

## **F-15E SE – Using UFC to Create Mark Points for TPOD**

- Use the F10 map to get coordinates for the mark point to add.
  - Left-Shift--Left-Alt--Left-Click on the desired mark point. This will bring up a coordinate dialog box (using Lat Long Decimal Minutes, e.g. N99o99.999 E999o99.999); then F1 back to the cockpit
- On the Up Front Controller (UFC) keypad, press MARK, to create an overfly mark point, which will display to the right of PB-1 (e.g. "MARK 1")
- On the UFC keypad, press DATA, which will display the steer point to the left of PB-10 (e.g. "STR 1A")
- On the UFC, press PB-10 to show and allow editing of coordinate info for that steer point (or in this case, to edit the overfly mark point just created)
- On the UFC keypad, press SHF, then M/5, then A/1 for mark point 1 (i.e. shows as "M1" on the UFC scratchpad); NOTE: for mark points 2 through 10, enter the appropriate number(s) after the "M"
- On the UFC, press PB-1, which will display the mark point to edit (e.g. "STR M1")
- Enter the coordinates for the mark point (e.g. from the F10 map) using the UFC keypad:
  - Press SHF, then N/2, for North, then enter the latitude coordinates
  - Press PB-2 to overwrite the latitude coordinates
  - Press SHF, then E/6, for East, then enter the longitude coordinates (add one or more leading 0's to make the first set of numbers - i.e. degrees - 3 digits)
  - Press PB-3 to overwrite the longitude coordinates
  - Enter the altitude in feet, then press PB-7 to overwrite the mark point altitude

### **Set Created Mark Point as Steer Point**

- On the UFC keypad, press MENU, to display the current steer point to the left of PB-10 (e.g. "STR 1A")
- On the UFC keypad, press SHF, then M/5, followed by the mark point number (e.g. 1, which will then show as "M1" on the UFC scratchpad)
- On the UFC, press PB-10 to set the mark point as the selected steer point

### **Set Created Mark Point as TPOD (LANTIRN) Cue Source**

- Left MFD, PB-11 until "M2", then "TPOD" (PB-12), to display LANTIRN pod
- Castle Switch LEFT Long, to make TPOD the Sensor of Interest (SOI)
- On the UFC keypad, press SHF, then M/5, followed by the mark point number (e.g. 1, which will then show as "M1" on the UFC scratchpad)
- Left MFD, PB-17 to set the TPOD cue source to the mark point (e.g. "M1 / NAV")
- Continue with normal TPOD activity (e.g. slew TDC cursor, designate target, etc.)

## F-15E SE – Air-to-Air: BVR and ACM with AIM-120

- Master Arm Switch – ARM
- Select IFF Mode Switch A or B
- AN/APG-70 Radar: ON
- Master Mode A/A Selector
- Weapons/Mode Switch – MRM to select AMRAAMs; NOTE: If also equipped with AIM-7s, use Boat Switch FWD to switch between MRM types
- Open air-to-air radar display on left MFD (default): PB-11 (“M”), then PB-15 (“A/A RDR”); make it the Sensor of Interest (SOI): Castle Switch LEFT Long; observe TDC cursor (acquisition symbol) lines change from dashed to solid
- Default radar mode for MRM weapon mode is range while search (RWS) - observe air-to-air radar display for targets (solid triangles or squares); adjust as needed:
  - Range: Move TDC cursor past top/bottom edge of screen to increase/decrease
  - Azimuth: Move TDC cursor past left/right edge of screen to decrease/increase
  - Elevation scan: PB-2 (“EL”) to change # bars
  - PRF radar operation: PB-6 (“HI/MED/INLV”) to change PRF; or press PB-7 (“RGH”) for Range Gated High mode
  - Antenna elevation: Radar Antenna Elevation UP/DOWN
- Coolie Switch Left (long >1s), to IFF targets on radar; target symbols will change to solid circle for friendly (empty circle if in TWS), no change for unidentified/enemy

### **BVR with AIM-120, Single Target Track (STT: Track one target)**

- TDC Switch PRESS to enter mini-raster scan and lock the target (star)
  - Auto Acquisition Switch – PRESS to unlock target and return to search

### **BVR with AIM-120, Track While Scan (TWS: Track multiple targets)**

- From STT (target locked: star), change to desired TWS scan mode
  - Auto Acquisition Switch – AFT (short <1s): Designated TWS (DTWS) mode (AKA wide pattern 2TWSH: 2-bar, 60° azimuth, for horizontally spaced tgts)
    - From DTWS, Auto Acquisition Switch – FWD (short <1s): High Data Rate Scan (3HDT) mode (3-bar, 30° azimuth, for vertically spaced targets)
    - From DTWS, Auto Acquisition Switch – FWD (long >1s): High Data Rate Pattern (2HDT) mode (2-bar, 30° azimuth, for co-altitude targets)
    - From DTWS, move TDC cursor past left/right edge of screen: Medium Pattern (4TWSH) mode (4-bar, 30° azimuth, for vertically and horizontally spaced targets)



## F-15E SE – Air-to-Air: BVR and ACM with AIM-120 (Page 2)

### **BVR with AIM-120, Track While Scan (TWS: Track multiple targets) (Continued)**

- From STT (target locked: star), change to desired TWS scan mode (continued)
  - Auto Acquisition Switch – FWD (short <1s): High Data Rate TWS (HD TWS) mode (AKA 3HDT: 3-bar, 30° azimuth, for vertically spaced targets )
    - From HD TWS, Auto Acquisition Switch – FWD (long >1s): High Data Rate Pattern (2HDT) mode (2-bar, 30° azimuth, for co-altitude targets)
    - From HD TWS, Auto Acquisition Switch – FWD (short <1s): Alternates between wide pattern 4TWSH and 3HDT
- From DTWS/HD TWS, Auto Acquisition Switch – AFT (short <1s): Return to STT

### **ACM with AIM-120**

- Switch to the desired auto acquisition mode from search (RWS) for ACM:
  - Supersearch: Auto Acquisition Switch – FWD (short <1s)
  - Boresight: Auto Acquisition Switch – FWD (short <1s) while in Supersearch
  - Long range boresight: Auto Acquisition Switch – FWD (long >1s)
  - Vertical scan: Auto Acquisition Switch – AFT (short <1s)
- Maneuver aircraft, put target near ACM/AA reticle (depends on ACM/AA mode); target will auto-lock within 10 miles
  - Auto Acquisition Switch – PRESS to unlock target and return to search
- For BVR, utilize missile WEZ cues on the HUD range scale to determine best time to launch AMRAAM, as well as lock/shoot lights on front of canopy frame
- Weapon Release (Pickle) to launch AIM-120 (steering dot in ASE circle)
- For BVR, keep target locked within air-to-air radar gimbal limits until missile active (view prelaunch TTA/TTI time at bottom right of HUD)
  - To launch in Mad Dog mode: No radar lock, within 10 miles, within ASE circle

## F-15E SE – Using CBU-97: CDIP and AUTO (LANTIRN)

- Master Arm Switch – ARM
- Master Mode A/G Selector
- Set CBU-97 fuse parameters: Right MFD, PB-11 until “M2”, then “ARMT” (PB-2), then “A/G LOAD” (PB-7)
  - Select “STEP” (PB-10) until you see CBU-97, then select (PB-4)
  - Select all stations at the top loaded with CBU-97 (from PB-16 to PB-20)
  - Select “FUZE” (PB-7)
  - Select “SEL FUZE” (PB-4), until “FZU39” is selected
  - Select burst time (PB-2/PB-3) or burst height (PB-13/PB-14), as desired
  - Select “ENTER” (PB-10) to save fuze parameters to memory
- Set CBU-97 delivery parameters: Right MFD, PB-11 until “M2”, then “ARMT” (PB-2), then “A/G” (PB-3); Select desired program, e.g. “PROG 1” (PB-5), then:
  - Select all stations with 1 or more CBU-97s (one of PB-16 – PB-20)
  - Select “CDIP” (PB-6) or “AUTO” (PB-7), for CCIP or auto delivery mode
  - Select **1**) “1/STA” (PB-6), **2**) “STEP” (PB-7), **3**) “RP SGL” (PB-8), or **4**) “RP MPL” (PB-9), for **1**) one weapon simultaneously from each selected station per pickle button press, **2**) one weapon separately from each selected station, per pickle button press, **3**) string of weapons separately from each selected station as long as pickle button pressed, and **4**) string of weapons simultaneously from each selected station as long as pickle button pressed
  - Select “TIME” (PB-6) or “HEIGHT” (PB-7) for canister burst time or height
  - Select “A/G DLVRY” (PB-10)
  - To change minimum release altitude (default is 15000 feet), enter number of feet on UFC and select “MRA” (PB-3)
  - Select “PROG PAGE” (PB-1) so it's boxed
    - If loft is desired (AUTO only), select “LOFT” (PB-1) for max; to reset to no loft, enter 0 on the UFC and select PB-1; Select “ENTER” (PB-10) to save changes

### CDIP Delivery

- If CDIP delivery was selected, and the appropriate program (e.g. “PROG 1”) is selected on the PACS, a CDIP reticle should be displayed on the HUD
- Castle Switch PRESS, then Castle Switch FWD Short to make the HUD SOI
- After climbing to appropriate altitude for a CDIP attack, dive towards the target
- Once the CDIP reticle dot is on target, press and hold Weapon Release (Pickle) until the horizontal drop line falls past the reticle dot; the weapon(s) will be released based on the selected release sequence



## F-15E SE – Using CBU-97: CDIP and AUTO (LANTIRN) (Page 2)

### AUTO Delivery (LANTIRN)

- WSO: TGP Power Switch ON, to turn TGP on
- Left MFD, PB-11 until “M2”, then “TPOD” (PB-12), to display LANTIRN pod
- Castle Switch LEFT Long, to make it the Sensor of Interest (SOI)
- Auto Acquisition Switch – FWD (long >1s) to enable snowplow mode on the LANTIRN pod
  - A square bracket will show on the HUD under the velocity vector, showing where the pod view is centered
- Maneuver aircraft, placing HUD velocity vector/square bracket near target
- Left MFD, move the TDC cursor near target to ground stabilize the LANTIRN pod
  - Alternatively, if A/G radar displayed/SOI on right MFD, and “TGT” (PB-7) is selected, use TDC Switch PRESS to designate the target area and sync/slave the LANTIRN pod to that point; then go back to left MFD/LANTIRN and make it SOI
- Adjust/place TDC cursor on target - as needed:
  - Press “EXP” (PB-14) for additional pod zoom level
  - Auto Acquisition Switch – FWD (short <1s) to change FOV (including additional EXP zoom)
  - WHT/BHT (PB-5) to switch between White or Black Hot polarity
  - CDES (PB-1) to enable continuous designation of target
  - ATRK/PTRK/CMPT (PB-10) to switch between area, point, and computed track
  - Auto Acquisition Switch – PRESS to track/untrack
- TDC Switch PRESS to designate the target (press again to also change the track type)
  - For moving targets, designate target area ahead of vehicles to allow for weapon fall and burst time
  - Boat Switch AFT to undesignate the target
- Fly towards target and center the flight path marker (FPM) on the Azimuth Steering Line, until the horizontal drop line starts falling towards FPM
- Press and hold Weapon Release (Pickle) to drop CBU-97(s) based on the selected release sequence

## F-15E SE – Using GBU-12 (TPOD-LANTIRN)

- While on the ground, open Mission Worksheet kneeboard to change laser code for GBU-12s if needed, or to verify laser code
- Master Arm Switch – ARM
- Master Mode A/G Selector
- WSO: TGP Power Switch ON, to turn TGP on
- WSO: TGP Laser Switch ARM to arm laser
- Set GBU-12 delivery parameters: Right MFD, PB-11 until “M2”, then “ARMT” (PB-2), then “A/G” (PB-3); Select desired program, e.g. “PROG 1” (PB-5), then:
  - Select all stations with 1 or more GBU12Cs (from PB-16 – PB-20)
  - Select “AUTO” (PB-7), for auto delivery mode
  - Select “STEP” (PB-7), for one weapon from each station, per pickle button press
  - Select “N/T” (PB-8), for nose/tail fusing
  - By default, lasing is auto, continuous (ALAS CONT) - to change: From the “ARMT” page, select “A/G DLVRY” (PB-10), then “PROG PAGE” (PB-1), then “ALAS/MLAS” (PB-11) for auto/manual lasing; Further, if “ALAS”, on the UFC you can type in the number of seconds to start lasing from expected time GBU-12 hits the target (e.g. “15” seconds), then select “ALAS” (PB-11) to set it; Enter “SHF” “9” (for “C”) for continuous.
- Left MFD, PB-11 until “M2”, then “TPOD” (PB-12), to display LANTIRN pod
- Castle Switch LEFT Long, to make it the Sensor of Interest (SOI)
- Enter GBU-12 laser code (e.g. 1688) on the UFC, then select PB-19 on the left MFD to update the laser code the LANTIRN pod will lase with, if needed
- Auto Acquisition Switch – FWD (long >1s) to enable snowplow mode on the LANTIRN pod
  - A square bracket will show on the HUD under the velocity vector, showing where the pod view is centered
- Maneuver aircraft, placing HUD velocity vector/square bracket near target
- Left MFD, move the TDC cursor near target to ground stabilize the LANTIRN pod
  - Alternatively, if A/G radar displayed/SOI on right MFD, and “TGT” (PB-7) is selected, use TDC Switch PRESS to designate the target area and sync/slave the LANTIRN pod to that point; then go back to left MFD/LANTIRN and make it SOI
- Adjust/place TDC cursor on target - as needed:
  - Press “EXP” (PB-14) for additional pod zoom level
  - Auto Acquisition Switch – FWD (short <1s) to change FOV (including additional EXP zoom)
  - WHT/BHT (PB-5) to switch between White or Black Hot polarity



## F-15E SE – Using GBU-12 (TPOD-LANTIRN) (Page 2)

- CDES (PB-1) to enable continuous designation of target
- ATRK/PTRK/CMPT (PB-10) to switch between area, point, and computed track
- Auto Acquisition Switch – PRESS to track/untrack (use with CDES and PTRK for moving targets)
- TDC Switch PRESS to designate the target (twice to also change the track type)
  - Boat Switch AFT to undesignate the target
- Auto/Manual lasing parameters can be overridden from the LANTIRN pod: Press “ALAS/MLAS” (PB-18) to switch, if desired; NOTE: Maximum lasing altitude is 25k feet
- Fly towards target and center the flight path marker (FPM) on the Azimuth Steering Line, until the horizontal drop line starts falling towards FPM
- Press and hold Weapon Release (Pickle) to drop GBU-12
  - If “MLAS” is set, Left Multifunction Switch to lase the target; press again to stop lasing once GBU-12 hits the target
- (For subsequent GBU-12 drops, left MFD, place TDC cursor on target, TDC Switch PRESS to designate the target, FPM on azimuth steering line, Weapon Release (Pickle), if needed Left Multifunction Switch to lase target)

## F-15E SE – Using GBU-38 JDAM Wpn Mem Mode (TPOD-LANTIRN)

- Master Arm Switch – ARM
- Master Mode A/G Selector
- WSO: TGP Power Switch ON, to turn TGP on
- Set GBU-38 delivery parameters: Right MFD, PB-11 until “M2”, then “ARMT” (PB-2), then “A/G” (PB-3); Select desired program, e.g. “PROG 1” (PB-5), then:
  - Select all stations with 1 or more GBU38s (from PB-16 – PB-20)
  - Select “DIRECT” (PB-8), for manual delivery mode
  - Select “STEP” (PB-7), for one weapon from each station, per pickle button press
  - Select “N/T” (PB-8), for nose/tail fusing
- Prepare for GBU-38 coordinates: Right MFD, PB-11 until “M3”, then “SMRT WPNS” (PB-14), then “NXT STA” (PB-2), until desired station selected
  - Ensure desired program is selected, e.g. “PROG 1” (via PB-5)
  - Ensure “WPN MEM” (PB-7) is selected
- Left MFD, PB-11 until “M2”, then “TPOD” (PB-12), to display LANTIRN pod
- Castle Switch LEFT Long, to make it the Sensor of Interest (SOI)
- Auto Acquisition Switch – FWD (long >1s) to enable snowplow mode on the LANTIRN pod
  - A square bracket will show on the HUD under the velocity vector, showing where the pod view is centered
- Maneuver aircraft, placing HUD velocity vector/square bracket near target
- Left MFD, move the TDC cursor near target to ground stabilize the LANTIRN pod
  - Alternatively, if A/G radar displayed/SOI on right MFD, and “TGT” (PB-7) is selected, use TDC Switch PRESS to designate the target area and sync/slave the LANTIRN pod to that point; then go back to left MFD/LANTIRN and make it SOI; Then right MFD, PB-11 until “M3”, then “SMRT WPNS” (PB-14)
- Adjust/place TDC cursor on target - as needed:
  - Press “EXP” (PB-14) for additional pod zoom level
  - Auto Acquisition Switch – FWD (short <1s) to change FOV (including additional EXP zoom)
  - WHT/BHT (PB-5) to switch between White or Black Hot polarity
  - ATRK/PTRK/CMPT (PB-10) to switch between area, point, and computed track
  - Auto Acquisition Switch – PRESS to track/untrack
- TDC Switch PRESS to designate the target



## **F-15E SE – Using GBU-38 JDAM Wpn Mem Mode (TPOD-LANTIRN) (Page 2)**

- Right MFD, “XFR TPOD” (PB-1) will now appear – select to transfer target coordinates to currently selected GBU-38 station; selected station in smart weapons page will now show “TPOD” and “STBY”
- Boat Switch AFT to undesignate the target on TPOD

### **Dropping JDAMs Individually on Targets and Observing in TGP**

- Fly towards target and center the flight path marker (FPM) on the Azimuth Steering Line; wait for “IN ZONE” / “IN RANGE” below the target range queues at lower right of HUD to determine when to drop JDAM
- Press and hold Weapon Release (Pickle) to drop GBU-38
  - Observe the selected station disappears from the smart weapons page
- (For subsequent GBU-38 drops, right MFD, “NXT STA” until desired station selected, left MFD, place TDC cursor on target, TDC Switch PRESS to designate the target, right MFD, “XFR TPOD” to transfer target coordinates, FPM on azimuth steering line, Weapon Release (Pickle) when in range)

### **Rippling JDAMs on Multiple Targets**

- After designating the first target for the current station, for the remaining JDAM stations for this program (e.g. “PROG 1”):
  - Right MFD, “NXT STA” on the smart weapons page for next GBU-38 station
  - Left MFD, slew TDC cursor on next target
  - Auto Acquisition Switch – PRESS to track target
  - TDC Switch PRESS to designate the target
  - Right MFD, “XFR TPOD” to transfer target coordinates
- Boat Switch AFT to undesignate the last target on TPOD
- Fly towards target and center the flight path marker (FPM) on the Azimuth Steering Line; wait for “IN ZONE” / “IN RANGE” below the target range queues at lower right of HUD to determine when to drop JDAMs
- Press and hold Weapon Release (Pickle) to drop GBU-38
  - Repeat: press and hold Weapon Release for each subsequent GBU-38 in current program; (NOTE: Once ripple issue is fixed, select “RP SGL” instead of “STEP” in GBU-38 delivery page; then when you press and hold Weapon Release, all JDAMs in current program will ripple release)

## F-15E SE – Using GBU-38 JDAM Wpn Mem Mode (UFC Coordinates)

- Master Arm Switch – ARM
- Master Mode A/G Selector
- Set GBU-38 delivery parameters: Right MFD, PB-11 until “M2”, then “ARMT” (PB-2), then “A/G” (PB-3); Select desired program, e.g. “PROG 1” (PB-5), then:
  - Select all stations with 1 or more GBU38s (from PB-16 – PB-20)
  - Select “DIRECT” (PB-8), for manual delivery mode
  - Select “STEP” (PB-7), for one weapon from each station, per pickle button press
  - Select “N/T” (PB-8), for nose/tail fusing
- Prepare for GBU-38 coordinates: Right MFD, PB-11 until “M3”, then “SMRT WPNS” (PB-14), then “NXT STA” (PB-2), until desired station selected
  - Ensure desired program is selected, e.g. “PROG 1” (via PB-5)
  - Ensure “WPN MEM” (PB-7) is selected
- Open F10 map, then find target: Left-Shift--Left-Alt--Left-Click on the desired target point. This will bring up a coordinate dialog box (using Lat Long Decimal Minutes). Press F1 to get back to cockpit view.
- **Edit GBU-38 mission:** Right MFD, “EDIT MSN” (PB-14), then:
  - Use arrows (PB-4/PB-5) to select the text box two rows above “ELEV” at left
  - On the UFC, press “SHF”, then N/2 for North, then enter latitude coordinates
  - Right MFD, “EDIT” (PB-8) to update latitude value
  - Right MFD, PB-5 to move the cursor down to edit the longitude value
  - On the UFC, press “SHF”, then E/6 for East, then enter longitude coordinates
  - Right MFD, “EDIT” (PB-8) to update longitude value
  - Right MFD, PB-5 to move the cursor down to edit the elevation value
  - On the UFC, enter elevation in feet
  - Right MFD, “EDIT” (PB-8) to update elevation value
  - Right MFD, PB-9 until “XFER WPN” is displayed
  - Right MFD, PB-10 “MSN XFER” to transfer the target coordinates to selected JDAM station
- Press “SMRT WPNS” to get back to the smart weapons page; selected station should now show “RDY”

### **Dropping JDAMs Individually on Targets**

- Fly towards target and center the flight path marker (FPM) on the Azimuth Steering Line; wait for “IN ZONE” / “IN RANGE” below the target range queues at lower right of HUD to determine when to drop JDAM
- Press and hold Weapon Release (Pickle) to drop GBU-38
  - Observe the selected station disappears from the smart weapons page



## **F-15E SE – Using GBU-38 JDAM Wpn Mem Mode (UFC Coordinates) (Page 2)**

- (For subsequent GBU-38 drops, “NXT STA”, for next station, open F10 for target point and coordinates dialog, F1 back to cockpit, “EDIT MSN”, edit lat/long/elevation, “XFER WPN”, “MSN XFER”, “SMRT WPNS”, FPM on azimuth steering line, Weapon Release (Pickle) when in range)

### **Rippling JDAMs on Multiple Targets**

- After designating the first target for the current station, for the remaining JDAM stations for this program (e.g. “PROG 1”):
  - Right MFD, “NXT STA” on the smart weapons page for next GBU-38 station
  - Find target in F10 map, Left-Shift--Left-Alt--Left-Click on desired target point
  - F1 back to cockpit; Right MFD, “EDIT MSN”
  - See “Edit GBU-38 mission” above to enter/edit lat/long coordinates and elevation, and transfer to JDAM station
  - “SMRT WPNS” to get back to the smart weapons page, station shows “RDY”
- Fly towards target and center the flight path marker (FPM) on the Azimuth Steering Line; wait for “IN ZONE” / “IN RANGE” below the target range queues at lower right of HUD to determine when to drop JDAMs
- Press and hold Weapon Release (Pickle) to drop GBU-38
  - Repeat: press and hold Weapon Release for each subsequent GBU-38 in current program; (NOTE: Once ripple issue is fixed, select “RP SGL” instead of “STEP” in GBU-38 delivery page; then when you press and hold Weapon Release, all JDAMs in current program will ripple release)

## **F-15E SE – Updating PACS after re-arming**

### **Updating the Programmable Armament Control Set (PACS)**

After re-arming the F-15E SE, all air-to-air missiles, including the AIM-120, AIM-7, and AIM-9, are automatically recognized by PACS. However, only certain smart air-to-ground weapons are recognized – all other air-to-ground weapon types must be manually identified within PACS in order to employ them.

- On any MFD, select PB-11 until “M2” displays
- Select “ARMT” (PB-2)
- Select “A/G LOAD” (PB-7)
- At the top of the MFD, PB-16 through PB-20 will show the type and number of any air-to-ground smart weapons on that station that have been recognized; any weapons not recognized will only show the number of, and not the type
- Select “STEP” (PB-10), until the air-to-ground weapon matching what has been loaded is shown
- Select the appropriate weapon (one of PB-1 through PB-5, PB-12 through PB-14), which will put a selection box around it
- Select all stations from PB-16 through PB-20 that have that weapon type loaded; the weapon type should now show above the number of weapons for that station
- Select “MENU” (PB-11), then select “A/G” (PB-3)
- All updated air-to-ground weapons on their respective stations should now be identified at the top of the MFD
  
- Repeat the steps above for any additional air-to-ground weapons that have not yet been recognized by PACS



## **F-15E SE – Air-to-Air: ACM with AIM-9**

- Master Arm Switch – ARM; Select IFF Mode Switch A or B
- AN/APG-70 Radar: ON
- Master Mode A/A Selector
- Weapons/Mode Switch – SRM to select AIM-9's

### **AIM-9 Radar Employment**

- Switch to the desired auto acquisition mode from search (RWS) for ACM:
  - Supersearch: Auto Acquisition Switch – FWD (short <1s)
  - Boresight: Auto Acquisition Switch – FWD (short <1s) while in Supersearch
  - Long range boresight: Auto Acquisition Switch – FWD (long >1s)
  - Vertical scan: Auto Acquisition Switch – AFT (short <1s)
- Maneuver aircraft, put target near ACM/AA reticle (depends on ACM/AA mode); target will auto-lock within 10 miles
  - Auto Acquisition Switch – PRESS to unlock target and return to search
- If air-to-air radar display is showing/SOI, use Coolie Switch Left (long >1s) to IFF locked target; target symbol (star) will change to circle if friendly

### **AIM-9 Missile BORE Employment**

- With air-to-air radar OFF/STBY (regardless of which auto acquisition mode/search mode the air-to-air radar was in), maneuver aircraft, putting target near missile boresight reticle, listen for growl
- NWS/Weapons Button to uncage AIM-9 seeker
- High pitched tone when missile seeker has a lock
- Weapon Release (Pickle) to launch AIM-9
- NOTE: AIM-9J/L/M/P seeker has a gimbal limit of about 40 degrees off bore. Thus, you will not be able to lock targets with these AIM-9 variants high off bore-sight

### **Gun Employment**

- Weapons/Mode Switch – GUN to select gun
- Gunsight mode defaults to funnel (FNL); With a radar track on target, Coolie Switch Up (short <1s) allows you to switch to gun director sight (GDS)
- Maneuver aircraft, put target near desired funnel pipper or reticle circle
- Trigger to fire 20mm Gatling gun