

Buddy Lasing using the AN/ASQ-228 ATFLIR

In coordinated strike missions, *buddy lasing* allows one aircraft to guide a laser-guided bomb (LGB) onto a target for another. Using the **AN/ASQ-228 ATFLIR** targeting pod, the F/A-18C can either **manually lase** a target or **track another aircraft’s laser** via **Laser Spot Tracker (LST)** mode.

Whether you’re supporting a wingman, working with a JTAC, or performing multi-axis attacks, buddy lasing adds tactical flexibility to your mission planning.

☐☐ Laser System Overview

Feature	Description
Laser Type	Coded infrared (invisible to human eye)
Designation Laser	LTD/R (Laser Target Designator/Rangefinder)
Tracking Mode	LST (Laser Spot Tracker)
Effective Range	~8-10 nautical miles (best under 6 nm)
Beam Width	~0.25° (~450 ft at 10 nm)
Laser Codes	4-digit NATO-standard codes (e.g., 1688)
Lasing Modes	Manual (TRIG boxed) or Automatic (TRIG unboxed)

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☐☐ How to Manually Lase for a Buddy

If you're the one providing the laser designation, follow these steps:

1. Setup the ATFLIR Pod

- Power on the pod and switch to A/G (air-to-ground) master mode.
- Set TDC priority to the FLIR display to control the pod.
- Slew the pod onto the target area and designate the target using TDC depress.
- Use Auto Track or Area Track to maintain lock.

2. Enable Manual Lasing

- Press the **TRIG** option on the FLIR page so it is boxed (this enables manual trigger lasing).
- Ensure the display shows **L ARM** indicating the laser is armed.
- Press and hold the **gun trigger (second detent)** to fire the laser. You'll be manually designating as long as the trigger is held.

3. End Lasing

- Release the trigger to stop firing.
 - Optionally, use the **Undesignate (NWS)** button to clear the target designation.
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☐☐ How to Track Someone Else's Laser (LST Mode)

If you're dropping the bomb and someone else is lasing, use **LST mode** to acquire their laser spot.

1. Enter LST Code

- On the FLIR page, press the **UFC** option to bring up the laser code interface.
- Select the LSTC (Laser Spot Track Code) option.
- Enter the desired 4-digit code (e.g., 1688) using the keypad and press ENTER.

“ Make sure the bomb's laser code (set in mission editor or rearming menu) matches this.

2. Enable LST Mode

- On the FLIR page, select **LST** to begin spot search mode.
 - Slew the pod over the expected target area.
 - Press and hold TDC depress to begin the laser search.
 - Once the pod detects the correct coded laser, it will snap to the spot and begin tracking.
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Common Laser Codes & Usage

Code	Use Case
1688	Default JTAC and multiplayer buddy lasing code
1687	Often used by Hornet buddy-lasing pairs
1511-1788	NATO/US standard codes (safe for most LGBs)

Only one aircraft or JTAC should lase on a given code at a time to avoid “code fratricide” (two lasers on the same code causing confusion).

Tactical Tips

If You’re the Laser Provider:

- Lase from **<8 nm** for reliable guidance.
- Keep the target centered in the pod — do not let it drift or break lock.
- Start lasing **~8-10 seconds before impact** unless using AUTO mode.
- Communicate clearly: e.g., “Laser on now,” or “Lasing in 5 seconds.”

If You’re the Bomb Dropper:

- Ensure laser code matches between GBU and LST settings.
 - Wait for LST to lock before release if possible.
 - Use AUTO or CCIP release modes depending on target type and angle.
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☐☐ Troubleshooting Guide

Problem	Fix
Bombs miss target	Check for correct code match and lasing timing
LST not acquiring spot	Fly closer, ensure proper pod slewing, verify laser is active
Laser won't fire	Make sure TRIG is boxed, laser is armed, and second detent used
Laser blocked	Clouds, smoke, or terrain may interrupt — adjust position or altitude

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☐☐ Quick Buddy Lasing Checklist

Step	Laser Provider	Bomb Dropper
1.	Power ATFLIR & switch to A/G	Same
2.	Designate target with TDC	Slew to target area
3.	Box TRIG	Set correct LST code
4.	Press and hold trigger to fire laser	Engage LST and press TDC depress
5.	Maintain track on target	Release GBU when tracking is solid
6.	Stop lasing after impact	Confirm hit and break off

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