Chuck's Guide : https://www.mudspike.com/chucks-guides-dcs-f-a-18c-hornet/
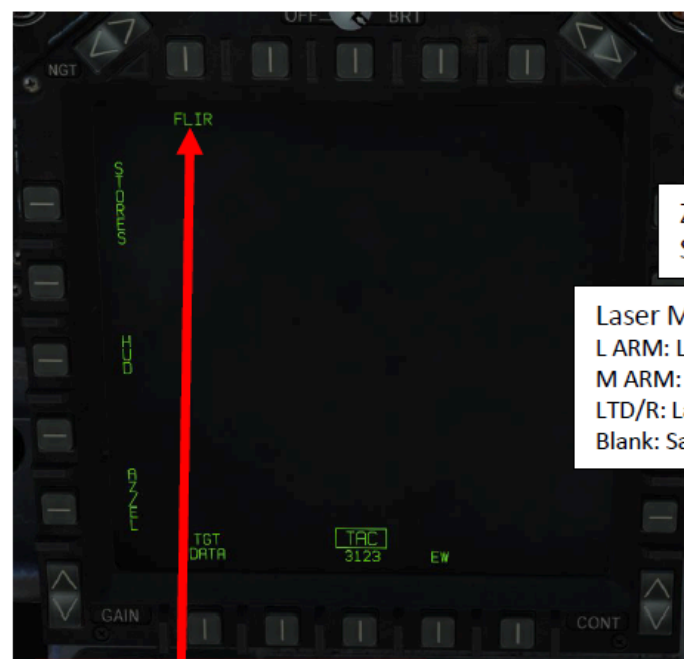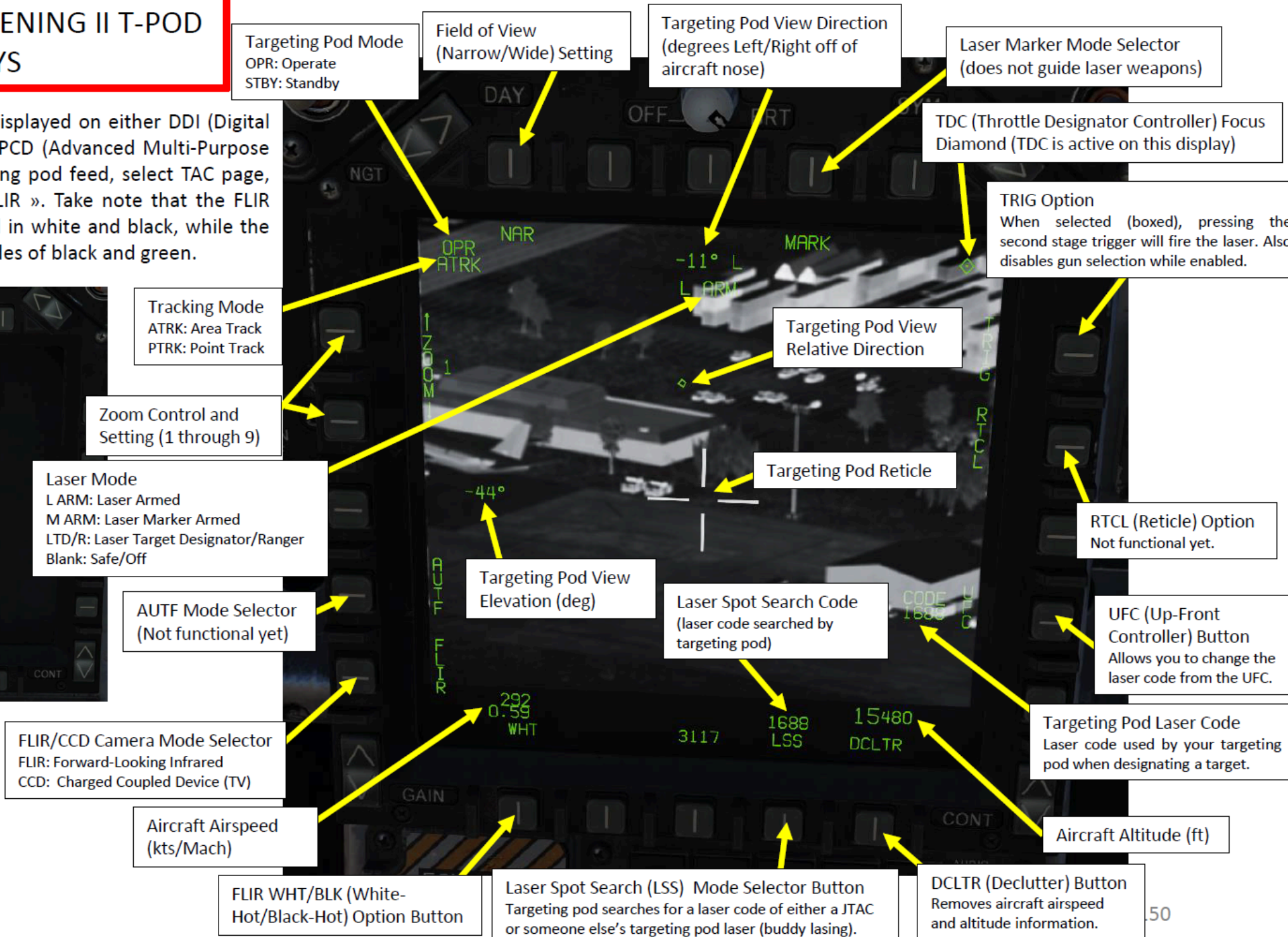
3 - AN/AAQ-28(V) LITENING II T-POD DISPLAYS

The targeting pod feed can be displayed on either DDI (Digital Display Indicator) or on the AMPCD (Advanced Multi-Purpose Color Display). To display targeting pod feed, select TAC page, then click on the OSB next « FLIR ». Take note that the FLIR page on the AMPCD is displayed in white and black, while the FLIR page on the DDIs are in shades of black and green.

From the TAC page, you can access the targeting pod feed by pressing the OSB next to "FLIR".
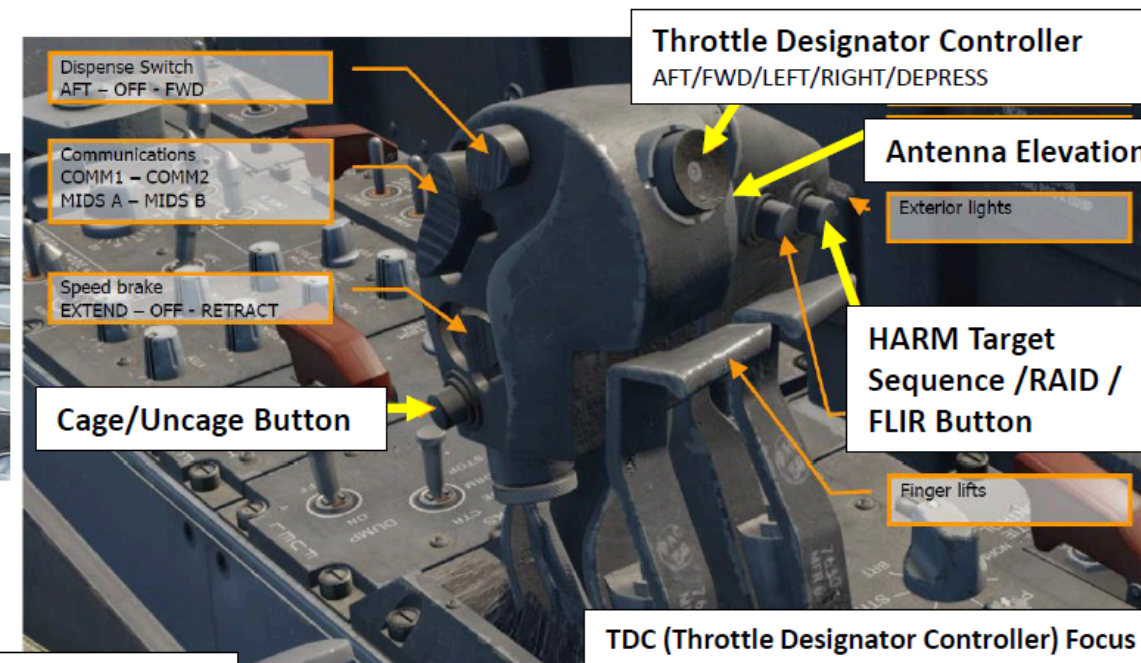
Targeting Pod Mode
OPR: Operate
STBY: Standby

Field of View (Narrow/Wide) Setting

Targeting Pod View Direction (degrees Left/Right off of aircraft nose)

Laser Marker Mode Selector (does not guide laser weapons)

TDC (Throttle Designator Controller) Focus Diamond (TDC is active on this display)

TRIG Option
When selected (boxed), pressing the second stage trigger will fire the laser. Also disables gun selection while enabled.

Tracking Mode
ATRK: Area Track
PTRK: Point Track

Targeting Pod View Relative Direction

Zoom Control and Setting (1 through 9)

Laser Mode
L ARM: Laser Armed
M ARM: Laser Marker Armed
LTD/R: Laser Target Designator/Ranger
Blank: Safe/Off

Targeting Pod Reticle

RTCL (Reticle) Option
Not functional yet.

AUTF Mode Selector (Not functional yet)

Targeting Pod View Elevation (deg)

Laser Spot Search Code (laser code searched by targeting pod)

UFC (Up-Front Controller) Button
Allows you to change the laser code from the UFC.

FLIR/CCD Camera Mode Selector
FLIR: Forward-Looking Infrared
CCD: Charged Coupled Device (TV)

Targeting Pod Laser Code
Laser code used by your targeting pod when designating a target.

Aircraft Airspeed (kts/Mach)

Aircraft Altitude (ft)

FLIR WHT/BLK (White-Hot/Black-Hot) Option Button

Laser Spot Search (LSS) Mode Selector Button
Targeting pod searches for a laser code of either a JTAC or someone else's targeting pod laser (buddy lasing).

DCLTR (Declutter) Button
Removes aircraft airspeed and altitude information.

50

3 - AN/AAQ-28(V) LITENING II T-POD CONTROLS

A/G Master Mode Button
(required to use laser)

Some useful HOTAS functionalities when using the targeting pod:

- **Sensor Control Switch Directions**: Selects which display is used to slew the targeting pod view with the TDC (Throttle Designator Controller). The Select Focus Diamond indicates what display is selected.

- **Sensor Control Switch Held Towards Selected Display**: Toggles between Point Track (PTRK, tracks an object like a high-contrast vehicle) and Area Track (ATRK).

- **Radar Elevation Control**: controls zoom (can also be controlled directly from the DDI/AMPCD FLIR page)

- **RAID/FLIR Field-of-View Select Button Short Hold**: Toggles Wide/Narrow field-of-view

- **RAID/FLIR Field-of-View Select Button Long Hold**: Toggles TV (CCD, Charged-coupled Device) and FLIR (Infrared) modes

- **Throttle Designator Controller (TDC) Up/Down/Left/Right**: Slews targeting pod reticle

- **Throttle Designator Controller (TDC) Depressed**: Designates the point under the targeting pod crosshairs as the target (used by weapons)

- **Nosewheel Steering Button**: Undesignates target

- **Cage/Uncage Button**: Cages the targeting pod in Boresight mode (looks straight ahead, five degrees down).

- **Gun Trigger (Second Stage)**: Fires laser if TRIG mode is boxed on the FLIR page.

Dispense Switch AFT – OFF – FWD

Communications COMM1 – COMM2 MIDS A – MIDS B

Speed brake EXTEND – OFF - RETRACT

Throttle Designator Controller AFT/FWD/LEFT/RIGHT/DEPRESS

Antenna Elevation

Exterior lights

Cage/Uncage Button

HARM Target Sequence /RAID / FLIR Button

Finger lifts

Sensor Control Switch AFT/FWD/LEFT/RIGHT/DEPRESS
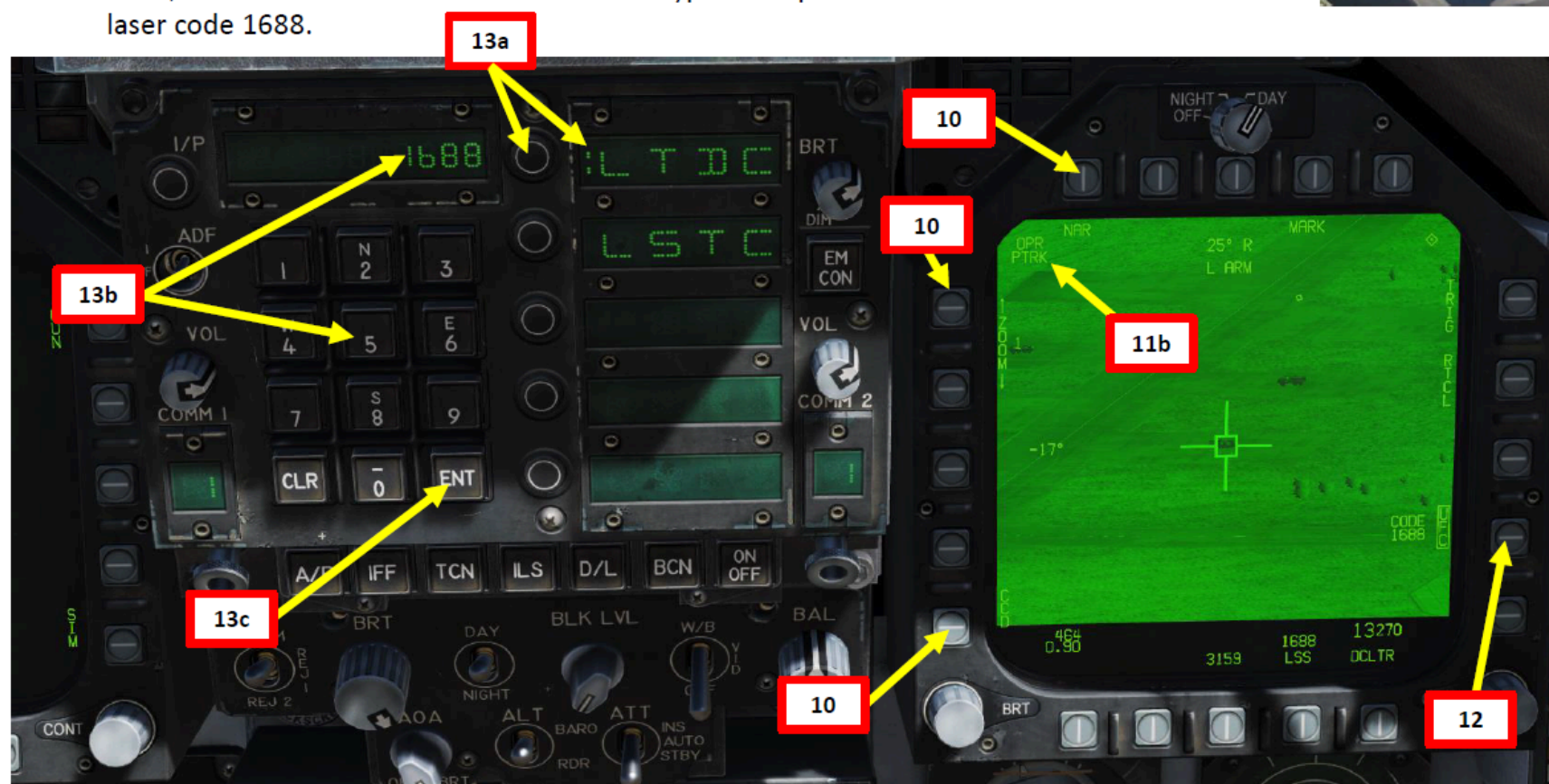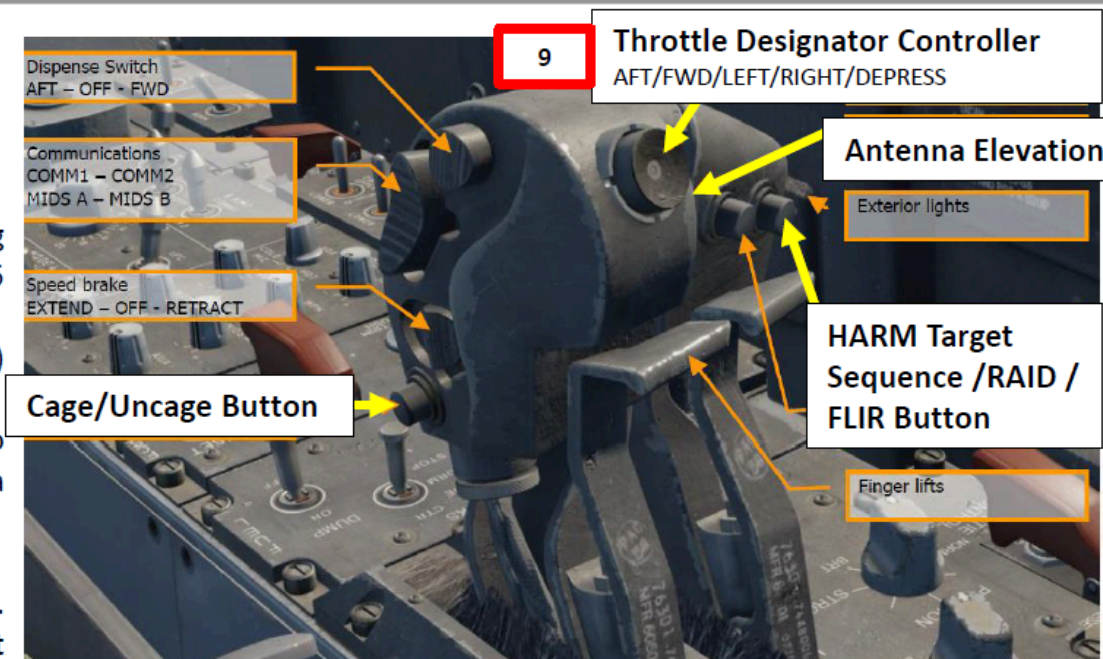
Gun Trigger (Second Detent)

Undesignate / Nosewheel Steering Button

TDC (Throttle Designator Controller) Focus Diamond (TDC is active on this display)
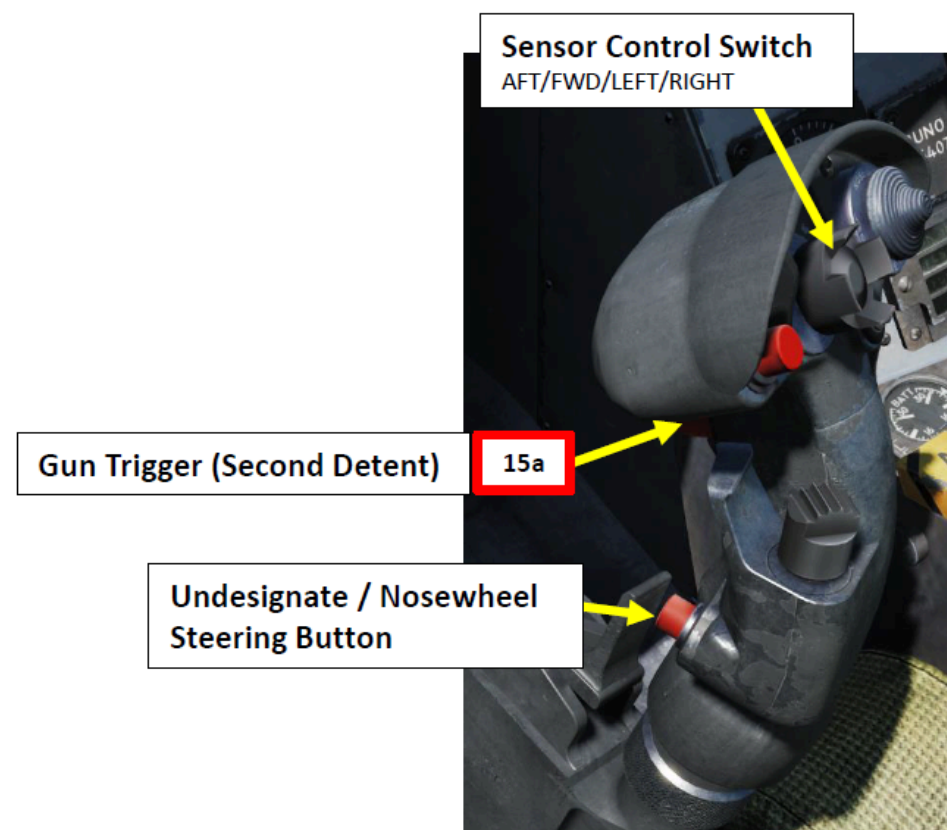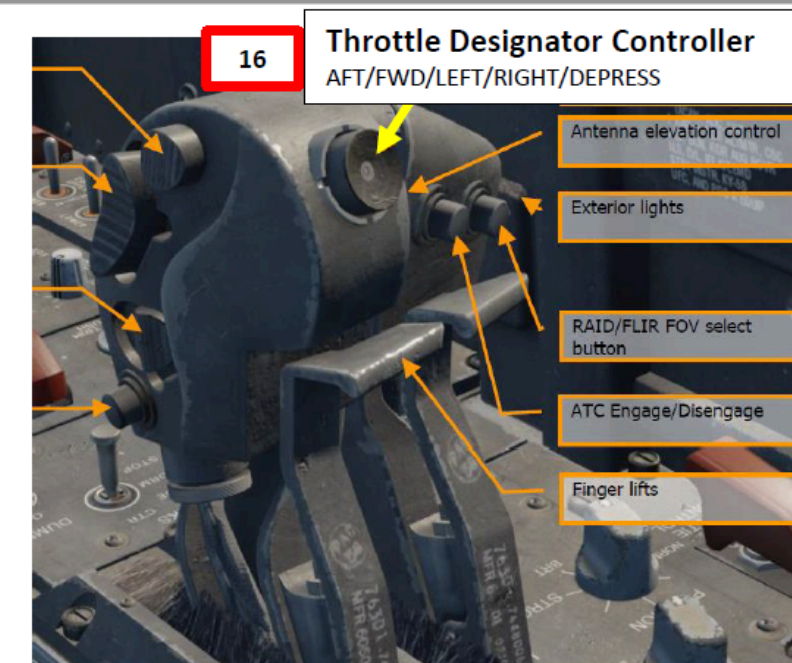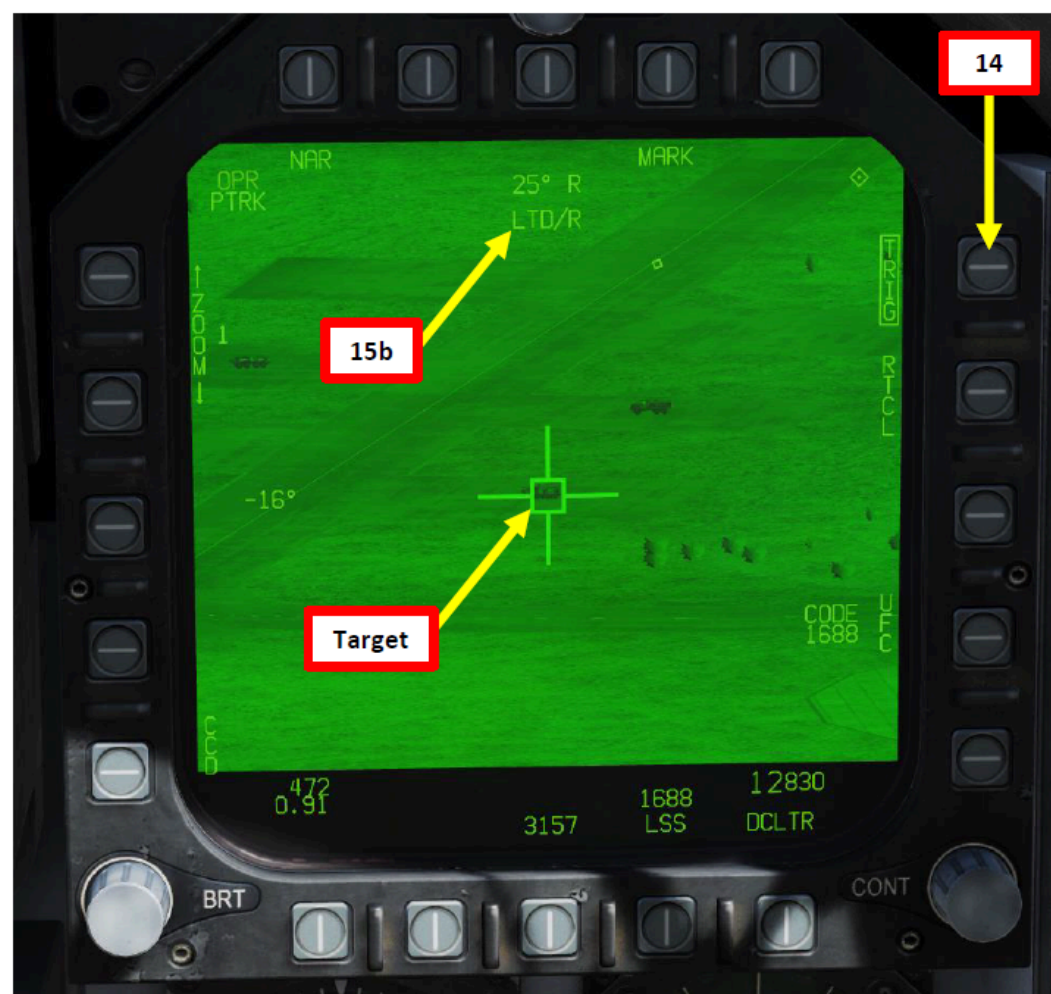
153

3 - AN/AAQ-28(V) LITENING II T-POD START-UP & LASING PROCEDURE

9. Using the TDC (Throttle Designator Controller) Aft/Fwd/Left/Right controls, slew the targeting pod reticle over the desired target. The targeting pod is boresighted by default to a forward, 5 deg down view.

10. Use appropriate zoom level, field of view (NARROW/WIDE) and camera mode (CCD/TV or FLIR) to identify the target.

11. Press the Sensor Control Switch Towards Selected Display (Right if our right DDI is selected) to toggle between Point Track (PTRK, tracks a moving object like a high-contrast vehicle) and Area Track (ATRK, used for a static target).

12. Press the OSB next to "UFC" to set the Targeting Pod laser code on the Up-Front Controller.

13. Press the button next to "LTDC" (Laser Target Designator Code). A ":" will indicate it is selected. Then, enter the desired laser code on the keypad and press "ENT". We will choose the default laser code 1688.

Dispense Switch
AFT – OFF – FWD

Communications
COMM1 – COMM2
MIDS A – MIDS B

Speed brake
EXTEND – OFF - RETRACT

9

Throttle Designator Controller
AFT/FWD/LEFT/RIGHT/DEPRESS

Antenna Elevation

Exterior lights

HARM Target Sequence /RAID / FLIR Button

Cage/Uncage Button

Finger lifts

Sensor Control Switch
AFT/FWD/LEFT/RIGHT

13a

13b

13c

10

10

11b

10

12

11a

157

3 - AN/AAQ-28(V) LITENING II T-POD START-UP & LASING PROCEDURE

14. Press the OSB next to "TRIG". The indication will become boxed once selected, which means that a gun trigger press will fire the laser.
15. Press the gun trigger to fire laser. Once laser is firing, the laser mode will switch from L ARM to LTD/R.
16. Use the TDC (Throttle Designator Controller) Depress button to designate the laser as the target point. This will slave selected air-to-ground weapons to where the laser is firing.
17. You may now launch laser-guided weapons as per their release procedure.
18. When desired, press the Gun Trigger a second time to stop firing the laser. You can use the Undesignate/Nosewheel Steering button to undesignate the target.
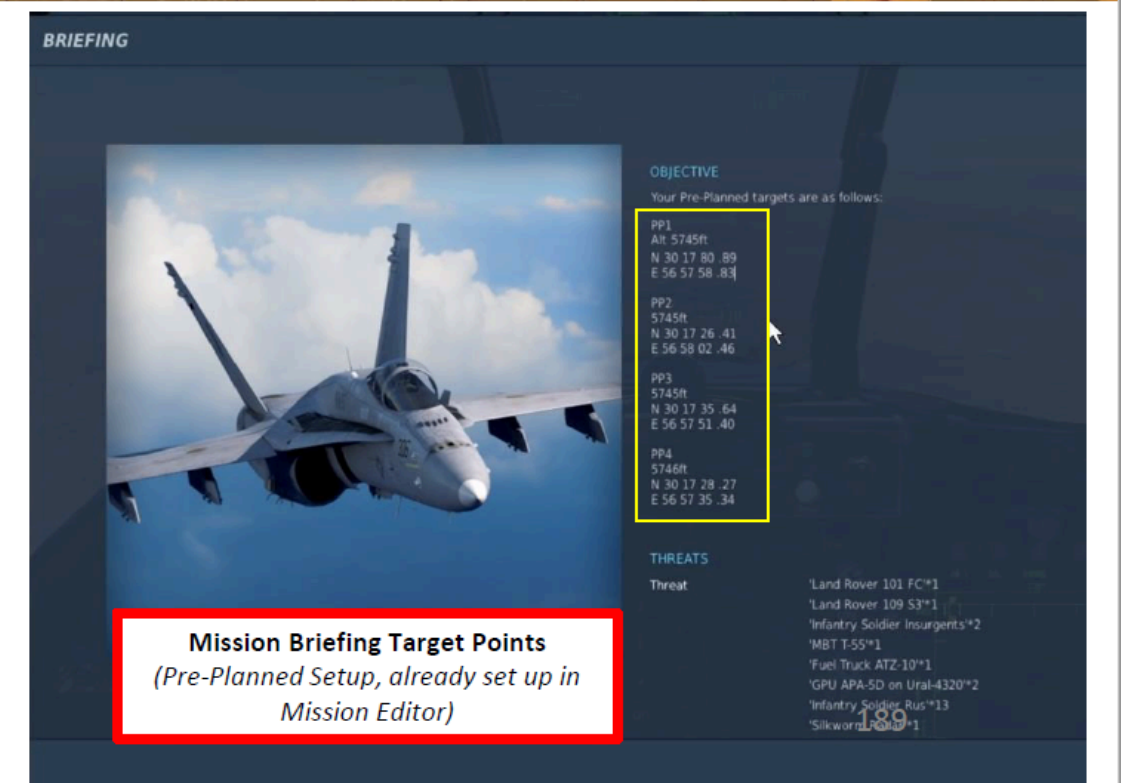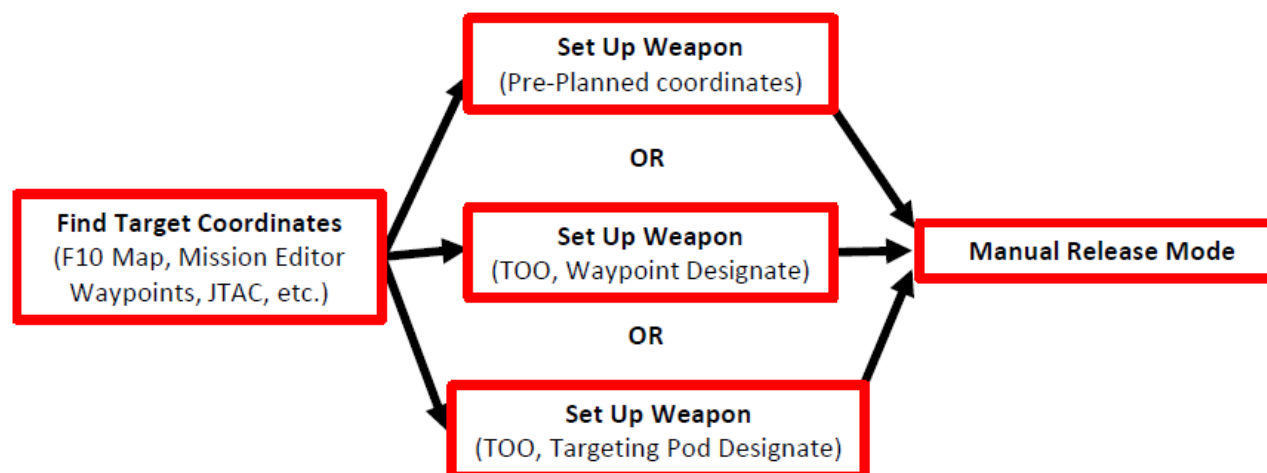
Throttle Designator Controller
AFT/FWD/LEFT/RIGHT/DEPRESS

16

Antenna elevation control

Exterior lights

RAID/FLIR FOV select button

ATC Engage/Disengage

Finger lifts

14

15b

LTD/R

Target

Sensor Control Switch
AFT/FWD/LEFT/RIGHT

Gun Trigger (Second Detent)   15a

Undesignate / Nosewheel Steering Button

2.5 – GBU-38 JDAM
INTRODUCTION

The F/A-18C is able to employ the Global Positioning System (GPS)-guided Joint Direct Attack Munition (JDAM) bombs and the Joint Standoff Weapon (JSOW) glide bombs. JDAMs are modified general purpose bombs, equipped with a GPS and inertial navigation system (INS) for guidance as well as flight controls. The JSOW has the same guidance and is a bomb with wings to provide lift and maneuvering flight controls. As such, it has a significantly longer range than JDAMs. The JDAMs/JSOWs have (at optimal INS alignment) a margin of error of approximately 16ft (5m). Independent programming of each individual bomb allows for simultaneous multi-target attacks.

Basically, the way to employ JDAMs is to first get your target coordinates from either the mission briefing or using the F10 map, input them to the weapons in either Pre-Planned Mode (coordinates need to be entered manually) or in TOO Mode (Target of Opportunity, weapons use the existing A/G (Air-to-Ground) designation, which is the Hornet (or Harrier) equivalent of the SPI (Sensor Point of Interest) in the A-10C. Currently, we can only make an A/G designation with WPDSG (Waypoint Designate) button or via the HUD, but in the future it will also be possible to designate with the JHMCS, TGP or A/G radar).
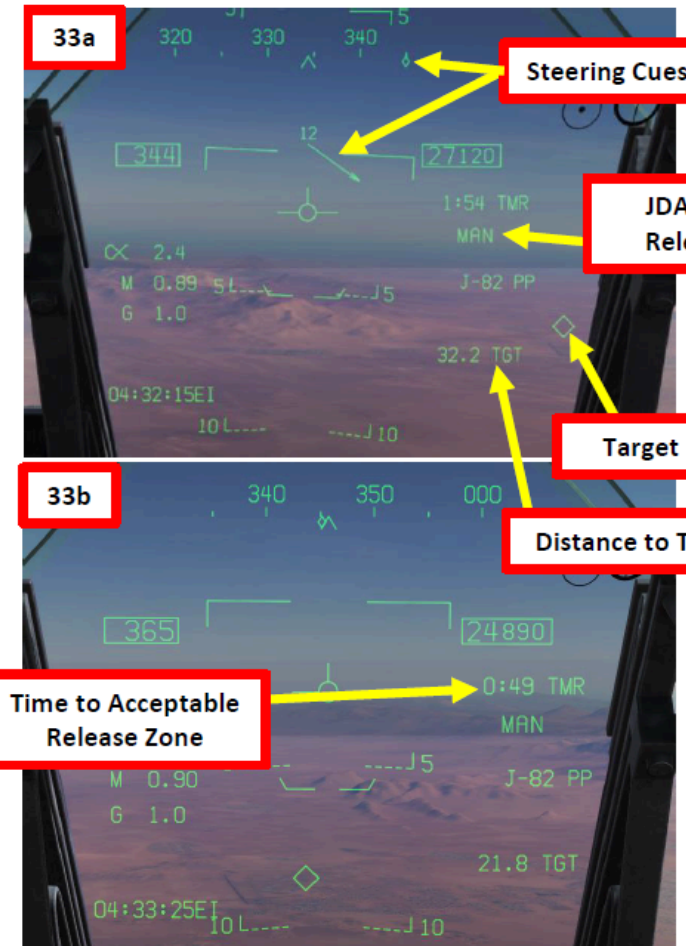
For the JDAM tutorial, we will use the Pre-Planned Mode while for the JSOW tutorial we will use TOO Mode. Once the setup is done and the weapon alignment has been performed, we will then be able to release them in Manual Mode.

Find Target Coordinates
(F10 Map, Mission Editor Waypoints, JTAC, etc.)

Set Up Weapon
(Pre-Planned coordinates)

OR

Set Up Weapon
(TOO, Waypoint Designate)

OR

Set Up Weapon
(TOO, Targeting Pod Designate)

Manual Release Mode

MAP   N30-17-00.63 E56-58-08.66, 5746 ft   HDG:

DD MM SS .SS
Degrees   Minutes   Seconds   Decimal-Seconds

Coordinate Format:
DD MM SS.SS
Degrees Minutes Seconds.Decimal-Seconds

Use LALT+Y to toggle between coordinate units

N30-17-00.63 E56-58-08.66, 5746 ft

BRIEFING

OBJECTIVE
Your Pre-Planned targets are as follows:

PP1
Alt 5745ft
N 30 17 80 .89
E 56 57 58 .83

PP2
5745ft
N 30 17 26 .41
E 56 58 02 .46

PP3
5745ft
N 30 17 35 .64
E 56 57 51 .40

PP4
5746ft
N 30 17 28 .27
E 56 57 35 .34

THREATS

Threat   'Land Rover 101 FC'*1
                 'Land Rover 109 S3'*1
                 'Infantry Soldier Insurgents'*2
                 'MBT T-55'*1
                 'Fuel Truck ATZ-10'*1
                 'GPU APA-5D on Ural-4320'*2
                 'Infantry Soldier Rus'*13
                 'Silkworm'*1

Mission Briefing Target Points
(Pre-Planned Setup, already set up in Mission Editor)

189

2.5 – GBU-38 JDAM
PRE-PLANNED + MANUAL MODE

Launch Weapons

28. Master Arm switch – ARM (UP)
29. Master Mode – A/G
30. On the SMS (Stores Management System) page, verify that J-82 is selected
31. Set HSI on the right DDI and the JDAM Display page on the left DDI (from SMS page, press the JDAM DSPLY OSB, then select MSN (Mission) page)
32. Verify that Manual Release PP Release Mode is selected and that the desired station and PP is selected.
33. Steer aircraft to the target (indicated by a diamond on the HUD)

29
28
30

33a

Steering Cues

JDAM Manual Release Mode

Target Diamond

Distance to Target (nm)

33b

Time to Acceptable Release Zone

31

Minimum JDAM Launch Range

Acceptable Release Zone

Maximum JDAM Launch Range

Aircraft

31

196

2.5 – GBU-38 JDAM
PRE-PLANNED + MANUAL MODE

Launch Weapons

34. When you are within the acceptable release zone (between the minimum and maximum release limits identified on the HSI), the HUD will switch from displaying "TMR" (Time to reach acceptable release zone) to "IN RNG" (In Range). You may now release your weapons.

35. Hold the Weapon Release Button (« RALT+SPACE ») to drop your first bomb.

36. Once the bomb is released, the system will step to the next available JDAM. Verify that PP and station match as per our plan, then release weapon when ready.

In Range

Time to Acceptable Release Zone

2.6 – AGM-154A JSOW
TOO + MANUAL MODE

Set Up Weapons

5. Select TOO (Target of Opportunity) Release Mode
6. Select Electronic Fuze to INST (Instantaneous).
7. Go in the JSOW Display page by pressing the JSOW DSPLY OSB
8. Select Manual Release Type
9. Select desired JSOW quantity to be used for this mission.
    a) Press the OSB next to QTY
    b) Select desired stations to be used for the mission (I suggest you select all of them). Selected stations will become boxed.
    c) Press the OSB next to RTN (Return).
    d) Once quantity is set, the STEP function will be available to select desired weapon station.

STA2 — 9b

STA8 — 9c
RTN

5

7a

6a

6b

7b

Selected Station (Station 8) — STA 8
Selected Target of Opportunity TOO1 — TOO1
Selected Weapon (JSA) — JSA

ALN QUAL 01 GOOD
ON TIME 0:02:43

RELEASE MAN — **Mission Page**

QTY 2

9d — **STEP**

8 — **Release Type**

Release Parameters Summary

9d — **Quantity** — QTY

9a

2.7 – GPS-Guided Ordnance (JDAM/JSOW)
TARGETING POD + TOO

A neat feature of the targeting pod is that you can designate targets with it even without a laser. The laser is used for laser-guided weapons, so the GPS-guided units only need valid coordinates. These coordinates can be obtained by designating a target with the targeting pod while the JDAM/JSOW is in TOO (Target of Opportunity) Mode. The coordinates are then memorized and automatically transferred to the selected JDAM/JSOW.

TGT1 (Target 1)
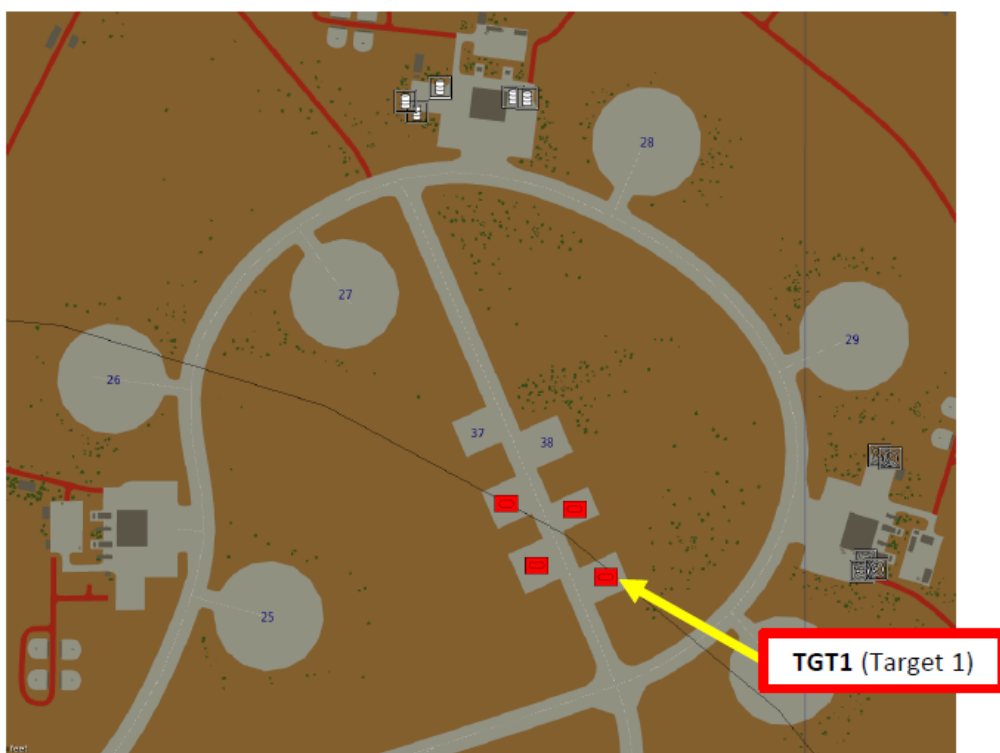
Find Target with Targeting Pod and Designate with TDC	→	From Targeting Pod Designated Point, Obtain Coordinates	→	Set Up Weapon - TOO (TOO, uses Designated Point from Targeting Pod)	→	Manual Release Mode

2.7 – GPS-Guided Ordnance (JDAM/JSOW)
TARGETING POD + TOO

1. While on the ground, go in SMS (Stores Management System) page
2. Click on the desired JDAM or JSOW to select it (we will use the J-82 JDAM)
3. Once selected, JDAMs need about 3 minutes for alignment. It will go from 10 UNSTABLE, to 06 MARGINAL and finally 01 GOOD. When alignment is complete, the TIMING indicator will disappear from the JDAM page.
4. Select TOO (Target-of-Opportunity) Release Mode
5. Select Electronic Fuze to INST (Instantaneous).
6. Go in the JDAM Display page by pressing the JDAM DSPLY OSB
7. Select Manual Release Type
8. Select desired JDAM quantity to be used for this mission.
   a) Press the OSB next to QTY
   b) Select desired station(s) to be used for the mission (I suggest you select just one). Selected station(s) will become boxed.
   c) Press the OSB next to RTN (Return).
   d) If quantity is set to more than 1, the STEP function will be available to select desired weapon station.
   e) You may need to re-select TOO mode.
9. Enter MSN (Mission) page.
10. Select TOO1 to set Target 1 parameters. We will now have to designate Target 1 with the Targeting Pod to obtain the coordinates of this target.

No coordinates since no target is designated yet
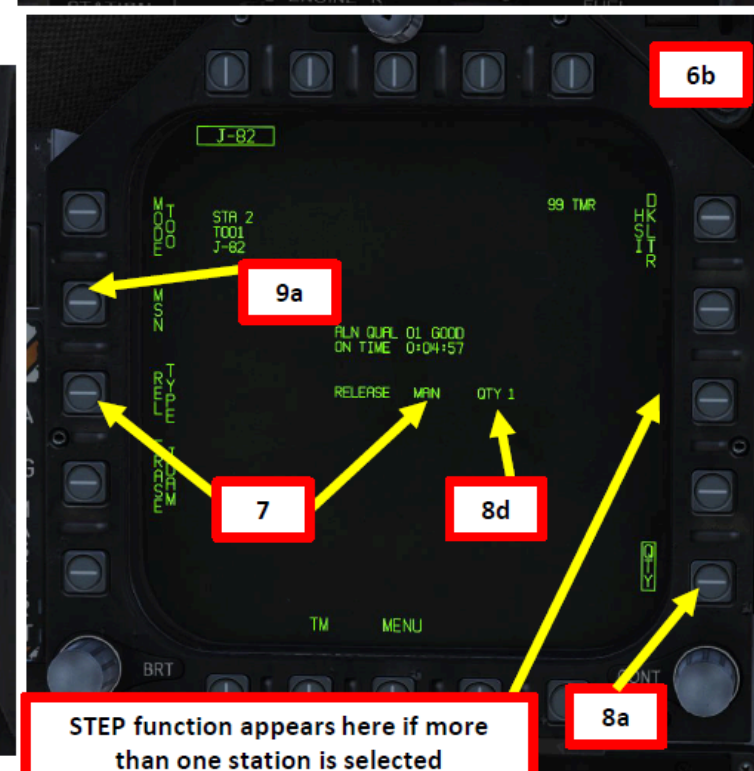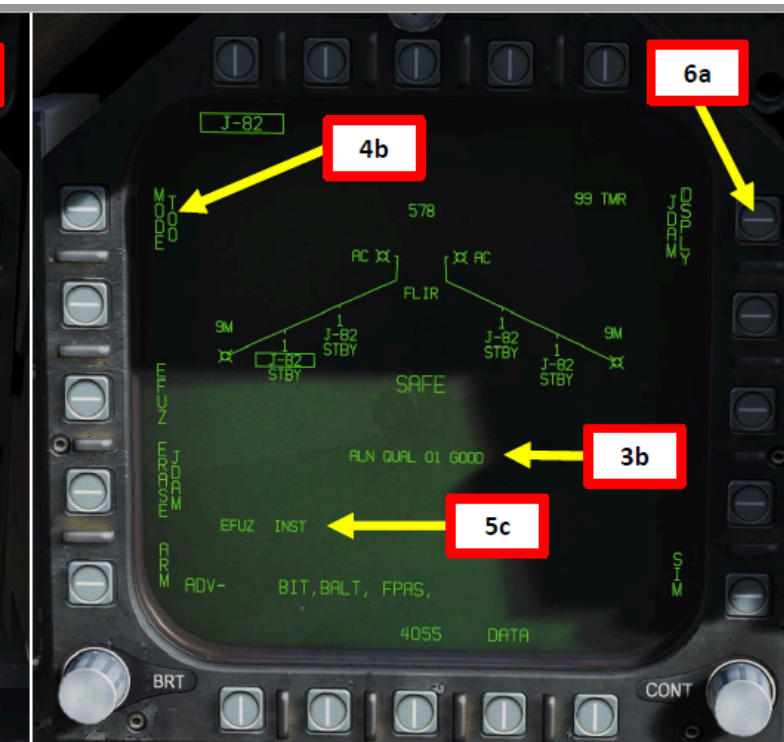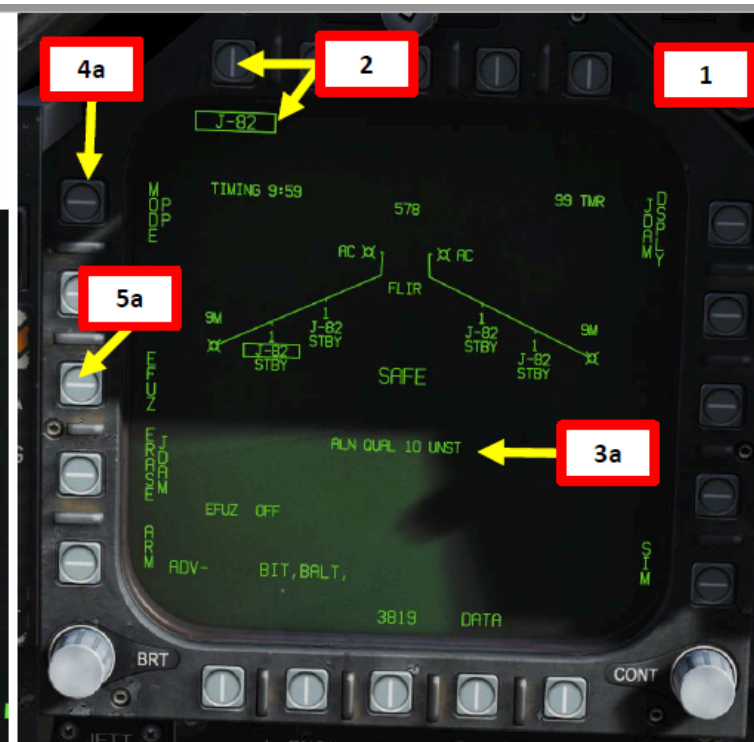
STEP function appears here if more than one station is selected

2.7 – GPS-Guided Ordnance (JDAM/JSOW)
TARGETING POD + TOO

11. Power up the targeting pod by setting FLIR Sensor Switch to STBY.

12. From the TAC page on either DDI or the AMPCD, press the OSB (Option Select Button) next to "FLIR" (Forward-Looking Infrared) to select the Targeting Pod feed page.

13. Monitor the warm-up process. Targeting pod warm-up process will take about 2 minutes.

14. When targeting pod is ready to be used, the pod status will switch from RDY – NOT TIMED OUT to STBY.

15. Set FLIR Sensor Switch to ON. This will un-stow the camera. Confirm that Targeting Pod mode switches from STBY to OPR (Operate).

16. Press A/G Master Mode.

17. Press the Sensor Control Switch in the direction of the selected DDI (Right for the Right DDI as an example). The Select Focus Diamond indicates what display is selected.

18. Using the TDC (Throttle Designator Controller) Aft/Fwd/Left/Right controls, slew the targeting pod reticle over target 1. The targeting pod is boresighted by default to a forward, 5 deg down view.

19. Use appropriate zoom level, field of view (NARROW/WIDE) and camera mode (CCD/TV or FLIR) to identify the target.

20. Press the Sensor Control Switch Towards Selected Display (Right if our right DDI is selected) to toggle between Point Track (PTRK, tracks a moving object like a high-contrast vehicle) and Area Track (ATRK, used for a static target)/
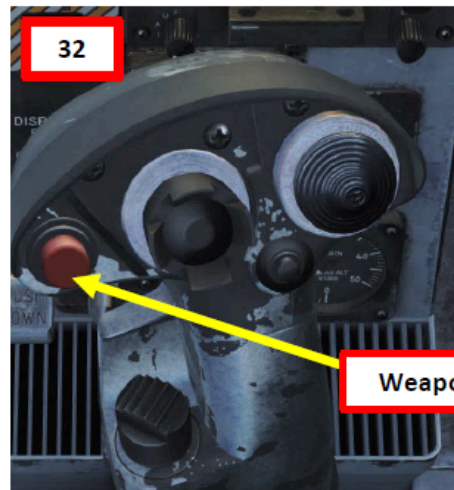
Throttle Designator Controller
AFT/FWD/LEFT/RIGHT/DEPRESS
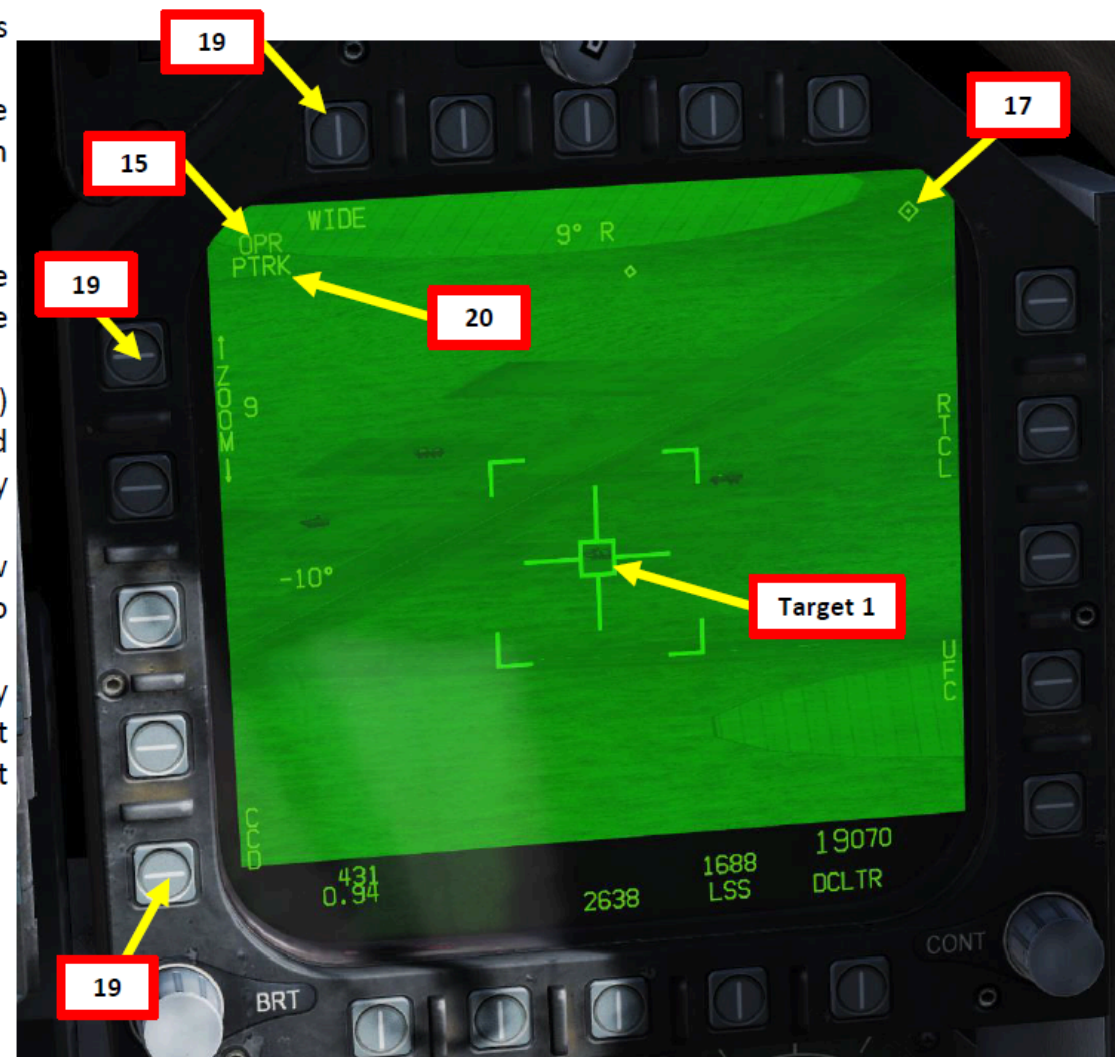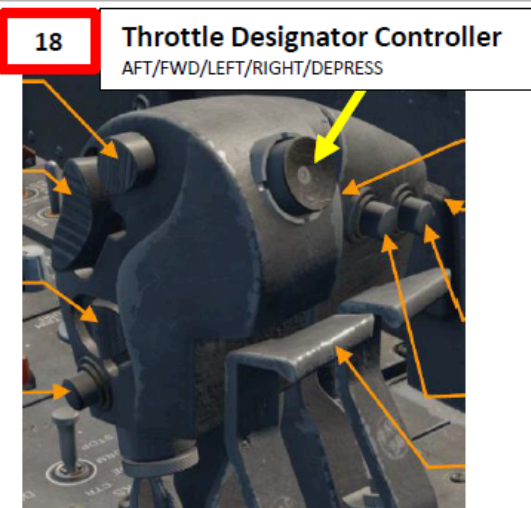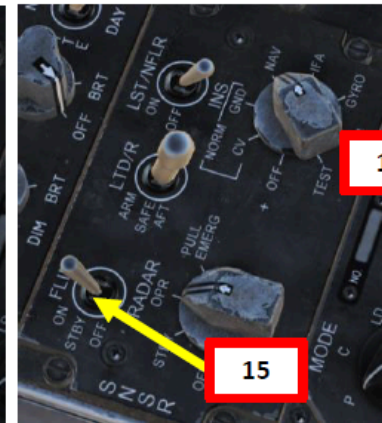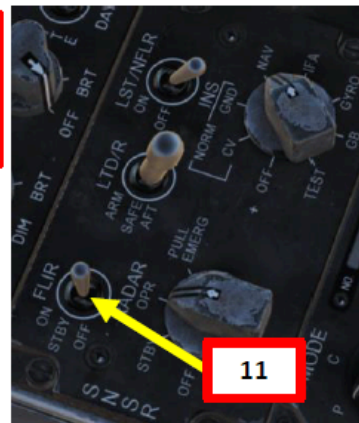
Sensor Control Switch
AFT/FWD/LEFT/RIGHT

Target 1

2.7 – GPS-Guided Ordnance (JDAM/JSOW)
TARGETING POD + TOO

24. Once your JDAM selected has its target coordinates and are in TOO mode, we can now start the attack run.
25. Master Arm switch – ARM (UP)
26. Verify that Master Mode is in A/G
27. On the SMS (Stores Management System) page, verify that J-82 is selected and RDY (Ready)
28. Set HSI on the lower AMPCD (I suggest you remove the moving map), the targeting pod feed on the right DDI, and the JDAM Display page on the left DDI (from SMS page, press the JDAM DSPLY OSB, then select MSN (Mission) page)
29. Verify that Manual Release TOO Release Mode is selected and that the desired station and TOO is selected.
30. Steer aircraft to the target (indicated by a diamond on the HUD)
31. When you are within the acceptable release zone (between the minimum and maximum release limits identified on the HSI), the HUD will switch from displaying "TMR" (Time to reach acceptable release zone) to "IN RNG" (In Range). You may now release your weapons.
32. Hold the Weapon Release Button (« RALT+SPACE ») until your four bombs are dropped.

26

25

27

Acceptable Release Zone

Maximum JDAM Launch Range

Minimum JDAM Launch Range

Aircraft

32

Weapon Release Button

Time to Acceptable Release Zone

Steering Cues

In Range

JDAM Manual Release Mode

Distance to Target (nm)

Target Diamond