

F/A-18E Super Hornet

Interactive Cockpit Manual



Table Of Contents

Table Of Contents	1
Practical Information	3
Settings & Keybinds	3
Without CBA	3
With CBA	4
ITC Air Integration	5
ACE Integration	5
Cockpit Overview	6
Cockpit Front Overview	6
Heads Up Display	6
Left & Right DDIs	6
MPCD	6
EFD	6
RWR	6
Cockpit Panels Overview	7
Left & Right Upper Consoles	8
Left & Right Main Consoles	9
Left Main Console	9
Right Main Console	10
Cockpit Interaction	10
Advanced Startup	11
Technical implementation	11
Startup summary	11
Digital Display Indicators	12
DDI Pages	12
General DDI Information	12
TAC Menu	12
Sensor of Interest	12
HUD Page	13
RDR Page	14
Page Designs	14
ITC Air FCR as SOI	15
TGP Page	16
Maverick Display	19
Laser Maverick Display	20
EW Page	21
RWR Main Page	21
Programming Subpage	21
STOR/SMS Page	22
ITC Air DSMS Integration	23
Numeric Option Example	24
Non Numeric Option Example	24

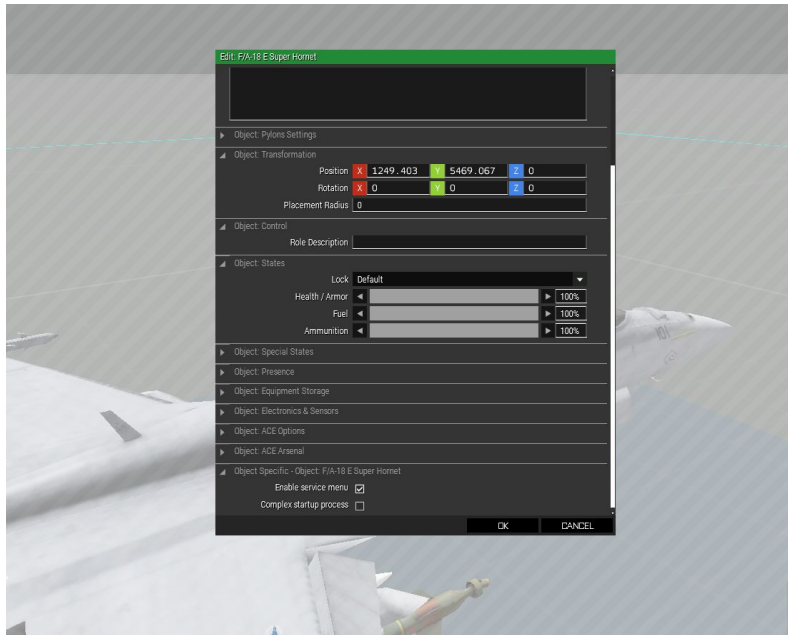
HSI Page	25
HSI Map Display	26
Heads Up Display	27
Navigation Symbology	27
CCRP Symbology	28
Laser Maverick Symbology	29
Joint Helmet Mounted Cueing System(JHMCS)	30
JHMCS AIM-9 Cueing	31
Up Front Controller	32
Overview	32
ACRE Vehicle Rack control	33
DDI Pages	34
DDI Base page(TAC)	34
FLIR Page(FLR)	34
Radar(ATK)	35
EW Page	35
HUD Page	36
SMS Page	36
The page currently offers no interaction.	36
Additional Features	37
Require ATFLIR for TGP	37
Chaff/Flare Selection	37
Canopy Loss	37

Practical Information

Settings & Keybinds

Without CBA

To enable the complex start-up on an aircraft, open it in the editor, and check the complex startup process box.



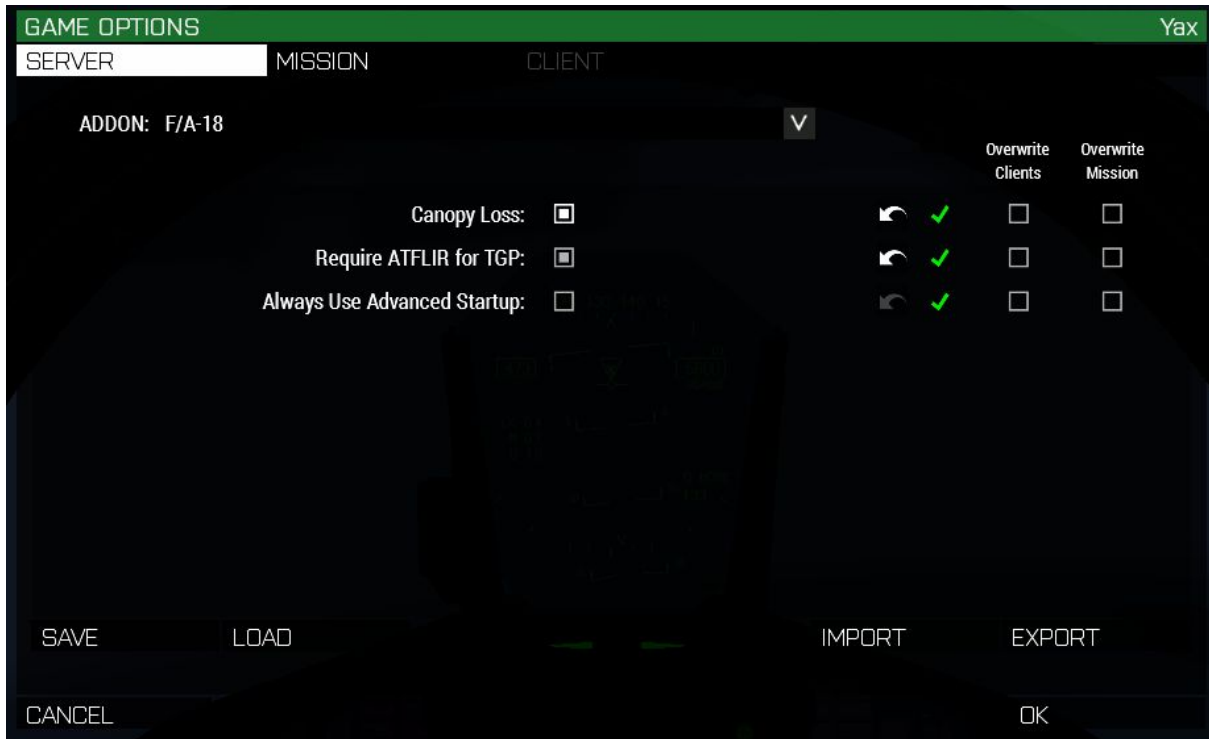
Cockpit interaction is done with custom user action 20, which can be found in the keybinds > custom category.

Enable complex start through script

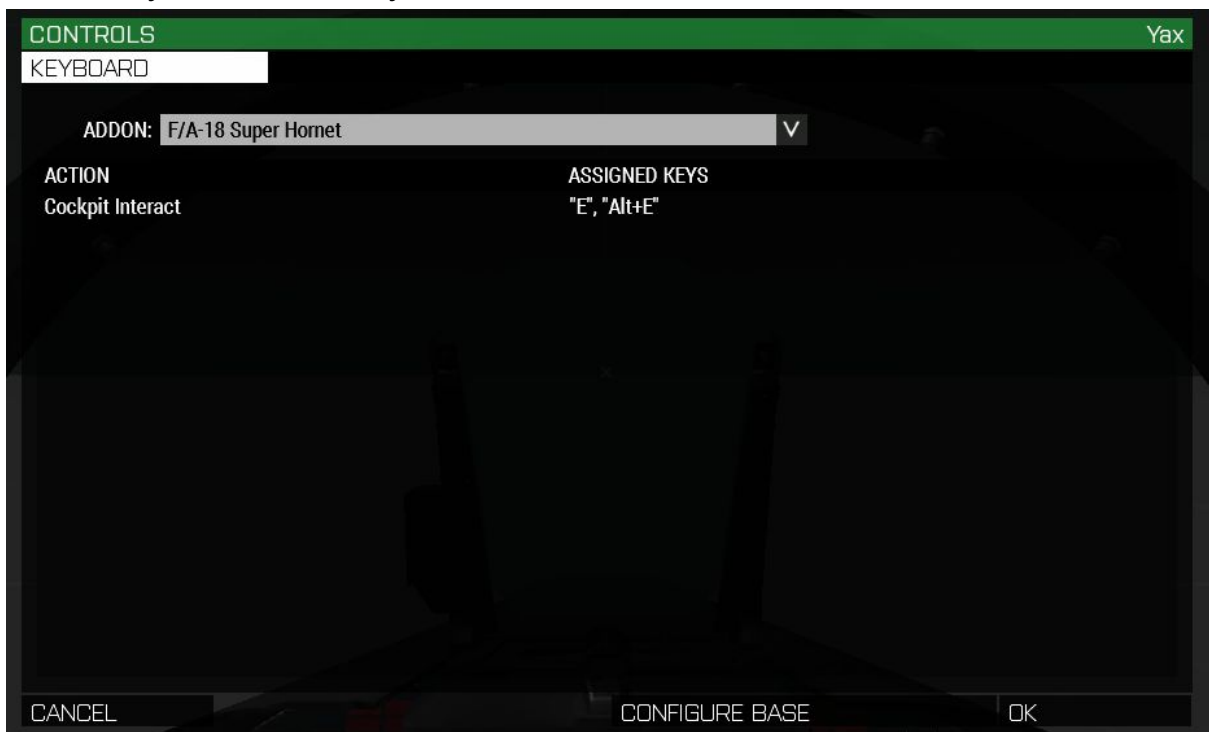
To enable complex start through script, set the variable *js_jc_fa18_complexStartup* on the aircraft you want it enabled on to true.

With CBA

When CBA is active, the above complex start procedure still functions. Additionally, the CBA options menu can be used to always enable complex start, and enable any other current and future optional features.



When CBA is active, cockpit interaction is not done with custom action 20, but instead you can choose a keybind in the CBA keybinds menu.



ITC Air Integration

The F/A-18E has provides optional in-depth integration with ITC Air, much functionality in this document requires ITC Air, or is enhanced by it.

The ITC Air integration is done automatically, no additional setup is required.

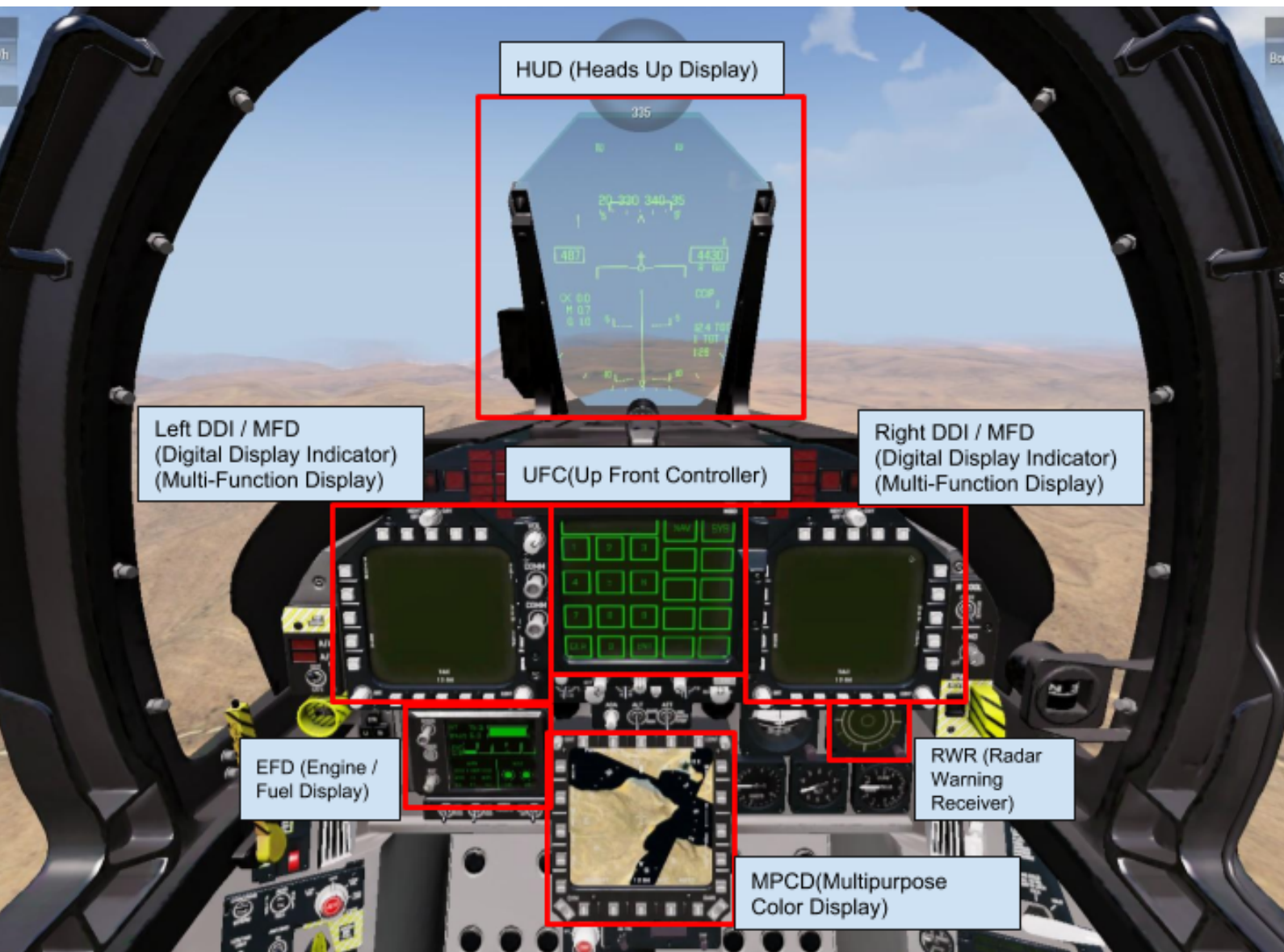
ACE Integration

The F/A-18E provides optional ACE integration, currently only in the form of allowing users to configure their aircraft's laser code.

The ACE integration is done automatically, no additional setup is required.

Cockpit Overview

Cockpit Front Overview



Heads Up Display

Used for navigation and employment of weapons.

Left & Right DDIs

Used to manipulate your sensors, navigate, and set up weapons release profiles.

MPCD

Displays only map and a simplified HSI page, has no interactivity due to technical limitations. More in-depth HSI page is available on the Left DDI.

EFD

Displays engine and fuel status.

RWR

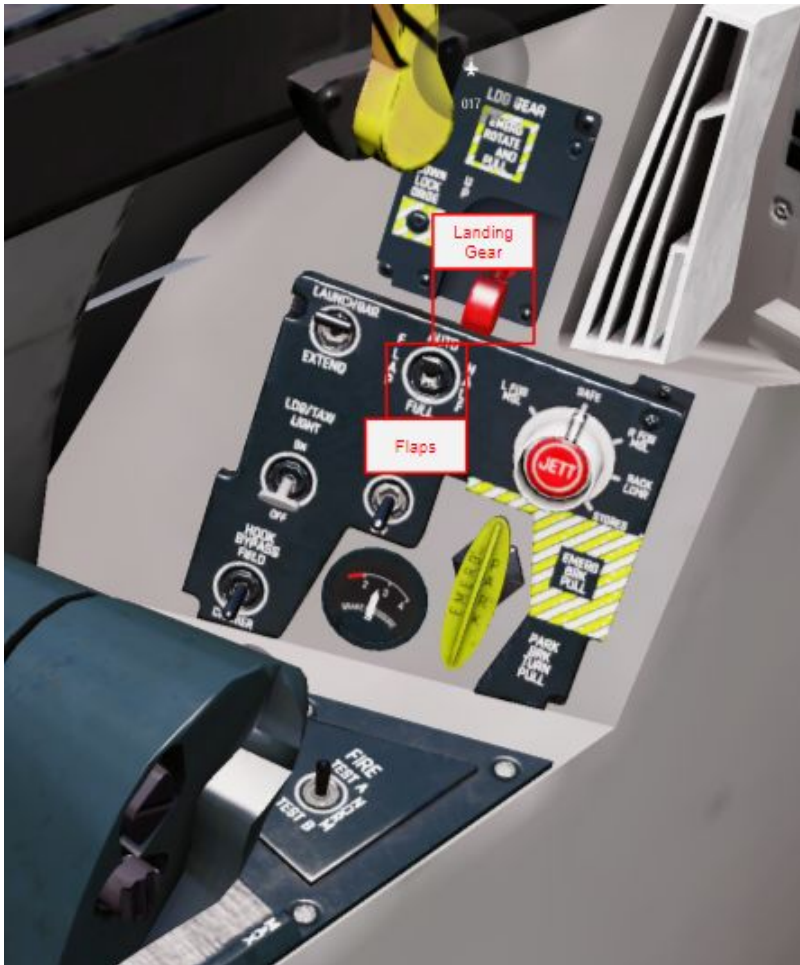
Displays radar threats until 8km out.

Cockpit Panels Overview



Left & Right Upper Consoles

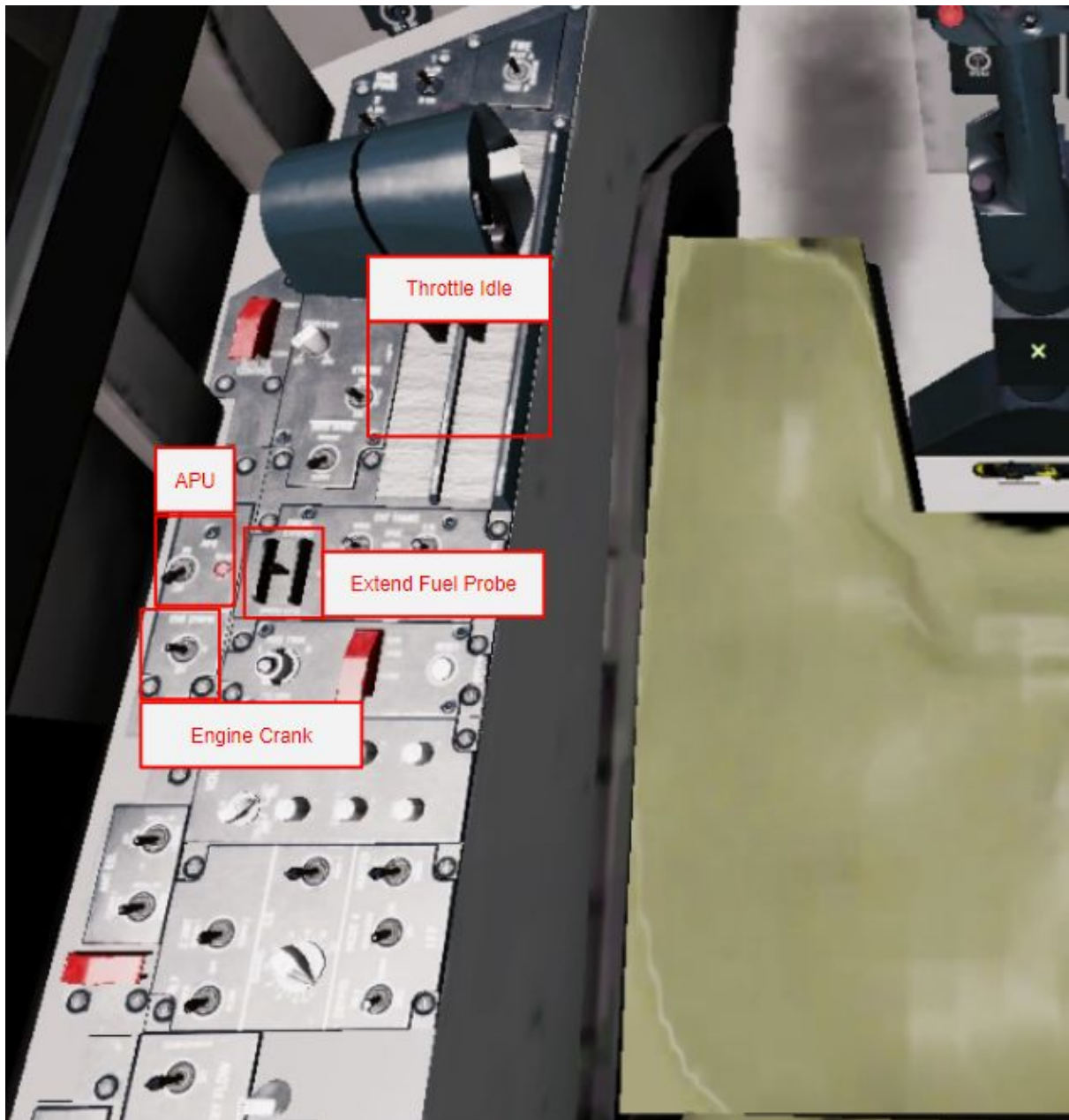
The upper consoles are used when taking off and landing, with controls for landing gear, tailhook, flaps and wing folding.



Left & Right Main Consoles

The main consoles are used mainly during the startup procedure.

Left Main Console



Right Main Console



Cockpit Interaction

The hotkey for cockpit interaction changes based on CBA.

No CBA

Cockpit Interaction works through userAction 20.

CBA Present

When CBA is available, userAction 20 does not work, and instead cockpit interaction is set up through CBA keybinds.

Advanced Startup

The advanced startup is optional, and is not enabled by default. For information on how to enable the advanced start, read the [settings & keybinds section](#).

Technical implementation

The advanced start works by removing the aircraft's fuel as the player gets in, and re-adding it once advanced start procedure is finished, from there the aircraft functions as normal.

Startup summary

1. **Right Main Console:** Enable battery power.
2. **Left Main Console:** Enable APU, wait 10 seconds for light to turn green.
3. **Right Main Console:** Enable Left & Right Generators.
4. **Left Main Console:** Enable Engine Crank. Look at EFD and wait for power to reach 20%.
5. **Left Main Console:** Move Throttle to idle, done through cockpit interaction at the base of the throttle.
6. Turn on engine as on a normal jet.
7. **Above left DDI:** Turn off master caution.
8. **Below UFC:** Use knob to turn on HUD.
9. **Right side of right DDI:** Use knob to turn on JHMCS.
10. **Right Main Console:** Radar On

Digital Display Indicators

DDI Pages

Because of a technical limitation in arma that puts a restriction on the amount of custom MFD elements that can be displayed, some DDI pages are only available on the left DDI.

Shared

- HUD(Heads Up Display)
- RDR(Radar)
- TGP(ATFLIR Targeting Pod)
- EW(Electronic Warfare)
- MAV(Maverick Targeting)
- LMAV(Laser Maverick Targeting)

Left Only

- STOR/SMS(Storage Management System)
- HSI(Horizontal Situation Indicator)

Pages marked blue require ITC Air.

General DDI Information

TAC Menu

All pages in the F/A-18 are currently available through the TAC menu, while on the real plane the pages are divided in to the TAC and SUP menus, the current F/A-18 in arma does not have enough options to justify an extra layer of division.

The TAC menu can be accessed from any page by pressing bottom row center button.

Sensor of Interest

DDI SOI Status is indicated by a small diamond in the top right corner of the DDI Page.

Note that SOI is currently not automatically cycled when pages are changed, so if your TGP is SOI and you change to the MAV page, your TGP will remain SOI until you switch again.



HUD Page

The HUD page shows basic HUD symbology, it currently does not yet match waypoint or weapon symbology.

NFLR: Pressing the NFLR button will enable the HUD NAVFLIR night vision overlay.



RDR Page

The radar page has two modes, A-A and A-G, the mode will automatically switch based on your selected type of weapon. When your radar is turned off the screen will be black and it will say RADAR OFF. The page goes from 0 to 16km.

Page Designs

A-G Mode



A-A Mode



ITC Air FCR as SOI

When using ITC Air, the FCR can be set to SOI. It differs from the default ITC Air FCR, and only allows slewing, and TMS up to lock or ground stabilise on a contact.

Locking

When SOI, the locking bracket can be moved over a radar contact. When TMS up is used, the FCR will lock on to the target, it will keep the brackets over the target, and continually points the TGP at the target as long as the target is within 60 degrees of the aircraft's nose.



Left: symbology, Right: locked symbology

Breaking Lock

The FCR breaks lock when FCR is no longer SOI, the FCR is slewed, or the user presses TMS down.

TGP Page

The TGP page allows users to view a feed from their targeting pod, and see their laser status. By default, the only functional interaction is the TRIG option, which, when pressed, will select the laser target designator as current weapon.

Ground Stabilised



When ground stabilised, the top right corner will say GRND STAB.



Point Tracking

When point tracking, the large cross is replaced with a box, centered on the object being tracked.



Laser Status

Above the cross, the laser status is displayed.

When turned off, LTD is shown with a cross through it, when on, LTD/R is on and flashing.

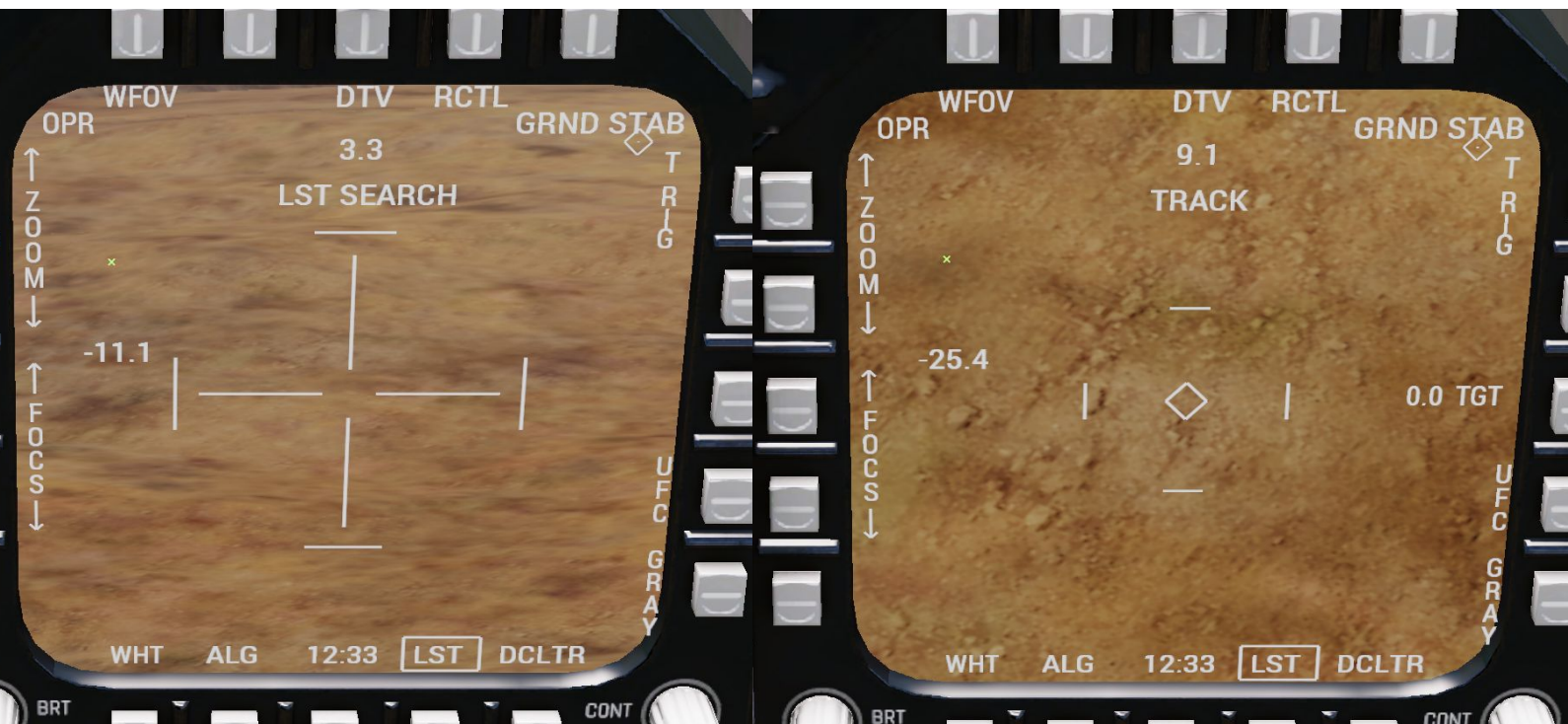
When point tracking *and* laser designating, the tracked object will have a diamond over it.

ITC Air Integration:

When using ITC Air, the TGP Page can be set to SOI to control the TGP as on any other aircraft, and allows the player to change zoom level, view mode, and enable the Laser Spot Tracking function.

Laser Spot Tracking

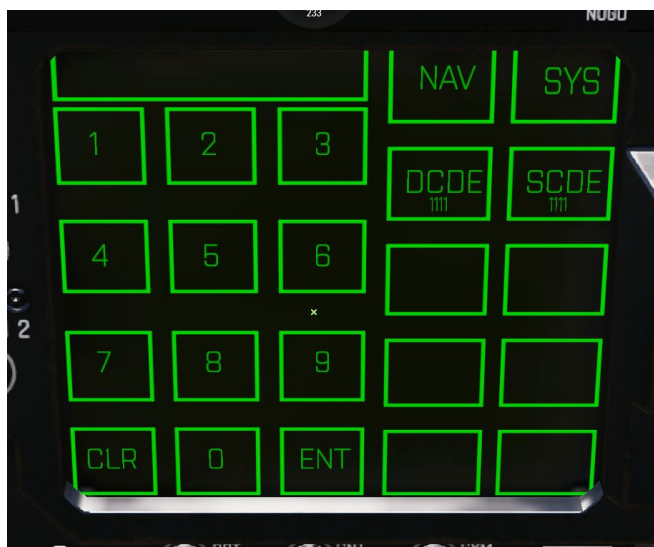
Laser Spot Tracking is enabled by pressing the LST button on the bottom row. When enabled, the LST option will be boxed. When searching the LTD text will be replaced with LST SEARCH



When tracking laser energy, the LST SEARCH text gets replaced by TRACK, and the TGP will be using point track symbology.

UFC Laser Code Config

When the UFC Option is pressed, the LTD and LST laser codes can be changed on the UFC.



DCDE

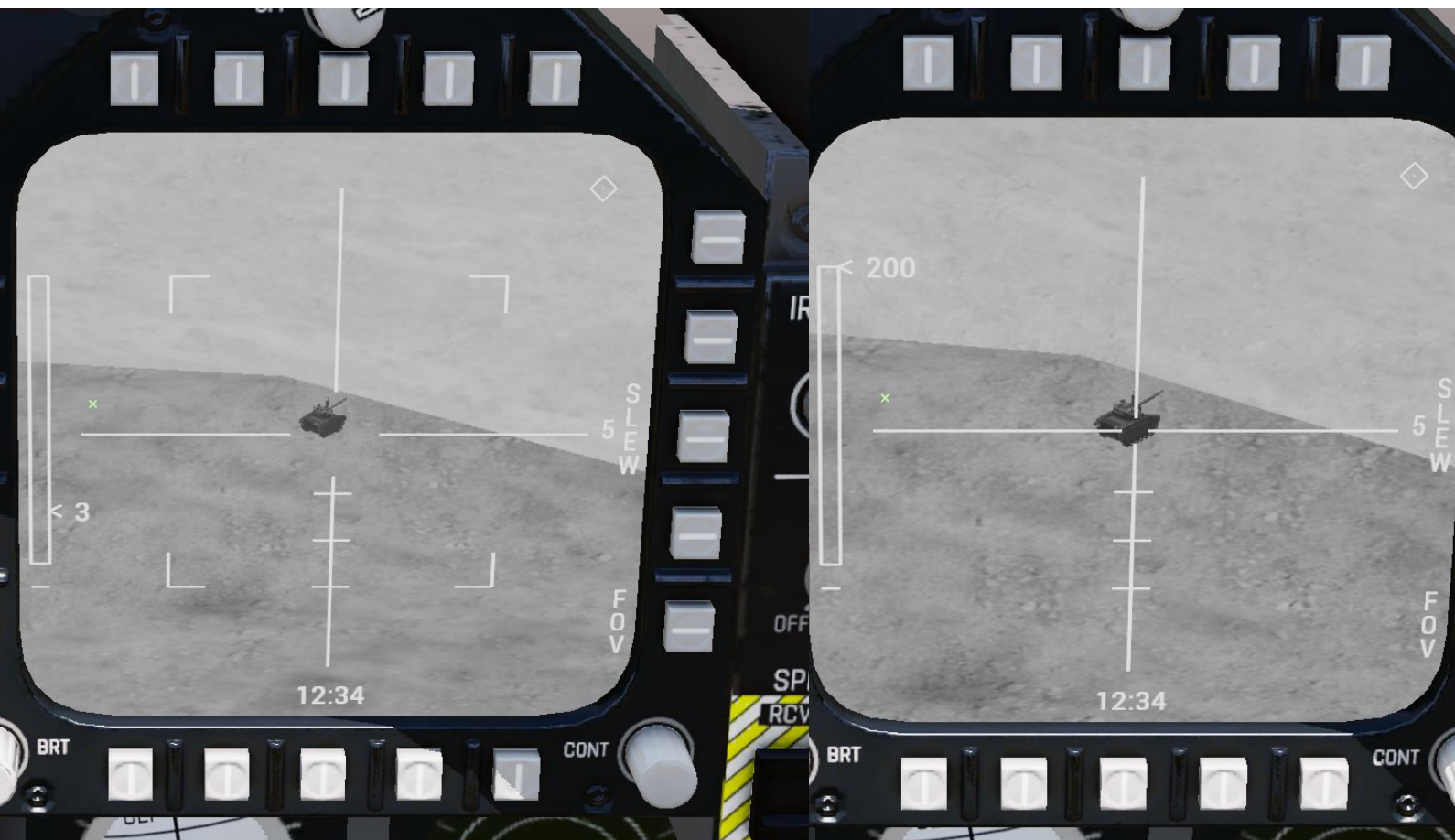
Is the designator laser code setting.

SCDE

Is the search/track laser code setting.

Maverick Display

The maverick display requires ITC Air to work, and functions the same as it does on ITC Air. When ground stabilised, the range caret on the left will start moving, and when locked the cross will close in on the target. DDI Buttons can be used to change slew rate and FOV.

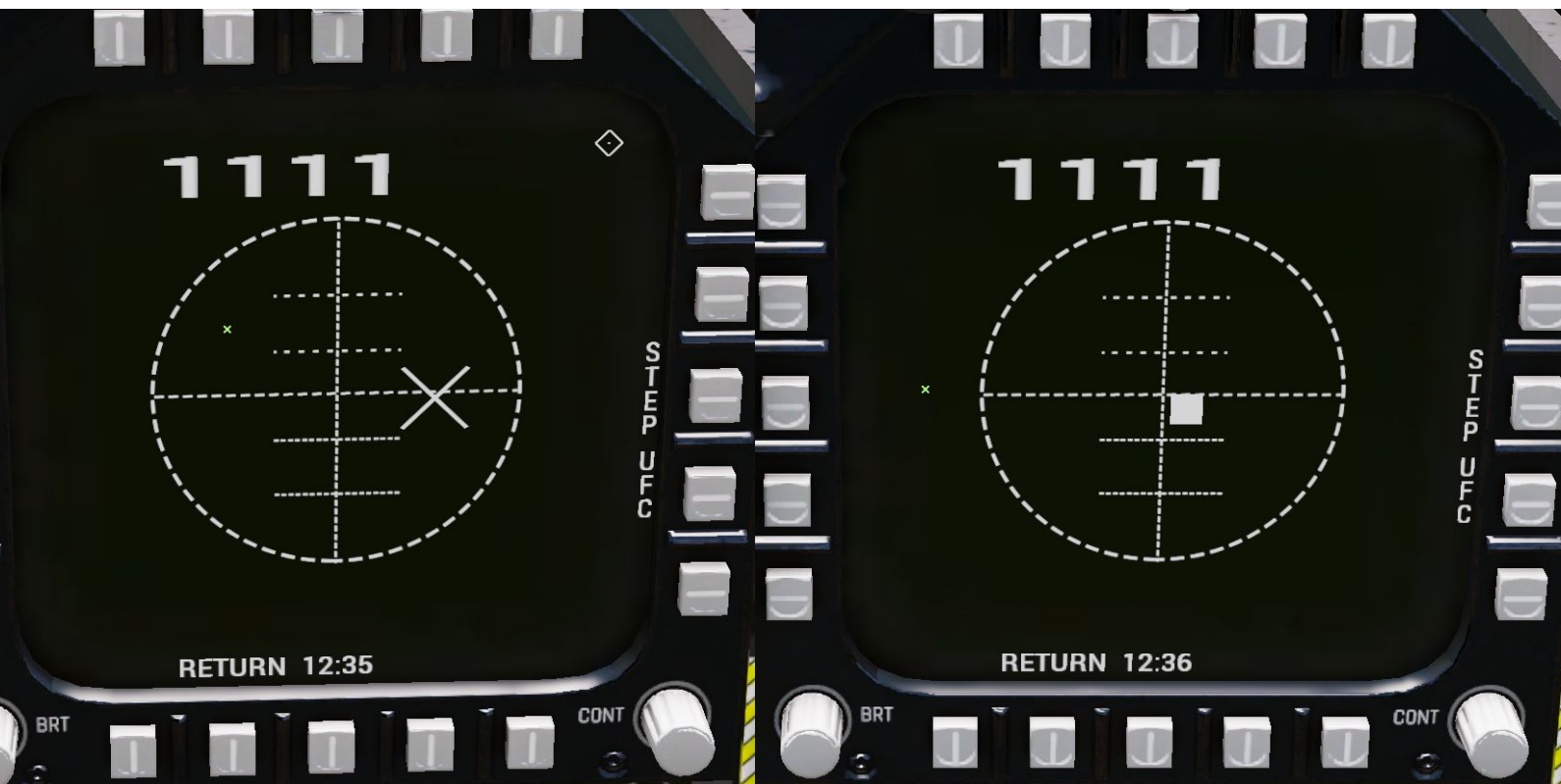


Left: Ground stabilised. Right: Locked.

Currently, the range caret will malfunction when locked on to a target.

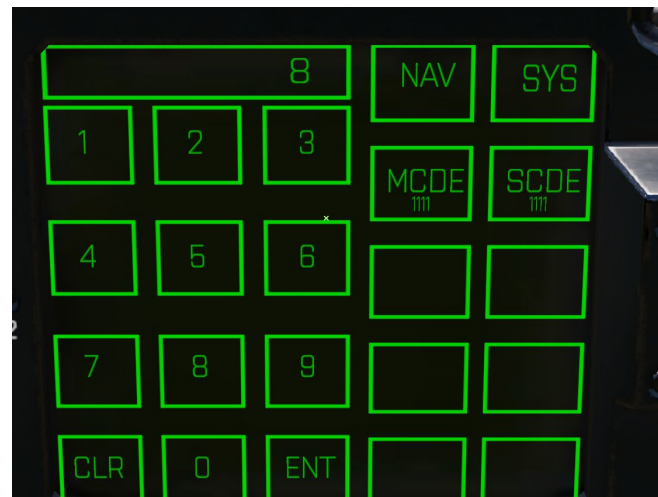
Laser Maverick Display

The Laser Maverick display page functions similarly to how it does on ITC Air, in the top it shows your AGM-65Es laser code, and it requires the laser maverick to be selected to function.



Laser Code Changing

When pressing the UFC option, the UFC will gain the MCDE option, MCDE can be used to change the laser maverick's laser code. This applies to all laser mavericks on the aircraft.



EW Page

The EW page offers a larger Radar Warning Receiver display, along with countermeasure configuration.



RWR Main Page

1. Current countermeasure count
2. Release mode - Auto for automatic release on missile launch, MAN for manual
3. To programming subpage
4. Radar Warning Receiver returns

Programming Subpage

This page lets you set up the flare/chaff release programme, run every time you dispense countermeasures.

To configure the programme, select a setting on the left, and cycle through its options on the right using the arrows.

FLAR

Flare count.

CHAF

Chaff count.

RPT

Repeat setting sets releases per pulse.

INT

Interval defines delay between pulses in seconds.

STOR/SMS Page

The Stores Management System displays the current status of your pylons. Munitions names are converted to display what they would look like on the F/A-18 SMS, for example the GBU-12 will be displayed as an 82LG(Mk-82 based Laser Guided).

Interaction

STEP cycles through selected weapons.

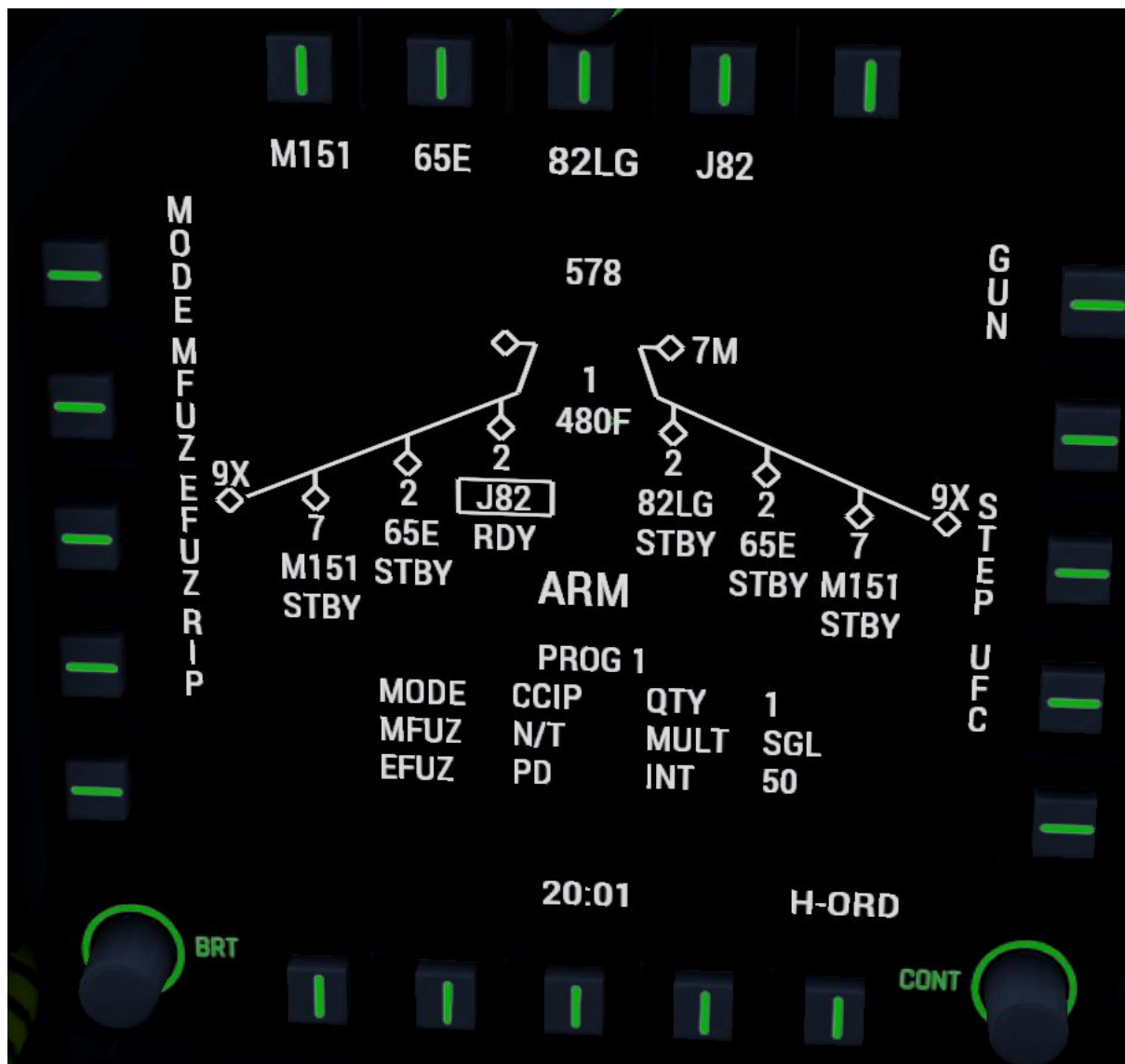
GUN selects your gun.

Along the top of the screen, your A-G weapons are listed, and can be selected by pressing the buttons above them.



ITC Air DSMS Integration

When using ITC Air, the SMS allows you to set up bomb release profiles as close as possible to the F/A-18 while staying within the restrictions of ITC Air's DSMS system.



Your current profile options are displayed below the pylon status. Numeric profile options can be changed by pressing the UFC option, non-numeric options can be changed with the buttons on the left side of the screen. Some notes:

MFUZ: Selects your bomb's tail or nose fuze. It does not display what fuzes are installed, a chart will be provided in the future.

EFUZ: This will program the selected setting in any available programmable fuze setup. It will not change the MFUZ option to a non-programmable fuze of the selected type.



Numeric Option Example

Currently, numeric options are limited to ripple quantity, ripple interval, impact angle, and laser code.

Ripple options will be available for every bomb. Impact angle and laser code will only be available for select bombs that allow these settings to be configured in flight.

Laser Code

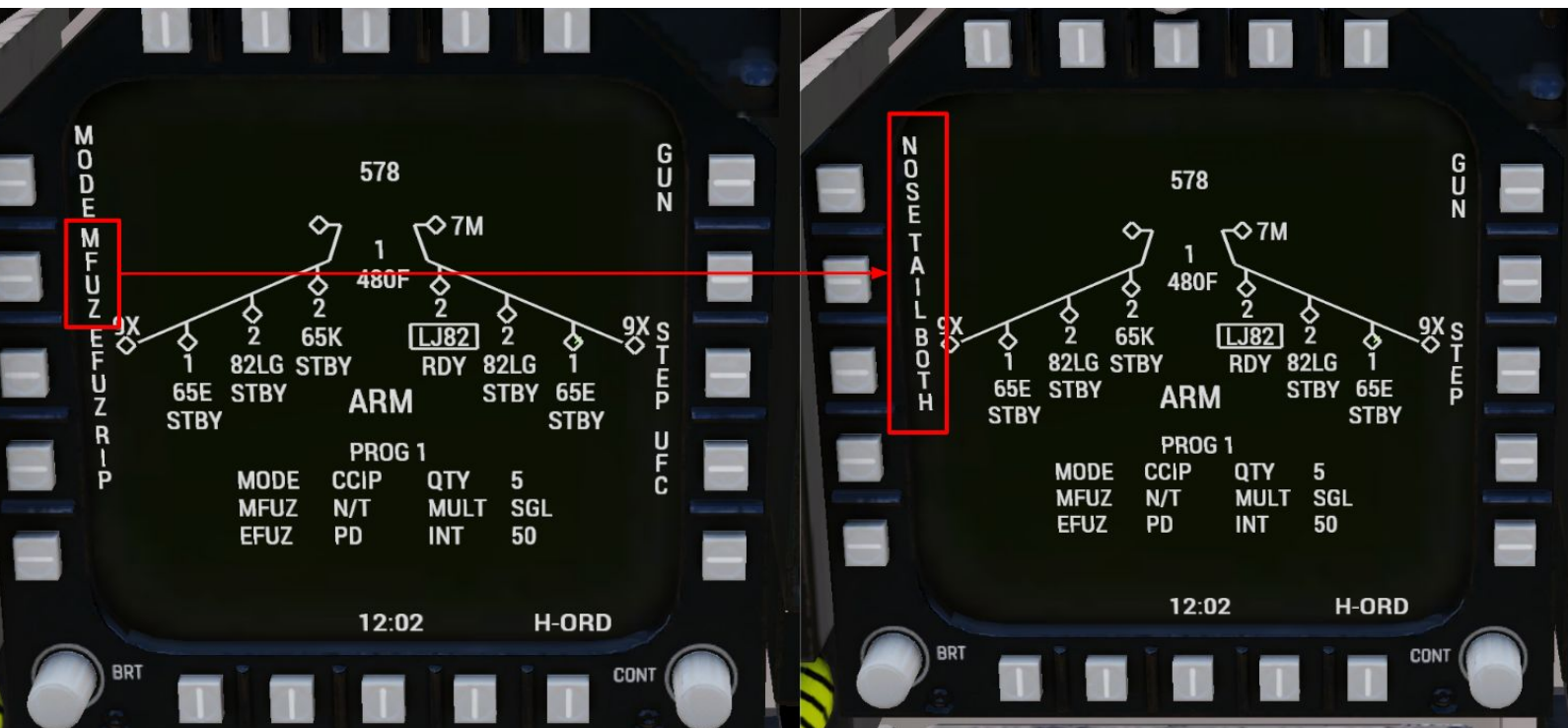
Note that as in default ITC Air, the laser code can only be changed in-flight on laser guided munitions that have this ability in real life. This is currently limited in ITC Air to the Laser JDAM and Laser Maverick.

UFC Persistence

When changing weapons, the UFC buttons do not go away or change, and the weapon these options apply to does not change, this means that when selecting UFC on bomb type A, switching your selected weapon to type B, and then entering the UFC options, they will be applied to type A.

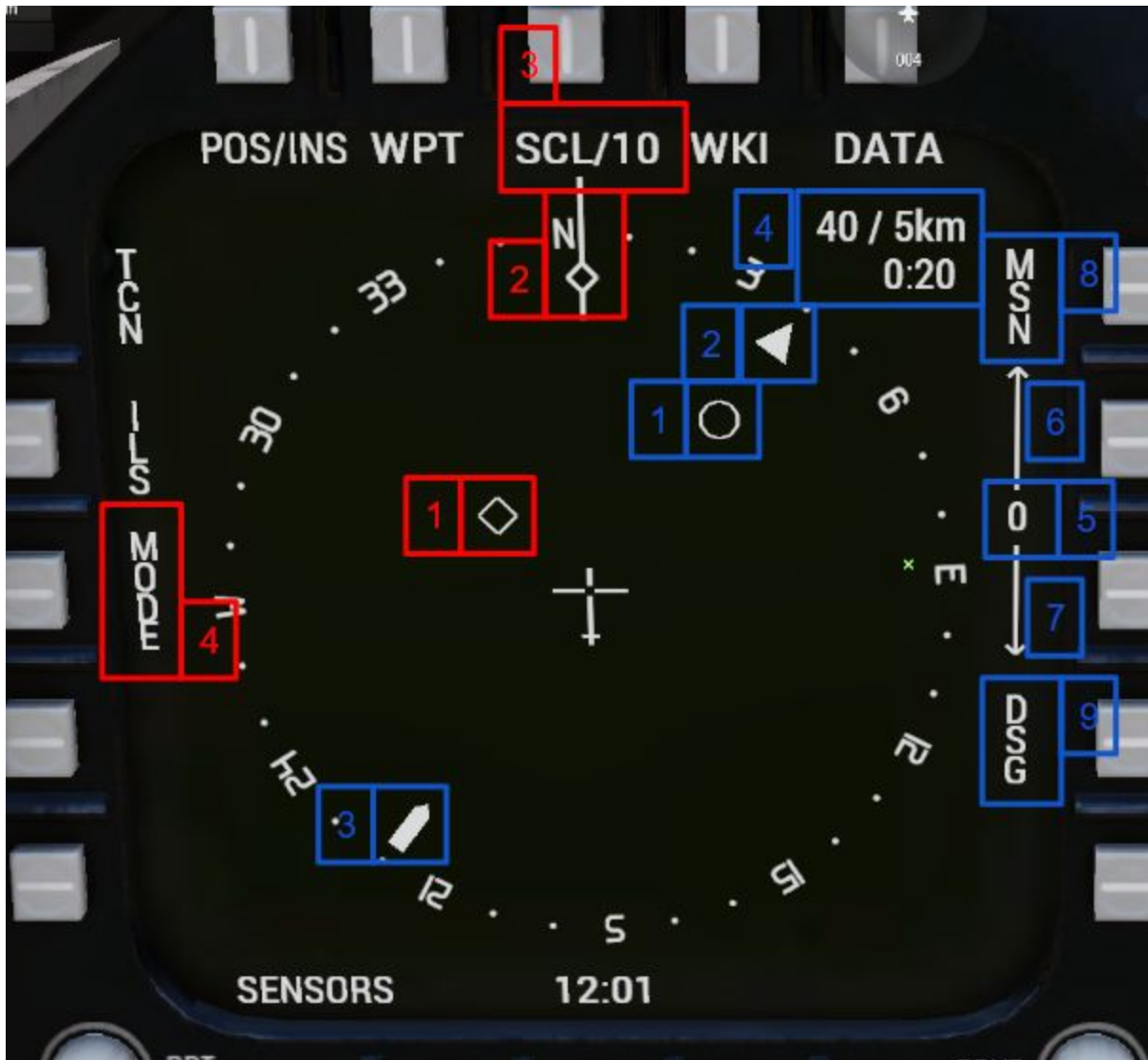
Non Numeric Option Example

To set a non-numeric option, select the option on the left, the left size button texts are then replaced by the possible values for the option you want to set, press a value and it will be updated on the current profile settings.



HSI Page

The HSI page is your main navigational aid, giving you a compass, a reference point for your TGP tracking position, and when using ITC Air, waypoint control.



Symbology & buttons(marked red)

1. TGP Track Position
2. Ownship Heading
3. HSI/Map Scale - number is kilometers from center to screen edge, click to cycle zoom
4. Toggle map

ITC Air Symbology & buttons(marked blue)

1. Current waypoint position
2. Heading to waypoint
3. Heading from waypoint
4. Waypoint Bearing / Distance & TOF
5. Current waypoint index
6. Next waypoint
7. Previous waypoint
8. Waypoint mode(Mission / Mark / Flight plan)
9. Designate - Cues your TGP to your current waypoint.

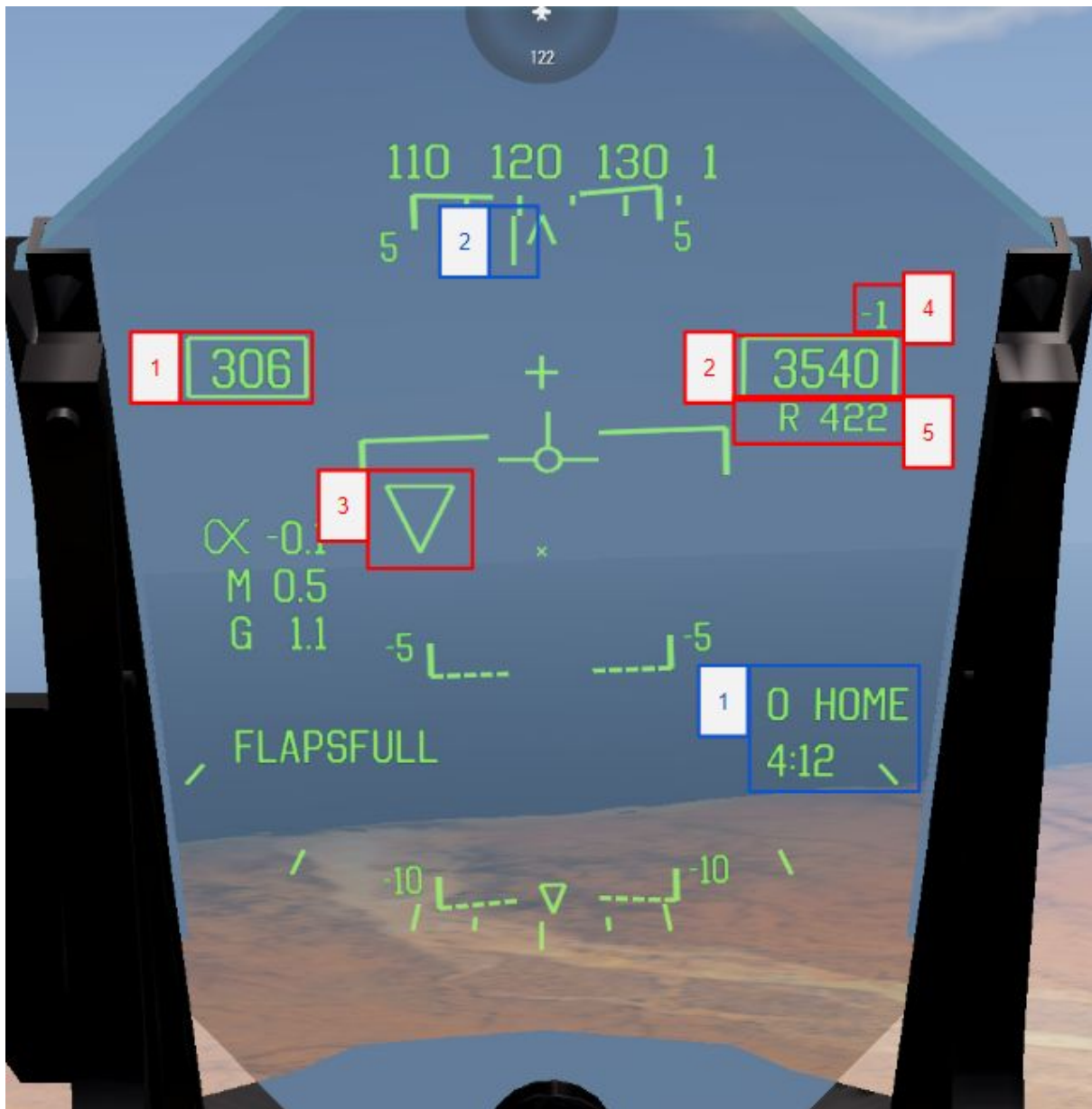
HSI Map Display

The map zoom level on the center MPCD is determined by the HSI map on the left DDI. None of the symbology of the left DDI carries over to the center MPCD.



Heads Up Display

Navigation Symbology



Symbology (marked red)

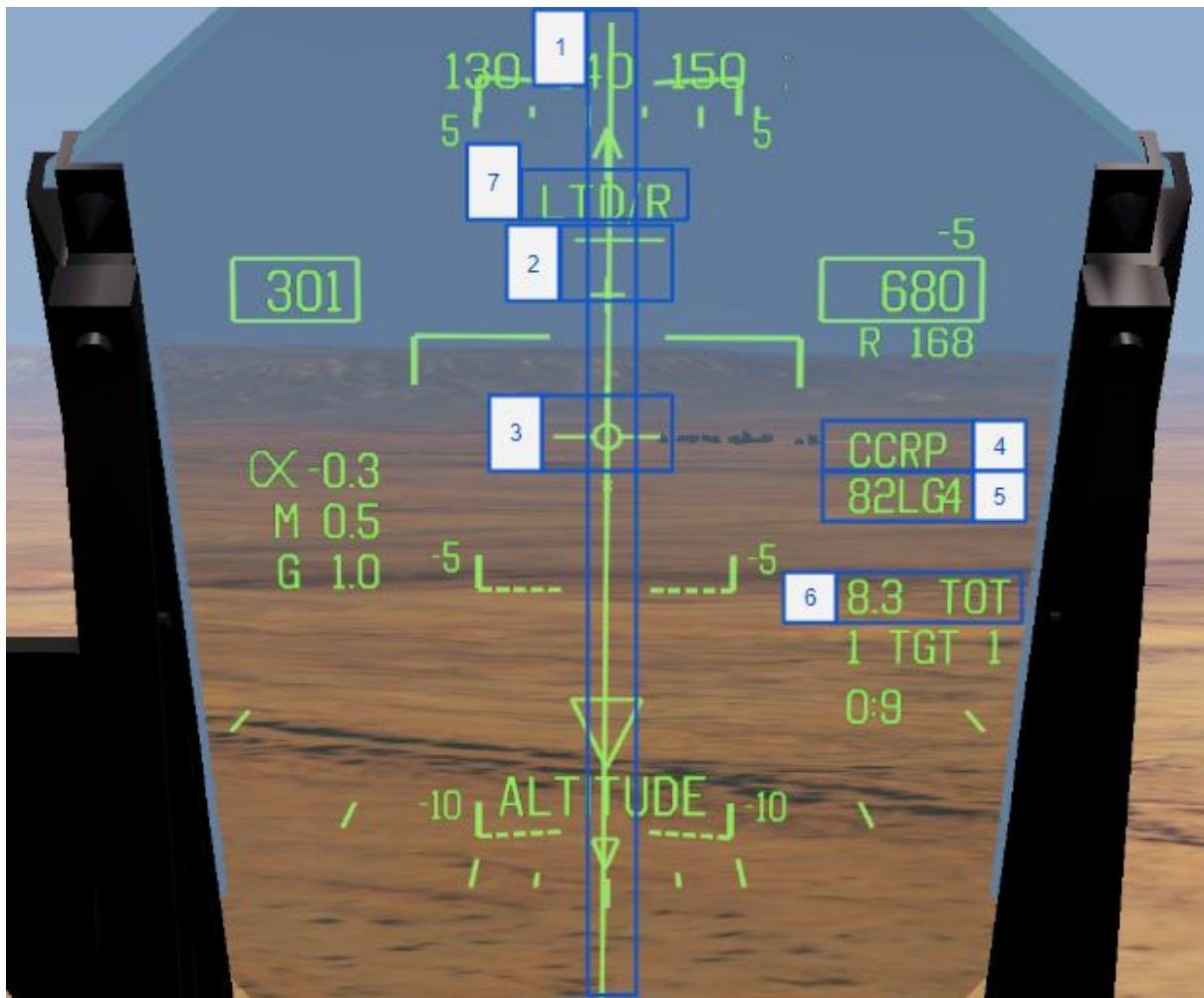
1. Speed - Knots
2. Altitude MSL - Feet
3. TGP Stabilised point
4. Climb Rate (m/s)
5. Radar Altitude - Feet

Symbology ITC Air (marked blue)

1. Waypoint index, name and TOF
2. Heading to waypoint

CCRP Symbology

CCRP is only available when using ITC Air.



Symbology

1. Bomb fall line
2. Release Cue
3. Total Velocity Vector
4. Release Mode
5. Bomb type and count
6. Bomb time of flight(will not count down after release)
7. LTD/R indicator - flashes on when laser target designator is active

Usage

To use CCRP mode, fly towards the target so that the the fall line(1) is vertical and intersects with the TVV(3), and hold down the bomb release key, when the target nears within 3000m, the release cue(2) line will start moving down, when the release cue hits the TVV, bombs will automatically be released, and your release cue will start moving up as you leave the release envelope.

Laser Maverick Symbolology

Laser Maverick Symbolology is available when an AGM-65E is selected.

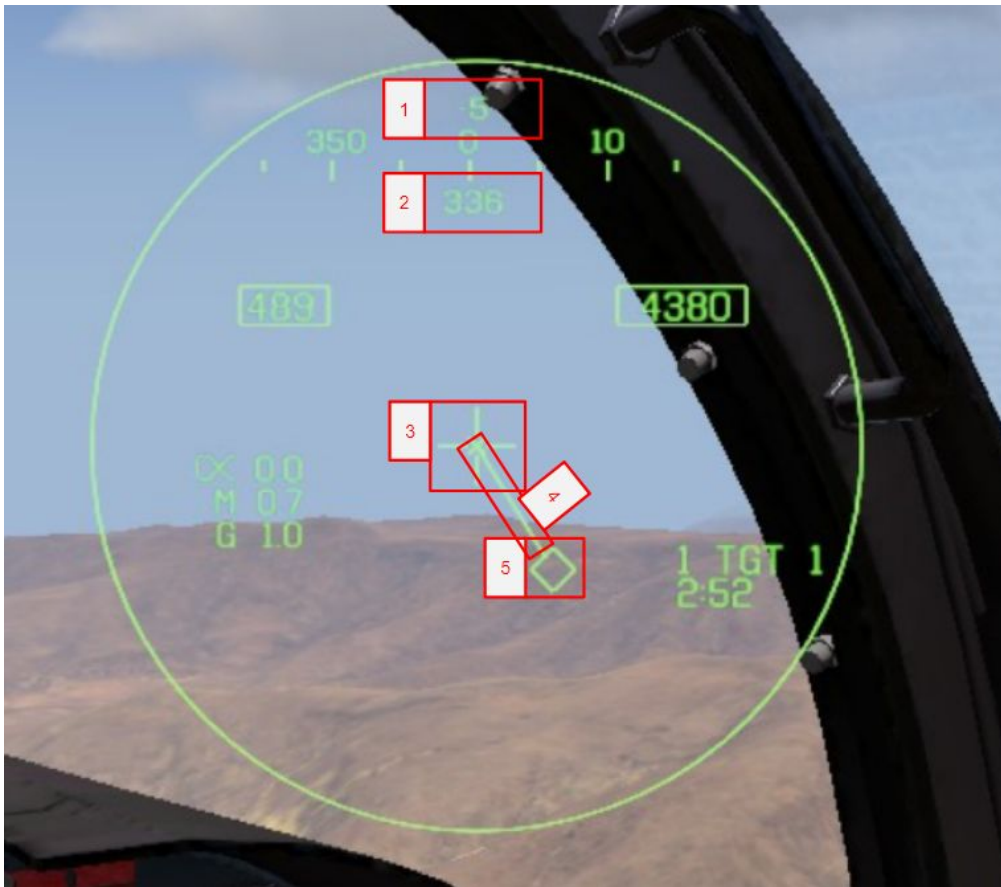


When searching for a target, an X can be seen moving left to right across the HUD.



When a lock is acquired, the X is replaced by an open square, seen in the image overlaid on the TGP triangle. The text LKD will also show on the right side of the HUD.

Joint Helmet Mounted Cueing System(JHMCS)



Symbology

1. FOV Pitch relative to plane
2. FOV Heading
3. HMCS Centerpoint
4. Direction to TGP - points up and left when TGP is > 180 degrees from FOV
5. TGP Point

SOI Indication

When JHMCS is SOI, the HUD will have a diamond in the top right corner.
JHMCS as SOI functions the same as ITC Air's Scorpion, but can't ground stabilise.



JHMCS AIM-9 Cueing

JHMCS Can be used to visually target AIM-9 missiles.

Usage:

1. Turn on the JHMCS(HMD Knob next to right DDI)
2. Select AIM-9 as your current weapon
3. Your JHMCS Center cross will be replaced with a circle, and you will hear a low locking noise.
 - a. When looking more than 45 degrees off airplane axis, you won't be able to lock, and the circle will have an X in it.
4. Look at a plane, and the circle will unlock form the center, and instead move over the target.
5. Fire your AIM-9 like you normally would.



Top Left:

JHMCS on and AIM-9 is seeking.

Top Right:

JHMCS is outside FOV limits.

Bottom Left:

Target acquired, ready to fire.

Up Front Controller

Overview



The UFC is located between the DDIs, the UFC is a touchscreen display used for data entry, and the configuration of aircraft systems.

The UFC provides data input for various DDI pages, which can be seen in the relevant DDI page documentation.

The UFC also features a DDI mode, in which it can display various DDI pages. From the base page you can directly open the EW and FLIR page, a page menu can also be opened by pressing the DDI button.

ACRE Vehicle Rack control



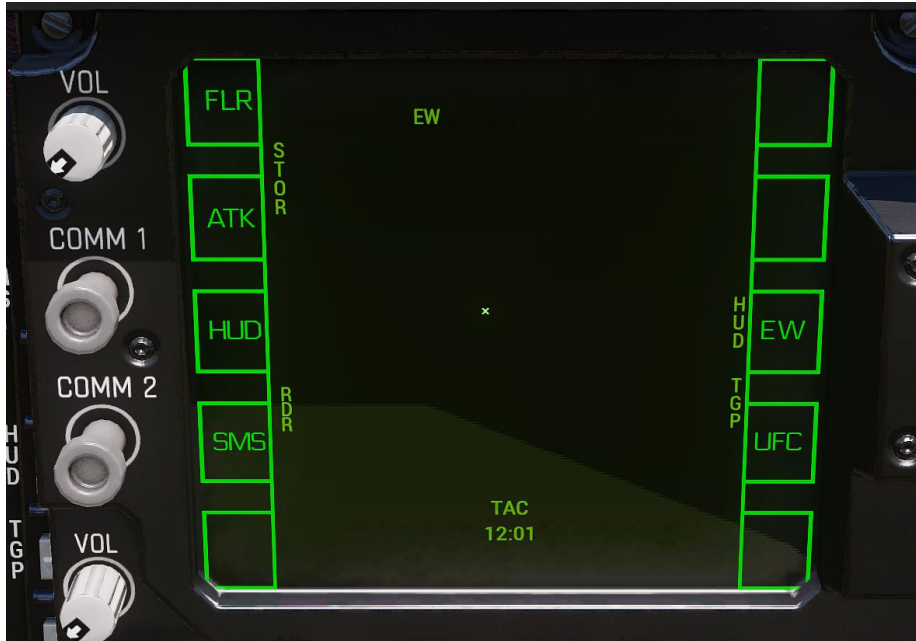
When ACRE is active, the UFC can be used to change the channel and volume on the aircraft's radio racks.

When the radio racks are in use, the top left of the channel displays will have a green box in it. In the image, rack 1 is in use and rack 2 is off.

To use any of the volume or channel spinners, look at the spinner, and hold down the cockpit interaction key, while holding the key down, drag the view away from the spinner, dragging up will increase and dragging down will decrease.

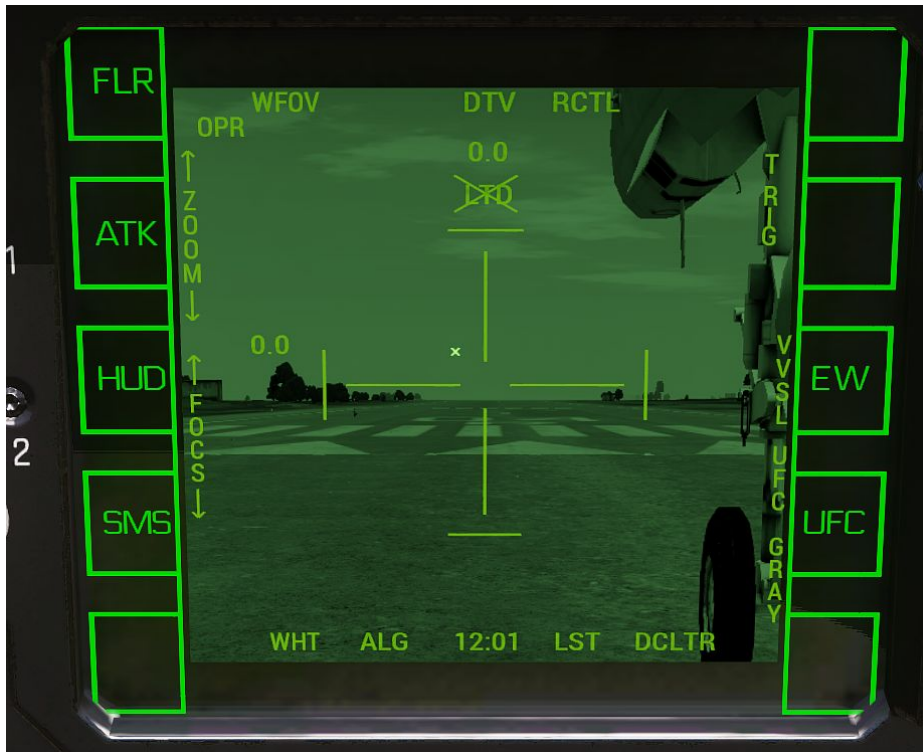
DDI Pages

DDI Base page(TAC)



The page currently offers no interaction.

FLIR Page (FLR)



The FLIR page offers the same full interaction as the DDI version.

Radar(ATK)



The radar page offers the same full interaction as the DDI version.

EW Page



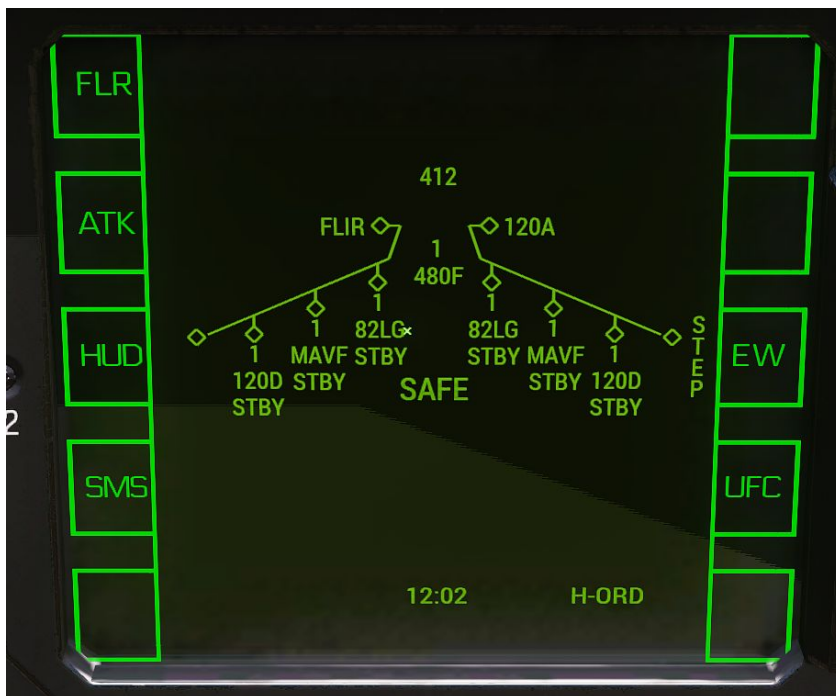
The EW page offers the same full interaction as the DDI version.

HUD Page



The page currently offers no interaction.

SMS Page



The page currently offers no interaction.

Additional Features

Require ATFLIR for TGP

This feature is optional, and can be enabled through CBA settings, and requires ITC Air.

When enabled, the plane's TGP will only be enabled when the plane has an ATFLIR Targeting Pod mounted.

Chaff/Flare Selection

Chaff & Flares have been separated in two different magazines, they can be set up using the default pylon loadout menu. Allowing players to, if desired, carry only flares or only chaff.



Canopy Loss

This feature is optional, and can be enabled through CBA settings.

When enabled, moving at high speed with the canopy open, will cause the canopy to detach. Currently it can not be re-attached when this has happened.

Canopy loss carries no penalty besides eternal shame.