, transfer pip 4-2-0. **This will ensure your shields regenerate as quickly as possible while still allowing you to remain outside the interceptor's weapon range of 3 km.**

During this boosting time is a great opportunity to utilize your AFMU, replenish your heatsinks, restock your gauss cannons, and replenish your AX flak launcher ammo (in roughly that order). Continue boosting. Your maximum speed without boost is likely less than the 400 - 450 m/s top speed of the interceptor and swarm. If you have managed to put at least 6 km distance between you and the interceptor, check the position of the swarm. If the swarm is between you and the Thargoid, ignore the following portion.

Often due to the speed of the interceptor, you will find the interceptor between you and the swarm. It is imperative you do not engage until your shields are recharged and you have at least one heatsink available. To put the swarm between you and the interceptor. Turn FA-Off, face the interceptor, transfer pips 4-2-0, and boost directly towards it. Deploy a heatsink around 4 km and do a barrel roll if the swarm begins firing on you. This disrupts the aim of the swarm. Use this same strategy if at any point you cannot outrun the Thargoids. Shields are encouraged, but optional.

Turn around in FA-off and face the swarm which is now chasing you. You are now in a maneuver known as the reverski. Keep an eye on your distance to the interceptor, if it gets closer than 5 km, put it directly behind you and boost. **Wait until your boost top speed to make any course adjustments, otherwise your boost will partially kill your relative velocity to the interceptor.**

Despite your weapon status on the HUD, you can target and attack the swarm with remote flak at an effective range of 7 km. When the swarm is between 4-6 km away, it will proceed in a straight line towards you. Fire your remote flak and release when the reticle turns red (accompanied by a beep). You should see green "sparks" as the swarm is destroyed. Once the swarm is closer, it will be began evasive maneuvers. **At this point, attempt to notice the pattern of movement and preemptively fire at where the targeting reticle is moving towards rather than to where it currently points.**

There are two important differences across the Cyclops, Basilisk, and Medusa swarms. The swarm numbers increase from 32, 64, and 96. This increases damage and the time required to destroy the swarm. **The medusa swarm is also capable of forming a ring formation. If you fire at the reticle while the ring is moving directly towards you, the AX shrapnel will not hit the members of the ring. One key tip to hit the ring is to position the "leading target reticle" approximately the distance of one of the two "brackets" on your hud from the center. This is best illustrated in the picture below.**



You must destroy two swarms in a row after the destruction of the first heart. You ignored the swarm at the beginning of the fight and destroyed the heart, therefore a second swarm was “banked”. Destroy this swarm before proceeding with the fight.

Exertion and destruction of the heart

By now, your shields, ammo, and heatsinks should be fully restored. Continue facing the Thargoid and monitor its approach, transfer pips 3-0-3 or 0-2-4 depending on your build and boost towards and vertically from the Thargoid in FA-off. Once you are within 4 km deploy a heatsink to reduce your heat signature below 25%. Your objective is to utilize your vertical thrusters in combination with your boost to “orbit” the Thargoid within the effective range of your gauss, ~1.5 km. Try to avoid getting closer than 1 km, else the Thargoid engage its scramble laser “lightning” attack which will heavily damage your shields, render you immobile, and knock out your systems.

Continue pumping gauss damage into the Thargoid while orbiting and deploying heatsinks upon each heatsink ejection. When fighting a Medusa try to time your shots as such to only fire your gauss after the Thargoid begins a salvo. This will ensure that your heat signature only raises above 25% while the Medusa is reloading. After the heart is exerted quickly fire your gauss at the heart. The tradeoff between convergence and damage is best between 1-1.5 km. Prioritize aim and positioning rather than quantity. Once the heart is destroyed, transfer pips 2-4-0 and boost away. Your objective after the destruction of each heart is to get 3 km away from the Thargoid as to not trigger its special attack. Rinse and repeat until destruction of the last heart.

Following Destruction of the last heart

Fire gauss directly at any part of the Thargoid as quickly as possible. You should be able to get roughly three rounds in before the shields return (after destruction of the last heart, the interceptor will not regenerate). This should be enough to destroy a cyclops and basilisk. Boost away and kite the swarm, await the degradation of the interceptor’s shield, and fire your gauss until the Thargoid is destroyed. Ensure you capture a screenshot with both the explosion and the combat bond (F10 on PC). Congratulations commander!

Assorted tips:

- Caustic Damage can be removed by going into silent running and firing gauss or an SCB to bring your heat above 250%. Ensure you have sufficient heatsinks/power in sys to fire two heatsinks to quickly bring your heat below 100%. During this time, the interceptor will not miss.
- The Basilisk cannon fires at double the rate of the Cyclops cannon.
- The cyclops has a top speed of roughly 400 m/s with the basilisk and medusa traveling even faster. Ensure your boost speed is at minimum 500 m/s.
- You will need heatsink (cyclops/basilisk/medusa), ax flak (basilisk/medusa), and gauss reloads (medusa with only 3 gauss cannons on ship) to finish a Medusa fight. Premium ammo gives a damage boost and is much easier to acquire since it does not depend on guardian components.

Recommended Control scheme:

Keyboard and mouse provides superior control to HOTAS. This is well known amongst the PVP community, and the same holds true for Thargoid hunting. The ability to decouple your flight vector from your attack vector is paramount. A commonly used AX tactic requires maintaining a heat signature below 25% and a high angular velocity relative to the interceptor. This results in dramatically diminished aim of the interceptor's main cannon. Without FA-off, it is nearly impossible to maintain the interceptor in your weapon's field of fire while maintaining a flight path that does not bring you dangerously close to the interceptor, or kill your angular velocity to the interceptor.

The following are recommended mouse settings which **enable relative mouse control** (the cursor returns to the center of the reticule without player input). This dramatically increases your aim because it makes it easier to make small adjustments in FA-off. **Rebind yaw to left and right mouse and roll to the A and D key.** Ensure that **flight assist is set to toggle**. Maneuvering in this mode in supercruise is tedious. Try binding alternative yaw and pitch to the to the numpad. Here are recommended mouse sensitivity settings:



If you found this guide helpful (or not) please take this short survey to tell us why!

<https://goo.gl/forms/pY4dOVORqVqk3tPk2>

Acknowledgements:

Commander Shwinky - FAS build, Thargoid strategy, interceptor guide, heatsink stealth guide
Commander Gluttony Fang - FDL Build, Thargoid strategy, interceptor guide, heatsink stealth technique, FA-Off builds
Commander Maligno - Krait Build, Thargoid strategy
Commander Angeleyes - FDL Build, Thargoid strategy
Commander ryan_m17 - Resource guide
Commander Mackenheimer - Thargoid combat data, Medusa swarm targeting trick
Commander Aterius - Compiling this guide